UNIVERSAL REGISTRATION DOCUMENT 2021

INCLUDING ANNUAL FINANCIAL REPORT

Summary

AFR Information disclosed in the Annual Financial Report is indicated in the contents by the pictogram

Universal registration document

2021

INCLUDING ANNUAL FINANCIAL REPORT

This Universal Registration Document was filed on March 9, 2022 with the AMF (n° D.22-0079), in its capacity as competent authority under Regulation (EU) 2017/1129, without prior approval pursuant to Article 9 of the aforementioned regulation. The Universal Registration Document may be used for the purposes of a public offering of securities or admission of securities to trading on a regulated market if it is supplemented by a prospectus and, if applicable, a summary of any amendments to the Universal Registration Document. This package of documents is approved by the AMF in accordance with Regulation (EU) 2017/1129.

This is a translation into English of the Universal Registration Document original report issued in French and it is available on www.engie.com. This translation is provided solely for the convenience of English speaking readers.

The annual financial report is a reproduction of the official version of the annual financial report which has been prepared in ESEF (European Single Electronic Format) and is available also on www.engie.com.

ENGIE's strategy is focused on accelerating the energy transition. In 2021 the Group reaffirmed its operating strategy and undertook a deep re-organization. It laid the foundations for long-term, sustainable growth in line with its stated purpose. Everything is in place to make 2022 a year of aggressive growth.

2021 saw both a renewal of our climate-oriented efforts and significant pressure on energy markets. What is ENGIE's assessment? How are these trends reflected in the ENGIE Group's strategy?

Jean-Pierre Clamadieu – 2021 was indeed a turning point. Lines were redrawn, through some very welcome political initiatives. In the United States, President Biden moved to rejoin the Paris Agreement as soon as he took office. At the COP26 conference, for the first time States paved the way for phasing out fossil fuels. The framework established in Paris in 2015 is now completed and operational. The enlistment of corporate interests through voluntary coalitions has considerably sped things up.

Europe is rallying as well. The European Council set a goal to achieve carbon neutrality by 2050 and targeted a 55% reduction in emissions by 2030, compared to the figure in 1990. And the European Commission produced a set of legislative proposals, "Fit for 55," which aim to ensure that these objectives are met. Our economy has undergone a major transformation and ENGIE is determined to take a leading role in it.

The strategic directions set by the Board in July 2020 and based on the Group's purpose, as put into the bylaws at the 2020 Shareholders' Meeting, resulted in clear priorities and the allocation of significant resources. Under the leadership of Catherine and her team, in 2021, the Group made great progress in executing this strategy, and we're starting 2022 with a great deal of enthusiasm and drive about our transformation.

Catherine MacGregor – The Group has set a goal of reaching net zero-carbon in its three scopes by 2045 by following a "well below 2°C" pathway. All our employees have enthusiastically engaged with this target, in spite of a difficult public health situation. I'd like to take this opportunity to thank them for this, once again.

In this context of a strong recovery and supply-demand pressure, we've seen a record increase in energy prices. This jump in prices and its impact on consumers and our operations are a reminder of how crucial costs will be to a successful energy transition. We all need to be pragmatic, capitalizing as much as possible on existing networks and yet, going forward, making bold choices so that decarbonized solutions will emerge. Besides the renewables that are a real asset for France and that deserve to be fully developed regionally in the best conditions, I am also thinking of renewable gases, which can be transported, stored and distributed on our gas networks, as part of a balanced, low-carbon energy mix.

So 2021 was a good year for ENGIE?

Catherine MacGregor – Yes, it was a year of transformation and continuation. In accordance with the Board of Directors, we refocused our operations around our four core businesses: renewables, of course; energy solutions; networks; and thermal production coupled with energy supply. We reaffirmed the Group's industrial approach and the priority we give to operational excellence. In 2021, ENGIE showed strong growth. We commissioned an additional 3 GW of renewable assets and won major contracts in energy solutions, such as with Georgetown University in the United States. We also entered into several strategic partnerships in renewable gases, such as with CMA-CGM for decarbonizing maritime transport and with Masdar in the United Arab Emirates for developing renewable hydrogen.

The sale of EQUANS was not only on favorable terms but it will also give its employees wonderful opportunities for development.

I am sorry, though, about our poor performance in terms of health and safety. We are really focusing on this and improving our approach, wherever we work, among our own employees and those of our contractors.

How is ENGIE tackling 2022?

Jean-Pierre Clamadieu – 2022 will be a pivotal year, as it will see the establishment of the European regulatory framework, paving the way to a resilient and affordable transition. The choices that lie before us are consistent with the strategic priorities set by the Board of Directors aiming to position the Group as one of the leaders of the energy transition. We are expanding in renewable electricity production, as well as in the production of decarbonized heat and gas. I am convinced of the essential role that green hydrogen can play in making this energy transition efficient and affordable in Europe, and we have all the necessary skills to help that industry emerge. We are also continuing to grow in energy solutions by furthering the decarbonization of our customers. Refocused on our major lines of business and having acquired significant financial means, we are mobilizing all our resources to meet the ambitious growth objectives that we set out last May.

Catherine MacGregor – In 2022, ENGIE is on the offensive, with clear priorities, the top one being health and safety. Moreover, the Group has approved growth investments in renewables and networks of about €15 16 billion between 2021 and 2023. We're planning to bring 4 GW of additional renewables capacity into operation this year. In 2022, as in 2021, ENGIE's corporate model puts us in the

Catherine MacGregor
Chief Executif Officer

Jean-Pierre Clamadieu
Chairman of the Board of Directors

position of being able to reach our growth objectives. Due to our great expertise in energy management, it enables us to combine renewable energy production with flexible energy production, energy supply and energy solutions. Achieving greater operating excellence becomes, under these circumstances, a major challenge. There, we can count on real advantages: an operations-management approach coupled with a strong local presence and an ability to pay close attention to our stakeholders and build with them.

What is the Group's response to the world being plunged into crisis by Russia's invasion of Ukraine?

Jean-Pierre Clamadieu – ENGIE has strongly condemned the invasion of Ukraine, and we are obviously committed to complying in full with any applicable sanctions. We have expressed our solidarity with those in the region and with our employees who have been affected by these events. Our teams have been mobilized and are acting on the ground with support from the ENGIE Foundation. The Group is robust, and we will face this new crisis with confidence and a spirit of togetherness.

Catherine MacGregor – As a global player, we will not shirk from our responsibilities. ENGIE is mobilizing all its resources to ensure the safety of its employees who have been affected by the conflict and to secure its customers' supplies. In 2021, Russia accounted for approximately 20% of the Group's gas sales and consumption worldwide. We are working to diversify our portfolio by relying on supply agreements with other countries such as Norway, Algeria and the United States, from whom we have recently increased our imports.

In this highly competitive environment, how do you keep attracting talent?

Catherine MacGregor – Talented people, especially young people, are looking for meaning and impact, a trend that began a few years ago but that intensified with the public health crisis. They want to do their bit to tackle the great environmental and social challenges that face us. In this regard, ENGIE is a company offering a unique opportunity, the opportunity to collectively rise to the challenge of energy transition. These past two years have also shown us different ways of working, the positive aspects of which we are incorporating, such as giving our employees more flexibility. We need to give women their full place in management and increase diversity—in terms of gender, nationality and career path—at all levels across the Company. Our greatest capital is our people. It's the women and men who work here that make ENGIE the company it is… and that make it successful!

Jean-Pierre Clamadieu – Our teams have shown exemplary commitment and energy in the trying situation of a pandemic and all while we are undertaking a very ambitious transformation. I thank them warmly for this. One point of concern is, of course, the need to reinforce Group culture about health and safety. The Board is really focusing on this subject. Beyond that, I am convinced that we offer our employees and anyone who wants to join us the opportunity to be part of the adventure of climate and energy transition that represents the fundamental challenge of the next decades for preserving our planet.

ENGIE is a world leader in energy transition

Our purpose

To accelerate the transition to a carbon-neutral economy

Enshrined in the Group's bylaws, "the purpose ("Raison d'être") of ENGIE is to act to accelerate the transition to a carbon-neutral economy, through low-energy solutions that are more respectful of the environment. This purpose brings together the company, its employees, customers and shareholders, and reconciles economic performance and positive impact on people and the planet. ENGIE's action is assessed in its entirety and over time".

Financial results 2021

€57.9 billion
in revenues

€6.1 billion
in EBIT

€2.9 billion
in net recurring income, Group share from continuing operations

€4.3 billion
in growth CAPEX

Rating
"***strong investment grade***"

Economic net debt/EBITDA ratio
3.6x

Proposed 2021 dividend of
€0.85
per share

2030 CSR objectives

43 Mt
of greenhouse gas emissions from power generation

50%
female managers within the Group

58% (1)
renewable electricity production capacity

ENGIE in figures (2)

101,504
employees
(+ **69,970** EQUANS)

34 GW
of installed renewable electricity production capacity
(+3 GW in 2021)

23 GW
of urban and decentralized power networks installed capacity (3)

+ 300,000 km
gas and electricity transmission and distribution networks

60 GW
thermal electricity production installed capacity

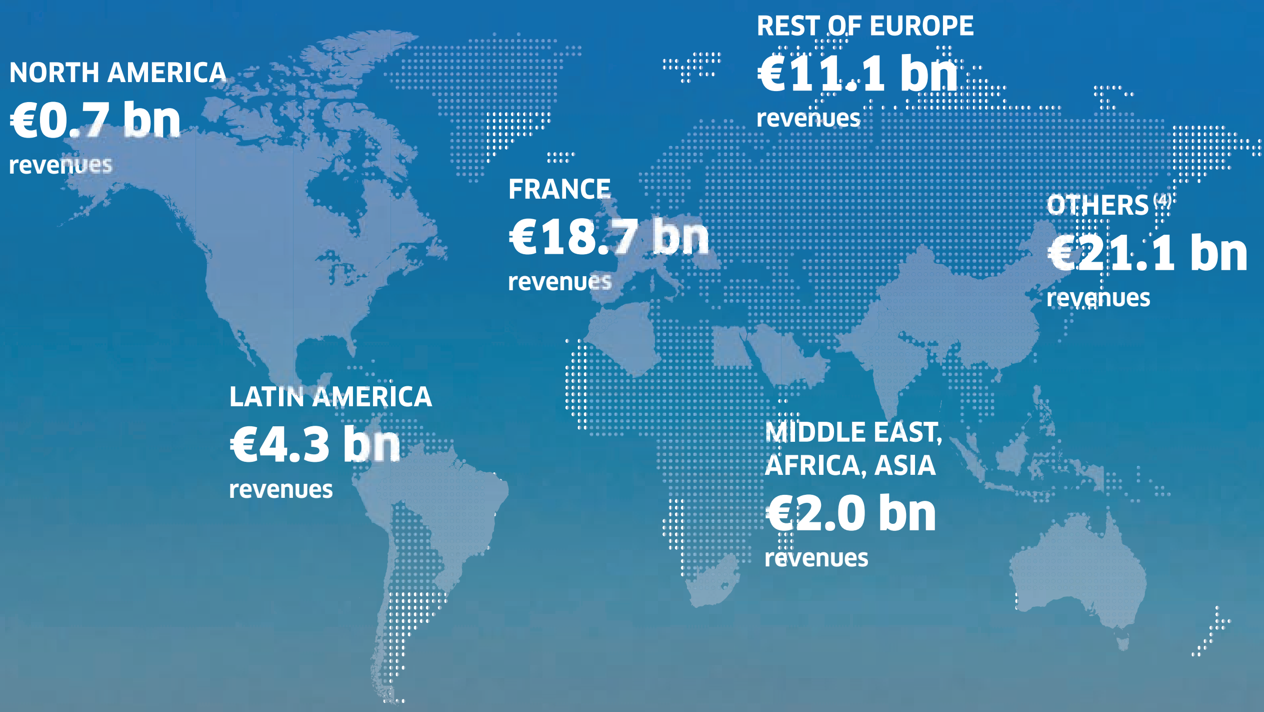
22.3 M
B2C energy supply contracts

6.2 GW
nuclear electricity production installed capacity

€14.3 billion
green bonds issued since 2014

Our businesses:

- RENEWABLES
- NETWORKS
- ENERGY SOLUTIONS
- THERMAL
- SUPPLY
- NUCLEAR
- GLOBAL ENERGY MANAGEMENT SALES
- OTHERS



1 - Counted at 100% regardless of the rate of detention
2 - On December 31, 2021
3 - At 100%
4 - Encompassing GEMS, Tractebel, GTT, Hydrogen and holding companies and corporate activities

Annual Financial Report, Management Report and Board of Directors' Report on corporate governance

This Universal Registration Document includes:

- all the items of the Annual Financial Report mentioned in section I of Article L.451-1-2 of the French Monetary and Financial Code, and in Article 222-3 of the General Regulations of the Autorité des Marchés Financiers (AMF), the French Financial Markets Authority;
- all the mandatory information included in the Management Report of the Board of Directors to the Annual Shareholders' Meeting of April 21, 2022, as stipulated in Article L.225-100 of the French Commercial Code, and
- all the information included in the Board of Directors' Report on corporate governance as provided for in Article L.225-37 of the French Commercial Code.

A comparison table between the documents mentioned in these texts and the corresponding headings in this document can be found in Section 7.11 of this Universal Registration Document.

Incorporation by reference

In accordance with Article 19 of Regulation (EU) No. 2017/1129 of June 14, 2017, this Universal Registration Document incorporates by reference the following information, to which the reader should refer:

- for the ENGIE fiscal year ended December 31, 2020: the Management Report, consolidated financial statements prepared according to IFRS and the related Statutory Auditors' report appearing on pages 197 to 220 and 221 to 333 of the Universal Registration Document filed with the AMF on March 17, 2021 under number D. 21-0142;
- for the ENGIE fiscal year ended December 31, 2019: the Management Report, consolidated financial statements prepared according to IFRS and the related Statutory Auditors' report appearing on pages 196 to 216 and 217 to 345 of the Universal Registration Document filed with the AMF on March 18, 2020 under number D.20-0141.

The information included in these documents, along with the information mentioned above, is replaced or updated by the information included in this Universal Registration Document. These documents are available under the conditions described in Section 7.4 "Documents available to the public" of this Universal Registration Document.

Forward-looking information and market data

This Universal Registration Document contains forward-looking information, particularly in Section 1.1 "History and organization", Section 1.6 "Description of the Group's activities" and Section 6.1.1.1.2 "2022-2024 outlook and guidance". These information are not historical data and therefore should not be construed as a guarantee that the events and data mentioned will occur or that the targets will be achieved, since these are by nature subject to unpredictable events and external factors, such especially as those described in Chapter 2 "Risk factors and control".

Unless otherwise stated, the market data included in this Universal Registration Document comes from internal estimates by ENGIE based on publicly available data.

Note

In this Universal Registration Document, the terms "ENGIE", the "Company", the "Issuer", and the "Enterprise" refer to public limited company ENGIE. The term "Group" refers to ENGIE and its subsidiaries.

A list of units of measurement, abbreviations and acronyms, a glossary of the most frequently used technical terms and a thematic index are featured in Sections 7.6, 7.7, 7.8, 7.9 and 7.10 of this Universal Registration Document.

Copies of this Universal Registration Document are available at no cost on the Company website (www.engie.com), on the website of the AMF (www.amf-france.org), as well as from ENGIE, 1 place Samuel de Champlain – 92400 Courbevoie (France).

1

Presentation of the Group

1.1 History and organization

1.1.1 Presentation

"The purpose ("Raison d'être") of ENGIE is to act to accelerate the transition to a carbon-neutral economy, through low-energy solutions that are more respectful of the environment. This purpose brings together the company, its employees, customers and shareholders and reconciles economic performance and positive impact on people and the planet. ENGIE's action is assessed in its entirety and over time."

ENGIE is a European and world leader [1] in low-carbon electricity production, centralized and decentralized energy networks, and associated services:

- **renewable energy production**: ENGIE is the second-largest hydropower operator, the number one wind and solar energy company in France and the second-largest developer in Europe. It is one of the global leaders [2] in long-term contracts for companies (corporate PPAs) with over 2.1GW signed in 2021, the largest independent hydropower producer in Brazil and a pioneer in floating offshore wind;
- **centralized energy networks:** the Group is the leading gas network operator in Europe, particularly through independent subsidiaries, with a portfolio that includes transmission networks, distribution networks, and LNG storage and terminals. It is also a major player in Latin America, particularly Mexico, Brazil and Chile, operating gas and electricity transmission networks;
- **decentralized energy networks and energy services:** ENGIE is the benchmark operator in the field of heating and cooling networks: it is the world's largest cooling network operator and the third-largest private heating network operator (in TWh). The Group is a leader in energy efficiency services (particularly energy efficiency contracts). The Group has a leadership position in the new distributed low-carbon generation segments (on-site utilities, including the supply of steam, heat, compressed air, hydrogen, etc.), in decentralized solar power for industrial and commercial customers and in low-carbon mobility solutions (electric, biogas, renewable hydrogen) and microgrids;
- **low-carbon power generation and gas and electricity supply**: the Group is one of the leading power producers in Europe and the benchmark operator in nuclear energy in Belgium. ENGIE provides gas and electricity to end-customers worldwide, with more than 22 million contracts. Nearly half of its customers are located outside France. In Europe, ENGIE is one of the top gas sellers and importers. In France, ENGIE is the historic leader of gas marketing and the second-largest producer and supplier of electricity. in Belgium, ENGIE, through its subsidiary Electrabel, is the leading producer and supplier of electricity and supplier of natural gas.

The Group relies on its key areas of expertise (renewable and low-carbon power production, centralized and decentralized networks, client solutions, thermal generation and energy supply, and energy management) to offer its customers competitive, high value-added solutions that enable them to achieve their carbon-neutrality targets. Thanks to these skills, it can act in different areas to decarbonize power production equipment, set up high-performance urban networks, and offer associated energy and decarbonization efficiency services.

EQUANS, an operating entity in charge of multi-technical services, was set up within the Group on July 1, 2021, following the strategic review assets engaged in 2020. In November 2021, ENGIE entered exclusive negotiations with Bouygues for the sale of 100% of EQUANS. The sale is expected to take place in the second half of 2022, following the employee representatives consultation and authorization by the competent authorities. The description below itemizes the activities that will be sold together with EQUANS.

The Group's website is: www.engie.com. Not all the information available on this website is included in this Universal registration document.

1.1.2 History and evolution of the Company

The Company is the result of the merger of SUEZ into Gaz de France, following the decisions of the Combined General Shareholders' Meetings of Gaz de France and SUEZ of July 16, 2008. The merger took effect on July 22, 2008.

Gaz de France was initially incorporated in 1946 as an EPIC (French public industrial and commercial enterprise). It became a limited liability company with a 99-year term under Law 2004-803 of August 9, 2004, on the public service of electricity and gas and electricity and gas companies (amending Law 46-628 of April 8, 1946).

On July 7, 2005, Gaz de France publicly floated its shares on the stock market. The Company's shares were first listed on July 7, 2005.

Law 2004-803 of August 9, 2004, as amended by Law 2006-1537 of December 7, 2006, governing the energy sector and Decree 2007-1784 of December 19, 2007, authorized the transfer of the Company from the public to the private sector. On July 22, 2008, Gaz de France absorbed SUEZ in a merger which entailed transferring the majority of the Company's share capital to the private sector. The new Company took the name "GDF SUEZ".

SUEZ itself was the result of the merger in 1997 of Compagnie de Suez and Lyonnaise des Eaux. SUEZ became an international industrial and services group whose objective was to meet essential requirements in electricity, gas, energy and industry services, water and waste management.

The deregulation of European energy markets in the early 1990s accelerated the international development of both Gaz de France and SUEZ, which progressively expanded their activities beyond their respective traditional markets, both in Europe and internationally.

On February 3, 2011, GDF SUEZ completed a merger with International Power. In 2012, it reaffirmed its strategy to become a leading player on the global energy market, finalizing the purchase of shares held by the minority shareholders of International Power on June 29.

On July 29, 2015, the Extraordinary General Shareholders' Meeting approved a change in the Company name, and adopted "ENGIE" as its new legal name.

(1) Competitive positions established on the basis of specialist work within the Group, carried out using available information published by stakeholders or entities providing external analysis (Bloomberg and Global Data). They are established within the scope of the Group as at 12/31/2021

(2) Ranked number 2 in the world based on corporate PPP sales volumes in 2021 according to the Bloomberg "Energy Market Outlook" report in the first half of 2022

The SUEZ Environnement Company shareholders' agreement expired on July 22, 2013, and was not renewed. The cooperation and shared functions agreement and the financing agreement between the Company and SUEZ Environnement Company have also come to an end. The Company then used the equity method to consolidate SUEZ Environnement Company's activities in its financial statements, rather than full consolidation.

In early March 2016, the two companies signed an agreement providing for the contribution by ENGIE to SUEZ of all of the share capital of SUEZ IP, which owns all intellectual property rights related to the SUEZ brand. On October 5, 2020, ENGIE sold the majority of its stake in SUEZ, i.e. 29.9% of the capital, to Véolia.

On May 14, 2020, the shareholders' meeting approved the introduction to the bylaws of the Company's purpose: "*The purpose ("Raison d'être") of ENGIE is to act to accelerate the transition to a carbon-neutral economy, through low-energy solutions that are more respectful of the environment. This purpose brings together the company, its employees, customers and shareholders and reconciles economic performance and positive impact on people and the planet. ENGIE's action is assessed in its entirety and over time.*"

After a strategic review of assets in 2020, EQUANS, the operating entity in charge of multi-technical services, was created on July 1, 2021. In November 2021, ENGIE entered exclusive negotiations with Bouygues for the sale of 100% of EQUANS. The sale is expected to take place in the second half of 2022, following the employee representatives consultation and authorization by the competent authorities.

1.1.3 Organization of the Group

At the end of 2021, ENGIE comprised four Global Business Units (GBU), two operating entities and a group of pooled support and operational functions at both regional and Group level (see Section 1.6 "Description of the Group's activities"). One last group contains the holding company and Corporate activities, mainly including the entities responsible for the Group's centralized financing and ENGIE SA's Business and Local Authorities activity. To this is added EQUANS, a non-strategic activity that is being disposed of.

In 2021, the Group was reorganized, with the aim of supporting its strategic ambition and performance, on the basis of its key business lines. The new Executive Committee (Comex) was announced on January 14, 2021, and launched on February 1, 2021, and was followed by the introduction of the Global Business Units, the reorganization of international operations on July 1, 2021, and the European-level organization on February 1, 2022. ENGIE is now based on an organizational model that is simpler to manage and directed toward performance and industrialization.

The Group is thus organized around the following components:

- **the Group's four key business lines are organized into Global Business Units**, responsible for their results at the global level and the implementation of the strategy within their business segments: the Renewables GBU, the Energy Solutions GBU, the Networks GBU and the Thermal & Supply GBU. Activities related to nuclear and energy management have been organized into dedicated operating entities (respectively, Nuclear and Global Energy Management & Sales, separate from the GBU);
- **the Group's functional departments define, in support of General Management,** a strategic framework in coordination with the GBU. They guide financial and non-financial performance and draw up and roll out Group policies. The functional departments are organized into four functional areas;
- **the support functions are organized by geographical area (regional Hubs) and at the individual country level.** They have a key role in terms of support for the GBU's activities and the development of synergies. All of the regional hubs are managed at the Group level by a specific entity named Transformation & Geographies.

The structure works on the principle of a matrix between the business line entities and the functional departments, structured into different geographical areas.

1.1.3.1 Description of the *Global Business Units* and operating entities

The four GBU are responsible for their results within their respective business segments, at the Group level.

They are, therefore, responsible, within their respective scopes and the framework established by the General Management [(1)] for:

- development strategy definition, decisions and arbitrage related to investments;
- industrial assets management, operational excellence, safety and security;
- performance processes, resources, expertise and the roll-out of digital tools.

The operating activities in the countries report to the corresponding GBU.

The different GBU are positioned as follows:

- the Renewables GBU develops and operates power generation capacity based on solar power**,** onshore and offshore wind and hydroelectric power;
- the Networks GBU delivers the energy in particular through independant subsidiaries. In order to do this, it develops and operates gas transmission and distribution networks and electricity transmission lines. It is also responsible for biomethane production;
- the Energy Solutions GBU develops decentralized, low-carbon infrastructures (heating and cooling networks, decentralized low-carbon energy supply, mobility, etc.), and associated energy efficiency services;
- the Thermal & Supply GBU produces and sells energy. It produces electricity at thermal power plants and supplies gas and electricity to individual customers. It also develops hydrogen production capacity.

(1) *Within the limits of the provisions of the Energy Code and the regulatory constraints applicable to entities forming part of the Networks GBU*

The Nuclear and GEMS operating entities have similar responsibilities to the GBU in their respective business segments. They are positioned as follows:

- the Nuclear operating entity is dedicated to operating nuclear production units in Belgium and the rights held in the French power plants;
- the GEMS operating entity is responsible, at the global level, for the supply of energy and the management of risks and optimization of assets on the markets. It sells energy to companies and offers energy management services and solutions to support the decarbonization of the Group and its customers.

Each GBU and operating entity is represented on the Executive Committee by an Executive Vice President, who oversees it. They are, therefore, in charge, under a single authority, of managing the entire business at the global level.

1.1.3.2 Description of support functions and geographical structure

The support functions support the performance of the GBU and the operating entities, enabling the development of synergies between business lines and ensuring a strong local presence. They are managed by the Group's functional departments and are structured regionally and nationally.

The Group's functional departments are responsible, within their respective areas, for guiding performance and drawing up and rolling out Group policies. They are structured into four areas:

- General Secretariat, Strategy, Research and Innovation, and Communication. The Group's Shared Service Centers report to these functions;
- Finance, Corporate Social Responsibility, and Purchasing;
- Digital and Information Systems, and
- Human Resources.

Stronger and structured coordination of corresponding competences ensures the operational efficiency of the processes and the implementation of the policies drawn up by the Group.

Each of these areas is represented on the Executive Committee by an Executive Vice President, who oversees it.

At the geographical level, the support functions are pooled in four regional hubs: Europe; North America; South America; and Asia, the Middle East and Africa. The France support functions structure remains independent. The aim of the regional hubs is to support the activity of the GBU in the region, overseeing the coordination of all of the support functions and supporting transformation in the transition phase.

In the countries, the country managers are responsible for the support functions and for relations with local stakeholders.

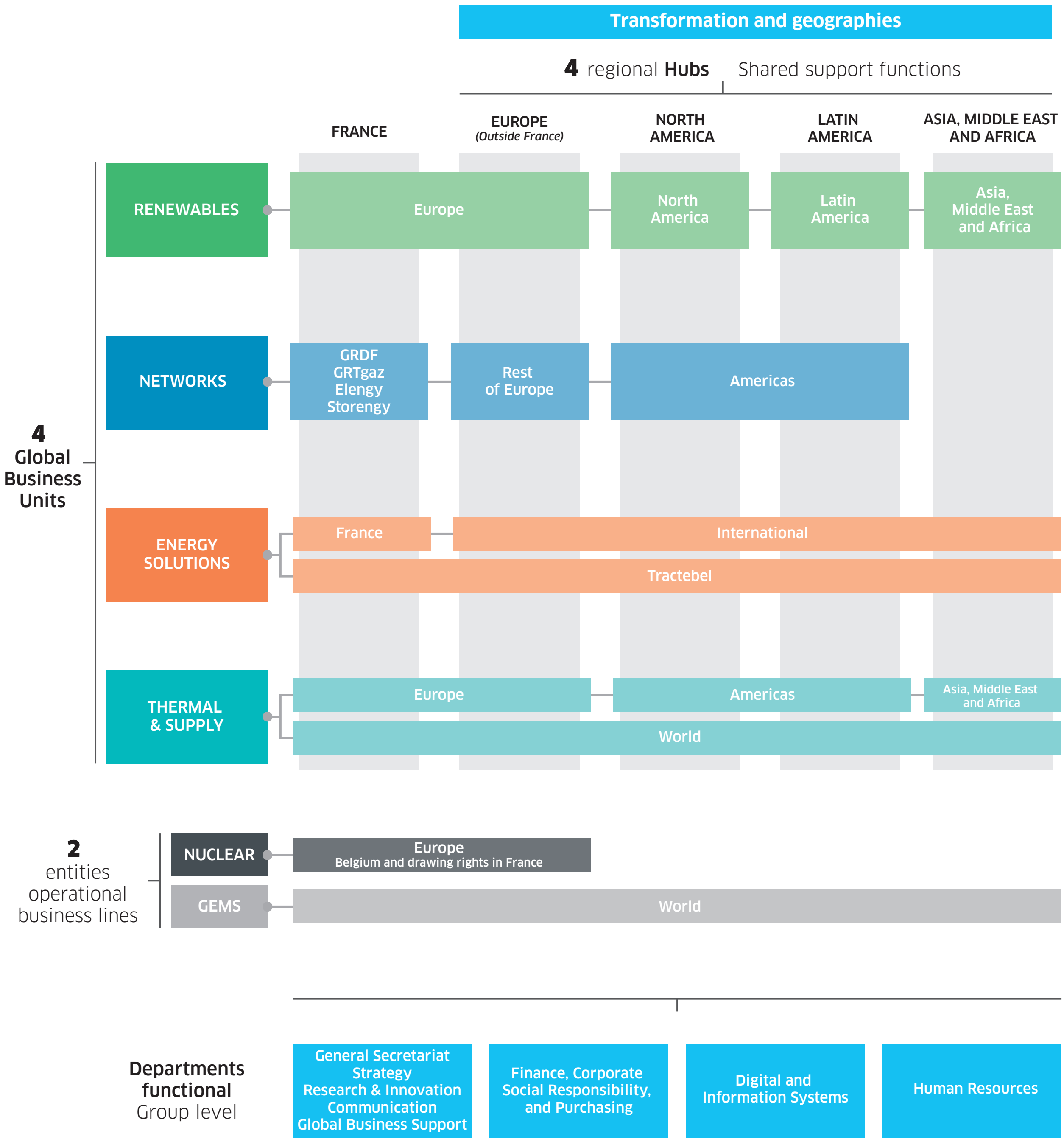
The regional hubs are represented on the Executive Committee by an Executive Vice President, who oversees them.

The Company operates its own business. The number of subsidiaries directly or indirectly controlled by the Company was 2,623 at the end of 2021. In addition to the lists provided in Section 6.2.2 "Notes to the consolidated financial statements" – Note 3, "Main subsidiaries at December 31, 2021" and Section 6.4.2 "Notes to the parent company financial statements" – Note 4.4, "Subsidiaries and affiliates," a list of subsidiaries can be found on the Group's website (www.engie.com, regulated information section).

The presentation of the Company's activities and the strategic economic assets of its main subsidiaries as well as their geographical location are presented in Section 1.6 "Description of the Group's activities."

SIMPLIFIED ORGANIZATION FOCUSED ON STRATEGY IMPLEMENTATION

Activities structured around four business lines



Pooling of support functions and operational management

1.2 Strategy and objectives

1.2.1 Clarified priorities and road map

Strategic refocusing started in 2020, with a strategic road map compiled in May 2021.

ENGIE is now focusing its development on renewable energy, decentralized networks and energy efficiency.

All multi-technical services have been grouped into a new entity, EQUANS, which was created on July 1, 2021. In November 2021, ENGIE entered exclusive negotiations with Bouygues for the sale of 100% of EQUANS. The process of disengaging from ENDEL is under way. The geographical footprint is being simplified, with the aim of achieving less than 30 geographical areas in 2023. An additional 18 countries exited the scope of the Group in 2021. The financial resources released by these disposals will enable an ambitious investment program to be established to step up the Group's target activities.

1.2.2 An effective commitment to the energy transition

In line with the purpose adopted in 2020, the Group aims to be a leader in the carbon-neutral energy transition, serving companies and local authorities in particular. Driven by the acceleration in decarbonization and the global energy demand, ENGIE is very well positioned to step up and meet the demand of citizens, politicians and businesses for more widespread decarbonization. The economic stimulus plans launched due to the health crisis have been an opportunity for many governments to confirm their aim of combating climate change, thus furthering the Group's ambition and enabling it to accelerate the implementation of its strategy. It has also set itself a target of achieving carbon neutrality across the three scopes as from 2045. The Group's participation in COP26 was an opportunity to confirm its commitment to decarbonization of the economy.

Being able to mobilize additional energy drivers to serve the transition, the Group has core competencies throughout the value chain, from production, transmission, distribution, and service through to the end-consumer. Its strong positions in renewable energy, and both centralized and decentralized networks, allow it to generate synergies that are essential for the roll-out of ambitious decarbonization programs to its customers.

It can also mobilize its cross-functional capacity in financial engineering, project structuring and management, as well as its global digital platforms, to benefit the two drivers of the transition: a greener energy supply and more efficient and smarter energy usage.

ENGIE has thus set its carbon-neutrality target for 2045 on scopes 1, 2 and 3[1]. It aims to halve the carbon-intensity of the energy it produces between 2017 and 2030, and to avoid the emission of 45 million tons of CO_2 by its customers. Withdrawal from coal is scheduled for 2025 in Europe and 2027 worldwide, with the emphasis on closing and reconverting power plants and helping industry actors with their transition plans. Carbon budgets have been assigned to each Group activity. The performance share plans allocated primarily to executives are, in part, conditional upon achieving carbon targets.

The development of renewable gases (low-carbon hydrogen, biomethane, synthetic methane) is essential for the success of the energy transition. ENGIE has expertise that enables it to develop positions throughout the entire value chain: production, networks, mobility ecosystems and purchase and sale. By 2030, the Group aims to commission 4GW of hydrogen production capacity and 4 TWh per year of biomethane production. It will be able to make use of synergies between its activities and the support of French and European investment plans.

1.2.3 Strategic objectives structured by business line

The Group's commitment to the energy transition is structured through strategic objectives for each business line, which focus on operational excellence and industrial know-how:

- **Renewables: to develop green power generation resources within an integrated system;** the acceleration of investments in renewable energy has resulted in a medium-term target of an average addition of 4 GW per year by 2025 and an average of 6 GW per year between 2026 and 2030, in order to become a leader on the renewables market. Investments in onshore wind and solar power will continue. Offshore wind is also a high priority, with a target capacity of 5 to 7GW in operation or under construction in 2025. ENGIE is a major player in hydropower generation, particularly in Brazil and France and now also in Portugal. A further objective is to realize synergies with the Group's B2B energy supply activities.
- **Networks: to invest in high-performance networks for the energy transition, supporting balanced, carbon neutral energy mixes;** at the global level, heavy investment in the gas and electricity networks should be expected in the coming years. This responds to the challenges of access to energy in emerging countries and everywhere else, and of adaptation to the injection and delivery of renewable energy to implement the energy transition. The high-performance operation of the French gas networks through independent subsidiaries and their adaptation to the development of biomethane and hydrogen will be prioritized. Across the world, the Group invests to support the development of balanced, decarbonized energy mixes: the construction of electricity transmission lines is therefore a growth area. In addition, the development of gas networks is supported wherever this allows for action to decarbonize the energy system.

(1) Scopes 1, 2, and 3 cover all of the Group's direct and indirect greenhouse gas emissions

- **Decentralized energy networks and energy services: to propose large-scale integrated decarbonization solutions based on long-term contracts**. Following the strategic review of its activities, the Group will focus on the development of decentralized energy networks (district heating and cooling networks, on-site customer utilities production, decentralized solar, urban networks and low-carbon mobility) and on associated services. A commissioning target of addtionnal 8 GW between 2020 and 2025 has been set. ENGIE offers its customers integrated solutions to meet their decarbonization needs, based on long-term contracts, that provide visibility and resilience as well as attractive growth potential.
- **Thermal & Supply: to develop and operate activities with low carbon content and support the transition of current electricity systems;** besides investments in renewables, the Group is pursuing the targeted development of thermal capacity, in line with the established carbon reduction trajectory. According to the specific needs of each country in which the Group operates, it fulfills the need for flexibility of the electricity system and supports the first stage of decarbonization for countries where coal is a significant element of the energy mix. The withdrawal of the remaining coal capacity has been confirmed for 2027, and the decarbonization of gas-fired power plant using biomethane and hydrogen is in development. Faced with growing demand for supplies of carbon-free energy and management of consumption, new offers are being developed for individual customers. For business customers, green energy offers are also proposed, along with long-term contracts and energy efficiency commitments. The Group is also developing complementary activities, such as desalination, electricity storage (by batteries or pumped storage) and is interested in carbon capture and storage. Production of green gas (hydrogen and biomethane) is also a priority.
- **Energy management and sale to key industrial accounts:** management of the energy markets remains a strong point of the Group and is based on recognized financial and market expertise and now fully encompasses renewable energy.
- **Nuclear:** following the Belgian government’s confirmation of its intention to withdraw from nuclear, the Group has been supporting the transition of the Belgian power system, while complying with the highest nuclear safety standards.

1.2.4 Internal performance

Improving internal performance is a key area of the new strategic road map, in order to support the Group’s growth in the long term.

A new plan has thus been established for the period 2021–2023, with a savings target of €600 million. Targets have been assigned to the GBU, support functions and regional hubs. This plan is based on various drivers: reorganization of the support functions, purchasing, shared service centers, real estate and digital.

The performance objective has guided the Group reorganization. The support functions are now structured around regional hubs (see Section 1.1.3 "Organization of the Group"), whose resources are pooled between the various GBU, thus generating savings. A new plan of investment in digitization and data exploitation is also supporting the performance objectives. The program involves an investment of €130 million per year in the period 2021-2023 for estimated efficiency gains of €200 million per year.

The program has three main aims:

- to develop distinctive digital platforms for each GBU;
- to improve the monitoring of operating and financial performances through data exploitation;
- to simplify and pool IT systems.

ENGIE’s success relies on the women and men who make up the Group and represent its biggest performance driver. The Group must be able to rely at all times on skills tailored to its changing needs. Accordingly, the human resources function plays a major role:

- anticipating and identifying the needs of the GBU and businesses and the emerging trends; developing and adapting expertise for our new business solutions and challenges;
- strengthening the Group’s ability to attract, recruit and retain the talents of today for tomorrow in an increasingly competitive market.

1.3 Research, technology and innovation

Being a major player in the energy transition means being at the forefront of new trends, technologies and business models. Supporting ENGIE’s ambition, Research & Innovation (R&I) aims at developing and integrating innovative and differentiating tools and solutions to keep the Group’s *l*eading position. The whole Research & Innovation ecosystem works on a variety of topics and projects, from operational efficiency to exploration of emerging technologies, with a core focus on developing projects directly contributing to implementing the Group’s strategy and contributing to its ambitions.

As a result of the clarification of the Group’s strategy and organization in the first half of 2021, a joint work between the newly-formed GBU and ENGIE’s R&I entities has made it possible to select priorities for R&I that are in line with the Group’s strategic objectives and development ambitions. R&I priorities notably include renewables energy systems (solar photovoltaic, onshore and offshore wind), green gases production and use (hydrogen, biomethane) or the development of decentralized energy infrastructures (district heating & cooling, decentralized solar, low- carbon cities and mobility).

A decision was taken to introduce a new streamlined R&I on January 1, 2022, to obtain a competitive advantage on strategic issues. The alignment of R&I priorities with the Group’s strategic objectives is ensured by R&I specific governance, based on ongoing dialog with the GBU.

In this context, six additional business models were defined and consolidated under single control within the R&I area:

- **Research programs**: oversee research programs with a medium-term outlook;
- **Labs** (CRIGEN, Laborelec, Cylergie): provide the expertise needed to implement research programs and provide support services to GBU;
- **Incubators:** incorporate innovation in the Group's strategic activities and incubate new business opportunities;
- **ENGIE Ventures:** promote "*outside-in*" innovation through minority investments in start-ups;
- **Ecosystems & Expertise**: coordinates R&I communities and ecosystems and develops R&I expertise;
- **Management & Performance**: sets the pace for defining R&I priorities and producing R&I services so as to guide performance.

In 2021, Group expenditure on technological Research and Development amounted to €138 million. Changes to this amount compared with 2020 expenditure were mainly due to changes to Group scope in 2021 (consolidation of GTT using the equity method, disposal of EQUANS).

Research teams work on all aspects of detecting, testing and developing new technologies, thus helping the Group's business entities to stay competitive and to differentiate. Research centers and teams can also provide the necessary expertise and technical support for key operations in business entities and innovation projects (for instance, EU Innovation Fund and Green Deal projects, majors tenders).

Two key events can also be mentioned in relation to 2021:

- the opening, at the CRIGEN de Stains (France) research center, of an "H_2 Factory," a test-bench covering the full hydrogen chain, and
- the demonstration by Laborelec and INEOS Phenol (Belgium) of hydrogen co-combustion in a gas turbine, enabling ENGIE to be a front-runner in the domain.

1.4 Financial performance

1.4.1 2021 Highlights

Delivering on the strategic plan, setting the foundation for long-term success

In 2021, ENGIE delivered on commitments in an unprecedented energy environment, benefitting from its integrated business model. This is reflected in high levels of assets availability, opportunities captured from flexible generation, contractual positions actively managed and strong financial liquidity maintained.

ENGIE has continued its growth throughout 2021. The Group commissioned 9 GW of renewable capacity over the 2019-2021 period despite increasing global supply chain tensions experienced over 2021, leading to over 34 GW total installed capacity. The Group is stepping-up in Renewables growth with 4 GW capacity addition on average per year expected by 2025 to reach 50 GW of total installed renewables capacity at 100%. To support its ambition, ENGIE has a robust pipeline of c. 66 GW of identified projects. After a period of uncertainty due to the pandemic, commercial development has resumed in Energy Solutions, where the city of Paris has selected ENGIE and its partner RATP Group to manage its cooling network with the renewal of the concession for 20 years in December 2021. International Networks progressed with the start of commercial operation for Gralha Azul and first energization tests for Novo Estado, the two power transmission lines being built by ENGIE in Brazil.

The performance plan being implemented delivered its first results, enabling ENGIE to meet its 2021 full year target of €0.1 billion of net EBIT contribution. Operational excellence and support functions optimization contributed to earnings growth. As a reminder, ENGIE targets a net EBIT contribution of €0.6bn over the period 2021 to 2023.

Progress at pace on disposal plan

In 2021, ENGIE made very strong progress on its refocusing plan, with c. €9.2 billion of disposals signed or completed to date. Given the strong momentum, ENGIE now expects total net financial debt impact of at least €11 billion between 2021 and 2023, compared with the initial €9-10 billion indication.

During 2021, ENGIE's refocusing has made significant progress, with €9.2 billion committed or finalized in disposals to date. Given the strong momentum, the total impact of the disposal plan on financial net debt is now expected to be at least €11 billion between 2021 and 2023, compared with an initial indication of €9-10 billion.

On 5 November 2021, ENGIE entered into exclusive negotiations with Bouygues for the sale of 100% of EQUANS. Bouygues' firm and binding offer values 100% of EQUANS at €7.1 billion on an enterprise value basis. The proposed transaction is expected to reduce ENGIE's net financial debt by €6.8 billion. This transaction is progressing as planned and still expected to close in H2 2022, subject to regulatory approvals and customary closing conditions.

Also, on 31 August, ENGIE received a firm and irrevocable offer from ALTRAD group for ENDEL, a fully-owned subsidiary specialized in industrial maintenance and energy services. In May, ENGIE completed the 10% sale of GTT. With this partial sale, GTT is consolidated under the equity method as from June. Lastly, ENGIE completed the sale of ENGIE EPS in July. On geographic rationalization, the Group has exited or signed agreements to exit 18 countries in 2021. Once closing is completed, the Group will be operating in 35 countries. ENGIE targets to be in less than 30 countries by 2023.

On 22 December 2021, ENGIE, along with its partner SIG, announced the completion of the sale of an 11.5% stake in GRTgaz. This transaction implied a valuation to RAB of 148%, reduced ENGIE's net financial debt by €1.1 billion and demonstrates ENGIE and its partner's shared view on the long-term role of both gas and renewable gases.

Update on Belgian Nuclear Assets

The Belgian government has proposed a new draft law that is expected to be voted in spring 2022. It focuses on the availability of funds against nuclear provisions and proposes a timetable for the funding of dismantling and waste management costs by 2030. If voted through, this would lead to an additional funding for dismantling costs to 2030, representing up to c. €0.7 billion per annum between 2022 and 2024. Electrabel had already accounted for and committed to both the waste disposal and dismantling costs, and its solid financial position enables the orderly management of these fundings. There is no change to the amount of provisions or the calculation scheme. ENGIE does not expect any change to Net Economic Debt from this draft law under discussion. The next triennial review of the nuclear provisions towards dismantling costs and waste management will take place in H2 2022. Consistent with the 2019 process, the review will consider any updates required to the nuclear provisions based on discount rates and a review of baseline scenario for cost estimates.

Progress on Net Zero ambition and key ESG targets

ENGIE is committed to achieving its Net Zero ambition covering all three scopes by 2045 following a “well below 2°C” trajectory with intermediate milestones. In line with this target, ENGIE has become one of the founding members of the First Movers Coalition, launched at the COP26 in November 2021. By joining the coalition, ENGIE commits to buying low-carbon equipment to help develop decarbonized supply-chains. ENGIE continues to progress on coal exit with the closing in October of the disposal of Jorge Lacerda in Brazil, which comprises a 0.7 GW coal plant. This transaction contributes towards a gradual transition of the regional economy while reducing potential local socio-economic impacts and demonstrates the importance of a just transition to the Group. In addition, ENGIE’s last coal power plant in Europe located in Portugal stopped operations in November 2021. ENGIE is committed to exiting all coal assets in Europe by 2025 and globally by 2027, including coal generation for district heating and cooling networks. At the end of 2021, coal represented 2.9 GW of ENGIE’s 100.3 GW centralized power generation portfolio.

In 2021, greenhouse gas emissions from energy production were reduced to 67 million tons. ENGIE also increased the share of renewables in its portfolio to 34% in 2021 from 31% at the end of 2020 with the commissioning of 3 GW of renewables. On gender diversity, ENGIE had 25% women in management at the end of 2021 and is implementing action plans towards its ambition of reaching gender balance by 2030.

As part of its dialogue with ENGIE’s shareholders, the Board of directors has decided to consult them at the next Annual General Meeting on the Group's climate transition strategy.

Health and safety

In 2021 the ENGIE Group and its subcontractors experienced severe accidents including 16 fatalities, notably at construction sites. A major company-wide response and comprehensive action plan is being implemented by the ENGIE leadership, to re-assess all safety standards and procedures in every activity and geography to ensure the application of the highest safety standards across the Group and its subcontractors. The ENGIE Group is strongly committed to playing its role in ensuring every employee, supplier or subcontractor working on an ENGIE site returns home safe, each day.

Dividend policy reaffirmed and €0.85 per share proposal for 2021

ENGIE is focused on delivering a progressively growing and sustainable dividend for shareholders. The Board has reaffirmed the Group’s dividend policy with a payout ratio of 65-75% of net recurring income Group share, and a floor of €0.65 per share for the 2021 to 2023 period. For 2021, the Board has proposed a payout ratio of 66%. This translates to a dividend of €0.85 per share, which will be proposed for shareholder approval at the Annual General Meeting on the 21 April 2022.

1.4.2 Financial objectives for 2022-2024

When presenting its 2021 annual results ENGIE updated its financial objectives for 2022-2024 (see Section 6.1).

The progress made last year on the strategic plan to 2023 sets the foundation for ENGIE towards achieving its purpose of carbon neutrality while delivering long-term growth. In the medium-term to 2024, the Group expects to deliver growth mainly driven by investment in Renewables and higher results from Energy Solutions, alongside a resilient contribution from Networks. Earnings should also benefit from significant performance improvements. Together these drivers are expected to more than offset the reduction from Belgian Nuclear, due to the planned phase-out of capacity by 2025, driving progressive growth in earnings and dividends (see Section 6.1).

In light of the highly volatile European commodity price environment, ENGIE has applied an updated approach to the forward price assumption in the guidance. This price assumption is applicable to unhedged positions and is particularly relevant for Belgian, French Nuclear and French Hydro production. The price assumption used in the guidance for 2022-2024 provided today is based on the average of European forward prices as seen across H2 2021. This is an updated approach compared to the past, where guidance was based on European forward prices as at 31 December of the prior year.

Therefore, ENGIE anticipates for 2022 to 2024:

In billions of euros	2022 results	2023 results	2024 results
EBITDA	10.7 - 11.1	10.9 - 11.3	11.3 - 11.7
EBIT	6.1 - 6.5	6.2 - 6.6	6.4 - 6.8
Net recurring income, Group share guidance	3.1 - 3.3	3.2 - 3.4	3.3 - 3.5

ENGIE remains committed to a “strong investment grade” rating and continues to target a leverage ratio of below or equal to 4.0x economic net debt to EBITDA.

ENGIE expects growth throughout the period, mainly fueled by investments (c. €+1.0 billion) and performance (c.€+0.7 billion), only partly offset by scope (c. €-0.3 billion) and other effects, as volumes, prices, or foreign exchange, for an aggregate effect of c. €-0.7 to -1.1 billion. EBIT CAGR from 2021 to 2024 is expected to reach 5-6% for core business and 1.5-3.5% for the whole ENGIE (including Nuclear).

Main drivers for 2022 EBIT evolution by activity are as follows:

	Expected drivers for 2022 EBIT
Renewables	Growth driven by newly commissioned capacity, higher prices, and reversal of 2021 Texas cold snap, partly offset by no more benefit from GFOM rulings in Brazil
Networks	Reversal of 2021 cold temperatures and lower (smoothed) RAB remuneration in France, partly offset by growth in Latin America
Energy Solutions	Better operational performance, partly offset by reversal of 2021 cold temperatures
Thermal	Continuing favorable market conditions in Europe and higher contribution expected in Chile, offset mainly by coal exit
Supply	Under pressure due to reversal of 2021 cold temperatures and high commodity price context
Nuclear	Higher achieved prices, offset by lower volumes (first reactor stopped in Belgium in October 2022) and higher Belgian nuclear tax

1.4.3 2021 key financial figures

In millions of euros	2021	2020 restated [a]	2020	2019	2018 restated [b]	2018	2017 restated [c]	2017
1. Revenues	**57,866**	**44,306**	**55,751**	**60,058**	**56,967**	**60,596**	**59,576**	**65,029**
of which generated outside France	33,525	25,640	33,311	35,635	33,306	35,612	34,325	39,307
2. Income								
EBITDA	10,563	8,908	9,276	10,366	9,236	9,236	9,199	9,316
• Current operating income [d]	6,145	4,493	4,578	5,726 [e]	5,126	5,126	5,172	5,273
• Net income, Group share	3,661	(1,536)	(1,536)	984	1,033	1,033	1,320	1,423
• Net recurring income, Group share	3,158	1,703	1,703	2,683	2,425	2,425	2,518	2,662
• Net recurring income from continuing operations, Group share	2,927	1,726	1,703	2,683	2,458	2,458	2,233	2,372
3. Cash flow								
Cash flow from operating activities	7,312	7,589	7,589	8,178	7,873	7,873	9,335	9,309
of which cash generated from operations before financial income and income tax	9,806	8,506	8,788	9,863	8,464	8,464	8,150	8,305
Cash flow from investment	(11,042)	(4,046)	(4,046)	(7,193)	(6,095)	(6,095)	(5,171)	(5,157)
Cash flow from (used in) financing activities	4848	(561)	(562)	212	(1,928)	(1,928)	(4,734)	(4,725)
4. Balance sheet								
Shareholders' equity	**36,994**	**28,945**	**28,945**	**33,087**	**35,551**	**35,551**	**36,282**	**36,639**
Total equity	41,980	33,856	33,856	38,037	40,941	40,941	42,122	42,577
Net debt	25,350	22,458	22,458	25,919	21,102	21,102	22,520	22,548
Net debt excl. internal debt E&P/EBITDA	2.40	2.42	2.42	2.50	2.28	2.28	2.26	2.25
Total assets	225,333	153,182	153,182	159,793	153,702	153,702	150,141	150,332
5. Per-share data *(in euros)*								
• Average outstanding shares [f]	2,420,201,862	2,416,820,377	2,416,820,377	2,412,518,837	2,396,308,756	2,396,308,756	2,395,732,581	2,395,732,581
• Number of shares at period-end	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011
• Earnings per share [f]	1.46	(0.71)	(0.71)	0.34	0.37	0.37	0.49	0.53
• Net recurring income, Group share, per share [f]	1.26	0.63	0.63	1.04	0.95	0.95	0.99	1.05
• Dividend paid [g]	0.85	0.53	0.53	0	1.12	1.12	0.70	0.70
6. Total average workforce	**174,027**	**175,873**	**175,873**	**262,139**	**249,795**	**249,795**	**238,029**	**238,216**
• Fully consolidated entities	171,754	173,398	173,398	170,475	158,505	158,505	151,480	151,667
• Proportionately consolidated entities	717	748	748	756	780	780	685	685
• Entities consolidated using the equity method	1,556	1,727	1,727	90,908	90,510	90,510	85,864	85,864

(a) *Comparative data at December 31, 2020, were restated due to the classification of EQUANS assets held for sale as "Discontinued operations", in accordance with IFRS 5 (see Note 2 of Section 6.2.2 "Notes to the consolidated financial statements")*

(b) *Some of the December 31, 2018 data have been restated due to the retrospective application of the new presentation of operational derivatives (with impact on Revenues) but not IFRS 16 due to the transition method applied (see Note 1 of Section 6.2.2 "Notes to the consolidated financial statements" of the 2019 Universal registration document)*

(c) *Some of the December 31, 2017 data have been restated due to the retrospective application of IFRS 9 and 15 and the classification of LNG as discontinued operations (see Note 2 of Section 6 "Consolidated financial statements" of the 2018 registration document)*

(d) *Excluding MtM of operating derivatives but including share in net income of equity method entities*

(e) *Figure restated in 2019: 5,819*

(f) *Earnings per share calculated on the basis of the average number of shares outstanding, net of treasury shares (see Note 13 Section 6.2.2 "Notes to the consolidated financial statements")*

(g) *2021: proposed to the OGM. In 2018, the annual dividend of €0.75 was supplemented by an extraordinary dividend of €0.37 per share for a total of €1.12 per share.*

1.5 CSR performance

The Group's Corporate Social Responsibility performance (CSR) is an essential part of its overall performance. It is based on CSR commitments and a CSR policy at the Group level (see Section 1.5.1), as well as sectoral policies and dated and quantified CSR targets (see Section 1.5.2). It is externally assessed by the leading CSR rating agencies (see Section 1.5.3).

The Group's Non-Financial Statement (NFS) details the governance and results of this policy (see Chapter 3).

In November 2021, the Group took part in COP26 in Glasgow in the United Kingdom where it made a number of commitments to global decarbonization. ENGIE is therefore a founding member of the "First Mover Coalition," which was launched by the World Economic Forum and represented by John Kerry, to accelerate decarbonization in sectors where emissions are hardest to reduce such as steel production.

ENGIE also signed a number of United Nations declarations in favor of the "End of coal" and developing low-carbon real–time energy ("24/7 Carbon Free Energy").

Lastly, ENGIE supported the commitment made by WBCSD and its peers to develop industrial hydrogen production and, as a result, is listed as one of the main industrial partners in the recent bilateral agreement signed by Belgium and Chile to develop green hydrogen.

In 2021, the Group first calculated its activities' eligibility rates within the meaning of the European taxonomy. The results are shown in Section 3.1.5.

1.5.1 CSR policy

With regard to CSR, the Group aims to make energy a source of progress and development for all. Within ENGIE, CSR plays an integral part in the business strategy, through:

- the development of sustainable business, which involves identifying environmental and societal issues and transforming them into opportunities for the Group's businesses;
- the management of the CSR risks and impacts of its projects and activities and its value chain, i.e. relating to the environment, social acceptability, health and safety, human resources, ethics, and governance.

ENGIE published its CSR policy in 2014 (it was updated in 2020), and in 2016 had set six CSR targets for 2020. The forward-looking work on ENGIE 2030 and the Group's Purpose Statement, published in February 2020 and approved for inclusion in the bylaws by the Shareholders' Meeting in May 2020, have resulted in the definition of a new set of 19 CSR targets for 2030.

The CSR commitments and policies are systematically approved by the Group Executive Committee and the Board of Directors' Ethics, Environment and Sustainable Development Committee (EESDC). These commitments demonstrate that the company is fulfilling its statutory and regulatory obligations in the various CSR areas. They also commit ENGIE to adopting the best practices to anticipate and manage as effectively as possible the impacts of its activities on its sphere of influence, and vice versa. Another aim of the CSR commitments and policies is to maximize value creation for all stakeholders.

All these objectives align perfectly with the 17 Sustainable Development Goals for 2030 established by the United Nations. These 19 CSR 2030 objectives also reflect the acceleration of the Group's strategy approved in July 2020. They also mirror the Group's materiality matrix, which was updated in December 2020 following a consultation process with stakeholders and management (see Section 3.3).

Climate change constitutes today a major environmental challenge for our society in general. To take on this challenge, the Group has committed to:

- a greenhouse gas (GHG) reduction plan;
- a climate vigilance plan;
- a natural resources consumption reduction program, and finally;
- a business model adaptation program to make it resilient to climate change while complying with the constraints of a fair transition.

ENGIE thus includes an internal carbon price in its decision-making process on the major investment decisions under the responsibility of the Group Investment Committee. This system is complementary to the carbon budgets allocated to the entities in order to meet the Group's 2030 target in terms of GHG emissions.

The Group also takes 9 CSR criteria into account for its major investment projects, assessed using risk analyses. These criteria mainly relate to: ethics, GHG emissions, social impact, human resources, environmental management of ecosystems, cooperation with stakeholders, sustainable purchasing, and employee health and safety.

Lastly, an increasingly sizeable part of the Group's investments is successfully funded through green bonds, demonstrating the market's recognition of their durability (see Section 5.3).

1.5.2 Achievement of CSR targets by 2030

In 2020, the Group set itself 19 ambitious targets to be achieved by 2030, in order to meet its CSR commitments by this deadline.

Based on the Group's purpose, these targets are part of a continuous improvement approach, taken in response to growing expectations of the Group's various stakeholders interested in CSR risk management and the alignment of its performance with national or international sustainable development goals.

The results of the eight key objectives, referred to as Tier 1, are published annually in this document.

The 2021 results of the indicators for the eight Tier 1 2030 CSR targets are shown in the table below, with the figures for the two previous years. These results include EQUANS.

Themes	Indicators	2030 targets	2021 results	2020 results	2019 results
CO_2 energy generation	GHG emissions (scopes 1 and 3) for energy generation (in Mt CO_2 eq.) in accordance with SBT commitments (1)	43	67	68	75
CO_2 gas sales	GHG emissions relating to the use of sold products (in Mt CO_2 eq.), in accordance with SBT commitments (1)	52	66	62	61
Renewables	% of renewable energy in the electricity production capacity mix, in accordance with SBT commitments (1)	58%	34%	31%	28%
Decarbonization of our customers	Customer GHG emissions avoided by ENGIE offers and products (in Mt CO_2 eq.)	45	28	21	not available
Decarbonization of our suppliers	% of preferred suppliers (excluding energy) certified by or aligned with the SBT initiative (1)	100%	20%	15%	not available
Health and safety	Total frequency rate lost-time injury	≤ 2.3	2.9	2.7	3.3
Gender diversity	% of women in Group management	≥ 50%	24.6%	24.1%	23.5%
W/M equity	Equity ratio women/men	France: 100 excl. France: 100	France: 89 excl. France: 82	France: 87 excl. France: 80	France: 72 excl. France: 72

(1) *SBT (Science-Based Targets) is an international initiative to scientifically validate companies' greenhouse gas (GHG) reduction programs in line with Paris Agreement commitments*

GHG emissions from energy generation in 2021 (67 Mt CO_2 eq.) were down slightly on 2020 (68 Mt CO_2 eq.). They break down into 35.2 Mt for emissions from controlled assets (scope 1) and 31.4 Mt for emissions from assets consolidated by the equity method (scope 3). The full effect of the withdrawal from the coal business (Jorge Lacerda in Brazil in October and Pego in Portugal in November) will be seen in 2022.

GHG emissions associated with the use of sold products (scope 3) stood at 66 Mt CO_2 eq., up on 2020 (62 Mt CO_2 eq.), due to the rise in gas sales which are the main component of this emissions item, the growth of which is linked to the sustained upturn in industrial activity following the pandemic.

The Group's renewable capacity share was above 34%, an improvement on 2020 (31%) as a result of the strategy to develop renewable capacity which was up +3 GW in 2021. This growth reflects the Group's commitment to develop 9 GW of additional renewable capacity over the 2019-2021 period.

The indicator of the customer decarbonization target, which was previously the percentage of customer offers contributing to their decarbonization, was replaced in 2021 by a target of emissions avoided every year thanks to ENGIE's offers and products. The 2030 target amounts to 45 Mt CO_2 eq. avoided. This change reflects a more ambitious target, moving from a resource-based target to a results-based target, more in line with our requirements and market expectations. This target reflects our approach of helping customers in the fight against climate change. The result in 2021 was 28 Mt CO_2 eq. avoided, up on 2020 (21 Mt CO_2 eq.).

The decarbonization level of preferred suppliers reached 20% in 2021, up on 2020. This improvement was due to action plans put in place across 250 preferred suppliers to encourage them to commit to SBT alignment or certification. The aim is to expand this preferred supplier base in future years.

The total lost-time injury frequency rate (including subcontractors on sites with controlled access) reached 2.9, almost unchanged from 2020 (2.7), despite the economic upturn in 2021 which statistically generates greater exposure to risk. This near stability reflects an improvement in the indicator. EQUANS' upcoming exit has resulted in the Group adopting a more ambitious target for 2030 by moving from 2.9 to 2.3.

The proportion of women in management is 24.6%, up 0.5 percentage points compared with 2020 (24.1%). This improvement is the result of the first effects of the *fifty-fifty program*, dedicated to the Group's cultural transformation in terms of welcoming and retaining female talent, thereby accelerating and supporting the promotion of gender equality.

The professional and pay gender equity index, which reached 89 in France and 82 outside France, is improving in France and outside France. These good results reflect a reduction in gender wage gaps, sought as part of the target-related action plan.

Most of the Group's social indicators (see Section 3.4), environmental indicators (see Section 3.5), and societal indicators (see Section 3.6) are audited by an independent third party (see Section 3.10).

1.5.3 CSR ratings

ENGIE's CSR performance was again recognized in 2021 by the SAM rating agency with a score of 81/100, unchanged from 2020. The Group confirmed its inclusion in the Dow Jones Sustainability Index (DJSI) World and Europe. ENGIE came 3rd in its sector (Multi-Utilities and Water) comprising 62 companies, positioning it in the top half of this sector.

The Group was given a rating of A1 with a score of 68/100 in 2021 by the Moody's ESG (formerly VE - VigeoEiris) rating agency, up 3 points on 2020. This score places the Group 7th in its sector (Electric Utilities) comprising 63 companies and in the top 2% of companies assessed by Moody's ESG worldwide. With this score, the Group appears in the four indices associated with this rating i.e. Euronext VigeoEiris World 120, Europe 120, Eurozone 120 and France 20.

In 2021, the Sustainalytics rating agency assessed the Group's CSR risk with a rating of 28.5 (medium risk), an improvement on 2020 when the risk oscillated between medium and high risk (30). This score keeps the Group in the top half of its sector (Utilities) as it is ranked 198th out of 672 companies.

The MSCI rating agency continued to rate the Group A in 2021, referencing it in its MSCI EMU ESG and Europe ESG indices. The Group retains its position in the top half of its sector (Utilities).

The ECOVADIS rating agency assessed the Group in 2021 with a score of 77/100, a 2-point improvement on 2020. The Group, classified in the "Electricity, gas, heating and air conditioning suppliers" sector, is in the top 1% of companies rated by ECOVADIS.

Finally, as it does every year, ENGIE also answers the CDP (ex-Carbon Disclosure Project) climate change questionnaire. In 2021, with an A- ranking, the Group maintained its position on the list of leaders in terms of strategy and actions to combat climate change. The Group maintained its performance in the protection of water resources with an A- rating following its answers to the CDP Water questionnaire. Lastly, the Group responded for the first time to the "Forest CDP" questionnaire and obtained a ranking of B-, focusing its efforts on sustainable management of wood resources.

In conclusion, the Group has very good CSR ratings with performances rated well above the sector average by the main agencies.

1.6 Description of the Group's activities

In the context of its new organization, implemented on July 1, 2021, ENGIE is made up of four Global Business Units (GBU) associated with the Group's four main business lines (Renewables, Networks, Energy Solutions, Thermal & Supply) and two operating entities (Nuclear and Global Energy Management and Sales (GEMS)). In addition, EQUANS has been classed as a discontinued operation since the signing of a unilateral commitment to buy with Bouygues on November 5, 2021 (see Note 5 "Main changes in scope" of Section 6.2.2 "Notes to the consolidated financial statements").

1.6.1 Renewables GBU

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues	3,661	2,971	+23.2%
EBITDA	1,700	1,576	+7.9%

1.6.1.1 Missions, organization and strategy

Missions

The role of the Renewables GBU is to develop, build, finance, operate and maintain ENGIE's renewable power production assets to green its energy mix. It spans three main activities: centralized solar power production, onshore & offshore wind power production and hydroelectric power generation. The GBU supplies technical and financial expertise, energy management services and industrial and logistical support for renewable assets.

Organization

The Renewables GBU is organized around four operating regions: Europe, North America, South America and AMEA (Asia, Middle East and Africa); two operational support departments: Operational Performance and Development and Projects; and three functional support departments: Legal & Ethics; Finance & Strategy; Human Resources, Communication & CSR. Offshore wind activities are exclusively managed, on a global basis, by Ocean Winds, a *joint venture* with EDP Renovàveis, and coordinated by the Europe region.

The GBU is rolling out a sound industrial development program based on the following pillars:

- becoming a leader in the renewables market, reaching 50 GW of installed capacity in 2025 and 80 GW in 2030. To achieve this objective, an additional 46 GW must be installed over 2022- 2030 (of which an estimated 21GW in onshore wind, 18GW in centralized solar PV and 7 GW in offshore wind). The vast majority of the investments should be focused in the five priority markets of the GBU, namely US, France, Brazil, Chile and offshore wind;
- focusing the Group's development on a (develop-to-own) model that keeps the assets on the balance sheet in mature geographies where ENGIE is the operator and manages the development risk;
- strengthening competitiveness by improving operational excellence through the creation of a global industrial platform to capture scale benefits in engineering, procurement and operations and maintenance (O&M);
- differentiating the Group by virtue of its project development, energy management and operations monitoring expertise.

1.6.1.2 Activities in Europe

1.6.1.2.1 France

In France, ENGIE is the number one generator of onshore wind and centralized solar PV power, and has, historically, held the number two position in hydroelectricity. The GBU aims to strengthen the Group's leadership in onshore wind and significantly accelerate the growth in solar power. It mainly positions itself on public tenders and contributes to the emergence of corporate tenders.

The scope of activities in France comprises three subsidiaries owned by ENGIE, either solely or in partnership:

- ENGIE Green (100% owned by ENGIE), the French wind and solar leader based in Montpellier with more than 600 employees, which operates 3,089 MW installed capacity (2,054 MW onshore wind and 1,035 MW solar power);
- SHEM (Société Hydro-Électrique du Midi, 100% owned by ENGIE), based close to Toulouse: mainly high-head hydroelectricity power generation (784 MW installed) in the South-West of France;
- CNR (Compagnie Nationale du Rhône, in which ENGIE has a 49.97% stake), based in Lyon, with 3,079 MW hydroelectricity installed capacity along the Rhone river and its subsidiary CN'Air with 882 MW onshore wind and solar installed capacity at end 2021.

Regulatory changes

The Multi-Year Energy Program (PPE), published in April 2020, which contains a tender schedule and an objective for offshore wind and solar power (particularly ground-mounted), is to be updated in 2023.

The tender specifications organized by the Energy Regulation Commission (Commission de Régulation de l'Energie) include new measures, particularly regarding carbon footprint and social appropriation of renewable assets.

Following implementation of the reform of the flat-rate tax on network companies for solar, other measures have been taken to simplify the legislation regarding onshore wind, including the removal of a level of jurisdiction in the event of appeal.

In late 2020, the French Finance Act provided for the possibility of a renegotiation of public support mechanisms for photovoltaic installations. In October 2021, implementing regulations have been disclosed. The extent and, therefore, the impact of this regulatory change are still to be assessed, but the financial impact has been mitigated by the activation of an escape clause which makes it possible to review the economic viability of the assets in question.

1.6.1.2.2 Rest of Europe

In addition to its leadership position in France, the Group aims to accelerate its business in the rest of Europe by developing a strong portfolio of projects, with different maturities and in targeted geographies.

In Europe, (excl. France), the Group operates at end 2021, 1.9 GW of hydro (mainly in Iberia), 2.6 GW of onshore wind (mainly in Spain, Portugal and Belgium) and 0.14 GW of solar power.

In hydropower production, ENGIE, in partnership with Crédit Agricole Assurances and Mirova, has a strong position in **Portugal** with a 1,688 MW hydro portfolio in the north-east of the country. The Group is also present in **Spain** with a portfolio of small hydropower plants (totaling 65 MW) and **Germany** where it operates the Pfreimd hydropower plant (137 MW pumped storage and 5 MW run of river).

The Group operates 2,630 MW of onshore wind power at end 2021, mainly in **Spain** (536 MW), in **Portugal** (489 MW, via TrustWind, a 50-50 joint-venture with Marubeni), **Belgium** (483 MW, number one position and +85 MW in 2021), **Italy** (338 MW, +39 MW in 2021), **Norway** (208 MW), **Germany** (196 MW), **Poland** (138 MW) and **Romania** (98 MW).

The Group also has 138 MW of solar power assets, mainly in in **Spain** (47 MW), the **Netherlands** (41 MW), **Italy**, **Poland** and **Romania**.

In 2021, ENGIE and Crédit Agricole Assurances also acquired a 97.33% stake of Eolia Renovables, one of the largest renewable power producers in Spain. In addition to a portfolio of projects under development (1.2 GW), it covers the ownership and operation of 821 MW of onshore wind and 78 MW of solar power.

1.6.1.2.3 Offshore wind activities through Ocean Winds (OW)

Ocean Winds (OW) is a 50-50 joint venture, owned and created in 2019 by EDP Renovàveis and ENGIE, combining the existing and developing offshore wind project portfolios of both companies (fixed and floating), mainly in Europe, the United States and selected geographies in Asia. At end 2021, the JV operates 512 MW, via Seamade (487 MW in Belgium) and WindFloat Atlantic (25 MW in Portugal). The joint venture has also 953 MW under construction (Moray East in UK), and numerous projects under development.

In June 2021, the B&C-Wind offshore wind farm has been awarded for a contract-for-difference (CfD) for 370 MW by the Polish Energy Regulatory Office. In December, OW signed a 400 MW Power Purchase Agreement (PPA) with the State of Massachusetts, via its 50-50 joint venture with Shell New Energies.

1.6.1.3 Activities in North America

North America is a priority market for ENGIE's growth in Renewables, with a large proportion of assets contracted to corporate customers through Corporate Power Purchase Agreements (CPPA). In 2021, the Group signed 485 MW of *corporate PPA* in the United States.

At end 2021, ENGIE's operational portfolio consisted of 3.2 GW of onshore wind (2,504 MW in the United States, +643 MW in 2021; and 660 MW in Canada) and 0.6 GW of solar in the United States, (+165 MW in 2021). The vast majority of this operational portfolio is located in three markets: ERCOT (Electric Reliability Council of Texas) and SPP (Southwest Power Pool) in United-States and Ontario in Canada.

1.6.1.4 Activities in South America

Two out of ENGIE's five key markets are in South America (Brazil and Chile), where the Group has strong positions with 11.9 GW of hydropower (mainly in Brazil), 1.5 GW of onshore wind and 0.4 GW of solar PV.

In **Brazil**, ENGIE operates 11.8 GW of hydropower, 1.3 GW of onshore wind (including the Campo Largo project that commenced commercial operation in 2021) and 0.3 GW of solar power.

ENGIE Brasil Participações Ltda (EBP, 100% ENGIE affiliate), holds 68.71% of the share capital of ENGIE Brasil Energia (EBE), which is responsible for the centralized electricity generation and transportation business. EBP has a 40% interest in Energia Sustentavel do Brasil Participações S.A. which owns the Jirau hydroelectric power plant (3,750 MW). ENGIE reinforces its presence in Rio Grande do Norte, where it has been operating a photovoltaic generation asset since 2017, with the acquisition in the municipality of Assú of a project portfolio of up to 750 MW.

In **Chile**, through its 60% owned subsidiary, ENGIE Energia Chile (EECL), ENGIE has 413 MW of renewable capacity, including two projects commissioned in 2021: the Tamaya solar PV project (114 MW) and the Calama wind farm (151 MW). In 2021, the Group announced a coal exit by 2025, at the same time as a development plan for 2 GW of renewable energy in the country.

In **Mexico**, the Group operates 819 MW (674 MW solar power and 145 MW onshore wind), including 176 MW capacity of solar power that were commissioned at end 2021.

In **Peru**, ENGIE, through ENGIE Energia Peru (61.77% owned by ENGIE), operates 255 MW of hydropower production and 41 MW solar power. ENGIE is currently building the largest wind farm in the country: the Punta Lomitas project (260 MW), taking over the power sale contract from the Ilo21 coal-fired power plant that will cease to operate (Section 1.6.4.2.2 Americas).

Regulatory changes

Regarding **Brazil**'s electricity market, the regulator is expected to continue to announce new initiatives in the coming years in line with a modernization of the electricity market operating, to open the market to competition, improve its functioning and ensure the necessary investments in new production capacities. ENGIE, leader in the market of consumers buying from the wholesale market, actively follows these potential evolutions.

1.6.1.5 Activities in Asia, Middle-East and Africa

ENGIE operates 2.4 GW of capacity in the region, 1.1 GW of which is onshore wind, 1.1 GW solar power and 0.2 GW other renewables.

In **India**, ENGIE holds a portfolio of 1 GW in renewable energy, including 806 MW solar power (+200 MW in 2021) and 250 MW onshore wind (+74 MW in 2021).

ENGIE also operates other onshore wind farms in **Morocco** (Tarfaya, 316 MW in partnership with Nareva), **Egypt** (Ras Ghareb, 263 MW, in partnership with Orascom), **Australia** (Willogoleche, 119 MW and Canunda, 46 MW, in partnership with Mitsui/ICG), **South Africa** (West Coast One, 91 MW) and **Mongolia** (55 MW).

ENGIE also operates solar assets in **South Africa**, of which, 200 MW of concentrated solar power and 18 MW of solar PV, and in **Senegal** (Kahone, 60 MW solar power commissioned in 2021 under the IFC Scaling Solar program).

1.6.2 Networks GBU

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues	6,700	6,718	-0.3%
EBITDA	4,121	3,848	+7.1%

1.6.2.1 Missions, organization and strategy

The Networks GBU[1] is responsible, in particular, via independent subsidiaries, for developing, operating and maintaining gas (distribution and transmission networks, storage and LNG terminals) and electricity networks, as well as the production of biomethane, in France and abroad. These networks and their decarbonization are a key challenge of the energy transition. Natural gas, in the form of biomethane and then hydrogen in the longer term, is a key vector in enabling the transition by replacing coal, which is much more polluting, and by ensuring the flexibility and overall security of integrated energy systems. The electricity networks, meanwhile, are inextricably linked to the development of renewable energy, which has to be connected and distributed, and new uses such as electric mobility. The ENGIE group is the leading gas networks operator in Europe, in particular, via independent subsidiaries.

The strategy implemented can be summed up in four points:

- maximizing the value of existing assets;
- shifting the portfolio, traditionally built around gas networks in France, toward international activities and electricity;
- promoting biomethane production, in France and in a certain number of target countries abroad;
- converting assets to hydrogen.

Besides this strategic road map, the Networks GBU is also tasked with:

- managing and optimizing the necessary expertise;
- ensuring the operational performance and digitization of assets and processes and;
- overseeing personal health and safety.

(1) *Within the limits of the provisions of the Energy Code and the regulatory constraints applicable to entities forming part of the Networks GBU*

1.6.2.2 Activities in France

1.6.2.2.1 GRDF

In France, GRDF, an independent subsidiary of ENGIE, develops, operates and maintains distribution networks and delivers gas for consumers. GRDF is tasked with giving all natural gas suppliers and biomethane producers equal access to its network.

GRDF develops its activities according to the three objectives stated in its enterprise project: (i) strive for operational excellence in the performance of its business lines to be recognized as a committed professional; (ii) make gas an energy of the future by demonstrating its relevance in the energy mix; and (iii) build a responsible, more open and collaborative business model with all the business lines.

The distribution activity has specific features related to its classification as a local utility. Each municipality where natural gas supply is available grants a concession to an authorized distributor to operate the natural gas utility in its territory. Concessions are entered into or renewed based on a standard agreement established jointly by the French national federation of concession-granting and state-controlled municipalities (Fédération Nationale des Collectivités Concédantes et Régies or FNCCR), the Urban Landowners' Association (Association Foncière Urbaine or AFU) and GRDF. The concession-granting bodies then carry out controls to ensure the proper execution of the obligations arising from these concession agreements.

Since mid-2018, GRDF has been engaged in discussions with the French national federation of concession-granting and state-controlled municipalities (FNCCR) and the Urban Landowners' Association (Association Foncière Urbaine or AFU) with the aim of modernizing the model contract that will be used for future contract renewals with the concession–granting authorities. The new national model contracts are expected to be signed in the first quarter of 2022.

Distribution structures belong to the municipalities even when they are built and financed by GRDF. GRDF, the concession operator has exclusive use of these structures. The Energy Code recognizes the entitlement of the historical concession operators, i.e., GRDF and 22 local distribution companies (ELD), to exclusive service areas. As holders of a "distribution monopoly," they are the sole operators with which the conceding municipalities may renew the concession. The grounds for terminating a concession contract early are strictly controlled (listed exhaustively) as is the date the concession can be terminated (it cannot be in the first half of the contracted term). Termination also requires two years' notice and the concession-granting authority must pay compensation to the concession operator for early termination.

Apart from the exclusive service areas of GRDF and the local distribution companies, all municipalities not supplied with natural gas may entrust their public gas distribution to the authorized operator of their choice, following competitive bidding.

In 2021, the Board of Directors approved this purpose for inclusion in the company bylaws: "To act to provide the greatest number with the choice of an energy of the future, that is high-performance, renewable, safe and affordable, at the heart of the life of the regions." It is based on the major role that the distribution network has to play in the energy transition. In 2021, in addition to the major dynamic of including biomethane in the networks, GRDF continued to roll out its R&D program to prepare for the inclusion in the network of new renewable gases (blended hydrogen, methanation or dedicated networks, and pyro-gasification).

The project to convert gas with low calorific power ("B" gas), mainly originating in the Netherlands, to gas with high calorific power, which is more widespread in France, successfully continued in 2021 with the conversion of around 50,000 customers in the Calais and St Omer sectors.

Regulatory changes

Apart from this specific case of public service delegations recently awarded after a competitive bidding process, GRDF's activity is remunerated by a tariff set by the CRE. Following the CRE's decision of January 23, 2020, the new GRDF natural gas distribution tariff, "ATRD6," entered into force on July 1, 2020 for a period of four years. It applies to the GRDF exclusive service area. The structure of this tariff is consistent with the previous tariff.

The CRE took into account all major projects that GRDF will take on during the period, such as the end of the smart meter roll-out in 2023 and the gas changeover project (conversion from B gas to H gas in northern France). The CRE thus changed the remuneration rate of the regulated asset base of GRDF to 4.10% (real before tax) for 2020-2023.

After a slight decrease of -0.4% on July 1, 2020, the tariff increased by 0.7% on July 1, 2021. This increase is mainly due to the impact on the 2021 tariff of the drop in revenue seen in 2020, due in particular to warmer than normal weather, and, to a lesser extent, to declining volumes due to the Covid 19 crisis.

By resolution of March 11, 2021, the CRE (French energy regulator) approved the tariff framework of the gas changeover project for its entire term, i.e. 2021-2029. The reference tariff trajectory has been set for the end of the ATRD6 period, i.e. 2021-2023.

1.6.2.2.2 GRTgaz

GRTgaz is an independent subsidiary of ENGIE which, in 2017, purchased a stake in the capital of ENGIE subsidiary Elengy, which operates LNG terminals in France. In 2021, ENGIE sold 11.5% of the company's capital to Société d'Infrastructures Gazières (SIG), a public consortium comprising CNP Assurances, CDC Infrastructures and Caisse des Dépôts. During this transaction, the stake held by GRTgaz in its subsidiary, Elengy, increased to 100% (from 82.2% previously). GRTgaz is now owned by ENGIE, SIG and SIG's employees, which have respective stakes in its capital of 60.8%, 38.8% and 0.3%.

GRTgaz operates over most of France, developing, operating and maintaining a gas transmission network consisting of more than 32,000 km of buried pipeline and 26 compression stations. This network transmits gas between suppliers and consumers (distributors or industrial companies directly connected to the transmission network). GRTgaz has a public service mandate to guarantee the continuous supply of gas to consumers. It provides transmission services to network users and manages gas transmission activities in Germany, via its subsidiary, GRTgaz Deutschland.

GRTgaz's business is conducted within a general framework designed to guarantee the independence of the grid manager.

In 2021, its purpose was approved and included in its bylaws: "Together, making possible a safe, affordable and climate-neutral energy future." It is the result of a process that involved all the company's stakeholders. The purpose expands the public service missions of GRTgaz. It strengthens its legitimacy as a network operator serving a hybrid decarbonized energy system, and directs its areas of innovation and diversification toward the domain of the energy transition.

The company thus aims to pursue its firm commitment to the energy transition, by promoting the development, injection into the networks and use of renewable, low-carbon gas (biomethane and hydrogen), while continuing to operate gas networks in a secure and optimized way, enabling the better integration of the European gas markets. GRTgaz is committed to the first concrete hydrogen infrastructure projects, such as MosaHYc, the first cross-border network project involving the conversion of gas pipelines, 100 km long and bringing together hydrogen producers and consumers in France, Germany and Luxembourg. The Group is aiming for 170 km of transmission networks in 2025 and 700 km in 2030 (Section 1.6.4.4

"Hydrogen activities").

In June 2021, GRTgaz completed the construction of, and commissioned, a gas pipeline to supply the Landivisiau gas power plant. Lastly, again in 2021, the FenHYx platform, which is one of the first R&D platforms in Europe dedicated to the impact of hydrogen on gas networks, started technical trials within RICE, the R&D center of GRTgaz.

Regulatory changes

France's Energy Code stipulates that the construction and operation of natural gas transmission pipelines shall be subject to a specific and non-transferable authorization issued by the competent administrative body. By resolution of January 20, 2020, the CRE defined the methodology and set the tariffs for the use of transmission networks in France known as "ATRT7," applicable for 2020-2023.

In this context and applying the methodology and inflation assumptions used, the gas transmission tariff applicable at April 1, 2021 (ATRT7) was -1.2% on the main network and -1.6% on the regional network (CRE resolution of April 1, 2021). This resolution does not alter that of April 1, 2020, which set the remuneration rate of the regulated asset base of GRTgaz at 4.25% – real before tax – for 2020-2023.

With this tariff, CRE is maintaining the resources granted to GRTgaz to meet the challenges of energy transition in the context of the previous tariff (ATRT6), while requiring a high level of performance from the operator.

1.6.2.2.3 Elengy

LNG terminals are port facilities that allow liquefied natural gas (LNG) to be received and regasified. Elengy has developed additional services since 2012, such as the reloading of LNG tankers, transshipment between vessels, and LNG tank truck loading.

Elengy is one of the largest European LNG terminal operators, with three LNG terminals in France. The facilities operated by Elengy had a total regasification capacity of 20 billion m^3 (Gm^3) of gas per annum as of December 31, 2021.

In 2017, GRTgaz, ENGIE's independent subsidiary, acquired Elengy. In 2020, Elengy purchased the shares owned by TotalEnergies in their joint subsidiary, Fosmax LNG. Elengy now owns 100% of its three terminals.

Facility: Commissioned in 1972, the Fos Tonkin terminal is located on the Mediterranean coast and receives LNG primarily from Algeria. Its dock can accommodate vessels carrying up to 75,000 m^3 of LNG while its tank has a total capacity of 80,000 m^3. Its commercial capacity was reduced to 1.5 Gm^3 /year on January 1, 2021.

The Montoir-de-Bretagne terminal, commissioned in 1980, is located on the Atlantic coast and receives LNG from various sources. It has a regasification capacity of 10 Gm^3 of gas per year and three storage tanks with a total capacity of 360,000 m^3 of LNG. It also has additional capacity of two docks that can accommodate tankers transporting up to 260,000 m^3 of LNG (Qmax) and enabling significant transshipment activity.

The Fos Cavaou terminal, which was brought into commercial service in 2010, has a regasification capacity of 8.5 Gm^3 of gas per year. It has one dock that can accommodate Qmax-size tankers and three tanks with a total capacity of 330,000 m3 of LNG. The first micro-tanker loading operations began in December 2021.

An investment decision was taken in 2021 to increase tank loading capacity at the Montoir terminal, and a similar decision is under discussion for the Fos Cavaou terminal.

Regulatory changes

The LNG terminals are accessible to all LNG suppliers. The tariffs for access to regasification are regulated. The current tariffs were set by the CRE's resolution of January 6, 2021 and have been in place since April 1, 2021. The CRE has redefined the rate of remuneration of Elengy's asset base for 2021-2024 by resetting the base rate before specific increases for LNG to the rate applicable to transmission since 2020 (ATRT7 tariff).

The micro-LNG and LNG tanker transshipment and loading services are not regulated.

1.6.2.2.4 Storengy

With Storengy, the Group is the leader in underground natural gas storage in Europe, with net storage capacity of 12.2 billion m^3.

Gas storage and conversion to renewable gas

In **France,** Storengy SA operates 14 underground storage facilities. Nine of these are in aquifers (total useful storage volume of 9 billion m^3), four are in salt caverns (1 billion m^3) and one is in a depleted field (80 million m^3). Three of these sites are in reduced operation according to precise regulatory procedures (880 million m^3).

In **Germany,** Storengy Deutschland GmbH, a wholly owned subsidiary of Storengy, holds and operates six storage sites (1.7 billion m^3; three salt sites and three depleted sites), and operates a seventh storage facility for a third party.

In the **United Kingdom,** Storengy UK Ltd, a wholly owned subsidiary of Storengy, operates the storage site in saline caverns in Stublach (400 million m^3). With 20 caverns, this storage facility is the largest in operation in the UK.

In Europe, Storengy is also preparing to convert storage assets to renewable gas (biomethane, synthetic methane, hydrogen) in order to add value to gas storage in a decarbonized market. To this end, Storengy is developing the HyPSTER project (1 MW of electrolysis and 3 tons – up to 44 tons – of H2 storage by 2025) at its Etrez site and the HyGreen project (Phase 1: 1 MW; Phase 2: 350 MW and 2,000 tons of H2 storage by 2027) at its Manosque site. Other projects are being studied at Storengy's sites in the UK and Germany. (Section 1.6.4.4 "Hydrogen activities").

Production and storage of renewable gas

Storengy is now positioned as a key player in biomethane production through anaerobic digestion in France through its subsidiary, ENGIE BIOZ (17 units in production – 385 GWh/year, 13 sites under construction). This business is being developed in accordance with the new tariff measures for injection into the natural gas networks, the evolution of systems to guarantee the origin of the biomethane and the establishment of the system of biogas production certificates.

In the UK, Storengy has also begun construction of its first anaerobic digestion project (55 GWh/year), which will be operational in 2022. Other projects are now being studied in other European countries.

Lastly, Storengy is positioned on synthetic methane production via methanation, through pilot projects currently being developed (Hycaunais, Méthycentre), in addition to commercial projects (Pau Lescar, as part of a group led by SUEZ).

As well as projects for the production of hydrogen by electrolysis around its storage sites, Storengy has, lastly, committed to the development of the natural H_2 production market in order to develop a supply of low-carbon, competitive H_2. This gas is continuously generated deep within the surface of the Earth and can be mined via boreholes. In 2022, Storengy will launch a campaign to measure emissions of natural H_2, using ENGIE's proprietary technology to identify areas with high potential for the development of this market.

Heating, cooling and power generation from geothermal energy

In partnership with other Group entities, Storengy is developing several heating and cooling network projects in French cities and regions. In particular, the aim of the Plaine Garonne Énergie Project, with ENGIE Solutions, is to design, build and operate a new heating network in the center of Bordeaux, with a 30-year public service delegation. This project was commissioned at the end of 2021 and in the future will enable 19,000 tons of CO_2 to be avoided each year.

Lastly, Storengy is making efforts to develop new capacity for electricity production based on high-temperature geothermal energy, not only in mainland France, but also in Guadeloupe and other Caribbean islands.

Regulatory changes

In June 2021, the European Commission announced its decision on the compatibility of the regulated storage access system with European State aid rules. This decision was the conclusion of the 18-month long formal inquiry conducted by the European Commission's Directorate-General for Competition (DG Comp). In France, the Hydrogen Ordinance of February 2021 authorizing the use of existing gas storage concessions to develop hydrogen storage has reaffirmed the direction taken by Storengy.

1.6.2.3 Activities in America

ENGIE has become one of the biggest power infrastructure players in Latin America.

In **Chile**, ENGIE owns a 59.99% stake in ENGIE Energia Chile (EECL). This company operates 2,407km of transmission lines and 24 substations, with an additional 30 km of transmission lines and 10 substations under construction. EECL also owns 50% of Transmisora Electrica del Norte (TEN). This company operates 1,204 km of transmission lines and 4 substations, that interconnect Chile's North and Central electricity grids. In 2021 EECL was awarded the tender to build the La Ligua 220/110/23 kV substation, with a reference CAPEX of 20.5 MUSD. In the gas business, ENGIE holds a 63% stake in GNL Mejillones, an LNG regasification terminal with a 5,5 Mm^3/day capacity, located in Northern Chile, and 100% in ENGIE Gas Chile and ENGIE Stream Solutions Chile, companies dedicated to the commercialization of natural gas through distribution pipelines and LNG by trucks. Additionally, its subsidiary EECL holds 100% of Gasoducto NorAndino, an approximately 1,000 kilometers pipeline between Argentina and Chile.

In **Mexico**, ENGIE operates eight local distribution companies providing natural gas to nearly 630,000 customers through a 13,880km network, and three gas transmission companies operating around 1,300 km of pipelines. An extension of the Mayakan gas pipeline was completed in August 2020, interconnecting our Mayakan system with the National Pipeline System. This constitutes the first of two phases that will enable the doubling of the capacity of the Mayakan pipeline to deliver cleaner energy to homes and industries in the Yucatan Peninsula.

In **Argentina**, ENGIE holds a 64.2% stake in Litoral Gas, a gas distribution company with more than 740,000 customers, operating 13,350 km of network. It also holds an equity investment of 46.7% in Energy Consulting Services (ECS), a company that sells electricity and gas and provides energy advisory services.

In **Peru,** ENGIE owns a 62% stake in ENGIE Energia Peru, via which it operates more than 900 km of power transmission lines.

In **Colombia**, ENGIE opened a new development office in 2019.

In **Brazil**, in December 2017, ENGIE entered the power transmission business. ENGIE Brazil Energia (EBE) won an auction for the Gralha Azul project, 1,000 km transmission lines and five substations in the southern state of Paraná. In January 2020, ENGIE purchased the Novo Estado projects from Sterlite, the holder of a concession for the construction, operation and maintenance of 1,800 kilometers of transmission lines in the states of Pará and Tocantins, also including the construction of a new substation and upgrades to three existing substations in the two states. The Gralha Azul project will be almost operational by March 2022, and the Novo Estado project by December 2022. In this last one, on July 16, 2021, the fall of a pylon resulted in the fatality of seven employees of the subcontractor, Sigdo Koppers Ingeniería y Construcción (SKIC). As from such terrible event, a working group was immediately constituted to investigate the causes of such accident and to propose the measures to prevent it. An action plan was put in place in order to reinforce ENGIE's safety and quality assurance and control standards.

In natural gas pipeline infrastructures, ENGIE has concluded the acquisition of 100% of TAG assets in 2020. This acquisition took place through the consortium comprising the ENGIE group, holding 65% (through GDFI and ENGIE Brasil Energia – EBE) and the Caisse de Dépôt et Placement du Québec (CDPQ), that holds the remaining 35%. TAG is one of the biggest natural gas transmission companies on the regulated market in Brazil, with a network of pipelines of approximately 4,500 km, representing 47% of the country's total gas infrastructure. TAG has 11 gas compression facilities, 12 gas reception points (including two LNG terminals) and 90 gas delivery points. TAG transports natural gas to 10 gas distributors (LDCs), refineries, fertilizer plants and electric power plants. During 2021, TAG has signed its first contract with a private player (group UNIGEL), aiming to meet the requirements of two fertilizer plants in the States of Bahia and Sergipe with a total volume of 2.3 million m^3 per day. It has also started the mapping of agents interested in accessing its infrastructure in order to plan its future investments. Key projects under development are the connection of the Sergioe LNG terminal, one receiving point in Suape (Pernambuco state), a new delivery point in Itagibá (Bahia state) and a new compression station in Gasene pipeline.

In the **United States**, ENGIE continues to administer the company's remaining LNG asset, Neptune, located off the coast of Boston, Massachusetts. Neptune is requesting a further three-year extension of the suspension of its operating status which currently expires in June 2022. The suspension status benefits ENGIE in two ways: first, it reduces operating costs because certain activities are not required while in suspension; second, it further delays any possible decommissioning cost that might otherwise be incurred.

In **Canada**, ENGIE holds a 40% stake in Intragaz, a company owning and operating two natural gas underground storage sites in depleted reservoirs in the Quebec region, with a 157 million m^3 total capacity. Expansion is under development to increase the withdrawal rate by 25%. The current tariff expires in 2023 and is currently under review, with a decision expected in late 2022.

Regulatory changes

In **Chile**, during 2021 the National Energy Commission published its technical report of the four-year tariff review process for regulated transmission for the period 2020-2023. The results are subject to revision by a Panel of Experts established in the Chilean regulation, whose ruling was published on January 12, 2022. The legal compliance of the decree that will set the new tariffs will be analyzed by the Comptroller General of the Republic in the first half of 2022.

In **Brazil**, after several years of discussion, a new gas law was approved in the Brazilian Congress and signed by President Bolsonaro. It aims to create the conditions for the opening of the gas market, after years of monopoly from giant state-owned oil company Petrobras. Key challenges are the release of few decrees that will regulate the law and harmonization of the legislation between the states and federal government. In the gas chain, the upstream and midstream activities are regulated by a federal agency (ANP), whereas the downstream activities are a state monopoly, being regulated by local agencies.

1.6.2.4 Activities in Europe and the rest of the world

ENGIE operates in the area of gas networks in **Romania** via Distrigaz Sud Retele, a subsidiary 99.99% owned by ENGIE Romania, itself 50.99% owned by the ENGIE group. Distrigaz Sud Retele is the country's main natural gas distributor. It covered the southern half of Romania and operated a distribution network of 21,104 km at the end of 2021, serving nearly two million delivery points.

The Group is also active in natural gas storage in Romania through its subsidiary, Depomures, which is 59% owned. It operates a storage facility of 3 TWh, i.e. 10% of the country's natural gas storage capacity.

In **Germany**, ENGIE has a 31.575% stake in GASAG, the Berlin-based gas distribution company. It also covers the Brandenburg region through its subsidiaries. GASAG markets and sells energy and energy services. This stake is consolidated in ENGIE's financial statements using the equity method.

Outside Europe, the Group keeps an eye on potential gas network projects in areas where this would improve the decarbonization trajectory.

Regulatory changes

In **Romania**, the new amendments to the energy law introduced in 2020 require gas distributors to connect households free of charge on request. They also require the extension of gas networks in all areas of the region where they hold a concession. The related costs are recognized in the distribution tariffs. These measures have resulted in a very sharp increase in connection requests.

1.6.3 Energy Solutions GBU

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues	9,940	8,840	+12.4%
EBITDA	799	738	+8.3%

1.6.3.1 Missions, organization and strategy

After the creation of EQUANS and the disposal of multi-technical activities, the Energy Solutions GBU was established to accelerate development in decentralized energy networks and energy efficiency services.

Decentralized energy networks encompass:

- heating and cooling networks;
- energy production through on-site low-carbon utilities (biomass, thermal solar energy, geothermal energy, fatal heat recovery);
- decentralized solar power;
- low-carbon mobility (electric charging networks, biogas stations, production and distribution of renewable hydrogen (Section 1.6.4.4 "Hydrogen activities"));
- global city decarbonization and low-carbon public lighting offers.

As regards energy efficiency, the main services provided are:

- energy management and management of facilities with the aim of greening supply (green PPAs, own consumption, biomethane);
- the effective operation and maintenance of the production and distribution systems of building heating and cooling facilities;
- the contracting and management of Energy Efficiency Contracts (EECs);
- integrated facility management solutions.

The head of the GBU, apart from being made up of functions enabling management of the global scope (Finance, Human Resources, Legal, Strategy, CSR, Digital, Performance and EHS), directly helps to achieve the development objectives that have been set.

A business platform is thus implemented for each activity carried out in relation to the decentralized energy networks. Its role is to provide cross-cutting support for the various geographical areas in charge of their development, by:

- supporting them through training and the sharing of tools and best practices;
- providing them with expertise and skills on projects in addition to their own resources.

Furthermore, ENGIE Impact is an entity specializing in providing decarbonization advice to major economic players, particularly cities and regions and industrial or service groups. It helps them, in the context of their ambitions in terms of decarbonizing their activity, to define a strategy, the means necessary for its implementation and the tools to monitor its execution. By virtue of this positioning at the heart of the issues of these players, ENGIE Impact, as well as Tractebel, could create opportunities for the activities, not only of the Energy Solutions GBU, but also for the rest of the Group.

1.6.3.2 Activities in France

In France, business is conducted under the ENGIE Solutions brand and is dedicated to the BtoB services. It serves all City, Industry and Services segments.

ENGIE Solutions, the leader in France and the Overseas Territories in low-carbon decentralized energy networks and associated energy services, with a base of 16,000 customers, supports them with the following three objectives:

- reducing their energy consumption by improving the efficiency of buildings and their thermal facilities;
- increasing the use of renewable energy, particularly that available and produced locally;
- achieving an overall improvement in living and working conditions by means of increased integration with their environment, while strengthening their safety, comfort and resilience.

The 15,000 employees are spread out across the whole of France.

Stimulated by the recovery plan, our activities in 2021 included the signing of numerous contracts with both public and private players, including:

- an Energy Efficiency Contract with the ministry of the Armed Forces as part of the renovation of the Mourmelon camp. This includes the building and operation, for a period of 20 years, of a boiler room combining biomass and liquefied natural gas;
- a contract with Michelin to optimize the energy efficiency of the Cataroux site (Clermont-Ferrand). Apart from the management of existing assets, it provides for the building and operation of new facilities, as well as the recovery of previously fatal heat. This will meet the heating requirements of the site, as well as 4,000 homes, through its inclusion in the city heating network (owned and operated by ENGIE). Overall, the expected savings are a 50% reduction in gas consumption and the non-emission of 7,000 tons of CO_2;
- a 15-year contract with INGREDIA to build and operate a new biomass boiler. Through the use of local, renewable energy, this will play a part in the greening of milk processing and valorizing activities in the Hauts-de-France area;
- an 8-year Energy Efficiency Contract was signed with the Vendée Regional Hospital Group (Groupement Hospitalier Territorial or "GHT 85").

At the same time, the roll-out of heating and cooling networks to communities of various sizes continued:

- the Paris district authorities selected the ENGIE group and its partner, the RATP Group, to manage its cooling network. On April 5, 2022, the company Fraîcheur de Paris, jointly owned by the ENGIE (85%) and RATP (15%) groups, will become the district cooling network operator for the Paris district. The 20-year concession will cover the production, storage, transmission and distribution of the city's cooling energy. With provisional revenues of €2.4 billion during the term of the contract, the network will be extended by 158 km by 2042 to serve new customers in all the districts of Paris. This ambitious expansion is part of the Paris district authority's approach of decarbonization and adaptation to climate change, which offers a sustainable, competitive alternative to traditional air conditioning solutions;
- ENGIE will build and operate a new heating network in Châlons-en-Champagne until 2041. This new network will enable users that wish to do this to sign up for a 100% decarbonized and local energy offering. More than 70% fueled by energy recovered from the city's household waste, it will provide the equivalent of 10,000 households and the Luzeal plant (which until now has used fossil energy sources) with heat from renewable energy.

In November 2021, ENGIE's electricity distribution business in the Overseas Territories saw the renewal of the Nouméa concession, for another 15 years, representing revenues of €1.5 billion.

In the area of mobility, ENGIE and CERTAS Energy France entered into an investment partnership to build and operate a network of electric vehicle super-chargers at CERTAS highway service stations (operated under the ESSO brand) in France. ENGIE is thus supporting a key player in the highway network, which operates 460 service stations, in its energy transition. ENGIE is also one of the leading players in France in the development of regional hydrogen ecosystems for mobility and industrial uses.

In the context of the greater use of renewable energies by its customers, ENGIE Solutions has enhanced its green electricity offerings for them. Offerings more adapted for businesses and local authorities have been made available to them, benefiting from ENGIE's portfolio of local production assets, for example the Pyrenean hydro dams operated by SHEM (a subsidiary of ENGIE). They supplement the offerings of corporate PPAs.

In 2021, the GBU also continued its efforts in terms of operational performance. The roll-out of Predity was completed. Predity is a digital platform for the management of connected energy performance, for augmented performance. The team of experts uses data from 25,000 connected sensors, fed back in real time, 24 hours a day, 7 days a week and consolidated within a secure information system in order to easily target, view and monitor all facilities.

1.6.3.3 Tractebel

Tractebel is known as an engineering company of prime standing in the areas of energy, water and urban networks. It supports its customers, both public and private, in their transition to carbon neutrality.

Tractebel, which has 5,000 employees, is active in 30 main countries.

In the energy sector, Tractebel provides its expertise and know-how to customers inside and outside the ENGIE Group. covering the design, planning, development and supervision of construction of projects. In 2021, Tractebel was involved, inter alia, in the following projects:

- New power plants in Belgium for ENGIE;
- Wind farms in Africa and Asia, and in the Gulf of Suez (Egypt) for ENGIE, Ras Ghareb (Egypt) and Hong Phong 4 (Vietnam) for third parties;
- Offshore solar farms, such as Cirata (Indonesia), and onshore solar farms;
- Offshore and onshore hydrogen production projects such as RHyno (South Africa), HyNetherlands (Netherlands) and Yuri (Australia).

Tractebel is also in charge of design, project management and construction management for a project to strengthen one of the North-South corridors of the German electricity grid.

Tractebel continues to provide its expertise and know-how in the area of nuclear power to major operators. Tractebel also provides its services to players such as EDF in France, ESKOM in South Africa and NEK in Slovenia, as well as ENGIE in Belgium. Tractebel is also involved in the development of the ANGRA 3 construction project in Brazil, as well as new reactors at the Hinkley Point and Sizewell sites in the UK. It also takes part in major projects in the areas of research reactors (PALLAS), defense and nuclear waste management infrastructures and small modular reactors (SMRs).

In the water sector, Tractebel is engaged in dams and hydropower projects of all sizes, water irrigation, supply, purification and distribution, and sea or river and coastal protection infrastructures related to climate change. Tractebel is carrying out studies for the Pumping Energy Transfer Station (PETS) of Snowy 2.0 (Australia) and to increase the capacity of Coo (Belgium). It is also involved in purification projects such as UHarakhand (India).

In the urban networks sector, Tractebel helps to engineer buildings, land transportation networks and cities, with the aim of accelerating the development of integrated offerings and decarbonizing districts and regions.

Using building information modeling (BIM) and complex modeling and simulation tools, Tractebel is taking part in various public transport and mobility infrastructure projects in Belgium, Germany, India and Chile and in the Grand Paris Express project (France). The teams are the leading designers of low-energy buildings in Belgium, and this year won an award at the MIPIM (*Marché International des Professionnels de l'Immobilier*), the international real estate event, for the design of Liège Hospital (Belgium). Lastly, the teams are involved as experts in the development of the low-carbon strategy of Springfield City Group and Monash University (Australia).

1.6.3.4 International activities

1.6.3.4.1 Europe (excl. France)

Italy

ENGIE provides, with its market leader positioning, energy efficiency and on-site utilities solutions to businesses and public customers. It is one of the biggest players in public lighting, with more than 550,000 lighting points under management, and also continued to strengthen its positioning in heating and cooling networks in northern Italy in 2021, with the acquisition of the heating network of the city of Verzuolo in Piedmont. This network, which is entirely fueled by biomass from industrial waste, serves more than 50 public and private buildings.

Germany

ENGIE is a major player in the market of on-site utilities through long-term contracts with industrial or services customers. It actively participates in the design, operation and maintenance of energy efficiency solutions and has specific expertise, particularly in refrigeration. Lastly, for several decades, the GBU has held stakes in a number of *Stadtwerke* – i.e. local energy production and distribution companies – making ENGIE a player with regional roots in Germany.

In particular, Energie SaarLorLux, a joint venture with the city of Saarbrücken, is progressively phasing out coal in Saarbrücken, replacing the old coal-fired power plants with a new gas-fired heat and electricity cogeneration plant, which will be commissioned in 2022.

Lastly, ENGIE and GASAG have won a large-scale contract to supply a decentralized energy network and mobility, digitization and service solutions to residents within the context of a new low-carbon intelligent district, "Das Neue Gartenfeld", in Berlin, which will have 10,000 inhabitants by 2029.

Spain

ENGIE is active in design and maintenance services, the provision of energy efficiency solutions and on-site utilities. It is a key player in cities via several district heating and cooling networks, particularly in Barcelona.

Portugal

ENGIE distributes heating and cooling to the city of Lisbon through its Climaespaço subsidiary and provides O&M services and energy efficiency solutions.

Slovakia and Poland

ENGIE is a major player in district heating networks. It also supplies design, operation and maintenance services in these two countries, as well as in Romania.

1.6.3.4.2 United States

United States

ENGIE is involved in energy efficiency solutions, particularly for the public sector – local governments, schools and hospitals – and has been developing major partnerships for several years, particularly for universities. In April 2021, ENGIE and the University of Georgetown announced a 50-year partnership making ENGIE responsible for managing energy and technical infrastructures. ENGIE is also active in decentralized solar solutions as well as in industrial cogeneration under long-term contracts.

Brazil

ENGIE is also active in the development and implementation of integrated solutions focused on reducing costs and improving infrastructure for businesses and cities. Its main activities are energy efficiency, energy management and public lighting.

1.6.3.4.3 Asia, Middle East and Africa

Gulf states

ENGIE holds a 40% stake in Tabreed (National Central Cooling Company PJSC), the leader in urban cooling networks in Gulf Cooperation Council (GCC) countries. The company distributes the equivalent of a million tons of cold energy. Tabreed has had several commercial successes since 2020 with the acquisition of the cooling networks of Downtown Dubai and the cooling plants of Masdar (United Arab Emirates).

The GBU also provides energy operation and maintenance services to industrial groups and major services customers in the region.

South East Asia

The GBU has strong capacity in technical maintenance, energy efficiency and district cooling systems, to provide turnkey low-carbon offerings. In 2021, ENGIE entered into a partnership with LOGOS to accelerate the development and financing of renewable energy solutions and production for the portfolio of assets and customers of LOGOS, with a particular focus on solar PV in Singapore and Australia. The GBU also entered into an agreement in 2021 with Jurong Town Corporation (JTC) to build and operate a digital integrated district cooling network in the digital quarter of Punggol in Singapore, enabling ENGIE to pursue its work for energy efficiency in the region.

1.6.4 Thermal & Supply GBU

1.6.4.1 Missions, organization and strategy

The Thermal & Supply GBU encompasses the following activities:

- Thermal production (electricity production from gas and coal and biomass, energy pumped storage and battery storage, seawater desalination);
- BtoC energy supply (sales of electricity and gas, energy services, energy access);
- Large-scale renewable hydrogen production. The GBU is also responsible for coordinating all hydrogen activities within the Group.

These three activities share the same challenge – but also the same opportunity – related to the reduction of CO_2 emissions.

The GBU contributes to the Group's development and to preparation for the future by generating nearly a third of its EBITDA. It brings industrial expertise and digital know-how. Besides balancing the Group's financial exposure, the activities of the Thermal & Supply GBU compensate for the intermittent nature of renewable energy by contributing upstream flexibility (flexible thermal production and energy storage) and downstream flexibility (load shedding of consumption of BtoC customers). They also provide solutions for decarbonizing industry with renewable hydrogen. The GBU therefore plays a key role in the energy transition.

1.6.4.2 Thermal activities

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues	4,089	3,281	+24.6%
EBITDA	1,628	1,708	-4.7%

1.6.4.2.1 Europe

The market in Europe is accelerating its transition to less carbon-intensive energy generation. The European energy market, guided by European and national regulatory changes, is experiencing a major program of shutting down coal-fired production sources, coupled with the phasing out of nuclear power in Germany and Belgium. In this context, natural gas power plants now have a key role to play by offering the necessary flexibility in the energy markets, alongside emerging solutions such as batteries. Governments (Belgium, Italy, France and UK) are introducing various remuneration mechanisms for power generators (reserve capacity mechanisms, strategic reserves, etc.). These mechanisms allow existing capacity to remain operational.

In Europe, ENGIE manages a portfolio of thermal generation assets with installed capacity of 19.4 GW in seven European countries (France, Belgium, the Netherlands, Italy, the UK, Portugal and Spain), including its own power plants and decentralized customers' assets. Installed capacity broken down by technology is as follows: gas (14.6 GW), hydro pumped storage (3.3 GW), biomass & other (1.5 GW). As part of the Group's geographical refocusing, ENGIE has sold its thermal activities in Greece.

In addition, in Europe, ENGIE offers energy supply, operation and/or maintenance solutions to large industrial sites. It relies on proximity to its customers and its strong references to help them face the challenges of the energy transition.

Regulatory changes

Following the promulgation of the European Green Deal, the European Commission proposed the accelerated reduction of CO_2 emissions between now and 2030. Various European countries have started to phase out electricity production from coal. These marked trends have resulted in an acceleration of the study of solutions for decarbonizing their assets, while mechanisms for the remuneration of electricity capacity are also emerging to ensure security of supply.

1.6.4.2.2 The Americas

In North America, ENGIE owns and operates the West Windsor 128MW combined cycle natural gas power plant in Ontario, Canada. West Windsor is entirely under contract with the Ontario Independent Electricity System Operator. In addition, ENGIE holds a stake of 35% in EcoElectrica, a 548 MW natural gas combined cycle power plant in Puerto Rico, which includes an LNG storage tank of 160,000 cubic meters and unloading facilities. EcoElectrica serves the island under a long-term agreement with PREPA (Puerto Rico Electric Power Authority).

ENGIE Brasil Energia (EBE), a subsidiary of the Group, operates a 361.2 MW coal-fired power plant at Pampa Sul. The 773 MW Jorge Lacerda coal-fired power plant was sold in October 2021.

In **Peru**, ENGIE, via ENGIE Energía Perú, operates ChilcaUno and ChilcaDos, two natural gas combined cycle power plants located near the capital, Lima, and the open cycle power plants, Peaky and Nodo Energetico (natural gas/diesel), both located in the city of Ilo in southern Peru. These plants represent 2,073 MW in total. ENGIE also operates the Ilo21 coal-fired power plant, which will be decommissioned in 2022 as part of ENGIE's decarbonization strategy in Peru.

In **Chile**, ENGIE, via ENGIE Energía Chile, has a large thermal network in the north of the country. In Tocopilla, the Group operates two coal-fired power plants of 268 MW, which will be withdrawn from service in 2022, and a natural gas combined cycle plant of 399 MW. In Mejillones, it owns a natural gas combined cycle plant of 246 MW, two coal-fired power plants of 340 MW, which will be withdrawn from service in 2024, a coal-fired power plant of 350 MW, which will be converted to natural gas in 2025, and two fluidized bed coal-fired power plants, which will be converted to biomass in 2025. In addition to these generation assets, a 1,091 km gas pipeline is operated to supply gas to the power plants and to import Argentine gas when this is available. Lastly, 55 MW of gas turbines and diesel engines are part of EECL's generation fleet. Two ports historically designed to import coal from thermal power plants present an opportunity for conversion for import or export activity (of copper ore, for example).

In **Mexico**, ENGIE Mexico operates two gas-fired cogeneration plants with a combined capacity of nearly 300 MW.

1.6.4.2.3 Africa, Middle East and Asia

In Singapore, ENGIE holds a 30% stake in Senoko Energy, operating a portfolio of power generation assets with a combined capacity of 2,592 MW. Senoko is present in the B2B electricity retail market and is also the B2C retail market which has been fully open since May 1, 2019.

In the GCC Countries, ENGIE acts as an asset developer, owner and operator. ENGIE sells the electricity and water it produces under long-term public power and water contracts. ENGIE is one of the leading private power and water developers and operators in the region. The total power generation capacity of 31 GW serves more than 40 million people. The desalination facilities in operation or under construction produce nearly 7 million m^3 of water/day. In 2021, ENGIE won the Jubail 3B contract in Saudi Arabia with capacity of 110,000 m^3 of water/day.

In Pakistan, ENGIE owns 100% of two combined cycle gas turbine (CCGT) plants with total capacity of 932 MW. The electricity produced is sold under long-term PPAs to the distribution companies.

In Turkey, ENGIE held a majority stake in the Baymina CCGT plant, with total production capacity of 763 MW. The plant was sold in 2021.

In Africa, ENGIE holds a minority stake in South Africa in two open cycle diesel plants with total capacity of 1,005 MW and a minority stake in Morocco in the coal-fired power plant of Safi with total production capacity of 1,386 MW.

In Australia, ENGIE has several minority stakes in gas power plants with a total capacity of 1,000 MW.

1.6.4.3 Supply activities

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues	13,237	10,792	+22.7%
EBITDA	445	433	+2.6%

The Energy Supply business is concentrated in France, Belgium, Italy, Romania and Australia. ENGIE targets both individual customers and small business customers. The business is based on the provision of energy contracts (gas and electricity) and the sale of decarbonization services.

In all the markets where ENGIE operates, the aim is to become a leading provider of energy and energy transition solutions.

To achieve this, the priorities are to market:

- **green energy contracts** with digital solutions for budget-based or comfort-based consumption management;
- **green comfort services**: installation, maintenance and surveillance of high-performance thermal equipment (heat pumps, very high performance boilers, hot water tanks, wood-fired boilers);
- **clean mobility services**: installation of charging points, charging solutions, electric vehicles leasing, etc.;
- **energy decentralization services** (solar roof equipment, management of fixed or on-board batteries and modulation of the electrical power demanded);
- **balancing and capacity services to electricity system players** through virtual plants that aggregate the flexibilities of residential customers.

In 2021, ENGIE had 19 million power contracts and 2.9 million service contracts. In France, ENGIE is still the leader in gas sales and the main challenger in electricity sales. In Belgium, the Group is the leader in both gas and electricity and, in Romania, is the leading gas supplier. On the decarbonization services market, the Group implements numerous solutions that have made it a reference player and contribute to its growth.

Sales of green electricity contracts continued at a sustained pace and at the end of 2021 more than 60% of electricity contracts managed by ENGIE were green. Decarbonization services are also progressing at a good pace with major successes achieved: +100% installation of charging points in Belgium, +100% sales of solar roofs in France and +100% flexibility managed in Australia.

In 2021, ENGIE also continued to innovate in favor of the energy transition and launched new offerings allowing its customers to consume less and more responsibly: "*Mon pilotage gaz*" ("My Gas Management") (France), which enables consumption to be managed according to budget instructions, "Mon pilotage élec" (My Electricity Management") (France) which enables consumption to be managed based on temperature instructions, a storage management offering to optimize own consumption of solar power (Belgium), electric vehicle roaming (Belgium, France), installation of solar panels (Italy, Romania), behavior-centered load shedding (Australia), etc.

Regulatory changes

In France, ENGIE supplies 2.8 million BtoC customers with gas at regulated tariffs. To keep tariffs affordable in the current commodity price context, the French government has decided to implement a freeze on regulated tariffs from November 1, 2021 until June 30, 2022. The 2022 Finance bill establishes that the State should cover losses of income arising from the Regulated Gas Tariff (TRV) as public service costs.

ENGIE Energy Access

ENGIE Energy Access develops innovative off-grid solar solutions for homes, public services and businesses, providing customers with access to clean, affordable energy. Solar home systems and mini-grids promote economic development, enabling productive use of electricity and creating business opportunities for entrepreneurs in rural communities.

ENGIE Energy Access is Africa's leading off-grid company with a presence in nine countries (Benin, Ivory Coast, Kenya, Mozambique, Nigeria, Uganda, Rwanda, Tanzania and Zambia), over 1.3 million customers and over 6.5 million people impacted.

1.6.4.4 Hydrogen activities

1.6.4.4.1 Missions & Strategy

Hydrogen is a key energy vector in the transition, in which ENGIE aims to develop strong positions throughout the entire value chain of hydrogen production, networks, mobility and trading:

In **Europe**, the Group benefits from its portfolio of industrial and local authority customers (Energy Solutions GBU) as well as significant renewable energy production capacity and the commercial know-how of GEMS.

In **France**, the Group is expanding around existing transportation (GRTgaz) and storage (Storengy) infrastructures that are a central part of the future European hydrogen backbone.

Internationally, its development is focused on countries with low-cost renewables where the Group is strongly positioned.

1.6.4.4.2 Description of activities

The Thermal & Supply GBU coordinates all of the Group's hydrogen activities, which are developed in the various GBU according to their relevant expertise.

Large-scale production of renewable hydrogen: ENGIE has a comprehensive and phased approach, developing large-scale projects with its industrial customers in the most favorable geographical areas. The Group designs models for replicable offers for targeted segments. A certain number of large-scale projects are under development with key players, such as Yara in Australia and Enaex in Chile, Gasunie in the Netherlands and TotalEnergies in France. Most of these projects may, in the longer term, lead to the implementation of large-scale projects (GW scale).

in Europe, ENGIE targets industries that are otherwise hard to decarbonize. In fact, electrification is not possible or financially viable for some industrial activities, for which the hydrogen vector is a solution.

Internationally, ENGIE focuses on areas with low-cost renewables, such as the United States, Australia, Chile and Brazil. The mining industries also form favorable ecosystems in which renewable hydrogen will be competitive in the shorter term for use in heavy industrial mobility.

In 2021, ENGIE also entered into a strategic alliance with Masdar, a major renewable energy player in the Gulf states, for the joint development of a green hydrogen hub based in the United Arab Emirates. The two companies intend to implement projects with capacity of at least 2 GW by 2030, with a total investment in the order of $5 billion. They are aiming initially for local supply, before developing export capacities.

ENGIE has set a target of 0.6 GW of electrolysis capacity in 2025 and 4 GW in 2030.

Mobility: ENGIE, through the Energy Solutions GBU, is one of the leading players in France in the development of regional hydrogen ecosystems for mobility and industrial uses. It finances, designs and operates decentralized systems for the production of hydrogen by electrolysis and charging points for public and private transport operators. It aims to have 50 hydrogen charging points in place in 2025, and more than 100 in 2030. (Section 1.6.3.2).

Networks: The adaptation and conversion of its hydrogen development infrastructures is a priority for the Group. GRTgaz is heavily involved in the development of a European hydrogen backbone with the first concrete projects, such as the MosaHYc project. Storengy is developing an underground hydrogen storage service, seeking to combine a production and storage site to enable a reliable and flexible supply of hydrogen (HyPSTER and HyGreen projects). The Group aims to have a hydrogen transmission network of 170 km in 2025 and 700 km in 2030, and to have 270 GWh of storage in 2025 and 1 TWh in 2030 (Section 1.6.2.2.2 "GRTgaz" and Section 1.6.2.2.4 "Storengy").

Hydrogen trading: GEMS aims to develop a leadership position on the wholesale hydrogen market, developing a portfolio of diversified supply, sale with services adapted to the requirements of each customer, and electricity and gas supply to hydrogen production sites.

In terms of innovation, ENGIE supports investment in the development of hydrogen technologies. A partnership has been signed with Ariane Group in the area of renewable hydrogen liquefaction, for the decarbonization of heavy and long-distance transport. The Group has also developed a proprietary technology to identify areas of high production of natural, low-carbon and competitive hydrogen, which Storengy aims to mine through boreholes.

Regulatory changes

As part of its carbon-neutral trajectory, the European Union intends to develop the production of low-carbon hydrogen on a huge scale with an ambitious target of 40 GW of electrolysis capacity in Europe by 2030. Binding targets for consumption and limitation of greenhouse gas emissions have been set in the industry as part of the European Fit for 55 package. These are positive changes that demonstrate a political will, but have yet to be implemented in practice. ENGIE is working to reduce the restrictions imposed and to effect regulatory changes.

1.6.5 Nuclear

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues[(1)]	56	39	+43.6%
EBITDA	1,413	415	+240.5%

1.6.5.1 Missions & Strategy

The Nuclear operating entity is dedicated to the operational management of the seven nuclear reactors in Belgium and the rights held by EDF's two power plants in France.

The operating entity is structured around the following priorities:

- to ensure the optimum availability of nuclear power plants during their operational phase, thus contributing to the generation of carbon-free power; and
- to prepare for the shutdown and decommissioning of the first reactor in 2022 in both technical and organizational terms.

Nuclear safety is a key part of these priorities. The current nuclear safety system is being continuously strengthened, in close collaboration with the nuclear safety authorities.

1.6.5.2 Description of activities

The entity has sites in Doel, Tihange and Brussels in Belgium. The Group operates, in compliance with the strictest nuclear safety standards, the Doel and the Tihange nuclear power plants. These plants represent a total installed capacity of 5,943 MWe (including 897 MWe in partnership with the EDF Group). The Group also has 1,118 MWe of rights in the Tricastin and Chooz B power plants in France.

The legal framework in place provides for the operation of nuclear power plants in Belgium until 2025, defining, amongst other things, the economic parameters governing the lifetime extension of Tihange 1, Doel 1 and Doel 2 until 2025 and the mechanism to calculate the nuclear contribution to be paid by Electrabel.

The Group assumes obligations resulting from the April 11, 2003 Belgian Law relating to the management of spent nuclear fuel and the decommissioning of nuclear power plants. Following the three-year review of nuclear provisions carried out in 2019 under the authority of the Commission for Nuclear Provisions, the technical scenarios for downstream management of the nuclear fuel cycle were revised.

The discount rates of nuclear provisions stand at 3.25% for provisions for the downstream nuclear fuel cycle, and 2.50% for provisions for dismantling nuclear power plants, with inflation unchanged at 2%. Nuclear provisions stand at €15.1 billion. The next review is scheduled for 2022.

Regulatory changes

In its government agreement dated September 30, 2020, the Belgian federal government confirms its complete and final withdrawal from nuclear electricity production by 2025, as already provided for by law, subject to the conclusions of a report on security of supply. This report was submitted to the government on December 3, 2021. In the margins of the Council of ministers meeting on December 23, 2021, the government estimated that the capacities contracted under the capacity remuneration mechanism should make it possible to meet the country's needs by 2025 if they obtain all their permits. It was, however, given the option to reconsider its position on extending the 2 GW nuclear capacity in March 2022, if necessary. Implementing this type of extension between now and 2025 is impossible under current regulations.

In December, the minister for Energy presented the outline of the envisaged reform of the legal framework of nuclear provisions adopted by the Council of ministers on December 23, 2021, and to be discussed in parliament in 2022. The reform provides in particular for the full financing of nuclear provisions by 2030 and a strengthening of the control of the Commission for Nuclear Provisions on certain decisions relating to the capital of Electrabel and to Synatom. The new nuclear provisions law could be passed by mid-2022.

(1) Revenues after the elimination of intra-group transactions of €1,705 million on December 31, 2021 (€1,129 million at December 31, 2020)

1.6.6 Other - including Global Energy Management & Sales (GEMS)

Key figures

In millions of euros	At Dec. 31, 2021	At Dec. 31, 2020	Total change *(in %)*
Revenues	20,183	11,664	+73.0%
EBITDA	457	189	+141.8%

The "Other" reportable segment covers activities related to energy management, optimization and BtoB supply (Global Energy Management & Sales (GEMS)), GTT, as well as of corporates and holdings. The major share of results for the "Other" segment is attributable to GEMS.

1.6.6.1 Missions and Strategy of GEMS

With offices in 15 countries and eight main trading platforms, the Global Energy Management & Sales (GEMS) entity operates around the world to provide energy & energy management solutions to support ENGIE and its clients in their transition toward a carbon neutral economy. GEMS's mission is twofold:

- optimize the value of the Group's power, gas and renewable assets, manage the portfolio risks on behalf of the Group through markets and contribute to the competitiveness of the Group's Global Business Units;
- ensure a secure and sustainable energy future for more than 120,000 external clients in more than 50 countries by developing innovative and competitive commercial activities.

In addition to its leading position in the European wholesale natural gas and electricity markets, GEMS aims at developing the same leadership position in renewable and low-carbon gases (biomethane, hydrogen). More broadly, the entity pursues its plan to expand its green energy management portfolio, which includes renewable power, low-carbon and green gases, sustainable biomass, guarantees of origin and green certificates. In this respect, GEMS develops the management of long-term renewable power purchase agreements "Green PPAs."

GEMS's strategy to develop its green portfolio is strengthened by cultural change initiatives and specific training programs, and by taking into account social, environmental and carbon emissions criteria in decision-making processes.

1.6.6.2 Activities of GEMS

GEMS activities are divided into four main areas of expertise.

Energy supply: GEMS delivers natural, green and low-carbon gas (biomethane, hydrogen), power, renewable power purchase agreements, LNG and biomass to business clients and major industrial clients, as well as to ENGIE's other sales entities.

Asset management & flexibilities services: with regard to power asset management, GEMS dispatches and optimizes ENGIE's power generation assets as well as third party assets. Concerning gas asset management, GEMS manages the gas upstream supply, transportation and storage capacity portfolio, and valorizes and optimizes gas asset flexibility through the markets.

Risk management & market access: GEMS manages the risks of the physical & financial energy portfolio with bespoke hedging strategies, competitive market access & first-class market expertise.

Green & low-carbon solutions: GEMS offers customized solutions to help clients achieve their Environmental, Social and Governance (ESG) goals (guarantees of origin, energy tracing, offsets, energy efficiency) through market leadership and innovation. The entity also develops the following activities: purchase and sale of biomethane, renewable and low-carbon hydrogen to develop a diversified supply portfolio and services adapted to each customer; power and gas supply for hydrogen production facilities, as well as their optimization.

In 2021 ENGIE secured contracts and launched partnerships including:

- ENGIE and Google signed a 24/7 carbon-free energy supply agreement in Germany, a major milestone in the companies' existing collaboration. The 3-year agreement will contribute to Google's 2030 Carbon-Free Energy (CFE) target for its data centers, cloud regions and offices worldwide. The innovative solution was made possible thanks to GEMS's global energy management activities;
- ENGIE kickstarted the optimization of Movhera's six hydroelectric power plants in Portugal totaling 1.7 GW capacity, with the first economic dispatching instructions sent to the plants. GEMS provides the optimization services, which include weather and market analyses, day-ahead and intraday market bidding, nomination to the TSO, real-time dispatching and ancillary services;
- ENGIE has signed a supply agreement with RATP to fuel NGV buses with biomethane produced in the Île-de-France region;
- ENGIE and Equinor signed a memorandum of understanding to study the potential for the production and commercialization of low-carbon hydrogen, produced from natural gas with offshore carbon capture and storage.

Regulatory changes

The European Commission issued on July 14 its "fit for 55" climate package, a set of pieces of legislation aiming at materializing the carbon reduction target of -55% by 2030, as interim milestone of the net-zero 2050 target set by the EU Green Deal. The main impacting elements for GEMS are the upgrade of the Renewable Energy Directive issued in 2018 strengthening the role for Guarantees of Origin, the expansion of the Emission Trading Scheme to building and transport sectors and the introduction of a Carbon Border Adjustment mechanism including electricity imports. The case of natural gas imports will be handled through the EU Methane Emission Strategy, while upgrade of the gas market design and framing of the hydrogen market will be drawn in the forthcoming "Decarbonization package." Following the soaring prices observed at global level in energy commodities, the European Commission set out on October 13 its "toolbox," consisting of a set of short and mid-term measures to limit the impact of rising prices to European end-users' invoices.

1.6.7 Discontinued operations - EQUANS

As part of its strategy of simplifying and refocusing on its traditional industrial businesses, ENGIE has grouped its multi-technical services into a new, separate entity: EQUANS, which has been in place since July 1, 2021. This entity is a world leader in multi-technical services.

EQUANS aims to help companies, industries and cities to implement their energy, industrial (automation, digitization, etc.) and digital (data exploitation, IoT, AI, etc.) transition. It integrates cutting-edge solutions and services as closely as possible to the performance needs of its customers.

Thus, EQUANS designs, installs and operates tailored solutions in order to improve the equipment and technical processes of its customers and to optimize their uses. EQUANS supports manufacturers, service sector companies, cities and infrastructures (including energy and transport systems) to make these three transitions possible.

EQUANS offers a unique combination of expertise: electrical engineering, climate engineering, refrigeration and fire safety, mechanical engineering, digital solutions, facility management, in order to provide solutions and services to its customers:

- proximity services: EQUANS targets markets for which proximity and network density are important (in particular for buildings and offices in private and public areas, industrial buildings, collective housing and cities and regions);
- specialized processes and services: EQUANS provides excellent know-how in highly specialized fields where expertise is a key differentiator, such as public transport, energy infrastructure and certain specialized industries (such as nuclear, defense or marine) or critical industrial processes.

On November 6, 2021, ENGIE entered into exclusive negotiations with the Bouygues Group for the sale of 100% of EQUANS at the end of a rigorous and competitive process. Bouygues has made a firm offer of €7.1 billion. The sale is expected to be finalized in the second half of 2022, when the process of informing and consulting ENGIE's employee representatives has been successfully completed and subject to authorization by the regulatory authorities and the lifting of the usual conditions precedent.

1.7 Real estate, plant and equipment

The Group owns or leases a significant amount of industrial real estate around the world. Many Group activities involve operating very large plants that the Group only partially owns.

As of December 31, 2021, the Group operated electricity power plants, natural gas terminals and storage facilities in over 40 countries.

The tables below show the main facilities currently in operation, either wholly or partially owned by the Group. Leased properties are discussed in Section 6.2.2 "Notes to the consolidated financial statements."

Power plants (capacity > 400 MW excluding units under construction)

Country	Site/plant	Total capacity [1] *(in MW)*	Type of plant
South Africa	Avon	669	Fuel-oil fired
Saudi Arabia	Fadhili	1,501	Natural gas
	Marafiq	2,744	Natural gas
	Ju'aymah	469	Natural gas
	Shedgum	468	Natural gas
	Uthmaniyah	468	Natural gas
	Riyadh PP11	1,729	Natural gas
Australia	Pelican Point	489	Natural gas
Bahrain	Al Dur	1,224	Natural gas
	Al Ezzel	940	Natural gas
	Al Hidd	929	Natural gas
Belgium	Amercœur	451	Natural gas
	Coo	1,080	Hydraulic pumping
	Doel	2,934	Nuclear
	Drogenbos	460	Natural gas
	Herdersbrug	423	Natural gas
	Tihange	3,008	Nuclear
Brazil	Cana Brava	439	Hydroelectric
	Estreito	1,068	Hydroelectric
	Jaguara	413	Hydroelectric
	Jirau	3,750	Hydroelectric
	Miranda	404	Hydroelectric
	Ita	1,442	Hydroelectric
	Campo Largo	688	Wind
	Machadinho	1,135	Hydroelectric
	Salto Osòrio	1,072	Hydroelectric
	Salto Santiago	1,415	Hydroelectric
Chile	Mejillones	1,212	Coal-fired and natural gas
	Tocopilla	676	Natural gas, coal- and fuel oil-fired
United Arab Emirates	Fujairah F2	2,000	Natural gas
	Mirfa	1,600	Natural gas
	Shuweihat 1	1,500	Natural gas
	Shuweihat 2	1,496	Natural gas
	Taweelah	1,590	Natural gas
	Umm Al Nar	1,532	Natural gas
Spain	Cartagena	1,199	Natural gas
	Castelnou	791	Natural gas
France	CombiGolfe	435	Natural gas
	CyCoFos	490	Natural gas and steelworks gas fired plant
	DK6 (Dunkirk)	788	Natural gas and steelworks gas fired plant
	Génissiat	423	Hydroelectric
	Montoir-de-Bretagne	435	Natural gas

Country	Site/plant	Total capacity (1) *(in MW)*	Type of plant
Italy	Torre Valdaliga	1,118	Natural gas
	Vado Ligure	782	Natural gas
	Voghera	404	Natural gas
Kuwait	AzZour North	1,520	Natural gas
Morocco	Safi	1,250	Coal
Oman	Barka 2	674	Natural gas
	Barka 3	737	Natural gas
	Sohar	585	Natural gas
	Sohar 2	737	Natural gas
Pakistan	Uch 1	551	Natural gas
Netherlands	Eems	1,925	Natural gas
	Flevo	861	Natural gas
Peru	Chilca	917	Natural gas
	ILO Nodo	600	Fuel-oil fired
	ILO 31	564	Fuel-oil fired
Puerto Rico	Ecoelectrica	530	Natural gas
Portugal	Bemposta I&II	438	Hydroelectric
	Elecgas	839	Natural gas
	Picote I&II	433	Hydroelectric
	Turbogas	990	Natural gas
Qatar	Ras Laffan B	1,025	Natural gas
	Ras Laffan C	2,730	Natural gas
United Kingdom	First Hydro	2,088	Hydraulic pumping
Singapore	Senoko	2,564	Natural gas and fuel oil

(1) Capacity of assets in which ENGIE holds a stake, all of which are taken into account irrespective of the real ownership percentage

Underground natural gas storage (> 550 Mm^3 of total useful storage volume (1))

Country	Location	Total useful storage *(Mm^3)* volume (1)
France	Gournay-sur-Aronde (Oise)	1,310
France	Germigny-sous-Coulombs (Seine-et-Marne)	820
France	Saint-Illiers-la-Ville (Yvelines)	680
France	Chémery (Loir-et-Cher)	3,600
France	Céré-la-Ronde (Indre-et-Loire)	570
France	Étrez (Ain)	690
France	Cerville (Meurthe-et-Moselle)	650
Germany	Uelsen	840

(1) Useful storage volume held by ENGIE, all of which is taken into account irrespective of the real ownership percentage

LNG terminals

Country	Location	Total regasification capacity *(Gm^3(n)/per annum)*(1)
France	Montoir-de-Bretagne	10
France	Tonkin (Fos-sur-Mer)	3
France	Cavaou (Fos-sur-Mer)	8.25
Chile	Mejillones	2.0
Puerto Rico	Penuelas	2.7

(1) Capacity of assets held by ENGIE, all of which are taken into account irrespective of the real ownership percentage

2

Risk factors and control

The material, specific risks to which the Group is exposed, based on its own assessment, are described below. They are divided into seven categories of risks:

- political and regulatory risks;
- risks deriving from climate and environmental issues;
- economic and competitive risks;
- financial risks;
- industrial risks;
- other operational risks;
- social and societal risks.

The risks presented have been assessed and prioritized on the basis of "net risk", taking into account the means of management established.

The summary table below covers the most important risks in each category, classified in decreasing order of criticality.

Risks	Criticality	Section	Risk trends
Political and regulatory risks			
Risk of change in the regulatory framework and of the amount of provisions set aside for the decommissioning of Belgian nuclear power plants and the management of spent fuel		2.2.1.1	stable
Risk of a downward trend in the return on gas distribution, transmission, storage and regasification assets in France		2.2.1.2	upward
Risk of State intervention to protect end-consumers from the surge in energy prices		2.2.1.3	new
Risk of a posteriori invalidation of the law authorizing the extension of the operating life of the Doel 1, Doel 2 and Tihange 1 nuclear units in Belgium		2.2.1.4	stable
Risk of changes in regulations in Brazil in various business sectors (electricity production and sales, transportation of gas), including changes in taxes		2.2.1.5	stable
Country risk (changes in regulation, sovereign default, convertibility, expropriation, acts of war or terrorism, etc.)		2.2.1.6	upward
Risk associated with renewal of hydraulic concessions in France		2.2.1.7	downward
Risk of disagreement with the Australian regulator over the conditions for rehabilitating the Hazelwood coal mine		2.2.1.8	stable
Risks deriving from climate and environmental issues			
Position of gas in the French energy mix		2.2.2.1	stable
Risk of climate change affecting energy demand and generation		2.2.2.2	stable
Economic and competitive risks			
Increased competition risk in energy sales and services, with an effect on margins		2.2.3.1	stable
Risk of decrease in revenues from power plants in the Gulf when long-term contracts expire		2.2.3.2	stable
Financial risks			
Commodities market risk		2.2.4.1	stable
Foreign exchange risk (translational, transactional, conversion)		2.2.4.2	stable
Tax risk (instability of the standard (e.g. reform projects initiated by the OECD/EU), tax insecurity (e.g. transfer pricing, etc.)		2.2.4.3	stable
Pension funding risk		2.2.4.4	stable
Counterparty risk		2.2.4.5	stable
Risk on the return on the amount of provisions invested by Synatom towards nuclear decommissioning and the management of spent fuel.		2.2.4.6	stable
Industrial risks			
Risk of industrial accident		2.2.5.1	stable
Risk of increase in the cost of processing and storage of various categories of radioactive waste in accordance with the technical requirements of ONDRAF		2.2.5.2	stable
Risk of unavailability of one or more nuclear units for technical, security or nuclear safety reasons		2.2.5.3	stable
Nuclear safety and security		2.2.5.4	stable

Risks	Criticality	Section	Risk trends
Other operational risks			
Cybersecurity	Medium	2.2.6.1	stable
Risk relating to major projects	Medium	2.2.6.2	stable
Acquisition and integration	Medium	2.2.6.3	stable
Supply chain risk in the renewable energy sector	Medium	2.2.6.4	new
Risk of malicious acts on tangible and intangible assets	Low	2.2.6.5	stable
Social and societal risks			
Risks related to human resources	Medium	2.2.7.1	stable
Ethical risks	Medium	2.2.7.2	stable
Reputational risks	Medium	2.2.7.3	stable
Security of people (terrorism, crime, social protest, etc.)	Medium	2.2.7.4	stable
Risks associated with health and safety at work (including psychosocial risks/wellbeing at work)	Medium	2.2.7.5	upward

Level of criticality legend: Low /Medium /High

Other, less significant risks or risks unknown to date could also affect the Group. If these risks were to materialize, they could have a negative impact on the Group's operations, financial position and earnings, image and outlook, and/or on the ENGIE share price.

2.1 Risk management process

2.1.1 Enterprise risk management policy

The Group has adopted an Enterprise Risk Management (ERM) policy, the principles of which are consistent with professional standards (including ISO 31000 and the Federation of European Risk Management Associations). The policy sets out ENGIE's ambition to "manage its risks in order to ensure its performance".

The Group's Enterprise Risk Management Policy applies to the Group's businesses and controlled entities, while observing the rules of governance that apply to each entity.

This policy promotes risk-taking at a reasonable level from a legal perspective, acceptable to generally held opinion and economically viable. It stipulates that all managers are risk managers. Generally, the Management Committees of the Group's entities are the main bodies that determine the actions to be taken to manage risks, except when a specific risk committee is created, such as for market risk.

To achieve this aim, the Group has appointed the Risk Management Director as Chief Risk Officer. His objective is to ensure the effectiveness of the risk management system. He coordinates the designated *Chief Risk Officers* of each of the operating entities and Corporate Functions. These Chief Risk Officers assess the entity's or Function's overall risk exposure and ensure that risk mitigation plans are implemented.

Risk analysis and coordination of action plans are performed in collaboration with all the Group's functional lines.

Each year, the Group's ERM process begins with a risk review by the Executive Committee. An ERM campaign is then launched across the Group, setting out guidelines for risk management throughout the year. It highlights priority risks, each of which is coordinated by an Executive Committee member and will be monitored specifically by one of the Board's standing committees (see Section 4.1.2.4 "Committees"). It results in a new Group risk review that is presented to the Executive Committee, then to the Audit Committee. After examining the review, the Audit Committee gives its opinion on the effectiveness of the risk management system to the Board of Directors.

Knowledge of risks resulting from the reporting of operating entities and functional departments is supplemented by interviews with directors, an analysis of publications by external analysts and a review of major events.

2.1.2 Crisis management

In order to deal with the occurrence of all types of crises and minimize their impacts, ENGIE has established an overall crisis management system. The Group is thus equipped with a major incidents warning and reporting system. Crisis analysis is carried out at the local level by a locally run crisis unit. Decision-making to manage a crisis is made at the relevant organizational level, according to the principle of subsidiarity. The system was adapted after the Group was organized into Global Business Units (GBU) on July 1, 2021.

Business continuity plans were prepared and updated for the crisis scenarios identified by the Group and its entities.

To test the robustness of the organization and to ensure continuous improvement, the entities carry out a minimum of one crisis drill per year across a functional and geographic scope that meets regulatory requirements. Additional training sessions are also delivered for internal stakeholders. An annual report is prepared so that lessons can be learned and initiate the identified improvement actions in association and shared with all entities.

The Covid-19 health crisis underlined the Group's ability to anticipate events. Rapid and efficient responses were provided to issues arising in particular from the international nature of the crisis. Throughout the pandemic, employees and sites were protected and the logistics chain secured.

However, the existence of this system does not eliminate the risk that the Group's activities and operations might be disrupted in crisis situations. Moreover, this system cannot guarantee the absence of the risk of impacts on third parties or on the environment.

2.1.3 Risk and insurance cover

ENGIE's Insurance Department is responsible for preparing, establishing and managing insurance programs in the areas of Group asset protection (against property damage and loss of earnings), personal protection, third-party claims (civil liability) and automobile insurance, and for prevention.

For each of these areas:

- the amounts insured depend on the financial risks resulting from potential claim scenarios and coverage conditions offered by the market (available capacities and tariff conditions);
- financing is optimized: low or moderate hazard risks are covered by self-insurance plans, through deductibles and retentions or through the use of the Group's reinsurance company whose commitments on a cumulative basis represent a maximum estimated loss of approximately 0.27% of the Group's 2021 revenues.

However, the Group could, in certain cases, be required to pay out sizable compensation not covered by the current insurance program or could incur very high costs that its insurance policies do not reimburse or reimburse inadequately. Although the Group has excellent insurance coverage, specifically with regard to civil liability and environmental risks, it could be liable beyond the maximum insured amount or for events not covered (primarily due to the common insurance exclusions).

2.1.3.1 Civil liability

A civil liability program for corporate officers and managers covers the representatives of ENGIE, its subsidiaries and Group representatives within its equity holdings.

A general civil liability program (including for environmental damage) has been taken out for all the entities for a total amount of €800 million. This program predominantly provides first-euro coverage or coverage for amounts in excess of the underlying coverage taken out by some entities (usually up to USD 50 million).

2.1.3.2 Nuclear civil liability

As an operator of nuclear units in Doel and Tihange, Electrabel's civil liability is governed by the Paris and Brussels Conventions (the 2004 protocols of amendment to said conventions came into force on January 1, 2022), which aim to ensure that victims receive compensation and to encourage solidarity among signatory countries, and by the Belgian Law of July 22, 1985, (amended by the Laws of June 29, 2014 and December 7, 2016).

This liability falls exclusively on the operator of the facility where the nuclear accident occurs. In return for this strictly objective liability, the amount of the compensation is capped per accident at €1.2 billion. Beyond this limit, the signatory countries to the conventions have created a mechanism that provides additional compensation.

The nuclear civil liability insurance program taken out by Electrabel on January 1, 2022, on the insurance market, complies with the revised Paris and Brussels Conventions and with Belgian national law requiring the operator to provide financial guarantees or to take out civil liability insurance up to €1.2 billion.

2.1.3.3 Property damage

The Group's entities have property insurance covering the facilities that they own, lease or manage on behalf of third parties, with the exception of gas transmission and distribution network pipelines and heat networks in France. The main programs provide cover based either on replacement value or on contractual limits per loss event. In the latter case, the limits are set on the basis of major scenarios estimated in accordance with insurance market rules and available offers (cost and capacity).

Insurance covering business interruption and additional operating costs is taken out based on each risk analysis and in consideration of existing assistance plans.

Construction projects are covered by "Erection All Risks" programs taken out by the owner or operator, project manager or prime contractor.

2.1.3.4 Employee protection programs

The operating entities develop programs covering employees against the risk of accidents and for medical expenses, in accordance with legislation in effect and pursuant to company agreements.

2.2 Risk factors

2.2.1 Political and regulatory risks

The Group is sensitive to the structural and economic risk factors that affect the energy sector. These risks are all analyzed and assessed as part of strategic planning processes that allow the Group to anticipate certain changes in the external environment and prepare for them. The Group's research and innovation road map and organization also help to deal with strategic developments (see Section 1.3 "Research, technology and innovation").

In Europe and in some other regions including the United States, Asia Pacific and Brazil, public authorities intervene in the energy sector through regulation and the extension of regulatory powers in the competitive field. These measures can take the form of increased taxation on energy company profits, changes to the rules governing the markets and the security of supply, interventions by regulators in the deregulated sector to encourage the development of competition, or the move towards the remunicipalization of certain utilities.

Through its presence in the EU and Member State institutions, the Group tries to anticipate any legislation likely to affect its activities and the associated revenues, and formulates proposals for decision-makers. The Group also partially diversifies regulatory and legislative risks by conducting its business in a number of different countries. Some regulatory developments offer, any ways, new opportunities for the Group's activities.

Some regulatory changes may alter the risk profile of the Group and impact its earnings and its business model. The most significant of these for the Group are mentioned below.

2.2.1.1 Risk of change in the regulatory framework and of the amount of provisions set aside for the decommissioning of Belgian nuclear power plants and the management of spent fuel

Description	Risk management measure
	
In Belgium, all nuclear waste management is the responsibility of ONDRAF, the Belgian National Agency for Radioactive Waste and Enriched Fissile Material. ONDRAF proposes, as a national policy, that high level radioactive waste and/or long-lived waste be stored in deep geological repositories and not in long-term storage facilities. Spent nuclear fuel is currently stored at generation sites. At present there are two possible scenarios for its management: either a portion of spent fuel is reprocessed and the rest is discharged directly into deep geological repositories; or all of the spent fuel is discharged into deep geological repositories. It is up to the nuclear power supply company, Synatom, an Electrabel subsidiary in which the State has a golden share, to propose and quantify a technical scenario that is likely to be approved by the Belgian government. Costs associated with the management of spent fuel and the dismantling of plant and equipment are included in the costs of nuclear power production and are the subject of provisions. The assumptions and sensitivities regarding the assessment of these amounts are detailed in Note 20.2 of Section 6.2.2 "Notes to the consolidated financial statements." In accordance with the law, a process of reviewing nuclear provisions is undertaken every three years under the control of an independent administrative authority, the Nuclear Provisions Commission (CPN). In December 2019, the CPN communicated its latest decision to Synatom on the re-evaluation of the provisions of the Belgian nuclear power plants for the decommissioning and management of spent fuel. The provisions will be subject to another triennial review in 2022. This may result in an increase in provisions due, for example, to a further decline in the discount rate or a higher estimate of the costs of decommissioning and waste management relating to this business. A reform proposal of the Law of April 11, 2003 on the provisions made for the decommissioning of nuclear power plants and for the management of fissile material irradiated in these power plants was initiated by the Belgian government. In December 2021, the minister for Energy presented the outline of the envisaged reform of the legal framework of nuclear provisions. The reform has no direct impact on the amount provisioned but provides, in particular, the full financing of nuclear provisions by 2030, the terms of the investment framework of these provisions in dedicated financial assets and the greater control by the CPN over certain decisions relating to Electrabel and Synatom's capital. The new nuclear provisions law could be passed by mid-2022.	The Group works in partnership with the CPN for the review of nuclear provisions. The Group provides the Belgian government with evidence to demonstrate that it is in a position to meet the costs relating to the decommissioning of plants and the management of spent fuel. The Group contributes directly to working groups with ONDRAF on the technical, legal and financial aspects of radioactive waste management and storage.

2.2.1.2 Risk of a downward trend in the return on gas distribution, transmission, storage and regasification assets in France

Description	Risk management measures
	
Tariffs for access to gas infrastructures (distribution, transmission, storage, regasification terminals) in France are regulated. The tariffs are fixed by the French Energy Regulation Commission (CRE), which may change their level and structure if it deems this justified, particularly in view of financial market trends, the analysis of the accounting of the operators and foreseeable changes in operating and investment costs. These tariffs also include performance incentives. In most cases, they are reviewed every four years, following a public consultation process and public hearings. On January 24, 2020, the CRE published, most notably, the resolutions setting the gas infrastructure tariffs (distribution, transmission, storage) applicable for a period of approximately four years (ATRD 6, ATRT 7, ATS 2). With regard to regasification tariffs (ATTM 6), the CRE published the resolution fixing the tariffs for the use of regulated LNG terminals on January 7, 2021, with an application date of April 1, 2021 for a principle period of four years. This is in line with the previous tariff but includes an acceleration in asset depreciation for the Montoir terminal. The next Transport (ATRT 8), Distribution (ATRD 7) and Storage (ATS 3) tariff review is expected to be launched in 2023 for implementation in 2024. Regarding ATTM 7 regasification tariffs, a review should be launched in 2024 with a targeted implementation of 2025. In case of decrease of return on assets, of partial taken into account in the return on assets, of operational and strategic risks related to the business, of investments decline, of non-coverage of certain charges, or in the case of a particularly strict incentive regulation, the contribution of gas infrastructure assets to the Group's results and the profitability of its investment in this business could decline.	The Group is in discussions with the CRE in the context of the tariff review system, which places great emphasis on dialog with all stakeholders. In addition to introducing measures to develop the production of green gas and ensuring it is competitive in the long term, the Group is defending positions that aim to ensure a fair return on assets that is adapted to the new short and long-term economic environment, and the adequate coverage of its costs in order to maintain a high standard of service and to enable the necessary investments for the energy transition. ENGIE also promotes the recognition of the flexibility provided by the gas system to the energy system and its valuation. It also strives to enhance its performance in order to establish a competitive tariff trajectory.

2.2.1.3 Risk of State intervention to protect end-consumers from the surge in energy prices

Description

In the context of the backdrop of a sharp rise in wholesale energy market prices, European States, including France, Belgium and, to a lesser extent, Romania, were required to adopt price stabilization mechanisms to protect end-consumers.

- Measures taken in France consisted of freezing the Regulated Gas Tariff until April 2022 at the earliest or the end of 2022 at the latest, and capping the next rise in the Regulated Electricity Tariff to 4%, including tax, in February 2022. The Government also decided, in early 2022, to increase the volumes of electricity that EDF sells to its competitors under the ARENH (regulated access to historic nuclear electricity) mechanism.
- Concerning gas selling, the Finance law 2022 establishes that the State should cover losses of income resulting from the freeze of the Regulated Gas Tariff (TRV) as public service costs.
- As regards electricity, with the aim of capping the TRV rise at 4%, in early 2022, the Government decided to cut the internal tax on final energy consumption (TICFE) and to increase the volumes of electricity that EDF sells to its competitors under the ARENH (regulated access to historic nuclear electricity) mechanism. The impact of these measures is still to be determined.

In Belgium, the extension of the social energy tariff to a wider group (20% of the residential market) was extended to the end of March 2022, and could be extended beyond.

Risk management measures

The Group is in talks with the different local regulators to monitor the preparation and implementation of energy-related government bills.

It also closely monitors European-wide initiatives (the European Commission published a document in October 2021 entitled “Tackling rising energy prices: a toolbox for action and support” listing the means at Member States’ disposal to deal with these price rises, in accordance with European law). The Group noted that the European Commission did not, at that stage, plan to make any substantial changes to the operation of the internal energy market judging, together with the Agency for the Cooperation of Energy Regulators (ACER), that the market had proved its smooth running and that it was not appropriate to take any radical action during a crisis that was, on initial analysis, temporary.

2.2.1.4 Risk of invalidation of the decision already granted to extend the operating life of the Doel 1 and 2 and Tihange 1 nuclear units in Belgium

Description

The Belgian government’s decision to extend the date of shutdown of the Doel 1 and 2 nuclear units to 50 years, which was confirmed by parliamentary vote in June 2015, was approved by the Belgian Federal Agency for Nuclear Control (FANC) as part of its fourth ten-year review, on the basis of a committed modernization program that ended in 2020. Legal proceedings were brought by environmental organizations to the Constitutional Court against the Belgian state regarding the lack of any environmental impact analysis or public consultation in connection with the adoption of the law passed in June 2015 (see Note 26.6.1 of Section 6.2.2 “Notes to the Consolidated financial statements”). The Constitutional Court delivered its judgment on March 5, 2020, by which it cancels the Belgian law extending the lifespan of the Doel 1 and Doel 2 nuclear units in that it was adopted without carrying out the required prior environmental assessments. However, the Court agreed that the effects of the law should be maintained until 2022 to ensure the security of the country’s supply. The Doel 1 and Doel 2 units can therefore continue to operate until the situation has been resolved. It is now up to the Belgian State to regularize the situation within this period.

The invalidation of the decision to extend the operating life of the Doel 1 and 2 nuclear units could have a significant unfavorable effect on the group’s revenues and on the value of the nuclear assets concerned (see Note 14.4.6 of Section 6.2.2 “Notes to the Consolidated financial statements”).

An appeal for annulment, filed on the same grounds by environmental organizations against the Belgian State in the light of royal decrees and decisions taken by the FANC in 2015 authorizing works to extend the life of Doel 1 and Doel 2, is still pending before the Belgian Council of State.

Risk management measures

The Group is working in partnership with the Belgian State as part of the regularization process.

The Belgian state has confirmed the schedule set out for the regularization process within the time frame provided by the Belgian Constitutional Court and has submitted the environmental impact analysis for public and international consultation.

The bill is in the process of being prepared.

2.2.1.5 Risk of changes in regulations in Brazil in various business sectors (electricity production and sales, transportation of gas), including changes in taxes

Description	Risk management measures
	
The Group is exposed to changes in the regulation of Brazil's electricity markets, such as the reduction of subsidies or the introduction of new taxes for producers. The administration may announce new initiatives in line with a modernization of the electricity market design, to open the market to competition, improve its functioning and ensure the necessary investments in the country's networks. Brazil represents 4% of Group revenues. ENGIE invests in the transportation of gas (acquisition of TAG) and electricity (Gralha Azul and Novo Estado project – construction of high-voltage lines). The Gralha Azul and Novo Estado activities are regulated, while those of TAG are both regulated and covered by long-term contracts. In 2021, the Brazilian government approved a law aimed at creating the conditions to open up the gas market, after years of monopoly by the state-owned oil giant, Petrobras. The publication of decrees and the harmonization of legislation between federal states and the Brazilian federal government are the next key stages. In the gas chain, the production and the transmission activities are regulated by a federal agency (ANP), while downstream activities are a State monopoly, regulated by local agencies. The probable evolution of the regulatory framework for the gas transmission activity is closely monitored by the Group, to ensure that it has a neutral effect on TAG's risk profile and return. The Brazilian tax system is complex and could potentially evolve. Several disputes are underway relating to the application of tax and settling these disputes could take several years. Moreover, numerous modifications to taxation may be adopted in the years ahead, in particular relating to VAT (PIS COFINS), dividends (not taxed to date), or corporation tax. The effects are not yet known and may offset each other out.	Thanks to its presence in France and internationally, the Group has extensive experience in market design. This experience is made available to the Brazilian institutions, including through participation in the formal process of revising the market design in Brazil. Changes in the design of the electricity and gas markets will affect all companies active in these sectors. Other companies present in electricity generation or gas transmission in Brazil share the Group's opinion and have taken action to ensure the neutrality, and even positivity, of developments in market design. Politically speaking, Brazil's need to continue to attract foreign investment limits the risks. In Brazil, the Group closely monitors any regulatory and legislative reforms to anticipate any changes in these fields as best as possible and introduce measures to limit any negative impact on the profitability of its businesses.

2.2.1.6 Country risk (changes in regulation, sovereign default, convertibility, expropriation, acts of war or terrorism, etc.)

Description

The Group is present, develops its activities or procures natural gas and a variety of industrial components in a large number of countries. The Group is, therefore, exposed to a variety of risks, including notably changes in regulation, sovereign default, convertibility, expropriation, corruption, acts of war, riots or terrorism, extra-territorial effects of some legislation and sanction mechanisms and tariff escalation. Moreover, in certain countries, a dispute with the State in question or other local public entities may make defending its rights before local courts more difficult for the Group.

For example, in the United States, the CAATSA (Countering America's Adversaries Through Sanctions Act) of August 2, 2017 allows (on a discretionary basis) the US President to impose secondary sanctions on any entity that participates, in particular through investment, in the construction and/or maintenance of Russian gas export pipelines (Section 232). On October 31, 2018, the State Department published public "guidance" on the way in which it intends to implement the Act in practice. In this guidance, the State Department indicated that projects that had been initiated before August 2, 2017 would not be subject to potential sanctions under this Section 232. It is specified that "projects initiated before August 2, 2017" must be understood as any project contracted before said date, which is the case for project Nord Stream 2 which is excluded de facto.

On December 20, 2019, new provisions (Article 7503 of the National Defense Security Act of 2020 or "PEESA" (Protecting Europe's Energy Security Act)) were passed by the United States Congress, with the aim of sanctioning, at the end of a period of 30 days, after publication of a report by Congress, the companies supplying pipe-laying vessels for the Nord Stream 2 project. As a result, work was immediately suspended by Allseas, the company contracted to carry out said pipe-laying activities. These measures in no way target the financial backers of the project, including ENGIE.

On July 15, 2020, the State Department published new guidance related to the CAATSA which cancels and replaces, as of this date, the previous guidance. The new guidance now includes in its scope of application all projects whether they had been initiated before or after August 2, 2017 and therefore Nord Stream 2. Nevertheless, it does not affect measures taken under the previous guidance, which are not subject to sanctions. The new guidance states that sanctions are not retrospective. They are therefore only applicable to measures underway as of July 15, 2020, which excludes the funding provided by ENGIE from their scope of application. (see Note 17.1.1.3 in Section 6.2.2 "Notes to the consolidated financial statements") in particular the effects of the possible suspension of payments by Nord Stream 2 AG.

On January 1, 2021, Congress adopted, in section 1242 of the "National Defense Authorization Act for fiscal year 2021," new legislation called "PEESCA" (Protecting Europe's Energy Security Clarification Act), which modifies previous "PEESA" legislation by extending the scope of potential sanctions to include, in particular, activities relating to the laying of pipelines, insurance activities, as well as inspections related to the Nord Stream 2 project.

It is possible that US legislation will change. ENGIE is closely following any changes.

ENGIE's contractual financing commitments, which were signed before August 2, 2017, have been fulfilled and ENGIE will not make any further payments.

These previous activities for ENGIE do not fall within the scope of this legislation.

On February 23, 2022, the US designated the company Nord Stream 2 AG and its CEO, Matthias Warnig, as Specially Designated Nationals and Blocked Persons.

Risk management measures

The diversity of the Group's locations mitigates country risk to some extent. Attention thresholds by country or group of countries enable the Group's exposure to be monitored.

The Group also manages these risks within partnerships or contractual negotiations adapted to each location.

It chooses its locations by applying a formal investment procedure that appraises risk. The inclusion of international arbitration clauses in major contracts is applied as widely as possible.

The new organization launched in 2021 makes the Global Business Units responsible for their income statements.

Each Business Unit is overseen by a Group Executive Vice President who is a member of the Executive Committee.

This organization supports the Group in closely managing political and regulatory changes in each country in which it operates, while ensuring that country risk and risk management measures are taken into account at the appropriate level.

Description	Risk management measures
Under these new circumstances, the Group will strictly respect the relevant sanctions in place on Nord Stream 2 AG and the Nord Stream 2 project, and will be mindful of the consequences, particularly financial consequences, of decisions made regarding Nord Stream 2 AG and the Nord Stream 2 project (see Note 17.1.1.3 "Loans and receivables at amortized cost" of Section 6.2.2 "Notes to the consolidated financial statements") in particular the impacts due to a potential insolvency of Nord Stream 2 AG.	

2.2.1.7 Risk associated with renewal of hydraulic concessions in France

Description	Risk management measures
Hydropower makes up a substantial proportion of French electricity generation. The state has granted concessions which are gradually expiring, or which have already expired, and which must be put up for tender when they expire, according to the European directive relating to the assignment of concession contracts (directive of February 26, 2014). However, no tender procedures have been launched in France. Expiring concessions are placed on "rolling deadlines", as permitted by the Energy Code. Law No. 2015-992 of August 17, 2015 on the energy transition for green growth also introduced the notion of connected hydroelectric chains (or barycenters), involving the bundling of several concessions assigned to the same water course, but with different expiry dates, and setting a single expiration date. The implementation of the Concessions Directive in France and the associated uncertainties, particularly concerning France's position in terms of creating a public hydropower cluster for the bulk of concessions on the French market, has led to uncertainty regarding the future of SHEM's concessions. With regard to the Compagnie Nationale du Rhône (CNR), following over eight years of consultations, the "Rhône Development" law was finally adopted by Parliament on February 17, 2022. It validates the CNR model in France, which entrusts a single operator with three interconnected and inseparable goals (hydroelectricity, waterway navigation and irrigation) and extends the concession to 2041.	The Group is fully committed to working alongside CNR, within a balanced public-private governance which puts the concessionary state first. The Group is also defending its interests and finding solutions to safeguard SHEM's future, particularly with regard to the organization of the French hydroelectricity market and in order to find fair solutions in accordance with regulations.

2.2.1.8 Risk of disagreement with the Australian regulator over the conditions for rehabilitating the Hazelwood coal mine

Description	Risk management measures
As part of its strategy to gradually withdraw from the coal business, in 2017 the Group closed the Hazelwood plant in Australia, which generated electricity from coal from the adjacent mine. The Group is now engaged in decommissioning the plant and rehabilitating the site, aiming to ensure the long-term stability of the ground and walls. The rehabilitation project is based on the creation of a lake in the space left by the open cast mine. Several technical options were studied regarding the size of the mine lake (full or partial) and the origin of the water to be used to fill it. In the event of regulatory non-approval of the options recommended by the Group, it would have to face longer and higher than expected delays and rehabilitation costs, which would have an impact on the level of provisions (see Note 20.3.2 in Section 6.2.2 "Notes to the Consolidated financial statements").	The Group is continuing its studies and discussions with the Australian regulator and the various stakeholders in order to implement the best solution in terms of safety and costs. Approval to fill the mine with water was granted by the relevant authorities in August 2021. Filling commenced immediately, in line with the various scenarios envisaged (full or partial mine lake).

2.2.2 Risks deriving from climate and environmental issues

The Group's businesses are exposed to numerous rules and regulations (relating to respecting and protecting the environment and persons or to the energy transition). Its strategy and results could be impacted by the above laws, or others yet to come.

Internationally

Six years after the adoption of the Paris Agreement, a universal climate agreement, COP26 agreed practical arrangements to further the initiative by inviting countries to revisit, and increase, their national contributions by 2022, instead of 2026. Delivered in August 2021, the initial findings of the 6th special report from the IPCC (Intergovernmental Panel on Climate Change) were very clear: at the current rate, the situation is critical, with warming far in excess of 2°C. In response to this situation, the Group announced a more ambitious target in its fight against climate change with a commitment to **carbon neutrality by 2045** an ambition that will be based on a "well below 2°C" trajectory, and quantitative objectives to reduce greenhouse gases (GHG). To support this strategy, the Group will combine various methods including **exiting coal by 2027 at the latest** and **sharply accelerating the development of renewable energy**. Mindful of the consequences of the "climate change" risk materializing, ENGIE has set itself a quantified target for customer emissions avoided by 2030, i.e. 45 Mt Co_2 eq., and by encouraging and helping its main suppliers to decarbonize.

In Europe

Europe's climate and energy policy promotes energy efficiency, GHG emission reductions, an increase in the share of renewable energy in the energy mix and the formation of a Europe-wide carbon price. The new European Commission has proposed to significantly step up its decarbonization objectives under the European "Green New Deal," with a GHG reduction target of 55% (versus 40% previously) by 2030 (compared with 1990). This should automatically be accompanied by proposals for increased ambitions in terms of renewable energy and energy efficiency. The Hydrogen strategy published on July 8, 2020 by the European Commission, together with the setting up of the European Clean Hydrogen Alliance under its tutelage and the ambitious hydrogen strategies published by various countries (Germany, Portugal, etc.) including France will also play a key role in this decarbonization of the European economy. This should be done with a view to energy systems integration to optimize, in particular, the cost of the transition. This view could also represent an opportunity to promote the role of gas infrastructures and their adaptation in view of a hydrogen boom and the means of transporting and storing this element, not forgetting the role that green gases such as biomethane, in addition to renewable energy, are also called upon to play. These developments constitute potential growth accelerators for the Group if they are accompanied by a regulatory and financial framework adapted to these ambitions.

Certain sector initiatives, such as the new energy lending policy of the European Investment Bank and the regulatory initiatives relating to "Taxonomy," intended to encourage sustainable investment, may constitute risks if they were to limit access to financing for activities that the Group considers essential to achieve the European decarbonization objectives, in particular, the transitional role of natural gas (changeover from coal to gas, natural gas as a back-up for intermittent renewable energy). The European Commission proposed new legislation (Delegated Act) at the end of December 2021, describing the requirements to be met by nuclear and gas activities in order to be listed in the taxonomy. One positive development is that the Commission is proposing to include gas in the taxonomy as a transition activity. The Group is continuing to analyze the conditions that support this proposal to include gas.

Lastly, issues associated with soil pollution are specifically being monitored (see Section 3.5.4.11). Provisions are made for these issues in the financial statements when sites are decommissioned and rehabilitated (see Note 20 of Section 6.2.2 "Notes to the consolidated financial statements").

2.2.2.1 Position of gas in the French energy mix

Description	Risk management measures
	
The dominant strategy of the energy policy, based on the national energy regulations adopted in 2019 (SNBC (*Stratégie Nationale Bas-Carbone* – National Low-Carbon Strategy), PPE *(Programmation Pluriannuelle de l'Énergie* – Multi-Year Energy Schedule), *LEC (Loi Énergie-Climat* – Climate and Energy Law)) and targeting decarbonization through a strengthened and rapid electrification of uses, may have a major influence on natural gas market share. This vision entails a number of risks that are currently being assessed, in particular concerning the increase in peak electricity needs and the additional cost necessary to meet them, as well as the recurrent challenge of balancing the electricity grid for which the gas vector (natural and progressively green gases), given its qualities in terms of flexibility, storage and energy density, could provide appropriate solutions. Moreover, the new thermal regulation known as "RE2020", which came into force in summer 2020, modifies how the CO_2 footprint of new buildings in favor of electricity is taken into account, and revives the use of electric heating, to the expense of gas. In addition, the European "Taxonomy" project mentioned above has created uncertainty about the financing of certain Group activities related to renewable gases (biomethane and hydrogen produced from renewable electricity) if they were not labeled "green" according to the criteria defined by the future European Regulation.	The Group has strengthened, with French public bodies and the European authorities, its promotion of gas as indispensable to the acceleration and achievement of a resilient and affordable energy transition in various areas (including the defense of heating use via the development of hybrid heat pumps, the competitiveness of green gases, the market design of biomethane and the energy complementarity). The Group has defined a strategy for the development of renewable gases, with the launch of an Industrial and Commercial Plan to expand production of biomethane of agricultural origin (effluent and crop growing residues) and the transition to industrial scale of this production line in France. Downstream of the production chain, the Group's transmission and distribution networks are adapting their infrastructures to enable the transmission of biomethane to customers as inexpensively as possible. The Group is also developing second-generation biomethane production lines, using biomass pyrogazeification. It is also leading the way in developing and investing in green hydrogen production projects based on renewable electricity water electrolysis, converting some of its saline cavities to store this hydrogen and improving the technical conditions of its injection into the gas network, or the reconversion of existing infrastructures to transport pure hydrogen, all with the purpose of promoting renewable hydrogen as a credible key component of the future French energy mix. Moreover, the Group intends to rebalance its infrastructure portfolio to include growth regions.

2.2.2.2 Risk of climate change affecting energy demand and generation

Description	Risk management measures
Information presented here and in Section 3.3.1 "Climate change impact – Risk F" reflects the financial risks associated with the effects of climate change and the measures taken by the company to mitigate them by implementing a low carbon strategy in all the components of its activity. In the short term, weather phenomena (e.g. temperature variation, flooding, wind, drought, heat waves) affect energy generation (in the case of lack of water in dams in particular) and energy demand (e.g. gas supply during a warm winter). They have a direct effect on the Group's results. In the longer term, climate change could have a greater impact on the Group's activities, for example through changes in regional or seasonal energy demand, changes to the network's production, the obligation to reduce CO_2 equivalent emissions and heightened regulations, conflicts over water use, increases in sea and river levels and temperatures, the preservation of natural carbon sinks and conflicts over biomass use.	(see also Section 3.5.4 "Group actions") To adapt its offering to fluctuations in annual demand, ENGIE optimizes its portfolio of assets, its gas resources (by modulating its supplies and managing its underground storage), and its power generation fleet. To manage this risk in the longer term, ENGIE acts on different levels: • The Group is firmly committed to combating climate change by investing in low-carbon technologies, reducing its greenhouse gas emissions and adapting its operations accordingly. The Group promotes international carbon pricing in order to accelerate the transition to a low-carbon society, while guaranteeing a level playing field for all players. • The Group has set 2030 targets for greenhouse gas emissions and renewable energy (see Section 1.5.2 "Achievement of CSR targets by 2030") and is aiming for carbon neutrality by 2045 across all its direct and indirect GHG emissions. The expansion of its renewable energy fleet, the replacement of natural gas by renewable gas, and the development of carbon-free service offerings are the main drivers of ENGIE's energy transition strategy. Having been granted 2°C certification by the SBTi for its 2030 GHG emissions trajectory, the Group has just committed to a certification procedure for a "well below 2°C" compatible trajectory (see Section 3.1.4 "Science Based Targets certification"). • The Group is gradually developing adaptation plans to prepare for an increase in extreme weather events. • Since anticipating the implementation of Article 173 of the French Energy Transition Law regarding greater transparency on climate risks, the Group has followed the work of the TCFD (Task force on Climate related Financial Disclosure) and has given itself until 2023 to gradually implement these recommendations.

2.2.3 Economic and competitive risks

The Group's activity is impacted by the level of energy demand and commodity prices, as well as by far-reaching changes in the energy sector (e.g. the decentralization and decarbonization of generation, renewable energy, new technologies, digitization, new competitor profiles, etc. (see Section 1.1.1 "Presentation" and Section 1.6 "Description of the Group's activities").

The risk related to a weakened economic climate if the Covid-19 crisis continues is no longer listed as a major risk for the Group, given the improvement in the health situation compared with 2020 and the Group's lower exposure to service activities.

2.2.3.1 Increased competition risk in energy sales and services, with an effect on margins

Description	Risk management measures
	
In its different businesses, the Group competes with increasingly diverse players, both in terms of size (with major international players and local emerging players) and in terms of the variety of their sectors. The decentralization of energy generation systems due to energy transition has allowed smaller players to compete with the Group in some activities (photovoltaic power, services). The emergence of digital and smart energy technologies has impacted the gas and electricity value chain, as well as services in general, with new competitors from the information technology and equipment manufacturer sectors. More generally, competition is intensifying on energy markets, with key players (oil companies, etc.) becoming more and more active throughout the entire value chain. The Group is keen to develop its trading activities to focus on new products and new markets, notably to support its decarbonization efforts. Within this context, it will be faced with new competitors. In this very competitive context, the Group faces several challenges: • maintaining its market share in energy sales and services in countries where it has a long-term presence, and sometimes a leading position on these markets, while also maintaining an optimal level of profitability in a context of consumers' increased protection against the surge in energy prices (see Section 2.2.1.3 "Risk of State intervention to protect end-consumers"); • renewing, profitably, the heating concessions and the electrical infrastructure; • developing its activities and customer portfolio in target countries.	The Group continually monitors its competitive position using specific watch systems. It regularly develops new offers to meet changing customer demand: digitization, green offers, and development of "carbon-neutral" solutions. It continually improves the operating performance of the networks it operates and is progressively greening their energy mix.

2.2.3.2 Risk of decrease in revenues from power plants in the Gulf when long-term contracts expire

Description

In the Gulf countries, ENGIE acts as an asset developer, owner and operator (mainly of combined cycle gas turbine plants), selling the electricity and water it produces under long-term public contracts (Power (& Water) Purchase Agreements or P(W)PAs). On expiry of these contracts, the sales environment in which these assets exist will be uncertain and impacted by the legal and regulatory regime in force at that time. Several outcomes are possible that could have an impact on Group revenue:

- an extension of the contracts under conditions to be negotiated;
- the sale of the electricity produced on the markets, with exposure to market price volatility (i.e. Oman);
- the mothballing of assets in the event of temporary market overcapacity;
- the permanent shutdown of assets.

Risk management measures

The Group is carrying out an in-depth study of the markets and is taking proactive measures to extend or replace these agreements by taking part in contract extension processes organized by the relevant national authorities.

The focus on the performance and flexibility of power plants also increases the chances of achieving a more competitive sales position.

2.2.4 Financial risks

It remains to be seen how the international situation related to the war in Ukraine will develop. The Group will monitor the situation closely and be mindful of any potential consequences the crisis may have on activity and results (markets and prices of raw materials, supplies and the value of certain investments (see Section 2.2.1.6 "Country risk").

2.2.4.1 Commodities market risk

Description

The Group is chiefly exposed to two kinds of commodity market risk: price risk directly related to fluctuating market prices, and volume risk (weather risk and/or risk depending on economic activity). The Group is exposed to these risks, particularly with regard to gas, electricity, CO_2 and other green or white products related to the energy transition (Guarantees of Origin, energy savings certificates and the Capacity Remuneration Mechanism (CRM)) (see Note 18.1.1 of Section 6.2.2 "Notes to the consolidated financial statements").

The Group has substantially reduced its exposure to market risks in recent years, after the sale of its thermal power plants in the United States, its exploration & production and LNG activities, and its European coal-fired power plants. However, its exposure to price risk remains high for nuclear power, hydropower and thermal gas assets. Renewable assets, a large share of which are under contract until 2030, generate very little exposure to price risk but are exposed to risks relating to their intermittent nature.

With the exception of trading activities, market risks are assessed by means of their impact on EBITDA. Accordingly, the main risk indicators for managing the energy portfolios include sensitivity to unit price changes, EBITDA at Risk, portfolio hedging ratios and stress tests based on predefined unfavorable scenarios. For trading activities, and in accordance with market standards, risk indicators include sensitivities, Value at Risk (VaR) and stress tests (see Note 18.1.1 of Section 6.2.2 "Notes to the consolidated financial statements").

Risk management measures

The Group has implemented a specific governance process to manage market and counterparty risks based on:

- the general principle of separation of risk management and risk control;
- a Group-level Energy Market Risks Committee that is responsible for validating risk policies and monitoring consolidated exposure;
- following the market and counterparty risk mandates; and
- a specific risk control function coordinated by the Finance Department.

Part of its electricity production activity outside Europe is covered by long-term Power Purchase Agreements (PPA) in which variations in operating expenses, in particular for fuels, are transferred as "pass-throughs" into electricity sale prices. This substantially limits exposure to fuel price fluctuation risks, even if, under certain contracts, the transfer is not carried out in exactly the same way.

The Group also uses derivatives to offer hedging instruments to its customers and to hedge its own positions either through forward curves for the price risk or shorter term hedging instruments for risks relating to the intermittent nature of renewable generation.

2.2.4.2 Foreign exchange risk (translational, transactional, conversion)

Description

The Group is exposed to foreign exchange risk, defined as the impact on the financial position and income statement of exchange rate fluctuations, in the performance of its operational and financial activities. These are broken down into:

- a transactional risk related to current operations;
- a specific transactional risk related to investment, merger-acquisition or disposal projects; and
- a translational risk which arises from conversion when consolidating the elements of the statement of financial position and the income statement of entities whose functional currency is not the euro.

The main exposures to translational risk correspond, in order of importance, to assets in US dollars, Brazilian real and British pounds. In a particularly volatile market, translational risk is a material risk for the Group.

The breakdown by currency of outstanding borrowings and net financial debt, as well as an analysis of foreign exchange risk sensitivity are presented in Note 18.1.3 and Note 18.1.4 respectively of Section 6.2.2 “Notes to the Consolidated financial statements.”

Risk management measures

As part of the Group’s foreign exchange risk policy, recurring transactional risk is subject to systematic hedging as soon as this risk is material and almost certain to arise.

During the examination of investment projects, the specific transactional risk is subject to a case-by-case hedging strategy.

Finally, translational risk is covered by partial hedging strategies subject to a reasonable hedging cost and sufficient market liquidity in relation to the risk of currency depreciation.

2.2.4.3 Tax risk

Description

Given their budget constraints, that the increase in public debt due to the Covid-19 public health crisis is only exacerbating the situation, coupled with pressure from civil society, several national governments have introduced both general and specific anti-abuse measures, with a broad and partly subjective scope, and have given their supervisory authorities increased powers of investigation. Subsequently, European Union Member States transposed several Directives aimed at combating tax avoidance (see ATAD1 and 2 [1], DAC6 [2]) and the Commission proposed additional measures in its communication of May 18, 2021, which are due to be formalized in new short-term directives.

Considering current discussions regarding challenges relating to the digitization of the economy, within the OECD and its Inclusive Framework, other international tax reform projects are expected: the Group could be impacted by Pillar Two of this project which aims to introduce, from 2023, an additional tax within the jurisdiction of the parent company for consolidated income achieved by the Group in a jurisdiction where it benefits from an effective rate of less than 15%. Its increased tax liability may come either from increases in local tax rates, or from additional levies within the jurisdiction of its parent company. This would be supplemented by a rise in its compliance costs, given the extreme complexity of the project to date. The Group will be particularly sensitive to the fate reserved for tax loss carry forwards in calculating the effective tax rates by jurisdiction. The Commission plans to implement this project by proposing a Directive in 2022.

In addition to these measures, in the medium-term, the Commission wants to relaunch its former European standardization project (see CCTB [3]) which would represent a major change in the tax system in Europe.

These reform proposals create uncertainties and may have an impact on the Group’s earnings over different time horizons.

Risk management measures

The Group established and published a tax policy in 2020.

It is available at https://www.engie.com/en.

The policy highlights the importance of taxation for the Group and its commitment to a sustainable, stable and clear tax system, administered in a fair and transparent manner.

The tax function and risk management are entrusted to the Group Chief Financial Officer and more particularly to the Group Tax Department, which informs the Audit Committee of the implementation of the tax policy and the internal control system.

Internal procedures, including regular control mechanisms, have been put in place to ensure compliance with tax obligations in the concerned countries.

Procedures also cover the choice of location for the Group’s structures. The Group does not take speculative tax positions which create a tax risk or which do not reflect their economic reality.

The Group maintains official, open and constructive relations with governments and tax authorities and closely monitors reform proposals.

Furthermore, tax practices within the Group comply with its Code of Ethics and its environmental, social and societal principles.

The Group therefore considers that it is compliant with the requirements of Article L. 22-10-36 of the French Commercial Code relating to combating tax fraud.

(1) ATAD: Anti-Tax Avoidance Directive
(2) Directive relating to administrative cooperation
(3) CCTB: Common Consolidated Tax Base

2.2.4.4 Pension funding risk

Description	Risk management measures
A significant portion of the Group pensions commitments and the assets associated with these plans are concentrated in France and in Belgium. Other defined-benefit pension plans are mainly located in Europe and Brazil. In recent years, the Group has terminated a number of defined-benefit plans and replaced them with defined-contribution plans. The Note 21 of Section 6.2.2 "Notes to the Consolidated financial statements" details the items measured and recognized. The calculation of commitments is estimated via actuarial methods using methodologies, assumptions and models to assess liabilities or determine asset allocations and associated risks that could have a significant impact on hedging levels and financing requirements. In France, the special Electric and Gas Industries (EGI) regime is a legal regime and the related commitments are estimated using actuarial assumptions and rules governing, respectively, benefits paid out by statutory plans and amounts that remain the Group's responsibility. These assumptions and rules may be subject to changes that increase the Group's commitments and therefore require an increase in the relative relevant provisions. Substantial commitments exist in the form of other post-employment benefits and other long-term employee benefits, in addition to pension liabilities. These mainly comprise energy-related benefits provided to retired employees within the scope of the EGI. Hedging levels and financing requirements for the Group's pension plans vary according to the performance of financial markets and asset allocations, as well as interest and inflation rates and changes in the applicable legal and regulatory framework. For some plans outside the scope of the EGI, ENGIE may be required to fully or partly finance any difference between the market value of these assets and the hedging levels projected for these plans, or any insufficiency in the return on the assets in respect of the guaranteed minimum average rates. Overall, the funds recorded a mostly positive performance in 2021.	The Group has implemented a policy to cover pension commitments specific to each of the countries and legislation concerned. Within the scope of the EGI, the scheme is financed through the outsourcing of assets within the framework of life insurance contracts. For the majority of international schemes, liabilities are covered through the funding of pension funds in which the Group strives to be present in governance, as far as legislation allows. The energy benefit in kind granted to the personnel within the scope of the EGI during the retirement period is not covered.

2.2.4.5 Counterparty risk

Description	Risk management measures
Due to its financial and operational activities, the Group is exposed to the risk of default by its counterparties (customers, suppliers, partners, intermediaries, and banks) – see Note 18.2 of Section 6.2.2 "Notes to the consolidated financial statements." The impact of this may be felt in terms of payment (non-payment for services or deliveries made), delivery (non-delivery of supplies or services that have been paid for), assets (loss of financial investments), or loss of earnings in the event of customer bankruptcy or additional costs in the event of supplier default. The development of green offers through Corporate PPAs over longer periods than traditional sales increases counterparty risks. Moreover, these contracts are often signed with counterparties that are not always rated Investment Grade (AAA to BBB- rating).	The financial soundness of customers is assessed before contracts are signed, using the same methods and tools across the entire Group. These risks are managed via framework agreements that use standard mechanisms such as third-party guarantees, netting agreements and margin calls, or dedicated hedging instruments. The operational activities may also involve prepayments or suitable recovery procedures (especially for retail customers). Note 18.2 of Section 6.2.2 "Notes to consolidated financial statements" provides further information regarding these risk measures in the context of the Covid-19 public health crisis.

2.2.4.6 Risk on the return on the amount of provisions invested by Synatom towards nuclear decommissioning and the management of spent fuel

Description	Risk management measures
Synatom invests the amount of provisions paid by Electrabel to cover the costs of decommissioning nuclear power plants and the management of spent fuel on the financial markets – see Note 20.2.4 of Section 6.2.2 "Notes to the consolidated financial statements". If, when using the funds, it turns out that the amounts provisioned were insufficient, Electrabel should compensate for the difference. In the shorter term, the value of Synatom's investments is protected by a guaranteed value agreement between Electrabel and Synatom under which if, at the end of the agreement (in 2025), the market value is lower than the book value, Electrabel must cover the difference in value.	Investment management is entrusted to a team led by a chief investment officer. An investment committee composed of experts, who are all Synatom Directors, is responsible for overseeing investment decisions. These are guided by an investment policy based on a controlled risk profile aimed at achieving the Group's performance objectives and a strong diversification of risks and is supported by a strict risk control policy.

2.2.5 Industrial risks

The areas of activity in which the Group operates carry industrial risks capable of causing harm to individuals, property or the environment, in line with its profile as an energy company. These risks could expose the Group to claims for civil, criminal and/or environmental liability. These may relate to facilities that belong to the Group or are managed by it on behalf of customers, or facilities where employees work. The process safety of the facilities that the Group operates is one of its major concerns. The handling of these risks is subject to in-depth monitoring and specific targeted investments, and audits of the facilities in question are performed regularly.

Industrial facilities and Seveso sites

The Group operates and builds systems for gas transmission, distribution and storage, regasification, gas liquefaction and bio-methanization. It also operates and builds gas-fired electricity production plants, hydro facilities, wind farms and photovoltaic facilities and provides services in an industrial environment. Some of these facilities are classified as "upper tier" Seveso sites.

2.2.5.1 Risks of industrial accident

Description	Risk management measures
	
Risks of industrial accident can stem, for example, from operating incidents, design flaws or from external events (including third-party actions and natural disasters). These accidents could cause injuries, loss of life, property or environmental damage, activity interruptions and operating losses. The adaptation of working conditions linked to the pandemic did not have an impact on the process safety of the facilities operated by the Group. Business Continuity Plans (BCP) were adapted to the pandemic and implemented. The operation of all industrial assets was maintained and the associated risks continued to be managed.	The Group carries out its industrial activities in compliance with a framework of safety regulations, including the “Seveso III [(1)]” European Directive. These industrial risks are controlled by implementing safety management systems based on the principle of continuous improvement. These systems aim to reduce the level of residual risk by responding to the highest risks as a priority. Moreover, process safety is specifically incorporated (standards and benchmarks) into the Group’s audit and internal control programs. In addition, ENGIE hires external experts to audit its industrial assets. Regular audits are carried out by the competent local authorities. The protection of industrial control systems is included in the Group’s IT system security policy roll out. For the greatest part, these risks are covered by insurance policies. In the event of a major claim, these policies could prove insufficient (see Section 2.1.3 “Risk and insurance coverage”). A “Group Process Safety Committee” is there to oversee the Group’s actions and support a uniform and cross-divisional industrial risk culture. It meets twice a year, and more often if a specific issue needs to be addressed. The Group’s new organization with the introduction of GBU supports the “business” logic of managing industrial risks by facilitating shared feedback and good practices. In 2021, the prevention program was strengthened, in particular, by: • providing operating entities with their process safety management system self-assessment tool; • supporting entities to develop their management system; • drafting guidelines intended to limit the effects of forest fires on the Group’s industrial assets; • sharing good practices to manage fire risk on photovoltaic and wind farms. A community of process safety experts has been set up in a very specific way, being composed of representatives from different operating entities, facilitating the exchange of feedback and good practices on industrial risk management.

(1) Directive 96/82/EC amended and superseded by Directive 2012/18/EU (Seveso III)

Nuclear activities

Electrabel has established governance principles for the operation, maintenance and decommissioning of nuclear power plants based on its experience as an operator and service provider. It is also active in employee recruitment, training and retention, both for facilities in operation and nuclear services entities, and is involved in developing new services.

In Belgium, Electrabel, a Group subsidiary, owns and operates seven pressurized water reactors at two nuclear power stations at Doel and Tihange.

2.2.5.2 Risk of increase in the cost of processing and storage of various categories of radioactive waste in accordance with the technical requirements of ONDRAF

Description

- ONDRAF could require the application of stricter acceptance criteria for short-lived waste with low or medium levels of radioactivity (category A) (see Section 2.2.1.1). In the past, category A waste was conditioned in accordance with the acceptance criteria at the time. If acceptance criteria should become stricter, this could lead to a need to recondition the waste. There is also a processing risk for certain medium-level nuclear waste barrels following the discovery of a gel-like substance on their surface that damaged them. Finally, ONDRAF tariffs could rise, leading to an increase in the waste-disposal tariffs for radioactive waste generated by the operation of power plants;
- Electrabel is developing two plans to construct new buildings for temporary storage of spent fuel at the Tihange and Doel power plants. These buildings are required for the temporary storage of spent fuel on the sites, to continue activities there and prepare the sites for decommissioning. At Tihange, the project was granted the required operating and planning permits on January 26, 2020 and February 21, 2020 respectively. Appeals for annulment were filed against these permits by local citizens. These appeals, which do not have suspensive effect, are currently underway. At Doel, the project was granted the required operating and planning permits on May 31, 2021 and July 14, 2021 respectively. To the best of our knowledge, no appeals have been submitted;
- Following the discovery of a gel-like substance on the surface of certain barrels of medium level radioactive waste, waste conditioning processes were subjected by ONDRAF to additional and stricter tests with more rigorous acceptance criteria. As a result, the accreditations for a number of processes were either not renewed or were withdrawn. Without these accreditations, the processing of this kind of waste must be outsourced.

Risk management measures

- A working group was set up with ONDRAF to process the problem of the category A waste storage solution;
- The appeals filed against permits are closely monitored;
- Considering to the accreditation of the conditioning of resins and concentrates, the program to validate the process is still underway. In the meantime, this waste is stored in tanks on the sites.

(1) Directive 96/82/EC amended and superseded by Directive 2012/18/EU (Seveso III)

2.2.5.3 Risk of unavailability of one or more nuclear units for technical, security or nuclear safety reasons

Description

The risk of one or more nuclear units not being available for technical, security or nuclear safety reasons could have a negative impact on performance objectives.

The industrial performance and safety of Electrabel's nuclear facilities have improved over the 2020-2021 period and the key indicators are performing well.

The availability of the nuclear generation fleet at the end of December 2021 was 92%, corresponding to a production of 47.9 TWh, a level of availability unrivaled since 2000. The availability of the nuclear generation fleet was 62.6% in 2020. It was a very specific year in terms of availability with a large number of planned outages at the same time.

Unavailability can be caused by several factors:

- technical problems relating to aging facilities or the reliability of certain equipment;
- an insufficient number of qualified operators onsite;
- saturation of temporary radioactive waste storage.

Risk management measures

- The management of the aging of the generation fleet is closely monitored;
- A policy and specific measures to maintain skills have been introduced;
- Several procedures for the accreditation of new suppliers or additional equipment are underway with the authorities. The first accreditation has been obtained for a new container supplier and the first containers are currently being manufactured.

2.2.5.4 Nuclear safety and security

Description	Risk management measures
	
Since the commissioning of the first reactor in 1974, the Doel and Tihange sites in Belgium have not experienced any major nuclear safety incidents that could have resulted in danger to employees, subcontractors, the general population or the environment. However, they could present civil liability risks for Electrabel, specifically in the event of a nuclear accident or the discharging of large quantities of radioactive material into the environment	Electrabel has implemented an internal and industrial control system for nuclear safety and the security of facilities in accordance with the extremely high standards of the profession, which operates on several levels: • the Safety Report establishes the control structures for the design, operating procedures and defines dedicated human resources; • safety principles are integrated into the operational management of the power plants; • compliance with the principles is subject to managerial supervision at several levels; • compliance with the principles is subject to independent controls of the operational organizations; • it can be based on numerous, documented and quantified control points, as well as audits. All individuals working at Group nuclear power plants have the appropriate qualifications and are aware of their personal responsibility with regard to nuclear safety, in particular control room operators. During operations, compliance with safety and security rules and conditions at the facilities are subject to inspection by the Belgian Federal Agency for Nuclear Control (FANC), assisted by Bel-V, its technical support subsidiary. Independent checks are also carried out by Electrabel's nuclear safety department, which reports directly to its Chief Executive Officer, independently of the line management of the nuclear power sites. In addition, the two nuclear sites have OHSAS 18001, ISO 45001, ISO 14001 and EMAS certification. Electrabel takes into account feedback and external peer reviews in order to continue to improve the safety and security of its facilities (the most severe natural disasters, risks of cyber-attack and sabotage). The terrorist risk is addressed with the competent authorities of the Belgian State. In order to strengthen the safety culture at Doel and Tihange, Electrabel, in agreement with the FANC, has set up the CORE (COmmon REsponsibility) plan, which concerns the central functions and the two nuclear sites. The plan was successfully completed and was closed by the FANC in August 2019. The measures taken form an integral part of the management system and are monitored during management system inspections. The internal nuclear safety department, as well as the FANC and peers from the World Association of Nuclear Operators (WANO) have all noted an improvement in terms of the safety culture within Electrabel, the gradual withdrawal from nuclear also requiring particular vigilance.

2.2.6 Other operational risks

2.2.6.1 Cybersecurity

Description

The Group is continually exposed to new threats due to the use of new technologies, the multiplication of connected objects, the evolution of industrial control systems, the spread of mobility tools, cloud computing, and the development of new uses, including social networks and the in-depth analysis of data.

Cyber incidents such as ransomware attacks, theft of personal or sensitive information, corruption of industrial control systems or compromised connections with the Group's customers or suppliers could lead to blockages, delays and/or additional costs in the management of the Group's services or production networks. This could harm the Group's activities or reputation.

The risk may increase as the digitization of its business lines expands and working from home becomes more popular, cyber attacks proliferate or the cyber-insurance cover available is limited.

Risk management measures

The Group continually adjusts its prevention, detection and protection measures for all of its information systems and critical data. It therefore has:

- a Security Operation Center (SOC), which is responsible for the surveillance of its critical networks and applications (management and process) and the detection of incidents. The center intervenes on a global basis and is jointly operated with Thales;
- a Computer Emergency Response Team (CERT) which ensures the correct response to cyber attacks through the coordination of all Group entities and interaction with external cyber bodies such as the French National Agency for Information Systems Security;
- stringent controls for access to its internal and cloud platforms. The use of collaborative cloud-based tools, which are secured with a two-factor authentication, has allowed the Group to continue its operations during the Covid-19 pandemic without increasing its cyber risk exposure;
- devices to prevent network and system intrusion and to encrypt sensitive data;
- cyber-insurance cover.

To comply with the regulations (European Regulation 2016/679 on personal data protection, European Directive 2016/1148 on the security of networks and information systems), assessments are organized for the sites or applications concerned and some Group entities have taken steps to obtain ISO 27001 certification of the security of their information systems. ENGIE also works in partnership with a cyber rating agency to ensure a continuous independent review of its cybersecurity.

Major attacks are managed by a specific cyber-incident response system and a cyber-crisis management system that completes the Group's crisis management system. Sensitive system reboot exercises are carried out, to test the Group's resistance in the event of incidents such as ransomware attacks.

The organizational, functional, technical and legal cyber-security measures are subject to continuous controls that include testing (intrusion, social engineering and phishing) and campaigns to raise awareness.

2.2.6.2 Risk relating to major projects

Description

The Group bases its growth on various industrial construction or decommissioning projects, such as gas or electricity infrastructure for production or transportation, of which it is the owner. These projects include desalination plants (including Yanbu in Saudi Arabia), offshore wind farms (Le Tréport and Noirmoutier in France, Moray East in the United Kingdom) – projects that fall within the scope of the subsidiary, Ocean Winds, electricity infrastructures (Gralha Azul and Novo Estado high-voltage lines in Brazil), preparatory work for the shutdown, decontamination and decommissioning of nuclear units in Belgium. The risks to which the projects are exposed are also identified in different medium to small-sized projects in the renewable energy sector (wind, solar, hydroelectric projects) and urban infrastructures, in different localities.

The profitability of these assets depends greatly on cost control and construction deadlines, the operational performance of the industrial asset, external phenomena (e.g. natural disasters and strike actions), regulatory and fiscal changes and changes in the competitive environment and energy markets over the medium and long term, which could reduce the profitability of certain assets and result in lost revenues or asset impairment.

The Group is also designing and building large-scale facilities for third-party customers. Although these projects are always subject to in-depth studies and the Group has recognized expertise, construction deadlines may not always be met, resulting in penalties and losses in revenue, construction costs may be higher than anticipated, the facilities' performance may not comply with the specifications or subsequent accidents may trigger the Group's civil, professional and/or criminal liability. This could have a negative impact on the Group's image, financial position, or earnings.

Risk management measures

The Group implements operational support for projects and their supervision and has implemented management of the portfolio of projects over €30 million (whether investment or installation type) to provide the alerts necessary to implement corrective measures.

A policy on supervision of project construction and common methods on project management have reinforced existing mechanisms within the entities executing industrial projects.

In addition, ENGIE continues to roll out training courses on risk and contract management in projects for project managers and developers with the objective of professionalizing this business line.

The Group regularly updates its project risk management guide.

Lastly, ENGIE implements contract management systems to proactively manage contractual relationships with its customers, partners and suppliers.

In its capacity as client, the contracts entered into by ENGIE with builders include guarantee and compensation clauses covering construction defaults and manufacturer's failures relating to deadlines and the performance of the industrial assets delivered.

Moreover, insurance subscription allows for insured losses to be indemnified and also improves prevention.

2.2.6.3 Acquisition and integration

Description	Risk management measures
	
For the purposes of external expansion, the Group makes selective acquisitions, funded by equity or borrowing. Acquisitions present risks associated with integration issues, failure to achieve the synergies expected or the occurrence of unforeseen problems (human resources, ethics, disputes, etc.) that may impact the Group's earnings and the value of the companies acquired, and lead to asset impairment. Risk assessment and allocation is dependent, in particular, on the quality of the information provided and its analysis, as well as on the outcome of the negotiation process. In addition, partnerships are one of the ways in which the Group can share the economic and financial risks inherent to some projects, by limiting its capital employed and allowing it to adapt to the specific context of local markets. The Group strives to protect its interests as a partner, including through the signing of shareholders' agreements, possible representation in governance (Board of Directors, management positions) and reporting. However, changes to the project, the economic situation, the partner's or the Group's strategy, and even the local political environment may, in some cases, lead to changes in the control or governance of a partnership or to disinvestment.	Targeting any new acquisition plans is, in the first instance, based on whether or not the company is a good fit with the Group's purpose and its contribution to the Group's strategic and industrial goals. Audit processes (due diligence) and project structure then aim to identify and assess the risks specific to each operation in terms of expected profitability and to put in place specially designed prudence and mitigation mechanisms. The managerial teams will focus on these items as part of a structured and rigorous investment process. The Group has a dedicated IMO (Integration Management Office) policy and tools specially designed to support the Group's operating entities and the Corporate M&A team in the acquisition process from the development phase (before "signing") until integration is complete. An additional document was prepared in 2021 to improve understanding and management of the risks associated with the integration from the due diligence stage phase onwards. In addition, the Investment Committees incorporated feedback from lookbacks into the analysis of new expansion projects. In 2021, the IMO team provided support for the planned acquisition of Eolia (renewables activities) in Spain (signed in November with the deal expected to be closed in early 2022). The IMO will continue to act as integration manager during the execution phase. In the context of its partnerships, the Group may notably establish contractual provisions to resolve deadlocks or disputes or exit clauses to avoid conflict situations between the partner(s). In addition, the Group is seeking to develop its partnership strategy to simplify the management of its partnerships and to focus on a more limited number of partners per activity and per geographical area.

2.2.6.4 Supply chain risk in the renewable energy sector

Description

Against a global backdrop of energy transition, the low-carbon technology suppliers are in high demand by all energy players. These suppliers are also impacted by the geographical predominance of manufacturing certain raw materials in regions where there are allegations of forced labor that have recently resulted in national and international reactions and, in particular, economic sanctions.

As an example, in the United States, the Group is developing solar farms and imports the majority of its solar panels for these farms from Chinese provinces. Since June 2021, due to allegations of forced labor in these provinces, the US authorities have banned, under the Withhold Release Order, certain Chinese producers of raw materials and have introduced import restrictions for other suppliers who may use these products from the regions implicated. In addition, the price of these raw materials as well as the cost of international shipping has risen considerably.

These different factors may lead to delays and budget overspends exceeding the project contingencies and result in customer complaints.

In addition, ENGIE does not wish to procure supplies from Chinese manufacturers that are unable to provide proof that they have not used forced labor. In 2021, ENGIE introduced a specific heightened vigilance action plan to identify and manage risks of forced labor practices in the Group's supply chains in China. ENGIE has agreed to ensure compliance with international laws and actively monitors the situation to ensure that no forced labor is used anywhere along its supply chain.

Risk management measures

The Group is developing different strategies to limit its dependence on key suppliers:

- by diversifying its sources of supply: the Group is working on building partnerships not only with its usual compliant suppliers, but with producers from outside high-risk countries that are located as close as possible to end-users;
- In the United States, the Group has charged a specialist control body to conduct audits on the traceability protocols of solar panel suppliers and their capacity to comply with US import regulations;
- In the longer term, the Group is working on improving the technologies used and on recycling materials from its old farms via its research centers.

The main measures put in place to identify and manage the risks of forced labor practices in the Group's supply chains in China include in-depth due diligence on suppliers, supply chain evidence requested from suppliers, written commitment from suppliers not to use forced labor, sending out questionnaires in which suppliers have to provide evidence that they ban forced labor and, if necessary, in-depth investigations and contract terminations if they breach their responsibilities. These measures are also covered by the Group's vigilance plan which is presented in Section 3.9 "Vigilance plan."

2.2.6.5 Risk of malicious acts on tangible and intangible assets

Description	Risk management measures
	
The Group's sites and industrial or tertiary facilities, which make up its tangible assets, may be exposed to malicious acts. Information, whether digital, physical or communicated verbally, constitutes its intangible assets and may also be exposed to malicious acts.	The Group has introduced a policy for the protection of tangible and intangible assets, covering technical (including IT), legal, managerial and organizational areas. Regarding tangible assets, sensitive sites are subject to protective measures tailored to the local situation and revised according to the threat status. As part of the deployment of the policy for the protection of assets, the Group has introduced a system to catalog incidents and gather feedback to improve risk assessment and prevention in order to limit the impact of any malicious acts. Their analysis is included in a quarterly report and makes it possible to implement the necessary, strategic and operational prevention and mitigation measures. Regarding the anticipation of threats to tangible assets, the Group provides the following for the GBU: • monitoring threats to the Group's facilities. The information collected is forwarded to the safety officers of the entities in question who are responsible for taking urgent and long-term protective measures to ensure the protection of the targeted facilities; • "country risk" monitoring in order to anticipate the threat and adjust the level of protection measures; • disseminating "directives" on protective measures for certain types of facility. In terms of data protection, the Group continuously adapts its approach with a view to: • raise employee awareness; • process any incidents reported; and • prevent any internal or external action aimed at capturing and using sensitive information.

2.2.7 Social and societal risks

The Group is also exposed to risks whose the direct financial impact is difficult to assess, but the non-financial impact of which is considered significant. These risks are developed in more detail in Chapter 3 “Non-financial statement and CSR information.”

2.2.7.1 Risks related to human resources

<table>
<tr><th>Description</th><th>Risk management measures</th></tr>
<tr><td>
In a context marked by an unprecedented health crisis and by the Group’s strategic reorientation, the risk analysis relating to human resources revealed four main risks:

Skills/loss of talent risk: mismatch between skills and needs relating to the Group’s activities and transformation, and loss of key skills;
Overstaffing risk: difficulty of redeploying staff within the timeframes and at a cost that is compatible with the challenges of maintaining the Group’s profitability;
Disengagement risk: disempowerment, loss of confidence, individual discomfort, “bore out” or “brown out,” managerial behaviors not meeting the Group’s expectations;
Social risk: social tensions relating, on the one hand to changes in the Group’s strategy and, on the other, to legislative and regulatory changes in relation to our activities.

</td><td>
Skills/loss of talent risk
In a tight employment market, especially in the technical sector, the Group is committed to five main areas:

identifying, developing and retaining high-potential talent at all levels of the organization by applying a Talent Management policy and talent development program (ENGIE Boost);
developing apprenticeships as the ideal way to access to the jobs of the future, given the current shortage of technical-related jobs, especially through the creation of ENGIE’s Apprentice Training Center (Centre de Formation d’Apprentis or CFA) the “Academy of Energy and Climate Transition professions";
achieving ambitious non-financial targets in relation to social responsibility by recruiting enough women who are trained in those professions;
giving every employee the opportunity to receive training on a yearly basis (ENGIE U; ENGIE Schools);
redeploying staff from activities in decline as a result of regulatory decisions (gradual exit from nuclear in Belgium, end of regulated gas tariffs in France in 2023, RE2020).

Overstaffing risk
Through the ENGIE Skills and ENGIE Mobility programs, in particular, the Group is keen to develop the employability of its staff by adapting skills to changes in occupations and requirements.
Consequently, the Group signed an agreement on job and professional pathway management (gestion des emplois et des parcours professionnels or GEPP) applicable within all ENGIE SA establishments, which aims to guarantee the continuity of professional pathways, the employability and personal development of employees and to develop a high-quality social dialog around issues of employment, professional pathways and skills training.
Disengagement risk
The Group is implementing a number of initiatives aimed at:

measuring the employees commitment (ENGIE&Me);
strengthening ways of working (ENGIE WOW);
retaining employees: remote working agreement, ENGIE Care, Employee shareholding, ExpAND, the Communau’Tech.

Social risk
Within national and European representative bodies and through national, European and global collective bargaining agreements, ENGIE involves its social partners in the implementation of its Social Ambition, which has been opened and broadened to take into account environmental and social challenges.
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2.2.7.2 Ethical risks

Description	Risk management measures
	
The main risks identified are: • corruption; • violations of human rights; • non-compliance with competition and/or embargo rules; • fraud; • breaches of personal data (privacy). Any breach of the ethical principles of the Group could constitute a legal, judicial and reputational risk (see Note 26 of Section 6.2.2 “Notes to the consolidated financial statements”).	In order to prevent the occurrence of such risks, ethical compliance policies and procedures are rolled out throughout the Group and apply to all of the controlled entities. The Legal, Ethics and Compliance Department promotes their widely implementation within the Group, relying on the management, the network of Ethics & Compliance Officers and Data Protection Managers, as well as on employee training. They notably contribute to compliance with the Sapin II and Duty of Vigilance laws as well as with European Regulation 2016/679 on personal data protection. The Ethical and the non-compliance risks are analyzed annually and action plans are implemented if necessary. Moreover, risks relating to corruption and human rights/duty of vigilance are specifically assessed as part of the Group’s risk analysis process by the Risks Management Department (see Section 3.8 “Ethics and compliance”). In addition, the policy on the analysis of ethical risks relating to investment projects and major contracts and the human rights guidelines applicable to the whole Group require the entities to analyze corruption risks and human rights risks for every new project. Lastly, after having obtained ISO 37001 certification for 2018, 2019 and 2020, the Group obtained a new ISO 37001 certification in 2021 and started out on another three-year certification program. This certification provides a guarantee of the Group’s Ethics and Compliance system.

2.2.7.3 Reputational risk

Description	Risk management measures
	
The energy sector is the subject of various public debates due to the profound changes that it is undergoing. The Group is exposed to reputational risk, both directly and indirectly, especially when the Group’s values, ethics, operational excellence or legitimacy as an operator are called into question. Damage to the Group’s reputation could have an impact on its business and its ability to win new contracts.	As a vital part of the Group’s intangible corporate assets, the “ENGIE” brand (registered in more than 100 countries) is constantly monitored to protect it against any fraudulent use that could harm the Group’s image. Through its policies, organization, procedures and governance, the Group endeavors to prevent operational risks (see Sections 2.2.5 “Industrial risks” and 2.2.6 “Other operational risks”) and smear campaigns that could affect its reputation (see Section 3.3.2 “Main societal risks”). The Group uses external monitoring to record disputes, including those on social networks, where its name is mentioned, in order to identify and deal with any problems at the source.

2.2.7.4 Security of people (terrorism, crime, social protest, etc.)

Description

The international scope of the Group means that some employees and other parties such as subcontractors may be exposed to health and security risks. This threat is managed via a specific organization that includes a "country watch."

The Group's activities in regions where political, economic or social instability is considerable carry risks to the security of certain employees. Sensitive countries for the Group include Peru, Colombia, Mexico, Indonesia and the Philippines. Risks relating to terrorism targeting the French community and its interests have never been considered as high as they are currently. Terrorist attacks in France and violent protest against France in certain countries are among the factors weighing on the security of employees.

Risk management measures

Wherever it operates, the Group continually assesses the risks related to security: terrorism, armed conflict, political or social unrest, organized or ordinary crime and, more generally, the occurrence of "unconventional" situations.

Geographic areas are subject to classification that corresponds to specific prevention and protection measures. To accomplish this mission, the Group relies on State services as well as specialized providers.

Measures are implemented across all entities led by the Group's Security Department. For example, the following have been rolled out:

- tools to provide training and information, monitoring and assistance to employees;
- an alert, analysis and prevention system that is constantly updated by specialized and recognized providers.

The Group works in partnership with these providers to manage security and health risks.

2.2.7.5 Risks associated with health and safety at work (including psychosocial risks/wellbeing at work)

Description

The Group is committed to eradicating serious accidents and continuing to reduce occupational accidents among its employees, subcontractors and temporary workers, to improving well-being at work and to preventing psychosocial risks.

The Group faced a particularly tragic year in 2021. Although the number of lost-time accidents continued to fall, ENGIE deeply regretted the death of 16 employees and subcontractors during the year.

Of the 16 fatalities, seven were due to the same accident at the construction site for a high-voltage power transmission line in Brazil (Novo Estado project), when a pylon fell over due to a fault in construction quality.

Risk management measures

Management reacted swiftly and decided to implement a program of specific and enhanced measures, focusing on improving the safety culture and managerial leadership on this key issue and promoting commitment and vigilance among all individuals to protect their lives and those of others. This program of actions will also be based on an in-depth assessment of employee and subcontractor health and safety culture conducted in early 2022 by a specialist consultancy firm. The measures put in place and described in Section 3.4.8 "Health and safety policy" will, therefore, be supplemented as a result of the findings of this assessment.

Without waiting from the findings of the ongoing assessment, the Group has taken a certain number of measures, in particular:

- a one-hour "safety stand down" was organized for all teams. Held on October 19, 2021, this was a dedicated opportunity to discuss safety within the teams;
- in-depth health and safety reviews at certain construction sites deemed to be particularly at risk;
- additions to action plans aimed at ensuring the safety of subcontractors;
- improvement of the prevention of electricity-related accidents; and
- strengthening of the Group's safety, quality assurance and control standards.

The different measures put in place by the Group to prevent serious and fatal accidents are described in Section 3.4.8 "Health and safety policy".

2.3 Internal control procedures

2.3.1 Internal control definitions and objectives

2.3.1.1 Internal control standard

ENGIE's internal control is based on the COSO II model of the Committee of Sponsoring Organizations of the Treadway Commission and the AMF reference framework. It includes five components: control environment, risk assessment, control activities, information and communication, and monitoring activities.

2.3.1.2 Internal control objectives

ENGIE's internal control aims to provide reasonable assurance that the following objectives are being met: compliance with laws and regulations, reliability of accounting and financial information, and effectiveness and efficiency of operations. Internal control adapts to changes in the Group's organization and businesses and contributes to the rolling out of its strategy.

2.3.1.3 Internal control limits

Internal control cannot provide absolute assurance, particularly due to possible dysfunctions relating to error or human failure and arbitrage between the costs relating to the potential occurrence of a risk and the cost of the measures designed to prevent it.

2.3.1.4 INCOME program

Each year, ENGIE updates the scope of the most significant controlled entities on the basis of financial materiality and an analysis of risks. Via the Group's INternal COntrol over Management Efficiency or INCOME program. As a result, in 2021, ENGIE monitored a scope accounting for 76% of the Balance sheet total and 83% of the Group's consolidated revenue.

2.3.2 Internal control organization and stakeholders

2.3.2.1 Organization of internal control

The organization of internal control complies with the principles of the Group's organization, including autonomy and the accountability of managers. In the context of the authorities delegated by the Chief Executive Officer, each manager is responsible for implementing and overseeing an internal control system that conforms to the regulatory framework. The Internal Control Department reports to the Finance Department and is responsible for leading and coordinating the Group's internal control system. It updates the standard, methodology and information system which centralizes the assessments of the system's effectiveness.

2.3.2.2 Elements of the general compliance framework

2.3.2.2.1 Ethics and compliance

In line with its values and its undertakings, ENGIE aims to act in compliance with the laws and regulations in force in the countries where it operates in all circumstances. To this end, the Group has established an ethics policy that guides its strategic decisions, management and professional practices. It also has the necessary tools to measure compliance with this undertaking (see Section 3.8 "Ethics and compliance").

2.3.2.2.2 Information systems

The IT solutions strategy, policies and standards are defined by the Group Digital and Information Systems Department. The security of information systems of the sectors and central functions of the Group is the responsibility of the corresponding functional departments, in accordance with these policies and standards. The regions are responsible for the security of their Information Systems under the supervision of the Group Digital and Information Systems Department. The GBU are responsible for Industrial control systems (ICS). The Group Digital and Information Systems Department manages technical actions to secure their connection to the cybersecurity supervision platform of the Global Security Operations Center.

Important subjects for internal control, such as the segregation of duties and the management of access rights, are taken into account during the design stage of new information systems and regularly reviewed thereafter. Regional IT Managers are responsible for the information system recovery plans.

2.3.2.2.3 Internal policies and standards

All the decisions, standards and procedures issued by corporate defining the Group's methods of operation are available on its intranet. The Finance Department provides the procedures and rules intended to ensure the reliability of the accounting and financial information applicable to the Group's entities. The Internal Control Department provides Group employees with access to 61 standards covering business, support and global processes (for example sales, procurement, payroll, information systems, accounting, taxes, cash management, etc.). Each standard details the intrinsic risks and the key controls designed to manage them. The Internal Control Department provides all entities with methodological guides relating to the definition, assessment and coordination of an internal control system adapted to the nature of their activities. It updates and shares best practice on subjects such as the segregation of duties, the role of directors and data protection.

2.3.2.3 The system's stakeholders

The stakeholders and their respective roles are presented according to a management model with three lines, overseen by ENGIE's governance bodies.

2.3.2.3.1 The Group's governance bodies

The Board of Directors ensures the correct functioning of the Group's internal control. The Executive Committee defines the organization and responsibilities of managers and ensures compliance with the delegations of authorities. An annual review of internal control is submitted to the Executive Committee and the Audit Committee.

2.3.2.3.2 First line of management

The operational managers, who are responsible for the internal control of their organizations, constitute a key element of the system. They ensure that control activities are implemented, analyze the results, correct any deficiencies and endeavor to improve the efficiency of their system.

The Management Committees of the GBU, regional hubs and operating entities are responsible for establishing and overseeing the internal control covering the scope of their activities. They play a vital role in the quality of the control environment: promoting Group values, defining the organization, assessing results, etc.

2.3.2.3.3 Second line of management

This line of management is organized into sectors, overseen by the Group's corporate departments.

The Finance Department carries out internal accounting and financial control (see Section 2.3.3 below). Within this department, the Insurance division is involved in risk identification, loss prevention, and the definition and implementation of hedging strategies.

The General Secretariat helps to make the Group's operations and the decisions of its managers legally secure, particularly in the following areas: commitments, litigation, arbitration, studies and actions to protect the criminal liability of the Group and its managers, embargo, company law, financial and stock market regulation, intellectual property law, competition law and regulation and financial law.

Within the General Secretariat, the Legal Department manages the legal line and legal framework of the Group's activities while the Ethics, Compliance & Privacy Department manages the ethics line and ensures compliance with ethical principles.

The Societal Responsibility Department monitors ENGIE's CSR compliance, particularly with regard to environmental and social matters It proposes Group policies in this area, assesses the ESG maturity of the Group's various businesses, monitors the achievement of 2030 CSR targets and is in charge of regulatory environmental reporting.

The Internal Control Department coordinates the implementation of the internal control policy approved by the Executive committee. It coordinates a network of representatives who are in charge, under the responsibility of the managers of the entities, of guiding internal control. It monitors and anticipates regulatory and Group developments to adapt the relevant procedures. It organizes training and information sessions.

2.3.2.3.4 Third line of management: the Internal Audit Department

Reporting to the Chief Executive Officer, the Audit Department operates throughout the Group in accordance with an annual plan based on risk analysis and interviews with the operational managers. This plan may be expanded at the request of the Executive Committee according to the Group's priorities. Submitted for approval to the Audit Committee, the plan is designed to cover all the entities and enables the quality of the business control and management environment to be checked.

Internal Audit helps review the reliability of the self-assessments of controls carried out under the INCOME program and the internal control of operational and financial processes. Internal Audit presents its conclusions to the managers of the GBU and entities. It reports to the Executive Committee and Audit Committee on its key observations and the progress of related action plans. It meets with the Statutory Auditors to share internal control analyses.

2.3.3 Internal control relating to financial information

2.3.3.1 Organization and stakeholders

The Accounting Department is in charge of financial reporting, preparing the parent company financial statements of ENGIE, producing the consolidated financial statements, and liaising with the Statutory auditors and the accounting departments of the AMF. It establishes the Group's accounting principles and oversees their implementation to ensure compliance with the accounting standards. It monitors the evolution of standards and their impact on the Group's financial statements. Within the Accounting Department, the Group Consolidations Department and the Accounting Standards Department optimize the handling and resolution of complex technical problems. These departments strengthen the quality and standardization of the analyses performed and the positions taken.

The Tax Department is responsible for defining and rolling out the Group's tax policy. It coordinates the validation of tax returns and transfer pricing documentation and ensures that tax data are uniformly reported. It is hierarchically responsible for all tax activities. Generally speaking, it is closely supported by the Finance Departments of the GBU and the Hubs, which assume responsibility for tax in terms of compliance and transparency.

The Group's Performance Management Department is tasked with establishing the analyzes and reports required by the Executive Committee for the economic and financial coordination of the Group. It draws up and maintains the Group's management control toolkit and oversees the rolling out of these toolkits to the various entities. It guides the Management Control sector in defining and implementing processes and tools. It coordinates the Group's performance program.

The IT Solutions Department Finance Sector is a centralized activity at the corporate level that is responsible for the IS strategy of the Finance Function and for the determination and coordination of the IT solutions policies, rules and standards applicable to the sector. Applications and infrastructure are distributed to the entities in accordance with the policies defined by corporate. The IT Solutions Department Finance Sector oversees the implementation of the Group's IS security policy within the sector and monitors and plans IS spending and investments.

The consolidated reporting entities all use the SAP BFC software package for the consolidation of the Group's financial statements and the SAP BPC software package for the Group's management reporting. SAP BFC is jointly managed by the Accounting IT Center of Expertise (which handles administrative tasks and system configuration and provides operating assistance to users) and the Information Systems Department, which is in charge of specific underlying infrastructures.

The Investor Relations Department is in charge of relations with institutional investors and analysts. With regard to management information, the Management Control sector of corporate is the Investor Relations Department's only source of information. Other information arising from the legal reporting process, that is classed as regulated information pursuant to AMF rules, is provided by the Group Accounting Department. Lastly, the department oversees and coordinates the process of market communication (financial information and information on major transactions) in collaboration with the General Secretariat.

Through the functional lines, all of these corporate departments oversee the internal control of their respective fields via the Finance Departments of the GBU and regional Hubs. These Finance Departments are responsible for producing the separate financial statements of the legal entities and converting them according to IFRS. The consolidation of this data converted according to IFRS standards is carried out by Corporate as well as the implementation of internal control procedures at all operating subsidiaries and the decentralized management control (see Section 2.3.3.3 "Setting objectives and coordination").

The Finance Department also uses the current "Missions and operating principles of financial communication" procedure, which sets out management principles for the Group's financial communication and defines its activities relating to investor and analyst relations as well as market intelligence.

2.3.3.2 Consolidation process

The Accounting Department is in charge of producing the consolidated financial statements. It is supported by the **Performance Management Department** and the management reporting teams of the GBU and the Hubs. It updates the accounting principles manual and closing instructions shared before the consolidation phases.

Each of these entities carries out controls in its own area of responsibility to ensure that Group accounting standards and policies have been circulated and applied correctly. Corporate implements second-tier controls of information prepared by the GBU and Hubs, which do the same regarding data provided by the reporting entities.

The Chief Executive Officers and Chief Financial Officers of the GBU, as well as the Chief Financial Officers of the geographical Hubs, attest to the quality and comprehensiveness of the financial information provided to the Group in a representation letter. Discussions with the Statutory Auditors enhance the quality of financial information, particularly in the case of complex situations that are open to interpretation.

2.3.3.3 Setting objectives and coordination

The Group's four GBU and business entities produce a Medium Term Business Plan (MTBP), a budget and budget re-estimates. The **Group's Performance Management Department** prepares instructions for this purpose for each GBU, including details such as macroeconomic hypotheses, financial and non-financial indicators, the timetable and the segmentation of the scope of activity. Each GBU is responsible for sending these instructions to the subsidiaries and reporting entities within its scope after tailoring them to the specific characteristics of its business activity.

The Executive Committee approves for each GBU the objectives set for the following year, the corresponding budget and the outlook beyond the current year derived from the budget process and the MTBP. The testing process for the impairment of goodwill and long-term assets is based on this data. The Group's consolidated budget and MTBP are presented to the Audit Committee and the Strategy, Investment and Technology Committee before being submitted to the Board of Directors.

2.3.4 Formalization and coordination of internal control

Within the scope of the INCOME program, the operational managers oversee the implementation of the control activities of their processes, assess their results and rectify weaknesses detected. They carry out a self-assessment of key controls and processes, with the support of internal control within the entities. Internal Audit, for its part, reviews the quality of these self-assessments and the general control environment. Outside the scope of the INCOME program, internal control toolkits and a specific questionnaire are provided to the entities. These enable sensitive areas to be covered, such as the separation of tasks and the protection of assets.

The Group also implements a system of commitment involving the managers of the GBU, regional Hubs and the main Corporate Departments concerning the establishment, oversight and effectiveness of an internal control system covering their organizations. Each year, meetings take place between the Internal Control Department and the Statutory Auditors in order to share analyses of the quality of the existing systems and to identify action plans to rectify weaknesses detected.

2.3.5 Recent actions to strengthen the system

In 2021, the Internal Control Department developed its operations in line with the Group's new organization. In addition, the Highbond project to automate control activities continued to be rolled out and is now operational across 13 ERP and 40 control activities.

3

Non-Financial Statement and CSR information

French ordinance 2017-1180 dated July 19, 2017 and French Decree 2017-1265 dated August 9, 2017 transposed European Directive 2014/95/EU, also called the non-financial reporting Directive (NFRD), as regards disclosure of CSR information by companies via the Non-Financial Statement (NFS).

Pursuant to this legislation, the ENGIE Group's NFS comprises the following elements:

- a presentation of the governance of CSR performance in Section 3.1 "Corporate Social Responsibility," together with: the Board of Directors' diversity policy, described in Section 4 "Corporate Governance," the Vigilance Plan described in Section 3.9 "Vigilance Plan," and the rules of ethics described in Section 3.8 "Ethics and compliance";
- a description of the Group's activities presented in a summary form by major business segment in Section 3.2 "Business model", and in a detailed form in Section 1.6 "Description of the Group's activities";
- an analysis of the CSR risks relating to the areas referred to in the NFRD Directive, detailed in Section 3.3 "Analysis of the main CSR risks and challenges".

3.1 Corporate Social Responsibility

The fundamental principles of Corporate Social Responsibility are elaborated on in the Group's purpose statement and enshrined in the Group's bylaws.

Rethinking the global energy landscape has today become a necessity in the face of global warming.

The urgent need to reduce environmental impacts means that we have to establish a lower-carbon, more decentralized, more digitized and more pared-back energy system. The Group's societal approach is fueled by its quest for positive impacts on the planet.

3.1.1 CSR policy and governance

ENGIE's Corporate Social Responsibility (CSR) policy sets out the Group's CSR priorities and commitments to bring together everyone's skills, create shared value for all its stakeholders and contribute to the achievement of the Sustainable Development Goals defined by the United Nations. By acting for a positive impact on people and the planet, the Group contributes to ensuring its leadership, over the long term, as a benchmark player in energy transition and related services beyond energy. This policy is detailed in Section 1.5.1.

The Corporate Social Responsibility (CSR) Department relies on a network of designated coordinators in the business units (GBU, GEMS and Nuclear) and geographical entities (national and regional Hubs). To engage employees as widely as possible on these subjects, the CSR Department also uses an internal network of global CSR ambassadors.

The CSR Department provides regular presentations to the Board of Directors' Ethics, Environment and Sustainable Development Committee (EESDC) on the latest CSR topics (science-based targets, task force on climate-related financial disclosures, tracking CSR objectives and commitments, discussions with civil society) and an annual report (CSR ratings, CSR objectives, the environmental and societal actions of the Group).

The CSR Department takes joint leadership with the Finance Department of the Green Financing Committee, overseeing projects likely to be financed by green bonds regularly issued on the market by the Group.

The CSR Department has leadership of the SBT Committee, in which the Finance Department and the relevant GBU participate. This committee is charged with overseeing the decarbonization commitments, particularly those made as part of the science-based targets initiative.

And lastly, the CSR Department takes joint leadership with the Finance Department of the Adaptation & TCFD Committee, charged with overseeing the achievement of financial transparency commitments made in the TCFD initiative (Task Force on Climate related Financial Disclosures) and to monitor the Group's plans to adapt its assets to climate change.

The CSR Department takes joint leadership with the Ethics and Compliance Department of the Duty of Vigilance Committee, charged with overseeing measures to prevent serious violations relating to human rights and fundamental freedoms, the health and safety of individuals and the environment that might arise from the activities of the Group and the subsidiaries it controls.

The CSR Department regularly meets with a range of stakeholders (NGOs, investors, rating agencies, clients, opinion leaders, and experts), and organizes panels and discussion forums to work on the sustainability of offerings and projects related to the Group's operational teams. Employees receive regular training on themes related to sustainable development and stakeholder engagement.

Each year, at its Shareholders' Meeting, ENGIE publishes an integrated report on its overall financial, environmental, social and societal performance. Which, to ensure its relevance, it discusses in advance with its main stakeholders.

3.1.2 2030 CSR objectives

In 2020, the Group has set itself 19 CSR 2030 objectives in line with its purpose and its new strategic orientations.

Each objective has an Executive Committee member as a sponsor and a manager who works in partnership with the functional line concerned to take the necessary action to achieve it. The CSR Department coordinates and monitors these CSR objectives for senior management, the EESDC and the Board of Directors.

The 2021 results of the eight key CSR objectives (referred to as Tier 1) are presented in Section 1.5.2 of this document.

3.1.3 Climate trajectory (related to the recommendations of the TCFD: Task Force on Climate-related Financial Disclosures)

3.1.3.1 Governance

The Board of Directors sets the climate transition strategy and its associated objectives. This subject is central to its work, particularly when the Board holds its strategy seminar and makes investment decisions, which are researched by the Strategy, Investment and Technology Committee (SITC).

Regarding climate, the Board relies on the work of the Ethics, Environment and Sustainable Development Committee (EESDC), which is specially charged with reviewing the risks and opportunities connected with climate change and making its recommendations to the Board.

The Ethics, Environment and Sustainable Development Committee (EESDC) studies and decides on climate-related issues in particular points concerning the implementation of TCFD recommendations, decarbonization objectives and climate policy. This role was confirmed by its inclusion in the Internal Regulations of the Board of Directors in 2019.

In order to fulfill this mission, the EESDC relies on an annual climate assessment, an analysis of climate-related risks and opportunities, as well as other more specific elements (e.g. progress on the adaptation plan). Climate risk is one of the seven primary risks reviewed by the Board of Directors on an annual basis. These reports are prepared by the CSR Department, which also includes a chapter dedicated to climate change in its CSR reporting to the EESDC.

The CSR Department leads the SBT committee in monitoring and managing the Group's decarbonization objectives, and the TCFD & Adaptation committee in monitoring and implementing the TCFD recommendations.

The Group has also set up training modules for directors so that they can ensure that they have sufficient skills to fulfill their roles. The climate is one of the training topics.

The CSR Department also makes proposals to the Appointments, Compensation and Governance Committee on the criteria for compensating the Chief Executive Officer in relation to ENGIE's main non-financial challenges. The Group's energy-related GHG emission performance is one of these.

3.1.3.2 Strategy

In line with its purpose, contributing to the decarbonation of the economy is at the heart of the Group's strategy. This also takes the form of long-term commitments for carbon neutrality (Scopes 1, 2 and 3) by 2045 and of medium to long term commitments that project GHG emissions on a path compatible with the Paris Agreement (see Section 3.1.4).

In order to define its commitments, the Group has studied the resilience of its business model by comparing it to different decarbonization scenarios and by varying the assumptions for the development of its activities.

These commitments are already reflected in the Group's processes: for example via the allocation of 2025 and 2030 carbon budgets to the main businesses and bi-monthly reporting of the consumption of these budgets within the context of new investments.

The impact of climate change on the Group's strategy is being studied as well. An in-depth process is currently under way, with the issue being approached by country or by major climate region where ENGIE has an interest. The study covers four areas: the impact of climate change on country risk; the value of existing assets; the strategic objectives out to 2030, and the strategic issues specific to the countries in question. This study, which is based primarily on three IPCC climate scenarios, will be completed in the second half of 2022.

Moreover, climate change can also bring new opportunities: it encourages the development of new technologies and solutions, which also are opportunities for the Group, particularly in terms of:

- development of renewable energy for electricity ;
- development of green gas (biomethane and hydrogen) ;
- more offers of decarbonization support and solutions for our customers.

3.1.3.3 Risk management

Climate change entails structural risks for the Group.

The transition risks to which the Group is exposed mainly result from the strengthening of emissions regulations and decarbonization policies, changes in market and consumer behavior, and technological developments. The Group has been setting itself greenhouse gas emissions targets since 2012. Since the signing of the Paris Climate Agreement in 2017, the Group has reduced its direct emissions by 53% and total emissions by 30%. It is set to achieve ambitious objectives by 2030 (certified by SBTi) and carbon neutrality in 2045. As well as the emissions of its own industrial assets, the Group acts throughout its value chain, including suppliers, work practices, and support for customers as they decarbonize their footprint.

Physical risks are inherent in the assets and activities of the Group that might be exposed to the impacts of climate change. The collaboration of the CSR Department with the Group's operating entities has made it possible to identify the climate indicators that affect our activities (rising temperatures, floods, droughts, wind, and heat waves). The Group has also forged a partnership with the Pierre Simon Laplace Institute to obtain climate change data for the periods to 2030 and 2050.

With these items, the Group is able to make a list of priority operating sites whose local resilience to climate change is being studied. Analyses of all ENGIE production facilities are under way, evaluating the financial impact of climate change on the Group's business activities. In addition to risk management, insurance coverage and short-term continuity plans, a plan to adapt our high-risk assets for 2030 and 2050 is being drafted.

3.1.3.4 Indicators and targets

ENGIE has a robust panel of key performance indicators (KPI) that enable it to measure its carbon footprint with all the desired level of detail. These indicators allow it to precisely control changes in its GHG emissions. The results of the decarbonization targets are shown in Section 1.5.2.

3.1.4 Science Based Targets certification

The Science Based Targets (SBT) initiative aims to encourage companies to take ambitious climate action by validating the compliance of their forecast chronicles of CO_2 eq emissions with the commitments of the Paris Agreement.

Mindful of its environmental responsibility, ENGIE obtained SBTi "2°C trajectory" certification in February 2020.

For this, the Group is committed to reducing:

- the carbon intensity of its electricity production (scopes 1 and 3) by 52% by 2030 compared to 2017;
- emissions from the use of products sold (scope 3) by 34% by 2030 compared to 2017.

This certification demonstrates ENGIE's aim of becoming a major player in the energy transition to a carbon neutral world.

In May 2021, the Group went a step further by committing to a "well-below 2°C" trajectory by 2030, with a view to being net zero-carbon by 2045;

In this context, ENGIE is committed to ending its coal activity in 2025 for Europe and in 2027 for the rest of the world for all its coal assets.

This exit from coal will be achieved, in order of priority, through closures, conversions and disposals of power plants. If the closure of a coal-fired power plant is indeed preferable to its disposal from an environmental point of view alone, its implementation faces two limits: ENGIE is almost never the sole decision-maker in this matter and closure may not be possible if the coal plant contributes to the energy security of a State or a region.

Whenever ENGIE determines to sell a coal-fired power plant, it weighs CSR considerations in choosing a buyer. The proceeds from the sale also enable the Group to finance the development of renewable capacities that are beneficial to the climate.

Concerning natural gas, the Group's ambition is to gradually replace fossil gas by green gas through the development of biomethane and green hydrogen. These measures complement the Group's commitment to the strong development of renewable energy for electricity, in its ambition to transition to a low-carbon society.

3.1.5 European taxonomy

In order to orient European capital expenditures toward sustainable operations and to reach carbon neutrality buy 2050, the European Union has adopted Regulation 2020/852 of June 18, 2020 and a delegated act dated June 4, 2021 to create a European taxonomy listing the economic activities deemed environmentally sustainable.

Regulation 2021/2078 dated July 6, 2021, requires this Non-financial statement (NFS) to publish the percentage of eligibility (but not alignment rates) of 2021 business activities for listing in this taxonomy using three indicators defined by said taxonomy:

- Revenues;
- Capital expenditure (CAPEX); and
- Operating expenses (OPEX).

Revenues and CAPEX indicators used for these eligibility rate calculations are strictly in line with the taxonomy definitions.

Revenues is the Group's published revenues, i.e. it excludes revenues from entities consolidated using the equity method (like Ocean Winds, partnership with EDPR in offshore wind), and revenues from discontinued operations (like EQUANS).

The CAPEX indicator defined by the taxonomy is different from the one used by ENGIE in its management dialogue and in its financial communication to the market. In particular, the taxonomy does not include financial investments in entities consolidated using the equity method, as well as disposals of DBSO/DBOO *Partnerships.*

In 2021, ENGIE invested nearly €370 million in entities consolidated using the equity method, including €350 million in sustainable activities within the meaning of the taxonomy (primarily Ocean Winds).

ENGIE CAPEX and taxonomy CAPEX can be reconciled as follows:

Data at December 31, 2021, in millions of euros	Capital expenditure (CAPEX) [1]	Taxonomy CAPEX
Tangible and intangible investments	5,990	5,990
(-) Change in tangible and intangible investment liabilities	*0*	*316*
Entry into scope of tangible and intangible investments arising from “Business combinations”	0	44
Takeover of subsidiaries net of cash and cash equivalents acquired	392	0
(+) Cash and cash equivalents acquired	*6*	*0*
Acquisitions of interests in entities consolidated by the equity method and joint arrangements	369	0
Acquisitions of equity and debt instruments	1,548	0
Change in loans and receivables issued by the Group and others	-121	0
(+) *Others*	*3*	*0*
Changes in ownership interest in controlled entities	36	0
(-) Impact of DBSO activity-related disposals	-270	0
Right of use assets (IFRS16)	0	493
TOTAL	**7,954**	**6,843**

(1) see Note 6.6 of Section 6.2 Consolidated financial statements

On the other hand, the definition used for **the OPEX indicator** is wider than the taxonomy’s strict definition, for reasons of information availability and relevance.

Eligible operating expenses (taxonomy OPEX) are “day-to-day servicing of assets” OPEX (strict definition) comprising maintenance, upkeep and repair of tangible assets including R&D expenditure or associated leases. The different reporting methods that exist within the ENGIE Group mean that it is not possible to calculate taxonomy OPEX within the strict meaning of its definition.

ENGIE has used a wider definition of OPEX by adding OPEX relating to “day-to-day operating of assets” (wider definition), comprising, in particular, energy purchases for the operation of assets and personnel costs relating to operations.

The results of this work are given in the three tables below, with a breakdown of the results by segment.

2021 revenues used by the taxonomy

Segment	Eligible Revenue (€ million): A	Total Revenue (€ million): B	Percentage of eligibility of revenues: (A/B)
Renewables	3,661	3,661	100%
Networks	483	6,700	7%
Energy Solutions	5,732	9,939	58%
Thermal	482	4,089	12%
Supply	999	13,238	8%
Nuclear	0	56	0%
Others	19	20,183	0%
TOTAL	**11,375**	**57,866**	**20%**

2021 Capital expenditure (CAPEX) used by the taxonomy

Segment	Eligible CAPEX (€ million): A	Total CAPEX (€ million): B	Percentage of eligibility of CAPEX: (A/B)
Renewables	2,414	2,417	100%
Networks	129	2,285	6%
Energy Solutions	610	754	81%
Thermal	64	351	18%
Supply	44	287	15%
Nuclear	0	196	0%
Others	44	554	8%
TOTAL	**3,305**	**6,843**	**48%**

2021 Operating expenses (OPEX) used by the taxonomy

Segment	Eligible OPEX (€ million): A	Total OPEX (€ million): B	Percentage of eligibility of OPEX: (A/B)
Renewables	797	797	100%
Networks	24	2,398	1%
Energy Solutions	4,081	7,685	53%
Thermal	45	2,659	2%
Supply	1,023	2,592	39%
Nuclear	0	1,206	0%
Others	30	23,743	0%
TOTAL	**6,001**	**41,080**	**15%**

In 2021 ENGIE recognized taxonomy-eligible revenues of 20%, taxonomy-eligible CAPEX of 48% and taxonomy-eligible OPEX of 15%.

These Group figures (excluding EQUANS) mask great disparities from one business line to another.

All the activities of the Renewables GBU are eligible (100%).

Energy Solutions GBU activities are mostly eligible (58% for revenues, 81% for CAPEX and 53% for OPEX) whereas only a minority of Thermal & Supply and Networks GBU activities are taxonomy-eligible.

On the other hand, the three gas network activities (transport, distribution and storage) will gradually become eligible as they are converted to renewable gas and hydrogen storage.

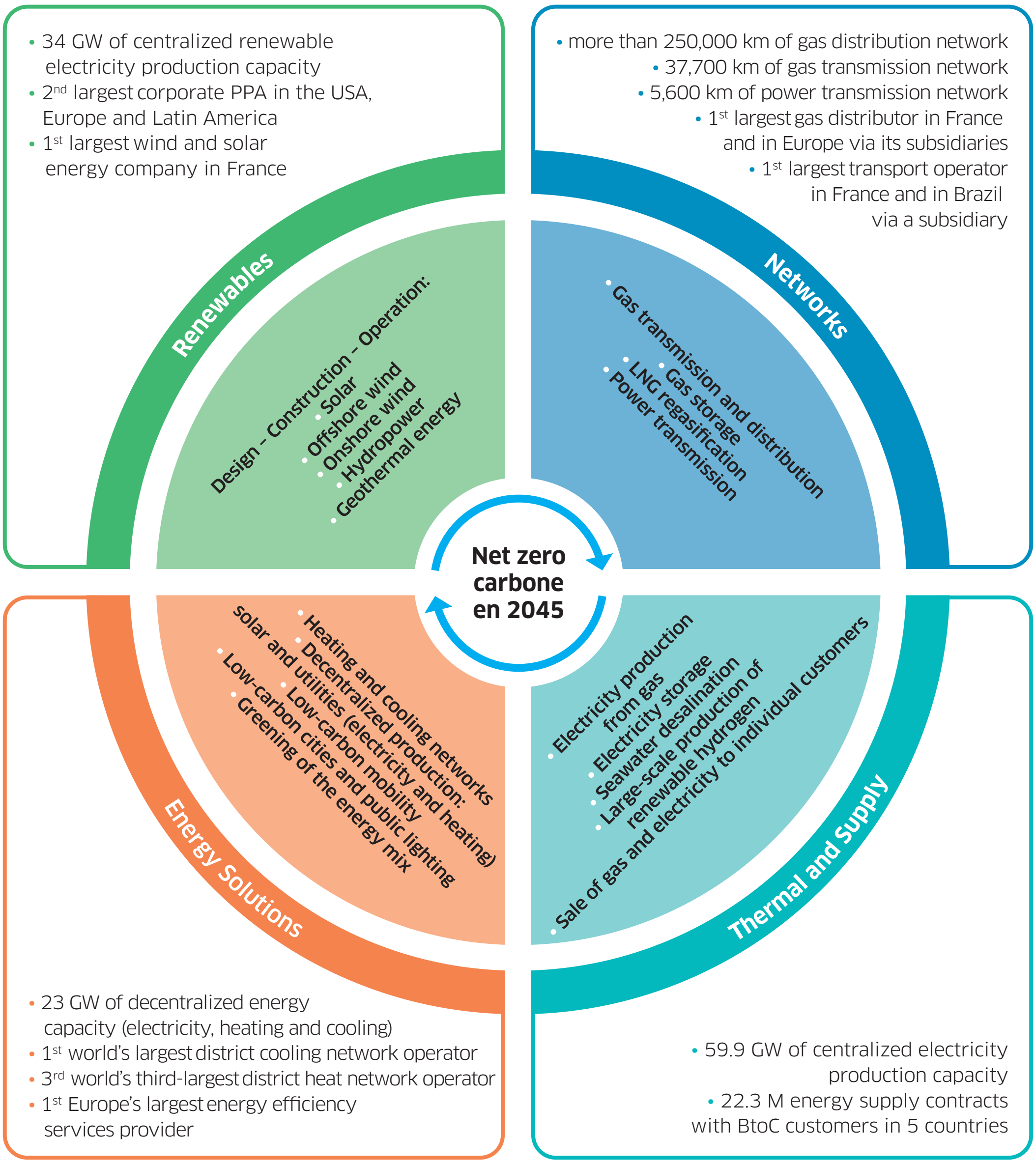
Lastly, Other activities (including GEMS) and Nuclear are not taxonomy-eligible.

It should be noted that 75% of growth CAPEX for 2021 are eligible, which is significantly higher than the 48% for all CAPEX (growth and maintenance).

3.2 Business model

The acceleration of the energy transition is shifting the sector's value towards more environmentally-friendly activities and services that are closer to the end customer. It has also created a need to provide responses tailored to each region, incorporating a good understanding of local situations and resources. ENGIE is involved in raising awareness of, and co-constructing, the energy transition with its stakeholders.

The Group's activities, detailed in Section 1.6 "Description of the Group's activities", can be represented as follows:



The Group's four business segments (Renewables, Networks, Energy Solutions, and Thermal & Supply) and Other Activities utilize capital or resources of different kinds and create value according to five areas, as shown below. This presentation covers the International Integrated Reporting Council (IIRC) principles.

Value creation for ENGIE

RESOURCES

Financial capital
equity capital, borrowed capital, etc… See Section 6.2 "Consolidated financial statements"

Industrial capital
industrial assets, capital expenditure, expenditure on development and maintenance, etc… See Section 6.2 "Consolidated financial statements"

Intellectual capital
workforce and expenditure on R&D and innovation, etc… See Section 1.3 "Research, technology and innovation"

Human capital
workforce, expenditure on staff and training etc… See Section 3.4 "Social Information"

Societal Capital
stakeholders mobilized internally and externally, etc… See Section 3.6 "Societal Information"

Natural Capital
volumes of and expenditure on purchasing raw materials, other supplies, expenditure relating to environmental preservation, etc… See Sections 3.5 "Environmental Information" and 3.7 "Purchasing, subcontracting and suppliers"

BUSINESS MODEL

- Renewables
- Networks
- Energy Solutions
- Thermal & Supply
- Other activities

VALUE CREATION

A sustainable energy transition
renewable power generation capacities, proportion of renewable energy in the portfolio, waste recycling rate, rate of reduction of CO_2 emissions and other pollutants, % of power generation sites with an environmental plan agreed with the stakeholders, etc… See Section 3.5 "Environmental Information"

A profitable energy transition
organic growth in revenue and EBITDA, remuneration of shareholders, ROCE, etc… See Sections 1.4.3 "2021 Key financial figures" and 6.2 "Consolidated financial statements"

An energy transition for the future
investment in innovation and digital, number of labs created, etc… See Section 1.3 "Research, technology and innovation"

An energy transition for all
recurring amount of taxes paid, amount of local purchasing, % of SMEs among suppliers, number of customers benefiting from subsidized tariffs, number of beneficiaries with access to energy See Sections 3.6 "Societal Information" and 3.7 "Purchasing, subcontracting and suppliers"

An energy transition that brings together
compensation policy, percentage of employee shareholding, level of employee engagement, accident frequency rate, % of industrial sites that have established a system for stakeholder dialogue See Sections 3.4 "Social information" and 3.6 "Societal information"

3.3 Analysis of main CSR risks and challenges

In order to identify the main CSR risks, ENGIE relied on the most recent version (2020) of its matrix of challenges, called the "materiality matrix" which was created to better reflect the expectations and priorities of its stakeholders and its management and to target its strategy and actions more effectively.

This results in 20 challenges, divided into four categories, namely: four fundamental, seven material, two major, and seven decisive.

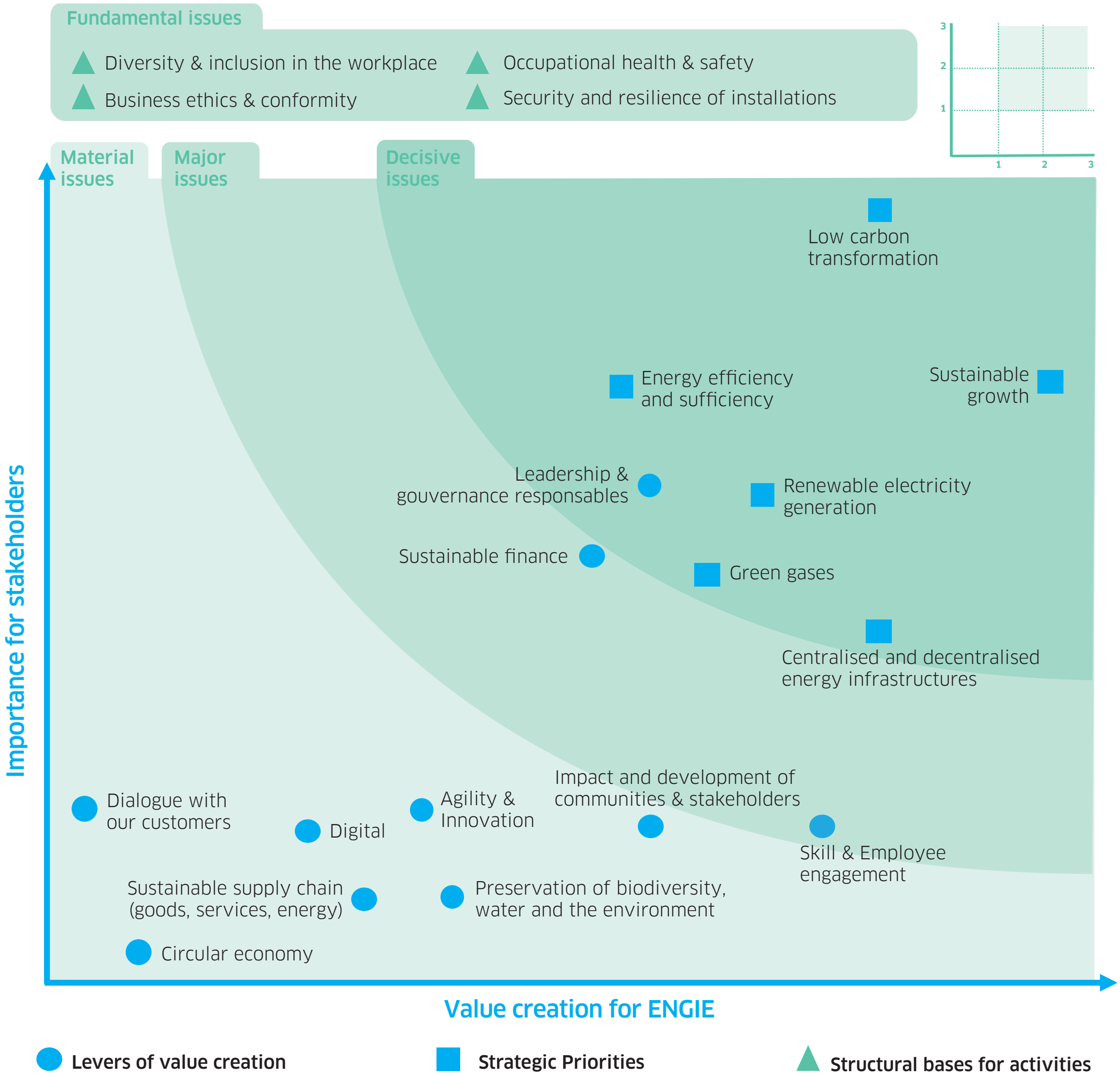
The fundamental challenges are long-lasting issues that form the founding basis for the responsible conduct of the Group's industrial and commercial activities. Therefore, they were not ranked or compared with other challenges. The other challenges were assessed and classified according to three categories of increasing materiality:

- the material challenges that create value for the Group;
- the major issues that make a significant contribution to this value creation;
- and the decisive issues that make an essential contribution to it, six of which constitute the Group's strategic priorities.

The challenges are positioned on the matrix:

- according to their importance for stakeholders (vertical axis);
- according to the impact in terms of value creation for ENGIE (horizontal axis).

The method used to construct the matrix can be found on the Group's website (Corporate Social Responsibility area).



The definitions of the 2021 challenges are provided in the following tables:

Challenge	Definition
1. Responsible leadership & governance	Ensure exemplary and transparent leadership and governance, adapted to the strategic challenges; ensure transparency and integrity of information through reliable communication, effective management of potential controversies and ENGIE's brand image; ensure the clarity of the Group's objectives; ensure that the Group's actions are consistent with its purpose.
2. Digital	Put our digital expertise at the service of the energy transition by offering our customers innovative and differentiating solutions and services; leverage these technologies to improve the Group's operational efficiency and to strengthen cohesion between our employees through new collaborative tools.
3. Sustainable growth	Ensure the resilience of the Group's business model as well as the growth of financial results over the long term; guarantee value sharing with all stakeholders (incentive-based compensation for senior management and all employees; ensure shareholder attractiveness and loyalty); limit the risk of stranded assets; ensure stability in terms of financial and CSR ratings.
4. Safety and resilience of installations	Ensure the operating safety of facilities and business continuity by guaranteeing: the security and surveillance of the Group's sensitive sites (nuclear and industrial), the resilience and adaptation of facilities to climatic risks, the cybersecurity of industrial systems, the confidentiality and protection of the personal data of our employees and clients; ensure the dismantling of nuclear sites under the required security conditions.
5. Employees' skills and commitment	Encourage employees to take ownership of ENGIE's purpose, strategy and values by making them actors in their deployment; strengthen the relationship of trust between management and employees; explore and develop new ways of working adapted to employees' needs; ensure quality social dialog within the Group; to capitalize on employees' skills and support them in their professional development; attract and develop talent; strengthen intrapreneurship in our practices.
6. Occupational health & safety	Guarantee safety and optimal working conditions for our employees, contractors and subcontractors in all geographic areas where the Group operates.
7. Diversity & inclusion in the workplace	Promote equal opportunities and make equal treatment a reality; ensure non-discrimination with respect to both our employees and our candidates; promote diversity of profiles and experience at all levels of the company.
8. Circular economy	Encourage circularity throughout the value chain by guaranteeing the recycling, reuse and recovery of resources in operations; control the consumption of resources (responsible consumption); ensure efficient use of raw materials.
9. Preservation of biodiversity, water & the environment	Prevent and control the impact of the Group's operations on biodiversity, water and the environment (noise pollution, soil pollution, water and air pollution); be a player and driving force in environmental protection and contribute to the restoration of natural habitats through targeted and concrete commitments.
10. Low-carbon transformation	Acting positively for the environment and the climate by ensuring a clear and ambitious shift towards low-carbon activities, by withdrawing from carbon activities, by developing offers aimed at reducing the carbon footprint of the Group's customers, by controlling the carbon footprint of our supply chains and our working practices (ways of working).
11. Renewable electricity production	Strengthen our investment in a competitive and sustainable portfolio of renewable energy power generation activities and ensure their local acceptability; anticipate new renewable energy sources and be a player in their deployment.
12. Green gases	Sustainably develop the entire green gas value chain (biomethane, hydrogen); raise awareness among our clients and stakeholders of the role of green gases as levers for resilience and performance in the energy transition.
13. Centralized and decentralized energy infrastructures	Pursue the development of gas and electricity energy infrastructures as well as decentralized infrastructures (heating and cooling networks, networks of charging stations for electric vehicles, urban public lighting networks, etc.); take advantage of new technologies for the intelligent and connected management of networks and infrastructures.

Challenge	Definition
14. Agility & innovation	Change the corporate culture towards greater agility and openness to innovation; strengthen our ability to evolve (adaptation of business models and group organization, transformation of working methods, development of intrapreneurship, etc.) in the face of changes in the Group's environment (expectations, uses, etc.).
15. Dialog with our customers	Engage in a strategic dialog with our current and historical clients in order to best support them in their low-carbon transformation; make all our clients aware of our values and commitments; develop a quality partnership relationship and adapt to the specificities of our geographical locations; commit to long-term performance (energy, carbon, etc.) with our clients.
16. Business ethics & conformity	Ensure responsible business conduct through robust and transparent ethical practices in operational activities (e.g. anti-corruption, taxation).
17. Impact & development of communities and stakeholders	Work for the respect of human rights throughout our value chain; maintain a continuous and quality dialog with stakeholders; develop new partnership dynamics; contribute positively to territorial development, while respecting local communities and taking into account changing needs; contribute to a fair and efficient energy transition; encourage a more inclusive and equitable economy.
18. Sustainable finance	Work towards sustainable finance through: promoting responsible financial instruments (green bonds, etc.), integrating ESG issues into the investment process in order to encourage the development of sustainable activities; demonstrate the alignment of ENGIE's actions with the growing expectations of investors and CSR rating agencies; anticipating and adapting to regulatory changes in this area.
19. Sustainable supply chain (goods, services, energy)	Promote ENGIE's CSR practices throughout its supply chains; foster quality dialog with its suppliers; forge strategic partnerships for sustainable development; control the social and environmental risks related to the activity and geographic location of suppliers of goods, services and energy; favor a diversified panel of suppliers in order to guarantee business continuity.
20. Energy efficiency & sufficiency	Support an individual and collective approach to technical changes, uses, practices and organizational methods aimed at reducing energy consumption; at all levels of the Group: daily work practices, operations, supply chain and at our clients' sites through our offers as well as at the level of our infrastructures.

These 20 challenges generate CSR risks and opportunities. These CSR risks are classified in accordance with the regulations into the following categories:

- environmental;
- societal;
- social;
- and governance.

The main United Nations Sustainable Development Goals (SDGs) that could be impacted by these risks are also indicated.

The risk analysis included in Chapter 2 "Risk factors and control" is different from the analysis of these CSR risks. In Chapter 2, risks referred to as "net specific material risks" are assessed and ranked. They are specific to ENGIE's activities and could have a financial impact in the short or medium term in the context of investment decisions concerning ENGIE. They are classified as "net" considering their potential residual impact once the measures taken by the Group to reduce them have been taken into account.

The risks included in this Section are CSR-related, not necessarily specific to ENGIE's activities, and may have a medium- or long-term impact. These are gross risks not mitigated by ENGIE's management measures.

These different approaches explain the differences between the list of risks presented in Chapter 2 and those presented in this Section.

ENVIRONMENTAL RISKS

Challenge 2: Digital
Challenge 4: Security and resilience of installations
Challenge 8: Circular economy
Challenge 9: Preservation of biodiversity, water and the environment
Challenge 10: Low-carbon transformation
Challenge 11: Renewable electricity generation
Challenge 12: Green gases
Challenge 13: Centralized and decentralized energy infrastructures
Challenge 20: Energy efficiency & sufficiency

	Associated CSR risks	Associated opportunities	Associated SDGs
A	*Process safety:* corresponds to the risk of harm to the integrity of persons or property due to the Group's operational activities.	Sales of services: digitization, robotization, security and monitoring of sensitive sites, help with adapting customer facilities to climate change, and help with the decarbonization of customer portfolios	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 13 CLIMATE ACTION
B	*Nuclear safety:* corresponds to specific risks in the event of accidents that might result in radioactive releases from the Group's nuclear plants.		
C	*Cyber attack on industrial systems:* corresponds to the risk of an attack on industrial command systems.		
D	*Malicious damage to tangible and intangible assets:* corresponds to malicious acts affecting the Group's industrial or tertiary sites and facilities, which make up its tangible assets, as well as those affecting information, which is part of the Group's intangible assets, whether conveyed on computerized or physical media or even verbally.		
E	*Contribution to climate change*	Service sales: reducing the carbon footprint of industrial sites, environment management plans Program to restore flora and fauna Mobilization of stakeholders: customers, employees, regions and NGOs	3 GOOD HEALTH AND WELL-BEING; 13 CLIMATE ACTION; 6 CLEAN WATER AND SANITATION; 14 LIFE BELOW WATER; 15 LIFE ON LAND
F	*Impact of climate change*		
G	*Biodiversity*		
H	*Water stress*		
I	*Waste management*		
J	*Atmospheric pollution*		
K	*Pollution of the surrounding environment*		

SOCIETAL RISKS

Challenge 3: Sustainable growth
Challenge 15: Dialog with our customers
Challenge 17: Impact and development of communities and stakeholders
Challenge 18: Sustainable finance
Challenge 19: Sustainable supply chain

	Associated CSR risks	Associated opportunities	Associated SDGs
L	*Societal acceptance:* the Group's activities involve the holding of various permits and authorizations, the obtaining or renewal of which with the competent regulatory authorities may involve long and costly procedures. The Group may face opposition from the local population or associations during the installation or operation of certain equipment.	Co-construction of offers with stakeholders Continuation of industrial activities Development of the access to energy offer in unserved regions Tackling fuel poverty with adapted offers Group's societal role beneficial to its internal and external reputation	3 GOOD HEALTH AND WELL-BEING; 11 SUSTAINABLE CITIES AND COMMUNITIES; 7 AFFORDABLE AND CLEAN ENERGY; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 8 DECENT WORK AND ECONOMIC GROWTH; 13 CLIMATE ACTION
M	*Management of major projects:* particularly including dialog with stakeholders, non-compliance with costs and construction deadlines and the operational performance of large-scale industrial projects.		
N	*Reputation:* inability of the company to establish and maintain the trust of stakeholders and to obtain the benefits associated with this, inability to maintain the values and social standards of the company, including with its suppliers or subcontractors, inability of the company and the project to build and protect its brand image, and inability of projects aimed at improving access to energy to reach their targets.		

SOCIAL RISKS

Challenge 1: Responsible leadership and governance
Challenge 5: Employees' skills and commitment
Challenge 14: Agility and innovation

	Associated CSR risks	Associated opportunities	Associated SDGs
O	*Skills:* i.e. a shortage of qualified people, unavailability of resources that are flexible according to needs, the loss of key knowledge in the event of departure due to lack of succession plans or due to more attractive conditions in the same geographical area.	Adapting to changes in occupational sectors Appeal of the Group to young people aware of carbon neutrality Digitization improving work efficiency	8 DECENT WORK AND ECONOMIC GROWTH 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
P	*Employee commitment:* in the context of the Group's transformation, the lack of engagement could result in social movements.		

Challenge 7: Diversity & inclusion in the workplace

	Associated CSR risks	Associated opportunities	Associated SDGs
Q	*Diversity:* the non-representativity of the working population with respect to the society in which the Group operates.	Group's societal role beneficial to its internal and external reputation Inclusivity of the company Reflection of society Attractiveness of the Group	5 GENDER EQUALITY 10 REDUCED INEQUALITIES 8 DECENT WORK AND ECONOMIC GROWTH
R	*Inequality:* discriminatory treatment of employees or job applicants.		

Challenge 6: Health and safety at work

	Associated CSR risks	Associated opportunities	Associated SDGs
S	*Health and safety at work* for employees, contractors and subcontractors.	Improvement of operational performance Occupational well-being Employee motivation	3 GOOD HEALTH AND WELL-BEING 8 DECENT WORK AND ECONOMIC GROWTH
T	*Safe travel*		

GOVERNANCE RISKS

Challenge 1: Responsible leadership and governance
Challenge 16: Business ethics & conformity

	Associated risks	Associated opportunities	Associated SDGs
U	*Corruption:* the risk of criminal wrongdoing by which a person solicits or accepts a benefit with a view to carrying out an act within the scope of his or her duties.	Group setting an example as a good citizen Employee motivation	8 DECENT WORK AND ECONOMIC GROWTH 16 PEACE, JUSTICE AND STRONG INSTITUTIONS
V	*Tax:* the risk of non-compliance with tax regulations, reporting obligations and their development.		

Challenge 17: Impact and development of communities and stakeholders

	Associated risks	Associated opportunities	Associated SDGs
W	*Human rights violations*	Group's societal role beneficial to its internal and external reputation	3 GOOD HEALTH AND WELL-BEING 8 DECENT WORK AND ECONOMIC GROWTH

In accordance with the regulations, these risks are analyzed, on the following pages, by means of:

- a summary of the policies or action plans implemented to limit them;
- indicators established to monitor them, sometimes with targets set;
- and the results of these indicators over three years.

Furthermore, pursuant to the French Act of March 27, 2017, ENGIE has drawn up a vigilance plan to monitor risks associated with human rights in the broadest sense, including aspects related to health and safety, responsible purchasing and the environment. This vigilance plan covers all of ENGIE's activities and its controlled subsidiaries world-wide, as well as those of its main suppliers. The vigilance plan is described in Section 3.9 "Vigilance plan."

3.3.1 Main environmental risks

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk A: Process safety (see Section 2.2.5.1)				
ENGIE's health and safety policy incorporating process safety Process safety policies specific to the different activities conducted by Group subsidiaries Action plans implemented by the subsidiaries that integrate feedback as part of a continuous improvement approach	Monitoring of incidents and accidents related to process safety at subsidiary level Assessment of the level of risk control achieved through dedicated internal control standards (IND 2 & 3)	No significant incident at industrial facilities	No significant incident at industrial facilities	No significant incident at industrial facilities
Risk B: Nuclear safety (see Section 2.2.5.4)				
Nuclear Safety and Radiation Protection Policy Independent supervision of nuclear safety 2016-2020 Global Nuclear Safety Plan Minimum requirements for systems of management of nuclear actors	Monitoring of significant incidents	No significant incident	No significant incident	No significant incident
Risk C: Cyber attack on industrial control systems (see Section 2.2.6.1)				
The Group policy review on Security of Industrial Control Systems Technical security standard assessment Qualitative assessment of the maturity level of the cybersecurity culture on the entities	Monitoring of the security rate of priority sites to be secured (critical and sensitive sites) Assessment of the level of risk control achieved through dedicated internal control standards (IND 4)	Maintaining the security of existing sites and securing new sites in accordance with objectives	Maintaining the security of existing sites and securing new sites in accordance with objectives	Maintaining the security of existing sites and securing new sites in accordance with objectives
Risk D: Malicious damage to assets (see Section 2.2.6.5)				
Group policy to protect individuals and tangible and intangible assets Prevention and protection measures implemented on the basis of the criticality of the geographic location Group Information Security Committee	Monitoring of threats to the Group, particularly from terrorists Monitoring of damage to assets	No significant damage to assets	No significant damage to assets	No significant damage to assets
Risk E: Contribution to climate change (see Section 2.2.2)				
The Group's environmental policy, which specifies: • the environmental challenges faced by the Group, including climate change; • the resources used by the Group to meet these challenges and improve its performance; • the governance elements that contribute to the implementation of the Group's environmental policy.	2030 targets: • 43 Mt of GHG emissions (scopes 1 and 3) from energy production, in line with the SBT commitments	67	68	75
	• 52 Mt of GHG emissions from use of sold product, in line with the SBT commitments	66	62	61
	• 0 Mt of GHG emissions from our working practices (after offsetting)	0.6	0.5	0.7
	• 58% of power capacity from renewables, in accordance with SBT commitments	34%	31%	28%
Risk F: Impact of climate change (see Section 2.2.2)				
The Group's environmental policy	2030 target: • 100% of activities, projects and sites that are being decommissioned with an environmental plan in consultation with stakeholders	37%	21%	Not communicated

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk G: Biodiversity				
The Group's biodiversity policy which aims to: • avoid the direct or indirect impacts of its activities and those of its value chain on biodiversity; • failing this to reduce them; • or even to offset them as a last resort.	2030 target: • 100% of industrial activities with ecological site management plans	28%	0%	Not communicated
Risk H: Water stress				
The Group's water policy, which focuses in particular on the management of water used in energy generation and wastewater treatment processes	2030 target: • 35% reduction in the water consumption of industrial activities compared with 2019	+1.8%	-19%	0%
Risk I: Waste management				
The Group's circular economy policy, which aims to ensure that each site or activity works on the recovery and/or recycling of its waste	% of non-hazardous waste recovered	84%	76%	68%
	% of hazardous waste recovered	15%	30%	31%
Risks J and K: Air pollution and pollution of the surrounding environment				
The Group's environmental policy	NO_x (t)	49,819	49,022	52,799
	SO_2 (t)	106,028	119,584	124,276
	Fine particles (t)	5,820	6,312	4,662
	Mercury (kg)	198	305	312

3.3.2 Main societal risks

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk L: Societal acceptance				
The Group's societal policy, which specifies: • the Group's societal challenges; • the resources it uses to meet these challenges; • the governance elements that contribute to implementation of the policy.	2030 target: • 100% of its activities, projects and sites that are being decommissioned with an environmental plan in consultation with stakeholders	37%	21%	Not communicated
	Number of training sessions on the "stakeholder engagement" tool, which is a self-assessment framework based on standard AA1000 – Stakeholder management, produced by the Accountability NGO	14	6	9
Risk M: Management of major projects (see Section 2.2.6.2)				
Investment procedure for projects passing through the Group Investment Committee which provides for a risk analysis and a self-assessment matrix of 9 CSR criteria based on information from the EIA (Environmental Impact Assessment) and ESIA (Environmental Social Impact Assessment)	Risks analysis 9 CSR criteria matrix			No indicator

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk N: Reputation				
Protection of the brand	NPS satisfaction rate of B2C customers (Net promoter Score between -100 and + 100 inclusive) based on the difference between promoters (respondents giving a score of 9 or 10) and detractors (respondents giving a score of 0 to 6)			
	France (13,288,000 contracts in 2021)	+19	+19	+4
	Belgium (4,182,000 contracts in 2021)	+2	-1	-9
	Italy (840,000 contracts in 2021)	+29	+19	Not communicated
	Romania (2,765,000 contracts in 2021)	+49	+50	+38
	Australia (735,000 contracts in 2021)	+5	Not communicated	Not communicated
	2030 target: • 45 Mt CO_2 avoided by our customers through ENGIE's offerings and services	28	21	Not communicated
Environmental policy	Number of environmental complaints and convictions	13 complaints and 2 convictions	6 complaints and 2 convictions	10 complaints and 1 conviction
Ethics Charter Code of conduct for business relations Code of conduct for relations with suppliers	Ethical malfunctions monitored using the INFORM'ethics reporting tool	277 incidents, proven or non-proven	283 incidents, proven or non-proven	282 incidents, proven or non-proven
Group Purchasing Charter that sets out the obligations and commitments applicable to ENGIE in terms of its relations with suppliers	2030 targets: • 100% of preferred suppliers (excluding energy purchasing) SBT certified or aligned	20%	15%	Not communicated
	• Ratio of 100 on responsible purchasing (excluding energy): CSR assessment and inclusive purchasing	40	25	Not communicated
Promotion of access to energy for populations living far away from networks, including in Africa	2030 target: • 30 million recipients with access to affordable, reliable, and clean energy from 2018 (excluding the Rassembleurs d'Énergies fund)	7 M	6 M	4 M
Vigilance Plan (see Section 3.9)				

3.3.3 Main social risks

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk O: Skills				
The Group's mobility development policy, which is based around: • ENGIE Skills, which is aimed at developing skills early to prepare for the future; • ENGIE Mobility, which fosters internal mobility; • and is supported by ENGIE University.	2030 target: • 100% of employees trained during the year	82%	70%	69%
	Monitoring of number of hires (permanent and fixed-term)	33,806	29,481	37,182
	Monitoring of voluntary turnover rate	7.4%	5.4%	7.1%
The Group's innovation policy, which is based on: • the ENGIE Fab entity to implement new businesses; • the ENGIE New Ventures investment fund to support start-ups. The Group's research & technology policy that relies on the ENGIE Research entity, which brings together several Labs and centers of expertise and engineering	R&D expenditure	€138 M	€190 M	€189 M
Risk P: Commitment				
The Leadership Way, which defines four key behaviors: caring – demanding – open – bold. These behaviors enable us to meet five objectives: Prepare the future – Cultivate and give responsibility – Act and challenge the status quo – Deliver results – Adopt inspiring behavior on a daily basis.	Employee engagement rate through the worldwide annual "ENGIE&Me" survey	83%	83%	80%
Privileged forums for consultation between management and employee representatives: The European Works Council and the French Group Works Council	These bodies monitor and sign Group collective bargaining agreements	Global agreement on fundamental rights and social responsibility signed in January 2022	No new agreement	No new agreement
Risk Q: Diversity				
Group diversity policy Diversity label	Percentage of female employees	21.8%	21.4%	20.8%
	2030 target: • 50% female managers	24.6%	24.1%	23.5%
Employment of young people	2030 target: • 10% of European workforce are apprentices	4.6%	4.3%	3.9%
Risk R: Inequality				
Professional equality policy	2030 target: • Equity ratio of women to men of 100			
	France	89	87	72
	Rest of world	82	80	72

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk S: Health and safety at work				
Group health and safety policy that sets out the fundamental principles that have to be met for all the ENGIE entities, in order to respect the integrity of people and assets. It constitutes, for every person, a reference point to ensure that health and safety are incorporated within all the actions of the Group. 2021-2025 Health and safety action plan, divided into three programs: "no life at risk," "no mind at risk" and "no asset at risk." European agreement on the improvement of working conditions	2030 target: • Total lost time injury frequency rate for employees and subcontractors on sites with controlled access ≤ 2.3	2.9 on a 2021 objective of 3.1 or less	2.7 on a 2020 objective of 3.3 or less	3.3
	2030 target: • Prevention rate (1) ≥ 0,75 Monitoring of health and safety results by the Executive Committee, the EESDC and the Board of Directors	0.58 for a minimum value of 0.50	0.59 for a minimum value of 0.42	0.42
Annual communication campaign	Deployed throughout the health and safety functional line	Communication focused on preventing Covid-19	Communication campaigns focused on Covid-19 and on maintaining vigilance in terms of health and safety	Communication campaign on last-minute risk analysis
Risk T: Safe travel				
Safety rules for international trips Employee access to the ISOS international medical and health portal Employee access to the analyses and reports of the Control Risks Group site on country risks and to e-learning on personal security when traveling abroad	Reinforcement of event-detection mechanisms "Travel Tracker" tool to monitor individuals traveling in high-risk areas Alert system for office-based personnel which supplementing the alert system for international personnel mobility	No significant event	No significant event	No significant event

(1) The prevention rate is the ratio between the number of events and situations with high potential of severity (HiPo), and the sum of the numbers of HiPos and lost-time injury accidents, including fatal occupational accidents, for Group employees and their subcontractors on controlled access sites

3.3.4 Main governance risks

Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2021 results	2020 results	2019 results
Risk U: Corruption				
Anti-corruption policy based on: • the Ethics Charter; • the Practical Guide to Ethics; • the integrity reference system; • the Ethics Compliance reference system; • specific policies: Third party assessments, business consultants, gifts, invitations, conflicts of interest, lobbying in particular and supplier relations; • ethics and CSR clause in the general terms of sales.	System for whistleblowing and reporting ethics incidents Control process Annual compliance procedure by means of a specific reporting system INCOME COR 4 internal control program Internal audits and external audits including the ISO 37001 certification audit (certification received in 2018, confirmed in 2019 and 2020 and renewed in 2021) Annual publication of the communication on the progress of UN Global Compact Principle 10	277 proven or unproven incidents reported in My Ethics Incident, including 25 cases of alleged corruption	283 proven or unproven incidents reported in My Ethics Incident, including 20 cases of alleged corruption	282 incidents (proven or unproven) declared in INFORM'ethics including 9 cases of alleged corruption
	Alert system: ethics@engie.com	187 incidents including 51 concerning business ethics cases	201 incidents including 20 concerning business ethics cases	183 incidents including 17 concerning business ethics cases
	The Group is committed to training its senior managers, expanding its commitment for 2019 to Group managed roles (GMRs) and anti-corruption in 2025	96% of GMRs	86% of GMR	91% of senior managers and 86% of executive managers
	2030 target: • 100% of employees most exposed to corruption risk trained	51%	21%	25%
Risk V: Tax				
Tax policy that sets out the rules and principles for the payment of taxes in the countries in which the Group operates	Tax reporting by country Adherence to the principles of the United Nations BTeam initiative	See website	See website	See website
Risk W: Human rights violations				
Human Rights referential and policy Vigilance Plan Ethics due diligence policy (suppliers, subcontractors, and commercial partners)	Checklist on the risk of violating human rights (annual risk review, see Sections 2.2.7 and 3.8.2) Annual ethics compliance report (quantitative and qualitative indicators, see Section 3.8.6) System for whistleblowing and *reporting* ethics incidents (see Section 3.8.4) Monitoring of the Group Vigilance Plan (see Section 3.9.3)	277 incidents in My Ethics Incident (alleged or unsubstan-tiated), including 26 allegations relating to human rights and environ-mental law (excluding allegations relating to sexual harassment and moral harassment)	283 incidents in My Ethics Incident (alleged or unsubstan-tiated), including 6 allegations relating to human rights and environ-mental law (excluding allegations relating to sexual harassment and moral harassment)	282 incidents (proven or non-proven) declared in INFORM'ethics, including no case concerning human rights

3.4 Social information

ENGIE's Human Resources (HR) strategy supports and contributes to the Group's strategy. Listening to its stakeholders, the role of the HR function is to constantly reconcile economic performance, human progress and contributions to society. It is a necessary and complex responsibility which calls for a strong and agile HR function.

In May 2021, the Group presented its strategic road map. The new organization established on July 1, 2021 combines the sector and geographic dimensions. This new organization was marked by the creation of EQUANS, an entity structured as a true world leader in services and multi-technical installation and maintenance activities.

With this outlook, the HR function truly supports the business, as an efficient and effective aid in the organization's growth. HR has to be able to provide practical responses on three strategic objectives: attracting and retaining all talent, while developing skills and leadership and building ENGIE's culture. ENGIE's success relies on the women and men who make up the Group and represent its biggest performance driver.

To support this new organization, ENGIE has rolled out a specific program to assist with the change, called "ENGIE WOW" (Ways Of Working) as a supplement to Leadership Way. ENGIE WOW is divided into five principles: COLLABORATE, PRIORITIZE, ENGAGE, COMMIT TO DELIVER and FOCUS ON BUSINESS, which are designed to:

- enable all employees to understand the meaning and practical consequences of the new organization;
- disseminate the reasons behind and understanding of the new structure and the matrix-based organization;
- strengthen the coordination of initiatives and activities between the various entities of the Group by pooling resources;
- translate generic principles into practical actions and behaviors to achieve the required performance.

Lastly, the Group has maintained its social commitments as they were defined: 50% female managers by 2030, professional and pay equity between women and men, professional integration with a target of 10% of staff consisting of students on work-study programs in 2021 in France and in 2030 in Europe, and 100% of staff trained each year by 2030. The pandemic resulted in an acceleration of the ENGIE Care worldwide social protection program (see Section 3.4.5.2). This program protects employees against the vagaries of life all over the world. It contributes to the attractiveness of the Group, employee retention and the strengthening of ENGIE's CSR policy. HR has to continue its actions to support its employees and the business. It shares and adapts the practices put in place within its regions to ensure the safety and health of employees, their well-being at work and their development.

3.4.1 Social data

3.4.1.1 Workforce

ENGIE was present in around 60 countries in 2021, with 171,474 employees. The workforce decreased by 1,229 employees, or -0.7%, compared with 2020. This trend was due to the disposal of entities under the new development strategy.

GRI 102-7 /405-1	France	Europe (excl. France)	Latin America	USA & Canada	Middle East, Asia & Africa	2021	2020	2019
Renewables	2,752	258	1,282	221	369	4,882	4,878	4,550
Networks	17,415	3,061	797	1,269	-	22,542	19,624	19,496
Client Solutions	45,897	48,929	9,925	3,911	8839	117,501	117,291	117,723
Energy Solutions	19,744	15,544	2,278	2,103	7,862	47,531	47,716	47,651
EQUANS	26,153	33,385	7,647	1,808	977	69,970	69,575	70,072
Supply	7,109	3,707	53	-	1,960	12,829	16,495	15,521
Thermal	175	1,205	1442	3	1,437	4,262	2,819	3,129
Nuclear	-	2,135	-	-	-	2,135	2,190	2,160
Others	4,368	2,059	-	768	128	7,323	9,406	8,524
TOTAL	**77,716**	**61,354**	**13,499**	**6,172**	**12,733**	**171,474**	**172,703**	**171,103**
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

GRI 102-7 / 405-1	2021										2020	2019
			Client solutions									
	Rene-wables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	%	Group	Group
Managers	**2,536**	**5,727**	**12,563**	**15,178**	**2,659**	**1,410**	**503**	**5,243**	**45,819**	**26.7%**	**45,280**	**42,963**
Men	1,802	3,869	9,659	12,753	1,615	1,177	407	3,260	34,542	75.3%	34,361	32,856
Women	734	1,858	2,904	2,425	1,044	233	96	1,983	11,277	24.6%	10,919	10,106
Non-managers	**2,346**	**16,815**	**34,968**	**54,792**	**10,170**	**2,852**	**1,632**	**2,080**	**125,655**	**73.2%**	**127,423**	**128,141**
Men	1,798	12,478	28,599	45,417	6,529	2,559	1,429	818	99,627	79.2%	101,281	102,527
Women	548	4,338	6,369	9,375	3,641	293	203	1,262	26,029	20.7%	26,142	25,614
TOTAL	**4,882**	**22,542**	**47,531**	**69,970**	**12,829**	**4,262**	**2,135**	**7,323**	**171,474**	**100%**	**172,703**	**171,103**
Men	3,600	16,347	38,258	58,170	8,144	3,736	1,836	4,078	134,169	78.2%	135,642	135,383
Women	1,282	6,195	9,273	11,800	4,685	526	299	3,245	37,305	21.7%	37,061	35,720
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

As of December 31, 2021, the workforce comprises 45,819 managerial staff, i.e. 26.7%, and 125,655 non-managerial staff, i.e. 73.2%. The proportion of managerial staff increased slightly, from 26.2% to 26.7%. The proportion of women in the workforce increased from 21.5% to 21.7% and represented 24.6% of managers (see Section 3.4.4.1).

3.4.1.2 Contract types and trends

At the end of December 2021, 154,364 employees were on permanent contracts, making up 90% of the workforce. 10,783 employees were on fixed-term contracts, mainly in Latin America, Asia and the United Kingdom.

Furthermore, with 6,327 young people on work-study programs (5,961 in 2020), ENGIE has confirmed its commitment to young people. Work-study programs combine practice with the teaching provided at their training centers. They are also an important source of recruitment (see Section 3.4.3.1.2).

GRI 102-8	2021									2020	2019
			Client solutions								
	Rene-wables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Permanent	91.1%	93.9%	90.3%	87.9%	86.7%	96.8%	99.9%	93.8%	90.0%	90.4%	90.3%
Fixed-term	4.4%	1.0%	6.3%	8.4%	9.1%	2.7%	0.0%	1.4%	6.2%	6.1%	6.5%
Work-study contract	4.4%	5.0%	3.3%	3.5%	4.1%	0.4%	0.0%	4.7%	3.6%	3.5%	3.2%
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

3.4.1.3 Workforce by age bracket

The average age of employees on permanent contracts is 43, unchanged compared with 2020.

GRI 405-1	2021									2020	2019
			Client solutions								
	Rene-wables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
< 25 yrs old	2.0%	2.3%	3.3%	4.2%	3.9%	1.1%	1.1%	1.0%	3.3%	3.4%	3.7%
25-34 yrs old	26.4%	22.9%	24.1%	21.4%	23.6%	20.8%	16.2%	19.0%	22.5%	23.0%	23.4%
35-44 yrs old	38.7%	31.2%	28.7%	25.8%	34.5%	32.9%	33.1%	32.9%	28.9%	28.8%	28.6%
45-54 yrs old	22.6%	30.1%	25.9%	26.1%	26.4%	28.8%	22.5%	31.1%	26.8%	27.3%	27.4%
> 55 yrs old	10.1%	13.3%	17.8%	22.2%	11.4%	16.2%	26.9%	15.7%	18.2%	17.5%	16.7%
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

3.4.2 The development of talent

3.4.2.1 The talent policy

The development of the Group's talent is guided by the Talent Department within the Group Human Resources Department. The Talent Department contributes to ENGIE's performance by developing its human capital. It anticipates requirements in terms of skills and expertise. It supports the development of leaders and experts within their current remits and identifies potential successors to help them be as prepared as possible for tomorrow's challenges. In order to fulfill this mission, the Talent Department develops:

- a bottom up approach to identifying high-potential talent, from the entities up to the Group management bodies;
- personalized career paths that incorporate the aspirations of employees and draw on the diversity of the Group's occupations and geographic areas;
- development tools and specific courses delivered over the long term.

ENGIE has developed an ambitious talent policy in recent years. It aims to build knowledge, strengthen loyalty and prepare for the future. The health crisis has impacted ways of working, working relationships and drivers of motivation and engagement. In order to tackle this, ENGIE is drawing on the quality of the "talent experience" of employees, starting as soon as they are hired. The policy of attracting future talents is based on a meaningful brand that reflects the Group's values. It is accompanied by ambitious goals in terms of apprenticeships and relationships with major academic partners. The promotion of our technical professions by our employee ambassadors is also a major asset in attracting talented individuals.

To retain them, ENGIE relies on its development policy. It offers employees various professional courses within its main occupations. Since 2016, this department has managed the measurement of the engagement of all its employees through the ENGIE&ME survey (see Section 3.4.3.2.1). Each year, ENGIE&Me implements action plans that are defined and rolled out at all levels of the company.

3.4.2.1.1 ENGIE Boost

ENGIE Boost is a system for identifying, developing and retaining high-potential talent at all levels of the organization in order to prepare these individuals to occupy strategic roles at the Group. It comprises two programs: Rise! and Pulse! *Over* a 24-month period, they prepare leaders who are likely to rapidly take strategic responsibility within ENGIE. A third program, called Up!, is designed for High-Potential local talent. Inclusion in the Rise! or Pulse! programs is managed by the Talent Department teams. They ensure a consistent, pertinent approach by implementing People Reviews with the GBU and the support functions. In 2021, a total of 264 talented individuals were on the Pulse! program and 179 were on the Rise! program. Inclusion in the Up! programs is managed locally, through the People Reviews of the GBU. In this way, 1,541 talented individuals have joined the Up! programs of the GBU. This initiative is not intended to reward performance or to be used as a recognition tool; It is an opportunity offered to employees in order to develop their potential and to ensure that they are in the best position for future development toward a key role. It is also an opportunity to create an active and diverse community of leaders who are able to engage their teams in the service of the Group's strategy.

3.4.2.1.2 The communities

ENGIE also promotes and develops the creation of communities that add value to the employee experience.

The Communau'Tech

The Communau'Tech is a community of men and women acting as Technical Ambassadors with the task of promoting the technical sector, both internally and externally. This system creates value from the men and women who are our technicians, builds their loyalty, and disseminates an attractive image of hard-to-fill positions. The Communau'Tech takes part in events for specific occupations, jobs forums and trade fairs organized by the Group in order to explain the occupations and promote the technical sector. It contributes to Group debates and takes part in reports and testimonials, webinars and experiments. The Ambassadors and Technicians work with schools. They make young people aware of environmental and climate issues and the importance of our occupations in the transition to carbon neutrality. Lastly, they help to recruit young people to the Academy of Energy and Climate Transition Occupations, an ENGIE Apprentice Training Center. They explain their occupations to generate interest in them. The goal is to build a community of 500 Ambassadors and Technicians at the European level by the end of 2022. The Communau'Tech now has 400 Technical Ambassadors (300 in France and 100 in the European subsidiaries) including 20 women.

The Experts

ENGIE implemented the ExpAND program in 2020. It is designed to identify and recognize the Group's experts. It develops communities of expertise and makes the ExpANDers ambassadors for ENGIE both inside and outside the Group. It is also a development program based on co-option. It allows experts to develop their "soft skills", such as leadership and communication. All expertise is aligned with the Group's strategy, whether technical, technological or functional. Three levels of experts have been established – Global, Key and Local – according to their impact scope and their exposure. At the end of the first campaigns, 787 ExpANDers had been identified: 58 Global, 457 Key and 272 Local.

3.4.2.2 Human resources development policies

The Group offers its employees opportunities for a range of career paths thanks to ongoing skills development programs. This helps develop employability by adapting skills to changes in occupations and technologies. The transition to carbon neutrality and technological accelerations due to digitization and artificial intelligence are transforming the professions of employees and creating shortages of qualified personnel in the Group's many businesses, whether traditional or newly emerging. To tackle this, ENGIE is implementing a social strategy to increase the skills and mobility of its employees in three areas: advance skills management to prepare for the future; enhanced internal mobility to serve the transformation of the company and its four main businesses; and, lastly, professional training objectives for all employees. They are being implemented in order to favor the enrichment of tasks, the renewal of experiences, and the consideration of employee initiatives and empowerment, which strengthen their engagement and foster their development and employability, serving the sustainability of the Group's activities.

3.4.2.2.1 ENGIE Skills, the jobs and expertise advance management system

Skills are guided via a process of provisional management of jobs and skills called ENGIE Skills. In relation to industrial and financial forecasts, it provides a three-year mapping of the quantitative and qualitative skills that each Group entity must acquire. This vision is organized around the ENGIE reference system, which lists 200 reference professions, allowing:

- better knowledge of how our resources are distributed between the businesses, functions GBU, regional Hubs, countries and entities;
- improvement of HR performance and skills management by the GBU, regional Hubs, functions and entities.

These data are consolidated at Group level. They enable the construction of a general overview of the evolution of occupations and skills. Employee support, development and mobility plans are associated with this.

In a context of strategic transformation and digitization of processes, the evolution of skills is reflected at three levels:

- technical skills to be strengthened to enable the Group to become the leader in the energy transition by emphasizing operational excellence and industrial know-how;
- digital skills to be developed in order to offer new services;
- organizational and managerial adaptations requiring strong support.

3.4.2.2.2 ENGIE Mobility

Mobility practices are strongly encouraged and promoted within ENGIE. The fluidity of resources and employees' ability to evolve are a measure of how their employability is being maintained. They are also a necessary condition for Group's transformation and agility. More than 6,170 movements between and changes in positions took place in 2021. More than 90% of key posts in the new organization were filled internally.

ENGIE Mobility is a system to support career mobility. Since its creation in 2017, ENGIE Mobility has individually supported close to 1,500 employees in their career plans. The system was also used to support organizations with their employment issues. It contributes its expertise and its services offering tailored to projected changes. In 2021, ENGIE Mobility acted in support of major transformation projects.

In France, a digital space called "Mymobility," dedicated to building career plans, was made available to all employees. About 30 occupation-related meetings, job forums and remote events were held. Lastly, the "Regional Mobility Employment Committees" network is coordinated on a monthly basis. These Committees, which are assigned to five Regions across the country (Ile-de-France; West; South West; Center East and South East; North East) work to promote local internal employment.

3.4.2.2.3 Skill'Lib

The development and acquisition of skills play a key role in the competitiveness and performance challenges of the company.

Beyond training, which remains the preferred lever for learning, ENGIE has set up an effective, innovative, win-win system for employees and managers: Skill'Lib. This is a skills marketplace that promotes learning through experience for employees. At the same time, it enables managers to quickly access relevant skills that meet their business needs.

This system was recognized and rewarded in November 2021 with the winning of the HR Prize for Innovation of the Victoires des Leaders du Capital Humain (Victories of Leaders of Human Capital) awards.

3.4.2.2.4 Training

Developing skills and maintaining employability are crucial areas for the company's competitiveness and performance and for its ability to roll out the Group's strategy. In February 2020, ENGIE defined a non-financial goal of training 100% of employees each year by 2030. To achieve this, ENGIE favors a skills development approach of multiplying learning opportunities and diversifying its training methods. The wider use of digital technology allows training courses to be personalized.

3.4.2.2.5 ENGIE Schools

Since 2019, ENGIE Schools has been boosting the skills development of employees with technical profiles. They represent 70% of the workforce and more than 100,000 employees worldwide. Based on peer-to-peer training, ENGIE Schools has asserted itself as the international internal network of the Group's occupational schools. It is made up of 32 internal training centers, with a tailor-made technical training offer adapted to the requirements of our businesses. It is the driving force behind a dynamic of cross-functional projects on energy transition subjects. It is the driving force behind the implementation of awareness-raising and shared Group training projects, capitalizing on experience, internal skills and inter-entity cooperation. This dynamic resulted in an inter-entity course on the skill of "Preventing low-voltage electrical risk" and the corresponding accreditation in 2019. All technical training resources are shared between the Group's entities on a dedicated digital portal. In 2021, ENGIE Schools adapted in order to support the new organization. It is based on the network of existing schools and develops specific training courses and Schools by GBU.

3.4.2.2.6 ENGIE University

In 2021, ENGIE University stepped up the implementation of programs enabling every employee to learn about the Group's strategy. These programs focus on issues related to carbon neutrality, customer orientation and the organizational agility of managers and executives. To fulfill the Group's diversity aims, the University has launched an Inclusive Leadership program for all managers. This year saw a marked rise in hybrid modes of working. This had significant effects on training, in terms of both course content and format. Programs have been developed on hybrid management, leadership in uncertain times, new business models and competitiveness factors.

Since 2016, the University has been increasing learning opportunities by rolling out new modalities. For example, the number of hours of digital training quadrupled between 2016 and 2021. In this context, and in response to training needs, the University organized the Learning Festival in March 2021. This event, which was planned and delivered in 100% digital format, consisted of a week of training for all the Group's employees. It is a key driver for ENGIE's culture of engagement, belonging and ownership of strategy. It involved the development of key skills, a need that goes hand in hand with the crisis and which required a readjustment of our know-how. It also responded to the need to change perceptions of virtual training. The Learning Festival brought together more than 3,000 employees from 40 different countries, representing all the Group's entities on 100 different programs. It involved 50 internal stakeholders and 40 external teachers. Every day, more than 1,000 employees took part in one of the programs.

As the transformation of the Group also entails the evolution of occupations, ENGIE University is developing programs so that employees can upskill on the energy transition. 2021 saw the launch of the Sustainability Academy, a driver of employee engagement and skills development. This Academy provides courses on the Group's mission. It enables the professionalization of the occupations and the technical and leadership skills necessary for the roll-out of the strategy. It showcases the Group's expertise and commitment to taking into account the sustainability challenges of its businesses. It is open to the company and to its ecosystem.

As a result of the implementation of all these systems, ENGIE trained 81.9% of its employees in 2021.

Proportion of employees trained

	2021									2020	2019
			Client solutions								
GRI 404-2	Renewables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Proportion of women trained	86.6%	80.0%	74.9%	82.3%	88.9%	89.3%	101.5%	77.7%	80.9%	69.2%	62.0%
Proportion of men trained	100.3%	86.0%	79.9%	81.6%	79.8%	88.7%	100.4%	71.0%	82.1%	70.3%	71.1%
Proportion of employees trained	**96.7%**	**84.4%**	**78.9%**	**81.7%**	**83.0%**	**88.8%**	**100.5%**	**73.8%**	**81.9%**	**70.1%**	**69.2%**
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*98.7%*	*97.4%*

Training hours

	2021									2020	2019
			Client solutions								
GRI 404-1	Renewables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Total nb. of training hours	156,354	794,924	731,757	1,214,884	216,378	104,060	143,951	106,599	3,468,907	2,963,242	3,271,154
Average nb. of hours per person trained	**34**	**43**	**20**	**22**	**21**	**28**	**68**	**19**	**25**	**26**	**28**
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*98.7%*	*97.4%*

Breakdown of training hours by topic

	2021									2020	2019
			Client solutions								
GRI 404-1	Renewables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Business techniques	24.8%	45.5%	35.4%	31.7%	37.9%	38.3%	75.2%	32.1%	38.1%	35.9%	38.9%
Quality, safety and environment	49.6%	17.3%	49.1%	50.5%	20.8%	46.7%	19.6%	7.0%	37.9%	33.7%	32.6%
Languages	4.0%	1.2%	1.8%	0.9%	3.5%	1.2%	0.2%	12.7%	1.8%	3%	2%
Management, personnel development	12.4%	30.5%	9.0%	11.8%	13.0%	10.3%	0.3%	31.6%	15.6%	13.1%	15%
Others	9.2%	4.5%	4.8%	5.1%	3.6%	3.6%	4.7%	16.5%	6.6%	14.2%	11.4%
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*98.7%*	*97.4%*

3.4.3 Hiring and retention

3.4.3.1 Hiring and employer brand

The Group's main challenge is to develop an attractive employer brand that is consistent with its locations and its hiring needs. In 2021, the employer brand thus enabled ENGIE's position in the rankings to be maintained or improved.

- ENGIE had more than 675,000 subscribers to LinkedIn in 2021. It therefore rose from 7th to 5th place in the LinkedIn "Top Companies" ranking;
- the Group is the 2nd most committed CAC 40 company in terms of CSR in France, according to the new CSR index published by Universum in December 2021;
- ENGIE is the 15th most popular company among students at engineering schools in France (compared with 17th in 2020). The Group has moved up 10 places in the Universum ranking of business school students (from 70th to 60th place).

The talent recruitment strategy is aligned with ENGIE's purpose and the transition to a carbon-neutral economy. It has to deal with a highly competitive job market, changing occupations and constantly evolving candidate expectations. This strategy stands out. It favors an approach that places the candidate at the center of the recruitment process in the service of the occupations and the business. The Talent Acquisition Policy, which was launched in 2020 based on five key principles, spearheads this strategy. ENGIE has thus developed its methods, strengthened the professionalization of its HR teams and cultivated its agility. The Group has developed strategic partnerships with LinkedIn, Indeed, Glassdoor and Pole Emploi en France. The HR sector thus identifies, supports and develops the skills and resources needed by the Group. It anticipates and responds to the challenges of today and tomorrow. ENGIE has initiated an active policy of developing its employer brand to attract the best talent and roll out its strategy. Multiple communication actions take place on networks and recruiting sites to publicize ENGIE's occupations. They make it possible to attract priority targets: technicians, digital occupations, women and young people.

3.4.3.1.1 Academic relationships

In order to recruit the best young talents and to maintain its leadership position, ENGIE relies on its academic relationships. These make it possible to publicize ENGIE to students in higher education (engineering schools, business schools and universities). As a real driver of attractiveness for the young people who represent ENGIE's future, the strategy of the academic relationships is aligned with that of the Group. They strengthen its employer brand, making it more attractive. They confirm its priorities in terms of diversity, inclusion and equal opportunities. They meet its recruitment needs in business and leadership skills.

ENGIE adopts a proactive attitude in order to meet strategic objectives and to get ahead of its needs by carrying out these actions:

- developing suitable partnership tools and criteria;
- establishing and coordinating communities of Ambassadors and Alumni;
- adopting a distinctive approach to the ecosystem;
- rolling out a communication and innovative formats.

The academic relationships are being redesigned in a more qualitative way, with associated returns on investment. Clear and relevant performance KPIs (presence, attractiveness, influence and recruitment) ensure the effectiveness of these initiatives.

ENGIE enters into privileged relationships with numerous target schools: Polytechnique, Centrale Supelec, MINES ParisTech, Télécom ParisTech, ESTP, IFP, KEDGE, EDHEC, ESSEC, HEC, NEOMA, EM Lyon, GEM, the École 42, Paris Dauphine University, Sciences Po and Paris 1 Sorbonne. In the Renewables occupations, the Group has embarked on numerous partnerships with laboratories and engineering schools (Telecom Paris, Mines, Centrale Supelec and IMT Lille Douai). They give their students the opportunity to take part in the ENGIE adventure through work-study programs,internships and the hosting of PhD students and students researching specific areas. Lastly, partnerships have also been established in digital occupations (EPITHEC, École 42, ESSEC, GEM, ENSIMAG and EPITA) and with the major French business schools (GEM, HEC, ESSEC, EDHEC, KEDGE and Sciences Po).

In 2021, ENGIE took part in 18 trade fairs, forums and conferences attended by 1,296 French students. Eleven events and media actions organized by ENGIE resulted in a visibility level of 555,075 views on social media. They involved 3,033 students.

3.4.3.1.2 Apprenticeships

To tackle the skills shortage and guarantee the Group's performance, ENGIE relies on young people and apprenticeships as a path of excellence toward its future occupations.

In 2020 the Group set itself two strategic targets:

- the proportion of apprentices in the Group's workforce to reach 10% in France by the end of 2021 and 10% in Europe by the end of 2030;
- a level of transformation into permanent or fixed-term contracts in the technical or digital sectors in France of 50% by the end of 2021.

The Group recently saw its efforts and commitment in relation to young people recognized when it won the Grand Prize for Youth Employment awarded by the HUMPACT ratings agency. This prize acknowledges the engagement of the Group's employees, as close as possible to local needs. Within three years, ENGIE has doubled the number of work-study program participants in France and has boosted a long-lasting European dynamic. The transformation level in Europe, in the technical or digital occupational sectors, where positions are very hard to fill, is more than 50%. Working for the employability of young people also involves proposing a more inclusive model of society and proving that technical occupations have a future and are accessible to all, especially women.

Representativity of apprentices compared to permanent and fixed-term contracts

FRANCE	EUROPE	OTHERS	Group
7.4%	1.1%	0.6%	3.8%

At the end of 2021, ENGIE had 6,327 apprentices, representing an increase of 14.5% since 2019. In France, the percentage of staff undertaking work-study programs compared to permanent and fixed-term contracts is 7.4%. For several years, the Group has been developing its academic relationships and is working in particular with the Apprentice Training Centers (*Centres de Formation d'Apprentis* or CFA) throughout France. They support the Group in the design of its training courses and in the search for skills, for the benefit of a countrywide network. Developing the skills of tomorrow to serve the transition to carbon neutrality is more than ever a priority for the Group. It carries the promise of making a positive impact on people and the planet. In November 2020, ENGIE opened its own CFA in France: the "Academy of Energy and Climate Transition Occupations." This human-scaled Academy will welcome several hundreds of students by the end of 2024. The CFA offers the vocational Baccalaureate Diploma and higher technician's license (brevet de technicien supérieur or BTS) for young people aged 16 to 29, in close partnership with well-known educational establishments. The aim is to meet the changing needs of the Group and to attract more young people, particularly women, to its occupations. The "Academy of Energy and Climate Transition Occupations" is helping to achieve ENGIE's aim of work-study students accounting for 10% of its employees in France. The Group also aims to hire 50% of its work-study students into technical occupations at the end of their training. This represents more than two-thirds of its overall hiring needs. Each year, the Group organizes "le mercato" of work-study students to share this pool of young talent among all of the Group's companies. In addition, the partnership with "Engagement Jeunes" provides them with external opportunities. The launch of the Young Talent Community in January 2020 has brought together the Group's work-study students, interns and VIEs (Volunteers for International Experience), in order to unite them further and to support them in their professional integration.

The Group has also taken action to identify, train and promote tutors, who are key players in the successful integration of work-study students. The 2021 external recruitment campaign also demonstrates this aim.

3.4.3.1.3 Hiring

33,806 employees were hired. They are suited to our future skills requirements and will support the transformation undertaken by the Group. 70% of them relate to occupations in the technical, engineering and business development areas. The profile of these hires is shifting towards increased expertise, particularly in the digital occupations. These hires reflect different situations in terms of activities and countries. 11,770 hires took place in France, including 6,632 on permanent contracts and 5,138 on fixed-term contracts (11,393 in 2020). Internationally, there were 22,036 hires in 2021 (18,088 in 2020) of which 10,644 were permanent and 11,392 fixed-term, up by 3,948 or 22%, driven by fixed-term hirings in Latin America. 21.1% of hires were women. In addition to these hires, 6,170 employees benefited from the internal mobility selection procedures.

	2021									2020	2019
			Client solutions								
GRI 401-1	Renewables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Permanent hires	**328**	**1,185**	**5,990**	**7,836**	**1,229**	**227**	**40**	**441**	**17,276**	**16,540**	**20,388**
Women	78	370	1,306	1,540	351	43	8	167	3,863	3,611	4,477
Men	250	816	4,684	6,296	878	184	32	274	13,414	12,929	15,911
Fixed-term hires*	**337**	**906**	**3,113**	**10,448**	**1,189**	**81**	**1**	**455**	**16,530**	**12,941**	**16,794**
Women	133	337	794	1,350	415	18	1	231	3,279	2,723	3,296
Men	204	569	2,319	9,098	774	63		224	13,251	10,218	13,498
TOTAL	**665**	**2,091**	**9,103**	**18,284**	**2,418**	**308**	**41**	**896**	**33,806**	**29,481**	**37,182**
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

* *Including work-study students*

3.4.3.1.4 Departures

The Group registered an increase in departures in 2021: 21,612, compared with 19,537 in 2020. In 2020, the specific context of the health crisis resulted in a decrease in resignations worldwide. The economic recovery created new work opportunities and prompted an increase in departures in the international subsidiaries in Latin America of 18.2%, in North America of 12.5% and in the United Kingdom of 13.7%. In France the resignation rate remained moderate at 4.5%.

	2021									2020	2019
			Client solutions								
GRI 401-1	Renewables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Departures	268	852	6,660	11,729	1,172	311	88	531	21,612	19,537	21,545
Retirements	55	428	566	855	116	35	59	66	2,180	2,248	2,196
Resignations	161	237	3,706	7,355	716	156	23	602	12,656	9,444	12,120
Dismissals	36	128	1,530	2,561	245	44	3	86	4,633	6,166	5,691
Contractual terminations	16	60	858	958	95	76	3	77	2,143	1,677	1,537
Levels of resignations	**3.2%**	**1.1%**	**7.8%**	**10.5%**	**5.6%**	**3.8%**	**1.1%**	**3.9%**	**7.4%**	**5.4%**	**7.1%**
Turnover rate*	**4.3%**	**1.9%**	**12.8%**	**15.5%**	**8.2%**	**6.6%**	**1.3%**	**6.1%**	**11.3%**	**10%**	**11.3%**
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

* *excluding retirements*

3.4.3.2 Retention

3.4.3.2.1 The employees' commitment to the Group's strategy

ENGIE&Me

In October 2021, the Group carried out its "ENGIE&Me" engagement survey for the 6th consecutive year. Addressed to employees on permanent contracts all over the world, it allows them to express themselves on the key dimensions of engagement: adherence to the Group's strategy, working conditions, relations within the team, quality of management, prospects for development and mobility, recognition, etc. In 2021, the diversity and inclusion dimension was strengthened with the incorporation of a questionnaire used for the EDGE certification on good practice in terms of gender equality. The results measure the progress made from one year to the next. Action plans tailored to all levels of the organization: Team, Department, Entity and GBU/Group – are rolled out. They are a key management tool, used by managers at all levels of the company.

In 2021, 52% of employees responded to the survey (53% in the previous year) i.e. more than 65,000 employees. ENGIE&Me has registered a positive change again this year, continuing its track record since 2017, with a sustainable engagement level of 83%. On questions related to vision and strategy, employees showed increasing confidence. Communications on strategy should be continued to help individuals to see more clearly how they contribute to ENGIE's aims. Employees reported their satisfaction in terms of their degree of autonomy, their ability to innovate and their work-life balance. The improvement principally concerned the effectiveness of our internal processes.

The 2021 results were presented to all employees and appropriate action plans were identified.

3.4.3.2.2 Organization of work

In France, most of the Group's entities have signed an agreement to implement regular remote working, on the basis of two to three days a week. Before the lockdown in March 2020, fewer than 30% of ENGIE employees worked from home. The level is now 40% on average. With the advent of the health crisis, negotiations to renew expiring agreements will be an opportunity to take feedback on generalized remote working into account. Some entities have also signed agreements on the right to disconnect.

These various arrangements for working time and improvements to working conditions help to limit absenteeism.

	2021									2020	2019
			Client solutions								
GRI 403-2	Rene-wables	Networks	Energy Solutions	EQUANS	Supply	Thermal	Nuclear	Others	Group	Group	Group
Absenteeism	3.4%	6.4%	5.2%	5.7%	6.4%	2.9%	5.1%	4.3%	5.5%	6%	5.5%
Absence due to sickness	1.3%	3.0%	3.3%	4.3%	4.7%	2.2%	4.3%	1.9%	3.6%	3.8%	3.4%
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*99.1%*

3.4.4 Diversity and inclusion

For many years, the Group has implemented a corporate social responsibility (CSR) policy that is proactive, ambitious and innovative to combat discrimination and promote equal opportunity and treatment. ENGIE's diversity policy was rewarded by the four-year renewal of its Diversity label in October 2017 for all Group activities in France. A follow-up audit in September 2020 confirmed the Group's commitment to promoting diversity and equal opportunities. It praised the many initiatives taken by all the entities. Lastly, ENGIE has renewed its commitment to professional equality by signing up in September 2019 to the Women's Empowerment Principles defined by the United Nations.

3.4.4.1 Diversity

3.4.4.1.1 Gender diversity

ENGIE aims to become a benchmark for professional and pay equality. In February 2020, two new Tier 1 non-financial targets were set and approved by the Board of Directors:

- the Group's consolidated gender equality index to reach 100 out of 100 points by the end of 2030;
- women to make up 50% of the Group's managerial staff in 2030.

For ENGIE, diversity, professional equality and inclusion are innovation and performance drivers. In order to achieve this ENGIE has launched and is rolling out the Fifty-Fifty program. This international program is based on a systematic approach to creating the conditions needed to achieve gender equality.

This project came in response to demand not only from the entire Company and ENGIE's customers, but also investors. Its road map is based on six pillars: structuring and governance, diagnostics, awareness and communication, organizational adaptation, employee development and external partnerships. For ENGIE, it means becoming a benchmark player in this area and attracting the best talent.

In 2021, each entity benefited from a "Fifty-Fifty toolbox," tailored to the occupations and cultural environments of each region. Our main points of action are focused on:

- **Training employees**
  - three "Diversity, Professional Equality and Inclusion" programs were rolled out between May and July 2021: one online program for all employees and two mixed programs for the Group's managers and senior managers;
  - in January 2021, a personal development program "Wo+Men to Lead" was introduced for women and in September 2021 for men;
  - in November 2020, a partnership was entered into with the Women Initiative Foundation in training for inclusive leadership.
- **Communication and awareness-raising**
  - a "Diversity, Professional Equality and Inclusion" masterclass has been offered since February 2020. Its target audience is various hierarchical levels of the company;
  - Fifty-Fifty events are scheduled for all employees on certain key dates, particularly Women's Day;
  - executive committee awareness-raising workshops were held in March 2021, on privilege and how to manage unconscious bias.
- **Diagnostics and certification**
  - in February 2021, ENGIE's initial scope obtained EDGE certification in Diversity and Inclusion;
  - in October 2021, 22 Diversity, professional equality and inclusion questions were included in the ENGIE&Me survey;
  - the findings of the audit of the processes used to assess our talent, in order to make them more inclusive, were reported in May 2021.
- **Sharing of good practice and external resonance**
  - in November 2021, the 1st edition of the Fifty-Fifty Award, a competition open to everybody, was launched. It rewards the teams that are most invested in gender diversity;
  - in November 2021, a virtual media library containing the resources in the Fifty-Fifty toolbox, was created on the ULearn platform: videos, statements, articles, good practice, etc.;
  - as part of the Fifty-Fifty program, the Change Drivers network was created in November 2019, as well as the *ChangeMakHers* network in May 2021.

In 2021, women made up 21.8% of the Group's workforce. The proportion of women in management was 24.6%. The proportion of women on the Operational Committee is 27.3% (15 women and 40 men) in 2021. The proportion of women on the Group Executive Committee is 27.3% (three women and eight men).

In addition, to promote gender diversity in the occupations, ENGIE is raising awareness among young female audiences through the "*Elles Bougent*" association, which promotes the role of women in technical sectors in France. Lastly, as part of its partnership with *Le Laboratoire de l'Égalité*, ENGIE has been helping since September 2019 to develop an artificial intelligence pact. This ensures that new technologies underlying HR processes that incorporate AI are not discriminatory in terms of gender.

As part of its commitment to the apprenticeship foundation, *Fondation Innovations Pour les Apprentissages* (FIPA), ENGIE has undertaken to start a class dedicated exclusively to young women: "*les Ingénieuses*." In September 2021, four young women from ENGIE joined this promotion. The aim is to help them become engineers.

	2021									2020	2019
			Client solutions								
GRI 405-1	**Renewables**	**Networks**	**Energy Solutions**	**EQUANS**	**Supply**	**Thermal**	**Nuclear**	**Others**	**Group**	**Group**	**Group**
Proportion of women in workforce	26.2%	27.4%	19.5%	16.8%	36.5%	12.3%	14.0%	44.3%	21.8%	21.4%	20.8%
Proportion of women in management	28.9%	32.4%	23.1%	15.9%	39.2%	16.5%	19.0%	37.8%	24.6%	24.1%	23.5%
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*
Proportion of women in permanent hires	23.7%	31.1%	21.8%	19.6%	28.5%	18.9%	20.0%	37.8%	22.3%	21.8%	21.9%
Proportion of women in permanent management hires	30.6%	35.1%	24.7%	18.7%	42.1%	14.4%	40.0%	32.9%	24.5%	27.0%	25.4%
% reporting	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

3.4.4.1.2 Professional and pay equity

As part of its CSR policy and to support its purpose, ENGIE has extended the French obligation to calculate the professional and pay equity index to all of its companies abroad with more than 250 employees. This index is based on several criteria: the gender pay gap, the difference in the distribution of promotions and individual pay raises, the number of employees who received a pay rise on returning from maternity leave and the number of women among the ten highest-paid employees. All the companies use a decision-making tool called EQUIDIV, developed by the Group HRD. The tool enables automatic calculation of the index from individual data and provides priority remedial actions to progress professional and pay equality between women and men.

The effort has continued, maintaining the result of the Group's consolidated gender equality index at 85 out of 100 points in 2021. In the France the 2021 score was 89 points (identical with 2020) and internationally, 82 points (up two for the year).

On November 22, 2017, ENGIE signed a European Agreement for an indefinite period on professional equality between women and men, the fight against discrimination and violence, and the prevention of sexual harassment. Sexist behavior was the subject of a specific article.

Management is committed to developing awareness campaigns to combat sexism. Campaigns will be put in place in the 1st half of 2022 as soon as the international guide has been published. ENGIE is committed to taking all necessary measures to prevent incidents of sexual harassment. Reporting tools have been put in place to enable any deviant behavior to be flagged. In early 2021, ENGIE took part in the "BVA/#StOpE" au Sexisme scale for the first time. This identified the priority actions to be taken across France.

In addition, on the basis of an international benchmark of legislation in force, the Group has defined a common international reference framework designed to eradicate sexual harassment. ENGIE launched a global information and awareness campaign on domestic violence on the occasion of the International Day for the Elimination of Violence against Women. A note will be distributed internationally in the 1st quarter of 2022.

3.4.4.2 Inclusion and job-seeking support

3.4.4.2.1 The social and professional inclusion of young people

ENGIE is a major, engaged and active player. The Group develops many innovative initiatives in partnership with its ecosystem to promote learning.

A founding member of the *Collectif des entreprises pour une économie plus inclusive* ("Group of companies for a more inclusive economy"), since 2018, the Group has been taking action countrywide, alongside 34 large companies and public authorities, to promote the inclusion of young people, particularly those who have been distanced from employment or come from the most disadvantaged areas. In particular, ENGIE has undertaken to host 3,000 young people from priority neighborhoods for a period of three years, from the third grade until they start their working lives.

The Group is committed to the social and professional inclusion of people in severe difficulty or in a situation of exclusion via the *Parcours Emploi – Mobilité – Sport* (PEMS) program. This program helps young people aged 17 to 26 from priority neighborhoods, or young isolated minors supported by child welfare or charities, to sign up to a work-study contract. More than 400 young people have been supported by the initiative since 2016, with a positive exit rate above 60%. For this initiative, ENGIE relies on a network of volunteer employee sponsors, who help the young people find work-study contracts and a host company while providing them with moral support.

ENGIE has been a partner in the Alliance for Youth movement since December 2015. This is an opportunity to implement collective actions to improve the employability of young people all over the world. In this context, ENGIE has launched the "Apprenti Swap" program with Nestlé. In 2020, this enabled four young people hired as apprentices to take part in a two-year master's 2 in Digital Marketing. They are spending one year as an apprentice at each of the two partner companies. In September 2021, four new work-study students were hired simultaneously by ENGIE and Nestlé in the Compensation & Benefits and HR Performance occupations.

Since 2020, ENGIE has chaired the French GAN (Global Apprenticeship Network), the aim of which is to:

- encourage corporate initiatives;
- act on factors hindering the development of work-study programs;
- connect these initiatives with real career opportunities for young people;
- use professional training as a springboard for accessing the world of work.

3.4.4.2.2 Employees with disabilities

ENGIE is fully committed to the area of disability, including at the highest levels of the Group. In France, it is mainly involved in recruitment, integration, support and job retention, awareness-raising, communication and collaboration with the sheltered sector. In 2019, the Group reaffirmed the need for collective corporate action by signing, alongside 130 large companies, the "Manifesto for the Inclusion of People with Disabilities in Economic Life." Through this charter of operational commitments, ENGIE is taking action, with the other signatories, that includes bringing the world of education and the world of work closer together. It helps young people discover occupations and access the labor market through work-study programs.

ENGIE has around 2,620 employees with disabilities in France. The direct employment rate was 3.4% in 2021.

ENGIE sees work-study programs as a lever for recruiting young people with disabilities. The Group has undertaken to make a substantial effort to recruit people with disabilities for work-study programs each year.

The collaboration with the protected and adapted work sector makes the inclusive vision of the Group's CSR commitments a reality. It aims to ensure the viability of indirect jobs, promote the local economy and encourage professional integration. In France, ENGIE is a partner of the GESAT network. It puts ENGIE in economic contact with service providers in the protected and adapted work sector. The services provided represented around €9 million in 2020.

3.4.4.2.3 Religious diversity

One of the 25 legal criteria of the principle of non-discrimination applies to the actual or perceived adherence to a religion. ENGIE is committed to ensuring that no employee or applicant is treated unfavorably because of their religious beliefs. In 2015 the Group prepared some points of reference on religious diversity in the company to help managers in this regard. This guide was updated in 2019 and provided to the entities, along with an interactive version and a meeting coordination kit.

3.4.4.2.4 LGBT+ (Lesbian, Gay, Bisexual, Transgender/Transsexual plus)

ENGIE signed the L'Autre Cercle's LGBT+ commitment charter on December 6, 2017. In October 2020, in France, ENGIE published the practical guide "LGBT+, understanding to act together" in order to raise awareness of the question of LGBT+ in the workplace. ENGIE participated in the 2020 edition of L'Autre Cercle's 95 LGBT+ & Allié.e.s au Travail Role Models in France. Two employees were designated in the LGBT+ Leaders and Allié.e.s Dirigeant.e.s Role Models category. In 2021, ENGIE stepped up its actions to boost diversity and combat discrimination, with:

- the launch of "Friends," the Group's network of LGBT+ and Straight Allies employees;
- the worldwide publication of a new guide, "Understand each other to better act together";
- the training of 150 HR staff in France;
- the provision of a training/awareness-raising catalog for management committees, managers, employee representative bodies and all employees;
- participation for the second time in the "Role Models" of L'Autre Cercle, with two candidates presented.

In 2022, ENGIE North America was awarded for the 2nd year running by the Human Rights Campaign (score 95/100). Actions taken in the United States to improve equal treatment for LGBT+ employees were recognized.

3.4.5 Remuneration, social protection, employee savings plans, and employee shareholding

3.4.5.1 Principles of the remuneration policy

Group policy is to offer everyone remuneration that is personalized, fair and competitive on the market, which reflects the performance and level of responsibility of each person. The Group uses external information provided by specialized firms to establish its positioning in relation to the local reference market. It also ensures compliance with the minimum wages applicable in the different countries in which it operates. Particular attention is paid to equal pay, with the calculation of the index (see Section 3.4.4.1.2). The overall compensation structure consists of a base salary and, depending on the level of responsibility and the country, variable compensation schemes to reward collective and individual performance.

3.4.5.2 Social protection and pensions

ENGIE ensures that it adheres to the best practices of major international groups. The Group ensures the competitiveness of its entities' systems in relation to local practices in terms of social protection and pensions. In 2020, ENGIE rolled out the ENGIE Care social protection program worldwide. This program allows each employee to benefit from health coverage, guaranteeing reimbursement of at least 75% of costs in the event of hospitalization. It also protects the employees' family or loved ones in the event of their death by paying a benefit equal to at least 12 months' salary. The signing of the new global agreement is meant to guarantee protection of every employee by 2024. A lump sum equal to 12 months' wages will be paid. At least 14 weeks of maternity leave and at least 4 weeks of paternity leave will be paid at full wages, This parenting pillar strengthens the work/life balance and equal opportunities between men and women. ENGIE Care thus adds to the attractiveness of the Group, helps employee retention and strengthens ENGIE's CSR policy. ENGIE Care is accelerating the Group's performance in terms of social benefits (including retirement) by mapping them to its various entities.

This facilitates the pooling, and therefore optimization, of its plans. The entities also have access to a pool of international insurance companies. It provides optimized subscription options, with the potential to share local and global surpluses.

3.4.5.3 Group employee savings plans policy

3.4.5.3.1 Savings plans

In France, since the end of 2009, the Group's employees have had access to a Group Savings Plan (*Plan d'Épargne Groupe* – PEG). The plan includes employee shareholding funds as well as a large range of diversified savings options. It totaled close to €2 billion in assets at the end of 2021. Outside France, measures have also been put in place in some countries that allow employees to save under terms adapted to local laws.

3.4.5.3.2 Retirement savings plans

In France, since 2010, all employees may, at their own pace, build funds for retirement by paying into the Collective Retirement Plan (*Plan d'Épargne pour la Retraite Collectif* – PERCO). In 2021, ENGIE began transforming its PERCO plan, within the framework of the Pacte law. Outside France, products exist in some countries that allow employees to supplement their pensions by making voluntary contributions on favorable terms.

3.4.5.3.3 Principles of non-financial management

As part of these plans, in France, ENGIE selects management companies whose management policies take environmental, social and governance (ESG) criteria into account. As such, most of them are signatories to the United Nations Principles for Responsible Investment. In addition, a specific ESG policy has been implemented for part of the range by the fund governance. They include representatives of management and social partners.

3.4.5.3.4 Solidarity funds

In France, the ENGIE solidarity employee mutual Fund (FCPE) called "*Rassembleurs d'Énergies Flexible*" is one of the largest dedicated solidarity funds in the French market. This fund is classed as an impact fund and has supplemented the range of Groups Savings Plan and Retirement Savings Plan investment products since 2012. It enables employees to take part in a social initiative that is consistent with their occupations.

3.4.5.4 Profit-sharing and incentive plans

Due to the existence of legally separate companies, there is no common collective profit-sharing and incentive plan for the Group. Collective variable compensation systems are widely developed in the subsidiaries. In 2021, the overall volume of employee profit-sharing and incentive plans at the various French subsidiaries reached close to €150 million.

At the ENGIE SA level, a profit-sharing agreement was signed with all the representative trade unions on June 30, 2021. This agreement provides for the payment of an envelope of 7.5% of the principal remuneration in the event that financial (4.5%) and non-financial (3%) targets are exceeded. The new agreement notably includes a non-financial criterion related to the reduction of the carbon footprint of employees. The amount paid out in 2021 for 2020 profit-sharing was €15,694,453. The agreement setting up the employee profit-sharing system for ENGIE SA was signed on June 26, 2009. Application of the statutory profit-sharing formula for 2020 resulted in no payment being made to employees in 2021.

3.4.5.5 Employee shareholding

With an employee shareholding level of 3.2%, ENGIE has a particularly dynamic and innovative shareholding policy. ENGIE periodically organizes the global employee shareholding operation known as “Link”. ENGIE carried out the largest employee shareholding operation of 2018 with a volume of €340 million. This operation was subscribed by more than 40,000 employees worldwide at attractive conditions in terms of discount and employer contribution.

ENGIE is also particularly innovative as it is the only issuer to offer a “Link +” structured product. Its 10-year lock-up period in return for a discount and a specific employer contribution enabled the largest number possible to subscribe by offering payment terms spread over time. Given the resources employed and the length of the lock-up period, this type of worldwide operation does not take place every year.

3.4.5.6 Performance shares/Long-term incentives

ENGIE grants performance shares, which are described in detail in Section 4.4.3. These shares, which have a minimum maturity of three years, are subject to internal and external performance conditions. This plan is not reserved for senior managers and ENGIE has a particularly wide allotment policy. Around 7,000 employees worldwide benefit from the plan.

3.4.6 Social dialog

The development and maintenance of high-quality social dialog is considered essential to successfully support ENGIE’s new organization. To this end, the work of the HR teams, in close collaboration with the social organizations, has resulted in the establishment of an innovative process of social dialog. The project for creation and evolution of the shareholding structure of EQUANS ended with a memorandum between ENGIE and the European Works Council (EWC). Potential investors submitted their business and social plans to the secretariat of the EWC, enabling it to make a comparative analysis of the bids and issue an opinion.

Within national and European representative bodies and through national, European and global collective bargaining agreements, ENGIE involves its social partners in the implementation of its Social Ambition, which has been opened and broadened to take into account environmental and societal challenges.

3.4.6.1 Representative bodies

At Group level, social dialog is organized around two representative bodies that are privileged forums for consultation between management and employee representatives:

- **The EWC:** comprising 41 full members representing the Group’s 139,070 employees throughout Europe. The European Works Council (EWC) aims to develop and strengthen European social dialog, ensure balanced representation between the Group’s countries and main business activities, and develop social dialog within these main businesses. A secretariat with 13 members representing eight countries meets every two months. In 2021, the EWC held eight plenary meetings, six of them extraordinary, along with ten EWC secretariat meetings and nine meetings of the working groups. The high number of meetings is due to the various EWC consultation processes that began in 2021 (creation of EQUANS in the first half-year, changes to the Group’s organization in Europe and changes to the shareholding structure of EQUANS in the second half-year). It should be noted that face-to-face meetings were resumed from mid-June, when Covid-19 related health restrictions were lifted.
- **The French Group Works Council**: this body, which represents more than 77,716 employees in France, has 30 full members. The French Group Work Council is an information body with representatives of institutions representing the employees of French companies. In 2021, four meetings were held, two of which were extraordinary.

3.4.6.2 Group collective bargaining agreements

In line with its commitments, ENGIE opened negotiations with the international union federations toward a worldwide agreement on fundamental rights and social responsibility. It was signed in January 2022 with the three global union federations most representative of our business lines, and with the four representative labor organizations at the Group level. This agreement reaffirms ENGIE’s intention to be recognized as a responsible employer that intends to attain a level of excellence socially that is commensurate with our environmental standards.

3.4.7 Note on the calculation method for social indicators

3.4.7.1 Scope of reporting

The indicators published in this report relate to fully consolidated companies, whose capital and management are under the control of ENGIE. The social indicators are fully consolidated, regardless of the percentage of the company’s capital owned. The reporting scope is the same as that of the Finance Department.

The data are submitted by the GBU created as part of the new organization established on July 1, 2021. EQUANS was presented separately within the Client Solutions GBU (see Section 1.6). A reporting level is attached to each indicator, according to the employees

3.4.7.2 Consolidation methods

The content of the report is based on indicators selected to reflect the main social and societal impacts of the Group's activities. The indicators are chosen in accordance with the Global Reporting Initiative (GRI) standards.

The indicators for this report are consolidated using defined procedures and criteria. Data on the organization's structure, employee turnover, working conditions, training and safety were consolidated by aggregation.

3.4.7.3 Tool

The social indicators are derived from Group social reporting (GSR). These are set out in a shared Group database that may be viewed on request. The collection, processing and reporting of data entered by the local entities, subsidiaries of the ENGIE Group, is carried out in the SyGMA consolidation tool, in accordance with the IFRS financial scope.

3.4.7.4 Control

The social data are successively consolidated and verified by each operational entity before verification at the Group HRD level. ENGIE's statutory auditors then verify the social information collected in order to issue a reasonable assurance report. This work is carried out at the same time as the work of the independent third party responsible for verifying the non-financial performance statement published in ENGIE's management report.

3.4.7.5 Additional information on some indicators

3.4.7.5.1 Employment

Administrative employees are recognized under "senior technicians and supervisors". The Belgian entities in the energy sector do not declare "manual workers, clerical staff and technicians" (Electrabel).

Contractually, unskilled or low-skilled workers have employee status. This might cause an underestimation of this category. The French concept of cadres (managerial staff) (≥ 300 points on the Hay Guide Chart, the universal job classification and evaluation system) is sometimes difficult to understand in other countries. This can lead to a slight underestimation because some entities may take only their senior management into account.

3.4.7.5.2 Employee flows

Indicators in this Section have been calculated on a current scope basis, i.e. the fully consolidated reporting entities included in the scope of consolidation at 12/31/Y. The lay-offs indicator does not include contractual terminations.

3.4.7.5.3 Diversity and equal opportunity

The declared percentage of people with disabilities provides the best possible information on the inclusion of people with disabilities. The Group does not consider it relevant to provide a reporting percentage for this indicator, since some entities are unable to gather the relevant information due to local regulatory restrictions.

3.4.7.5.4 Career development

When all data cannot be provided within the timelines, the most recent are provided as well as a forecast of the missing data at year-end.

Training: the definition of the indicator was changed in 2020 to ensure that it included face-to-face and e-learning training courses. The format and duration of a training may vary but must include a description of educational content. The breakdown of training hours by topic does not include e-learning hours.

3.4.7.5.5 Organization of working time

The working hours of personnel within the Group companies are organized within the legal framework for working time, which varies from country to country.

Days of absence per person are calculated according to the Group convention of eight hours of work per day.

3.4.8 Health and safety policy

3.4.8.1 Performance

The Group's performance in terms of health and safety is as follows:

- a total frequency rate of lost-time accidents for employees and subcontractors operating on site with controlled access of 2.9, which is below the maximum target for the year of 3.1;
- a severity rate of lost-time accidents for employees of 0.11 in 2021 (level with 2020);
- a prevention rate of 0.58, higher than the minimum target for the year of 0.50.

The number of fatalities arising from the exercise of a professional activity among Group employees, temporary workers and subcontractors was 16 in 2021 – 4 employees and 12 subcontractors.

Of the 16 fatalities, 7 were due to the same accident at the construction site for a high-voltage power transmission line in Brazil, when a pylon fell over due to a fault in construction quality. In response to these accidents, the Executive Committee decided to implement a decisive action plan (see Section 3.4.8.2.4).

In the field of occupational health, the number of new cases of recognized occupational illness was 52 in 2021, marking a decrease compared with 2020 (106).

3.4.8.2 The health and safety management system

The Group's health and safety policy sets out the key principles for the management of health and safety. This policy was subject to an agreement with the representative bodies of European personnel and the representatives of the global federations.

To implement these principles, the Group's Health and Safety Rules set out the minimum standards and requirements that apply within the Group.

3.4.8.2.1 Performance reporting

The Group's performance in terms of health and safety in the workplace and process safety are monitored by:

- the Executive Committee;
- the Ethics, Environment and Sustainable Development Committee (EESDC) for health and safety at work;
- the Audit Committee for process safety;
- the Board of Directors.

In 2021, all in-depth analyses of fatal workplace accidents were presented to the Executive Committee in the presence of the operating manager involved and to the EESDC. Regular updates were also provided at meetings of the Board of Directors and the Operational Committee, which comprises the Group's main operational managers.

The health and safety performance is shared with managers and the Group's health and safety functional line. They are distributed within the entities via managers and made available to all employees on the Group intranet.

Periodic updates are carried out with each GBU in order to assess the effectiveness of the measures implemented. These also serve to evaluate the entities' capacity to prevent serious and fatal accidents involving employees and subcontractors.

3.4.8.2.2 The management of risks arising from the Covid-19 pandemic

At the start of the crisis, the Group set up a dedicated communications system to support the roll out of the various personal protection measures. The measures defined and implemented in early 2020 were continued in 2021. The Group enlisted a service provider specialized in managing health risks to help guide its decision making. Measures to prevent the infection of employees, subcontractors and customers were applied which took into account the contamination level of countries and the prevention systems set up locally by the authorities.

The specific reporting on the numbers of employees infected, which began in 2020, continued in 2021. The infection rate within the Group (based on the number of infections) remains lower overall than the rate in the country.

Managers were made aware of the need to reinforce communication and listening time with both employees working from home and those active at their usual places of work. Given the length of the pandemic, particular attention was paid to detecting weak signals that are markers of potential psychological discomfort. The various entities carried out regular surveys of their employees to assess their well-being at work. These made it possible to qualify their feelings, in particular regarding the support provided to them, and to identify any needs they might have.

The system put in place was part of a continuous improvement cycle. Feedback from entities expressing their needs and sharing any difficulties helped adapt the prevention system.

3.4.8.2.3 Definition of the new 2021-2025 action plan

The Group's objectives in terms of health and safety at work, which are reflected in its policy, are set out in multi annual action plans. The new 2021-2025 action plan covers three areas of prevention:

- "No life at risk," the management of risks relating to the direct execution of activities;
- "No mind at risk," well-being at work, vigilance, the management of risks relating to the context of activities being executed;
- "No asset at risk," management of the risks associated with the Group's industrial activities.

The main measures relating to "No life at risk" implemented in 2021 are described in Section 3.4.8.2.4 "The management of risks relating to health and safety at work." The main actions implemented by the Group relating to "No mind at risk" in 2021 are described in Section 3.4.8.2.5 "Improving well-being at work." The actions implemented in 2021 relating to "No asset at risk" are described in Section 2.2.5.1 "Industrial accident risks."

3.4.8.2.4 The management risks relating to health and safety at work

The prevention of serious and fatal accidents is based on the identification of risks and the implementation of measures aimed primarily at eliminating exposure to risks, or at implementing appropriate collective and individual protection measures, particularly by means of the safety rules imposed by the Group. Specifically, the Group has defined nine "Life-Saving Rules," covering the major risks identified, which constitute the last individual barrier of prevention before a serious or fatal accident, if all other barriers have not worked.

The entities pursued a systematic approach to identifying, analyzing and handling events with high potential of severity (HiPo) that are precursors to serious accidents. These HiPos are identified by the operating entities, which draw up an action plan for each of them to prevent their recurrence and in particular to eliminate risk exposure. The HiPos are collected by the Group, which shares them with the entities through its health and safety network.

Moreover, operators are asked to stop working if safety conditions are not met (the "Stop the work" approach). Operators must also implement "the life-saving minute", which consists of carrying out a new on-site review of risks to ensure that these are correctly under control.

Lessons were specifically shared after each serious accident analysis and specific preventive measures were then implemented.

As a result of the fatal accidents experienced by the Group in 2021, a number of specific actions were taken:

- the organization of a "safety stand down," which was a dedicated opportunity for discussion, when all the Group's activities were suspended and the teams invited to reflect on what measures to take to strengthen safety at work within the Group. The various proposals made by the entities have been analyzed and incorporated into the Group's health and safety action plan;
- in-depth health and safety reviews were carried out at certain construction sites deemed to be particularly at risk. Within the Group, construction sites have faced higher risks, with deaths on these sites accounting for three-quarters of all deaths in 2021;

- the action plan to ensure the safety of the Group's subcontractors was strengthened, with the number of subcontractor fatalities in 2021 accounting for three-quarters of all fatalities;
- a specialist external provider was charged with carrying out a full assessment of health and safety maturity and organization. The actions resulting from recommendations made by the service provider will be incorporated into the Group's health and safety action plan.

Finally, in 2021, a specific action plan was put in place to strengthen the prevention of electricity-related accidents, particularly the most serious accidents. In this context, it was requested that safety visits by management be focused in particular on the prevention of electrical accidents. All Group employees and subcontractors have been reminded that it is essential to check that there is no voltage when working on a facility. In addition, all the GBU and entities have been asked to strengthen their electrical risk action plans.

3.4.8.2.5 Improving well-being at work

For several years, the Group and its subsidiaries have been implementing specific measures to improve the well-being of their employees at work. In 2021, the Group continued to coordinate a network of contacts for well-being at work representing all of its entities, aiming in particular to share existing tools and resources, design new tools and share feedback and good practices between the entities.

In order to strengthen the culture of health and well-being at work and to implement an effective governance system to manage them, a Group-level body – the "No Mind At Risk" Group Committee – was established to carry out a critical, collective examination of the planned measures, with the aim of sharing and challenging them.

Nine commitments for well-being at work were rolled out during 2021, designed to improve the working conditions of all. Each Group employee has undertaken to comply with these commitments.

An e-learning was also developed and provided to all Group managers in order to raise their awareness of the most effective managerial conduct to adopt to ensure that these commitments become a reality within each working group.

3.4.8.3 Strengthening the health and safety culture

Various tools were used to strengthen the health and safety culture among the Group's employees and subcontractors.

The health and safety functional line animation makes extensive use of digital tools, with a great deal of work going into dissemination of information to the various entities. This work is notably supported by the organization of thematic monthly webinars, presentations of the analysis of fatal accidents and the provision of various technical support.

A weekly newsletter, "Prevention News," covering most of the exchanges with the GBU and entities, was sent out to the entire health and safety functional line This document enables information on all accidents, significant hazardous situations and events with high potential of severity (HiPo) to be shared Group-wide.

3.4.8.4 Dialog with social partners

In 2021, dialog with employee representatives continued at all levels of the Group and particularly with global and European bodies. A permanent health and safety at work working group is active within the European Works Council.

Each half year, it reviewed the performance and actions taken in terms of health and safety and well-being at work.

With regards to the management of the pandemic, the representative bodies were regularly informed and consulted regarding new provisions to be implemented.

Health and safety data

Additional information regarding the health and safety indicators

The analyses carried out in this document concern the entities and activities in which ENGIE has operational management, regardless of the method of financial consolidation.

The health and safety at work reporting scope includes the data of entities sold during the year up to their date of transfer.

Concerning the indicator relating to the number of new cases of occupational illness, we do not consider it relevant to provide a refund rate since some companies cannot collect this indicator due to local regulatory constraints.

	Number of deaths (employees)	Frequency rate (employees)	Severity rate [2] (French framework)	Severity rate [2] (ILO framework)	Number of new cases of occupational illness
GROUP [1]					
2021	**4**	**3.2**	**0.18**	**0.11**	**52**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	3	3	0.19	0.11	106
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	2	3.7	0.21	0.14	120
% reporting	*100%*	*100%*	*100%*	*100%*	
NORTH AMERICA					
2021	**0**	**1.46**	**0.03**	**0.03**	**0**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	0	1.03	0.08	0.05	1
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	0	1.73	0.11	0.09	0
% reporting	*100%*	*100%*	*100%*	*100%*	
FRANCE EXCLUDING INFRASTRUCTURE					
2021	**1**	**4.24**	**0.36**	**0.18**	**49**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	1	4.47	0.36	0.19	4
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	1	5.25	0.36	0.21	108
% reporting	*100%*	*100%*	*100%*	*100%*	
FRANCE INFRASTRUCTURE					
2021	**0**	**3.07**	**0.16**	**0.12**	**0**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	0	2.02	0.07	0.07	0
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	0	2.1	0.10	0.08	0
% reporting	i				
REST OF EUROPE					
2021	**1**	**3.96**	**0.14**	**0.10**	**0**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	1	3.27	0.19	0.12	1
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	0	3.60	0.23	0.17	5
% reporting	*100%*	*100%*	*100%*	*100%*	
LATIN AMERICA					
2021	**0**	**1.78**	**0.06**	**0.04**	**0**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	1	2.83	0.07	0.06	84
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	0	5.28	0.12	0.09	6
% reporting	*100%*	*100%*	*100%*	*100%*	
MIDDLE EAST/AFRICA/ASIA					
2021	**2**	**0.57**	**0.01**	**0.01**	**0**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	0	1.26	0.02	0.02	0
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	1	1.09	0.02	0.01	0
% reporting	*100%*	*100%*	*100%*	*100%*	

	Number of deaths (employees)	Frequency rate (employees)	Severity rate [2] (French framework)	Severity rate [2] (ILO framework)	Number of new cases of occupational illness
OTHERS					
2021	**0**	**0.72**	**0.03**	**0.02**	**3**
% reporting	*100%*	*100%*	*100%*	*100%*	
2020	0	0.68	0.02	0.02	16
% reporting	*100%*	*100%*	*100%*	*100%*	
2019	0	1.64	0.03	0.03	1
% reporting	*100%*	*100%*	*100%*	*100%*	

(1) Groupe covers the ENGIE 7 sectors
(2) The evolution of severity rates does not include fatalities

3.5 Environmental information

ENGIE faces the main environmental challenges: climate change, the quality and availability of natural resources (air, water, soil and energy) and the protection of biodiversity and ecosystems. Although its activities sometimes have an impact on ecosystems and natural resources, the Group seeks to measure and reduce this via the environmental management of its activities.

ENGIE's challenges and ambitions in this area are reflected in the Group's environmental policy (available on the ENGIE website) and in the performance indicators deployed across all its activities. The challenges also include the risks identified in the environmental vigilance plan. A team in charge of analysis and coordination is specifically dedicated to environmental responsibility and reports to the Group CSR Department. It has environmental coordinators in each region or country who lead their own networks of coordinators, organize actions, supplement corporate expertise with their knowledge of operations, and implement environmental reporting.

The Corporate Social Responsibility Department produces an annual report which is sent to the Executive Committee and then presented to the Board of Directors' Ethics, Environment and Sustainable Development Committee. This report is supplemented by regional Hubs' own reports and letters of environmental compliance, as well as the results of environmental audits ordered by the Executive Committee.

3.5.1 Legal and regulatory framework

The Group actively monitors regulatory developments (set out in Chapter 2 "Risk factors and controls"), stating its positions while they are being prepared and applying the new rules as soon as they are published. In particular, the Group has been calling for the harmonization of international regulations and greater integration between the various environmental and energy policies. In the run-up to COP21, the Group strongly pledged to support an ambitious international climate agreement to limit the global temperature rise to 2°C. It also pledged to support the more widespread application of regulations on carbon pricing, which would be a strong signal for investment in low-carbon technologies and an incentive to reduce greenhouse gas emissions. To this end, the Group plays an active role in the CPLC (Carbon Pricing Leadership Coalition).

3.5.2 Environmental management

At the end of 2021, the entities that had implemented an Environmental Management System (EMS) accounted for 75.6% of relevant revenue [1]. The need to obtain external EMS certification is assessed locally with regard to local economic conditions and benefits.

(1) Revenue generated after excluding activities not considered pertinent in terms of environmental impact: services, trading, sales, activities, etc

Percentage of relevant revenue covered

Indicator title	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
By an EMAS certification	5.00%	7.30%	3.72%	3.06%
By an ISO 14001 (non-EMAS) certification	56.94%	57.71%	57.26%	58.46%
By another external EMS certification	2.40%	0.78%	2.81%	2.87%
TOTAL EXTERNAL CERTIFICATIONS	**64.34%**	**65.80%**	**63.79%**	**64.39%**
By an internal certification (but not by a certified EMS)	11.23%	9.38%	11.92%	8.33%
TOTAL INTERNAL AND EXTERNAL EMS	**75.58%**	**75.18%**	**75.71%**	**72.73%**

When the implementation of a certified or registered management system is not economically justified, entities are encouraged to define an internal management system ensuring concern for the environment in carrying out their activities. As a result, some Group entities have defined their own management system standard. When an internal or external EMS is implemented, employees take part in awareness and training sessions relating to the environmental issues they encounter at their sites so that they adopt the EMS methodology and make it their own.

3.5.3 Performance control and measurement systems, a prerequisite for environmental responsibility

To monitor the implementation of its environmental policy, control environmental risks and encourage the communication of its environmental performance to stakeholders, ENGIE implements a specific reporting system that goes beyond the requirements of French law and which takes into account the Global Reporting Initiative (GRI) recommendations.

Environmental reporting is closely tied to operational performance reporting, thus becoming a management tool. The Group's Executive Committee transmits this goal of making environmental concerns an integral part of management responsibilities.

A system of letters for environmental compliance ensures operational management involvement.

Methodological elements

ENGIE conducts its environmental reporting using a dedicated tool that allows data to be reported following a defined methodology. This tool, called EARTH, is an environmental reporting IT solution used to manage the network of environmental correspondents and coordinators; to handle the management and documentation of the scope of environmental reporting; to manage data entry, monitoring and consolidation of indicators; to draft reports; and to provide the documentation necessary for producing and collecting data (reporting procedures and instructions).

EARTH is deployed in each regional Hub and thus covers the entire ENGIE organization.

The legal entities included in the reporting scope are those whose operations are relevant in terms of environmental impact and that are consolidated fully or proportionately under the rules of financial consolidation (IFRS). Legal entities whose sole business is energy trading, financial activity or engineering are therefore excluded from the scope, as are legal entities consolidated using the equity method. The entities included in the reporting report on the performance and impacts of the industrial facilities over which they have technical operational control, including facilities operated on behalf of third parties.

Thus, in accordance with the rules of financial consolidation, 100% of the impact data collected is consolidated when the entities are fully consolidated. For entities proportionately consolidated, the environmental impact data are consolidated in proportion to the Group's consolidation rate provided that it has 100% technical operational control or that, as a minimum, this is shared with other shareholders.

For disposals occurring during the year, the entities concerned complete the environmental questionnaire with the data available as of the last day of the month preceding the disposal. If it is not possible to collect all the environmental indicators, they are extrapolated on the basis of the main activity (e.g. energy production for a power plant) and historical data. For acquisitions made during the year, it may happen that their environmental management system is not sufficiently mature to meet all the environmental indicators. In this case, the missing indicators are extrapolated on the basis of the main activity and indicators available in entities with a similar technical profile. A correction of these extrapolated values can be made *a posteriori* the following year, at the end of the first full fiscal year.

To calculate environmental management indicators such as the "share of relevant revenue covered by an environmental certification, an environmental crisis management plan, etc.," the relevant revenue is estimated for each legal entity. To obtain the relevant revenue, operations regarded as "not relevant in terms of environmental impact" (e.g. trading, finance and engineering) are stripped out of the consolidated revenue figure for each legal entity.

Procedures and guidelines are rolled out Group-wide via a network of duly mandated environmental contacts and coordinators. These procedures and guidelines at Group and regional or country level describe in detail the environmental data collection, control, consolidation, validation and transmission phases at the different levels of the organization, as well as the rules for defining the scope of consolidation. They include technical documents that provide methodological guidelines for the calculation of some specific indicators. Depending on its activities, each entity is assigned a profile that determines the indicators to answer. The list of the entities included in the scope of environmental reporting is approved by each region or country.

The definitions of the indicators used to measure the environmental performance of Group businesses have been revised based on comments made by the Statutory Auditors. They also take into account the comments by line managers represented in dedicated work groups. All the documentation is available from the Group upon request (CSR Department).

Until 2016, ENGIE would provide a “coverage rate” for each indicator published, corresponding to the response rate obtained from all the entities surveyed. Since 2017, thanks to the implementation of the new EARTH reporting tool, the coverage rate has been 100% for all indicators.

The following points should be noted with regard to the data published in this report:

- the reliability of the scope of environmental reporting is a priority for ENGIE, which is evolving in an international context of business disposals and acquisitions. Before every reporting campaign, the financial scope for consolidation is compared against the information fed back by each regional hub’s environmental managers in order to check which industrial entities contributing to EARTH report to which financial entities;
- for facilities burning natural gas that do not have automated measurement systems, default emission factors for SOx and fine particle emissions have been set up (factors recommended by the EMEP, the European Monitoring and Evaluation Programme);
- since 2007, ENGIE has been a signatory to the CEO Water Mandate, thus demonstrating its commitment to the preservation of water resources. The water indicators are consistent with the GRI indicators in 2011 and fall into four categories: withdrawal, discharge, consumption, reuse/recycling. Since 2015, the materiality of the water indicators published has been reviewed and the Statutory Auditors verify the inputs, outputs and consumption of fresh and non-fresh water;
- as it is concerned about what becomes of the waste generated by its activities, the Group has indicators on the production and recovery of the waste generated by its activities. These are based on definitions of waste and recovery established by local regulations. To avoid erroneous data about stock, only the tonnages taken away and weighed on site are reported as disposed of. The tonnages that must be reported are wet or dry, depending on the way they are disposed of: if the waste disposed of was wet, the reported tonnages are wet and the converse for dry waste. As an exception, if the waste is permanently stored on site, the associated dry tonnages must also be reported as disposed of. In the latter case, the waste is never recovered. Waste generated by the construction or dismantling of plant and equipment, by the repowering or upgrading of facilities, and by soil rehabilitation, are not covered by the indicators for waste generated by activities;
- CO_2 emissions from the combustion of fossil fuels were calculated based on the most recent emission factors published by the IPCC (IPCC *Guidelines for National GHG Inventories, Vol.* 2 Energy – 2006). However, the emission factors for coal can vary greatly depending on the provenance. For this reason, each reporting entity consuming coal provides a locally calculated emissions factor. This also holds for alternative fuels for which it is not possible to use standard emission factors;
- the biomass and biogas consumed by ENGIE in its facilities generates energy that is counted as ENGIE production and, in accordance with conventions in this area, ENGIE does not count CO_2 emissions associated with their combustion when they are used to produce energy;
- the global warming potential (GWP) compares the warming capacity of the various greenhouse gases to CO_2. The GWP used to convert the Group’s greenhouse gas (GHG) emissions to CO_2 equivalent are the latest GWP published by the IPCC (5th IPCC Assessment Report – 2014), considered on a 100-year scale. In 2021, the GWP of methane was increased from 34 to 36 to take into consideration CO_2 from the oxidation of methane in the atmosphere (note b of table 8.7 of the 5th IPCC Assessment Report);
- specific GHG emissions from energy generation in kg CO_2 eq./MWh are calculated for the regional hubs and GBU where this is a main activity: Generation Europe, North America, Latin America, Brazil, Asia Pacific, Middle East, South and Central Asia, and Turkey, Benelux, North, South and Eastern Europe, UK, France BtoB, France Networks, and France Renewable Energy;
- for the sake of consistency, the factor for converting thermal energy produced (GWhth) into electric power (GWhe) is set at 0.44 for all Group power generation businesses and at 0.25 for incinerators;
- significant environmental impacts resulting from subcontractors during services performed at one of the Group’s facilities must be included in the Group’s impacts except when a specific contractual clause provides that a subcontractor is liable for impacts generated at the site while providing the service. Data provided by subcontractors is not subject to systematic internal verification before being included in Group data and is the responsibility of the subcontractors alone. Regulations and legal obligations related to the environment may differ from one country to another, and certain data may thus be sometimes more difficult to gather;
- the energy efficiency indicator covers fossil fuel and biofuel power plants. It also includes heat supplied by third parties;
- ENGIE operates hydraulic installations, some of which have water tanks. Given the difficulties in modeling the evaporation of each site, the evaporated water is not yet included in environmental reporting;
- NO_x, SO_x and fine particulate matters emissions are calculated locally on the basis of measurements. As of this year, if discontinuous measurements are carried out on a site, an average of the measurements over the last five years is taken where possible. This methodological change, which avoids inconsistencies due to one-off measurements, has notably led to a 3% increase in NO_x emissions in 2019. When it is not possible to measure these emissions, a calculation method is provided for NO_x emissions and standard emission factors based on fuel consumption are used for SO_x and fine particles. These emission factors are taken from the US Environmental Protection Agency (US EPA) standards;
- ENGIE carries out residual gas recovery services for its steel producing customer ArcelorMittal. This service allows ArcelorMittal to meet the majority of its electricity needs and thus reduce its GHG emissions by avoiding a high level of energy use by the network. When analyzing the GHG emissions relating to these services, ENGIE has noted that 100% of the emissions relate to the steel manufacturing process. At the end of this process, regulations require that steel producers burn residual gases, generally through flaring. ENGIE only intervenes in this process to extract energy that would otherwise have been lost to flaring, by taking over for ArcelorMittal in the burning of the residual gases, but without generating additional GHG emissions. This is why ArcelorMittal’s reporting methodology includes direct emissions from the external plants to which the residual gases are delivered for recovery. This state of affairs is confirmed by the 2019 French law on climate and energy and the related decrees which set the greenhouse gas emissions ceiling for fossil-fueled power plants. Decree No. 2019-1467 of December 26, 2019 states that “Emissions from waste gases used in electricity generation facilities are not recognized.” As a result, ENGIE now excludes these GHG emissions from its Scope 1 (-6.7 Mt in 2020) and has restated data for 2018 and 2019 for consistency purposes (-8.5 Mt in 2018 and -8.9 Mt in 2019). As these are residual gases and not fuel with a supply chain, ENGIE does not include emissions from an upstream fuel chain in its Scope 3. With the exception of GHG emissions related to the combustion of steel gases, all environmental indicators for these entities are included in the consolidated data, as well as their energy production;

- in 2018, Glow's power plants in Thailand were sold to Global Power Synergy Public Company Ltd. (GPSC). These power plants were initially set to exit the scope by the end of 2018, but remained within ENGIE's scope until March 18, 2019 for administrative reasons. For the sake of consistency, 2019 values were corrected to take this activity into account. This mainly included fuel consumption, 1.8 Mt of direct GHG emissions and energy production. Other indicators (management, waste, air, water) were estimated based on 2019 production and data collected in 2018. Two other smaller entities, Viking Energy of Lincoln and Viking Energy of McBain, were reintegrated in 2020 for the same reason in the same manner;
- the methodology for calculating the "Purchased products and services" indirect emissions category in "Other indirect GHG emissions" was reviewed in 2021. On the one hand, a calculation formula taking inflation into consideration was corrected. On the other, double entries were identified and deducted from expenditure volumes. In addition, the volume of expenditures not yet categorized has been taken into account by extrapolating the nature of these expenditures on the basis of the volume already categorized. This extrapolation made it possible to estimate the GHG emissions associated with this volume of expenses not yet categorized. As a result of this methodological review, the 2020 and 2019 data have been restated for consistency. For 2020, the "Purchased products and services" fell from 18.6 Mt CO_2 to 9.5 Mt CO_2. For 2019, this item fell from 17.8 Mt CO_2 to 8.3 Mt CO_2;
- in the "Use of sold products (fuels sold to end-consumers, off market)" indirect emissions category, the term "end-consumer" refers to customers who use the natural gas purchased themselves. Volumes sold to trading platforms, resellers, Local Distribution Companies or other intermediaries not owned by ENGIE are, therefore, excluded.

3.5.4 Group actions

3.5.4.1 Climate change

Direct emissions

Information presented in this Section and in Section 2.2.2 "Climate change" reflects the financial risks associated with the effects of climate change and the measures taken by the company to mitigate them by implementing a low carbon strategy in all areas of its business as required by Article L.225-37 of the French Commercial Code.

By developing a low carbon [1] energy mix and through its energy efficiency activities, the Group has put energy transition and the fight against climate change at the heart of its strategic focus. Thus the carbon intensity of energy production in 2021 was 187.3 gCO_2eq./kWh, down 11.8% from 2020 and 57.7% from 2012. The Group's absolute direct CO_2 eq. emissions, known as "Scope 1 emissions", fell by more than 1.07 million tons in one year, from 38.6 tons to 37.5 million tons, a 3% reduction.

These results reflect the Group's desire to follow an emissions trajectory compatible with the Paris Agreement's objective of not exceeding +2°C by 2050, which corresponds to an 85% reduction in its direct emissions by 2050 compared to 2012, total disengagement from coal, and growth in green energy (renewable electricity and biogas).

In addition, the Group supports TCFD's (Task Force on Climate-related Financial Disclosures) recommendations for greater transparency on the risks and opportunities related to the impacts of climate change, monitors issuer-investor work and, for the first year, will produce a TCFD report when it publishes its Climate Notebook. In the following year, this TCFD report will be amended to incorporate the results of the ongoing financial assessment work, as required by the TCFD. The Group publishes its Scope 1, 2 and 3 (main items) emissions and answers the CDP (formerly Carbon Disclosure Project) questionnaire each year.

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Total direct GHG emissions – Scope 1 ☐☐	t CO_2 eq.	37,528,756	35,846,799	38,597,694	46,191,405
of which emissions from energy production	t CO_2 eq.	35,221,682	33,702,530	36,396,877	43,724,817
of which CH4 emissions	t CO_2 eq.	1,624,082	1,624,082	1,516,355	1,726,874
- share of Gas Distribution	t CO_2 eq.	1,197,204	1,197,204	1,123,286	1,278,578
- share of Gas Transmission	t CO_2 eq.	247,550	247,550	237,814	305,097
- share of Gas Storage	t CO_2 eq.	92,691	92,691	78,678	80,678
- share of LNG Terminals	t CO_2 eq.	86,637	86,637	76,577	62,521
Incl. other emissions (vehicles, fluorinated gases, etc.)	t CO_2 eq.	682,992	520,186	684,462	739,714
Carbon intensity from energy production ☐☐	kg CO_2 eq./ MWheq.	187.3	180.6	212.4	220.0

☐☐ *Verified by the Statutory Auditors with "reasonable" assurance for 2021*

Adaptation through anticipation of the negative impacts of climate change is key to making ENGIE's infrastructure and activities more resistant to natural hazards (more extreme events such as floods and droughts, etc. and other more progressive phenomena such as rising sea levels, rising temperatures, etc.). The risks generated by climate change are varied and include physical risks, risks of disruption to value chains, reputational risks and regulatory risks.

ENGIE is implementing practical measures to guard against this set of risks, including, for example, the construction of a perimeter wall to tackle the risk of exceptionally heavy flooding at the Tihange site in Belgium, a vegetation project to prevent soil erosion in the event of storms in Mexico, the digging of ditches and a reservoir to deal with the risk of flooding at the Capel Grange solar park (United Kingdom).

(1) The share of energy production from non-fossil sources has increased by 87.5% in seven years, from 30.6% in 2015 to 57.4% in 2021

The Group has also established methods to help its various sites to draw up adaptation action plans. The use of tools, such as Aqueduct software for managing and analyzing water risks and areas of water stress, helps the Group to identify local-scale risks and enables it to identify adaptation strategies tailored to the problems and features of each site.

Adapting to climate brings multiple beneficial effects for ENGIE: anticipating risks enables it to manage its assets better, cut costs and expand its market to new products and services.

Indirect emissions

The Group's approach to GHG emissions accounting and reporting is based on the GHG Protocol Corporate Standards (for companies) and the ISO 14064 standard (supplemented by ISO 14069). These standards constitute an internationally recognized reference framework.

ENGIE has analyzed the various categories of emissions in order to identify and quantify the most pertinent categories. The following categories have been identified and quantified to date.

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Indirect emissions related to energy ("Scope 2") ◻◻	**t CO_2 eq.**	**1,922,614**	**1,903,934**	**2,330,625**	**2,534,464**
Indirect emissions related to power consumption	t CO_2 eq.	1,253,861	1,238,105	1,215,892	1,454,795
Indirect emissions related to the consumption of steam, heating or cooling	t CO_2 eq.	668,753	665,829	1,114,733	1,079,669
Other indirect GHG emissions ("Scope 3")	**t CO_2 eq.**	**126,904,619**	**121,806,153**	**124,679,358**	**124,319,451**
Upstream fuel chain (Energy-related emissions not included in the "direct GHG emissions" and "indirect energy-related GHG emissions" categories)	t CO_2 eq.	17,908,003	17,765,961	19,343,594	20,467,749
Investments (GHG emissions from power plants consolidated under the equity method)	t CO_2 eq.	31,465,816	31,465,816	31,150,692	31,127,157
Use of sold products (fuels sold to end-consumers, off market)	t CO_2 eq.	65,548,797	65,548,797	61,496,829	60,882,185
Purchased products and services	t CO_2 eq.	8,473,633	5,076,127	9,529,278	8,257,876
Capital equipment	t CO_2 eq.	3,508,370	1,949,452	3,158,965	3,584,484

◻◻ *Verified by the Statutory Auditors with "reasonable" assurance for 2021*

3.5.4.2 Renewable energy

The strengthening of the Group's capacity in renewable energy has continued, for both electricity and heat generation and, in the case of biogas, for transportation. In 2021, the renewable energy capacities of facilities controlled by ENGIE, excluding equity-accounted companies and unconsolidated operations, represented 20.07 GW equivalent of installed energy (GWeq).

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Renewable – Net installed power (electric and thermal) ◻◻	MWeeq.	20,069	20,008	17,289	16,315
Renewable – Electricity and Heat produced ◻◻	GWheeq.	63,074	62,841	55,480	61,556
Energy produced – share of large hydropower	Percentage	61.0%	61.2%	64.0%	71.8%
Energy produced – share of small hydropower	Percentage	1.3%	1.3%	1.7%	1.4%
Energy produced – share of wind	Percentage	23.7%	23.8%	18.0%	12.3%
Energy produced – share of geothermal	Percentage	0.3%	0.3%	0.3%	0.2%
Energy produced – share of solar	Percentage	4.8%	4.8%	5.1%	3.2%
Energy produced – share of biomass and biogas	Percentage	8.9%	8.6%	10.9%	11.1%
Renewable and Non-Renewable – Electricity and Heat produced	GWheeq.	188,052	186,577	171,343	198,785
Renewable share of total electricity and heat produced	Percentage	33.5%	33.7%	32.4%	31.0%

◻◻ *Verified by the Statutory Auditors with "reasonable" assurance for 2021*

3.5.4.3 Energy efficiency

For electricity-generating facilities, energy performance is directly connected to the site's efficiency which influences its profitability. Measures taken to improve the generation fleet, and which are compliant with environmental regulations and the constraints of the electricity market, have helped optimize its energy efficiency and, hence, consumption of raw materials. For example, the replacement of older turbines or boilers with recent models has an immediate positive impact on a facility's energy efficiency.

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Primary energy consumption – total (excluding own consumption) ☐☐	GWheeq.	318,311	313,840	284,606	342,573
Share of coal/lignite	Percentage	10.04%	10.18%	10.12%	12.05%
Share of natural gas	Percentage	36.56%	36.32%	46.19%	42.31%
Share of fuel oil (heavy and light)	Percentage	0.76%	0.73%	0.71%	0.70%
Share of uranium	Percentage	44.72%	45.36%	33.59%	35.85%
Share of biomass and biogas	Percentage	4.34%	4.23%	5.68%	5.57%
Share of other fuels	Percentage	3.25%	3.05%	3.37%	3.22%
Share of fuel in transport	Percentage	0.33%	0.13%	0.33%	0.30%
Electricity and thermal energy consumption (excluding own consumption) ☐☐	GWheeq.	8,846	8,781	8,697	9,244
Energy efficiency of fossil fuel plants (including biomass/biogas) ☐☐	Percentage	44.5%	44.7%	45.1%	45.0%

☐☐ *Verified by the Statutory Auditors with "reasonable" assurance for 2021 (see Section 3.11)*

3.5.4.4 Nuclear energy

Maintaining a very high level of safety at the seven nuclear reactors operated by ENGIE is a key priority for the Group. ENGIE also attaches great importance to limiting the environmental impact of these facilities (e.g. waste, emissions). Each plant publishes an annual environmental on the Electrabel website.

Waste from nuclear power plants, particularly radioactive waste, is monitored by Electrabel, but also by ONDRAF (the national body for radioactive waste and enriched fissile materials) and its subsidiary Belgoprocess, which is responsible for the management of radioactive waste from nuclear power plants. The detailed information to be published about volumes of fuel or of high-level radioactive waste is specified by the Belgian Royal Decree of October 17, 2011 titled "Royal Decree regarding the physical protection of nuclear materials and nuclear installations."

Provisions for the downstream portion of the nuclear fuel cycle (operations relating to fuel after its use in a nuclear reactor) and for the costs of decommissioning nuclear power plants after they are shut down, are shown in Note 20 to Section 6.2.2 "Notes to the consolidated financial statements".

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Radioactive gas emissions					
Rare gases	TBq	36.12	36.12	47.35	35.09
Iodines	GBq	0.03	0.03	0.04	0.02
Aerosols	GBq	0.27	0.27	0.25	0.26
Radioactive nuclear waste (low and medium level)	m^3	186	186	225	149
Radioactive liquid wastes					
Beta and Gamma emitters	GBq	11.46	11.46	16.50	17.21
Tritium	GBq	83.49	83.49	86.50	65.07

The risk factors relating to nuclear power are presented in Section 2.2.5 "Industrial Risks".

3.5.4.5 Water

As a committed player in water management, ENGIE is taking part in the current debate over corporate risk disclosure and water stewardship, alongside organizations such as the CEO Water Mandate of the UN Global Compact and the OECD. These initiatives have led to a homogenization of the definition and implementation of water stewardship. The Group has set itself the target of reducing water consumption by 2030 and is continuing to implement action plans for sites facing high or extreme water stress. In 2021, ENGIE was awarded an A- rating by the CDP Water Disclosure program.

Each year, as part of the optimization of its energy production, ENGIE assesses the risk of water stress for the Group's industrial sites using the Baseline Water Stress Index and the Aqueduct tool (World Resource Institute) which maps different water-related risks. In 2021, 37 sites were located in areas with extremely high water stress, i.e. 4.7% of sites (excluding solar and wind), for which action plans have been finalized and are being implemented. The impact of water stress is relative, however, as it depends on the site's activity and fresh water needs. Only 6 out of the 37 sites have substantial freshwater requirements (more than 100,000 m³/year). For the others, the challenge is rather how to indirectly help to preserve water resources, for example by proposing the reuse of the water by other entities in the drainage basin. As of 2013, the Group has calculated the water footprint in the life cycle analysis of 1 kWh of electricity, and of 1 kWh of gas in 2016. All of the Group's initiatives have resulted in a 71.5% reduction in freshwater withdrawals from its power generation business since 2012.

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Fresh water					
Total withdrawal	Mm^3	2,406	2,402	2,088	2,814
Total discharge	Mm^3	2,340	2,336	2,039	2,746
Non-fresh water					
Total withdrawal	Mm^3	5,249	5,249	5,195	6,003
Total discharge	Mm^3	5,218	5,218	5,167	5,976
Total consumption	Mm^3	96	96	77	94

3.5.4.6 Waste

In January 2014, ENGIE took the recommendations of an internal audit on waste management and incorporated them into its environmental policy released in 2017. Its chief aim was to reduce the quantities of waste it produces and to increase its rate of waste recovery.

These efforts have led to a recovery rate of 84.2% for non-hazardous waste and 15.3% for hazardous waste in 2021. The Group's industrial sites actively seek local waste recovery solutions, even though some of these channels remain dependent on market opportunities governed by the laws of supply and demand.

Food waste and associated waste only relate to group catering for employees. In this area, ENGIE selects subcontractors that include missing space measures against food waste in their specifications.

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Total quantity of non-hazardous waste and by-products discharged (including sludge)	t	2,881,300	2,849,189	2,857,579	3,440,457
Fly ash, refioms (residues from the purification of incineration fumes from household waste)	t	1,674,129	1,673,325	1,583,111	1,719,517
Ash, bottom ash	t	703,776	703,412	804,701	1,047,170
Desulfurization by-products	t	69,841	69,841	66,332	120,365
Sludge	t	21,269	16,237	25,221	21,360
Driftwood	t	11,508	11,508	12,970	5,305
Total quantity of non-hazardous waste and by-products recovered (including sludge)	t	2,425,380	2,411,640	2,464,614	2,352,567
Total quantity of hazardous waste and by products discharged (including sludge and excluding radioactive waste) ☐☐	t	33,787	30,426	38,139	52,524
Total quantity of hazardous waste and by products recovered (including sludge and excluding radioactive waste) ☐☐	t	5,180	4,933	11,511	16,291

☐☐ *Verified by the Statutory Auditors with "reasonable" assurance for 2021*

3.5.4.7 Atmospheric pollutants

ENGIE uses a wide range of techniques to further reduce its emissions: reduction at the source using a tailored energy mix; optimization of combustion and treatment of fumes; filters or water injection to reduce fine particle emissions; installation of low-NO_x burners or use of urea injection (secondary treatment) to control nitrogen oxides; and choosing fuels with very low sulfur content to reduce sulfur dioxide emissions. A strong improvement was observed in 2019, in particular, thanks to the reorientation of ENGIE's production assets portfolio.

Indicator title	Unit	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
NO_x emissions	t	49,819	48,831	49,022	52,799
Incl. energy production	t	49,574	48,586	48,752	52,469
SO_2 emissions	t	106,028	105,984	119,584	124,276
Incl. energy production	t	106,007	105,962	119,568	124,218
Fine particle emissions	t	5,820	5,693	6,312	4,662
Incl. energy production	t	5,815	5,688	6,305	4,654
Mercury emissions	kg	198.02	194.21	304.73	312.14
Incl. energy production	kg	197.90	194.09	304.63	312.01

3.5.4.8 Management of biodiversity

Biodiversity (fauna, flora) is a natural heritage essential to human health and well-being. ENGIE depends on it also depends on it through its use of biomass resources and water and climate regulation provided by biodiversity.

Biodiversity is threatened by climate change, pollution, habitat modification, invasion of exotic species and overexploitation of resources. Fragmentation and disturbance of habitats caused by the territorial of our sites and soil sealing are the main impact of the main impact of ENGIE's activities on biodiversity.

In order to contribute to biodiversity protection and to mitigate its impact under the "prevent, reduce, offset" process, the Group has been committed since 2010 to integrating biodiversity into its strategy and activities.

Examples of objectives and actions carried out by the Group include the restoration of natural habitat (hedges, grassy strips, wetlands), the reduction of the impact of wind turbines on wildlife, the installation of fish ladders at dams, ensuring that gas-grid easements contribute to ecological continuity, and applying differentiated landscaping to green spaces.

In pursuit of its commitment to biodiversity, the Group relies on the skills and expertise of its two partners: the French committee of the IUCN (International Union for Conservation of Nature) and *France Nature Environnement*.

Since 2016, biodiversity action plans have been incorporated into a more comprehensive approach to integrated and concerted environmental management at site level for all the Group entities. Sites are identified in terms of biodiversity based on their proximity to a protected area.

In 2018, the Group also strengthened its international commitments by joining the "act4nature" initiative. The individual commitments made in this area were largely achieved. This effort could be seen in the increased number of participants in the network of experts, the introduction of an integrated biodiversity assessment tool (IBAT), and the publication of an internal brochure covering biodiversity. Further information is available on the website.

In 2020, the Group renewed its two commitments in terms of biodiversity via the "act4nature international initiative" and "*Entreprises engagées pour la nature*."

At the end of 2021, all the objectives were introduced and put into action plans, and a progress report is updated yearly (see https://www.engie.com/en/group/social-responsibility/csr-goals/biodiversity).

3.5.4.9 Managing risk and environmental complaints

The management of environmental risks has two components: risk prevention and crisis management.

Indicator title	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
% of relevant revenue covered by an environmental risk prevention plan	84.2%	95.8%	82.7%	80.4%
% of relevant revenue covered by an environmental crisis management plan	89.9%	95.1%	88.4%	85.2%

The Group handles any environmental complaints. A summary is given below:

Indicator title	ENGIE 2021	2021 excl. EQUANS	ENGIE 2020	ENGIE 2019
Environment-related complaints	13	11	6	10
Environment-related convictions	2	2	2	1
Amount of compensation (in € thousands)	697	697	14	13
Environmental expenditure (in € thousands)	632,836	529,243	553,019	466,365

Complaints received by ENGIE subsidiaries were as follows:

- on 11/26/21, the legal person, INEO AQUITAINE, was summoned to appear before the French Biodiversity Office (OFB) for "inert" (stones and soil) waste stored temporarily on land classed as "protected species habitat" while awaiting their transportation to landfill or their use as backfill. INEO AQUITAINE was not aware of this land classification;
- on a piece of land belonging to the Ffestiniog pumped-storage site in the United Kingdom, a decking board broke when someone walked on it;
- noise pollution was reported by a resident living near the Dinorwig pumped-storage site in the United Kingdom;
- ammonia (NH_3) spreading was reported during an ENGIE Refrigeration operation in the Netherlands;
- in Belgium, wind farm managers received two complaints for noise pollution, two for oil leaks, two relating to disturbances associated with the strobe effect of the wind turbines and one for falls of ice concretions;
- two complaints were made in the United States for noise pollution relating to two wind farms;

Assessments have been, or are being, carried out for all these complaints and talks with stakeholders are underway.

Please also note a fine paid by the Leini site in Italy following the inspection of a homogenization tank, a water sample from which revealed a higher percentage of sulphates than that required by current regulations. The tank was brought into compliance within the required timescale.

Lastly, on February 1, GRTgaz was ordered to pay a €650 thousand fine and to make good for a lack of reforestation along a section of the "Arc de Dierrey" gas pipeline in France.

In 2021, environmental expenses (investments and current operating expenses related to environmental preservation) amounted to around €633 million.

3.5.4.10 Noise pollution

Any industrial activity is a source of noise pollution. In order to reduce these impacts, Group entities conduct regular soundproofing work (acoustic cladding, noise barriers, containment, etc.). For more recent projects, reducing this potential form of noise pollution is directly integrated into the design.

For its renewable energy projects, particularly onshore wind and solar power, ENGIE conducts impact studies and offers support measures to prevent, reduce or offset any noise or visual impact. Examples of such actions include defining and implementing turbine restrictions (stoppage or reduced power at key times and/or under certain wind conditions), conducting specific actions with builders to reduce the sound power of machines, seeking better harmonization with the landscape during the design and, after construction, initiating planting and vegetation schemes on sites or for neighbors if there is an obvious visual impact. By way of illustration, in France, ENGIE has partnered with the "Respect" project launched as part of the offshore wind project in the city of Tréport and on the islands of Yeu and Noirmoutier. The aim is to improve understanding of the biological impact related to the noise footprint of projects and reduce this by developing appropriate technology. The results were integrated into the impact studies and made it possible to obtain prefectural authorization in October 2018.

3.5.4.11 Land use

Protection of soil and groundwater is an integral part of the Group's environmental policy. The environmental consequences of soil pollution can be significant, as can the costs of subsequent remedial measures. It is therefore important to prevent this risk and to hedge it with financial provisions. These amounted to €1.176 billion in 2021 and concerned site rehabilitation, decommissioning of non-nuclear facilities and scheduled product elimination. In this area, ENGIE complies with the regulations in each of the countries in which the Group operates.

For example, a soil pollution survey was carried out at several power plant sites in Belgium. Risks were assessed in conjunction with the appropriate environmental authorities and a remediation program was implemented.

ENGIE owns a number of former gasworks. These sites may be affected by oil, heavy metals and other volatile substances that can adversely affect health. As a result, they must be repaired before reuse. In 1996, a ten-year plan was agreed via a memorandum between Gaz de France and the French government to rehabilitate these sites, which have been compatible with their use from a health perspective since 2007. When these former sites are sold, ENGIE is committed to ensuring that the buyer's project is compatible with the environmental and industrial liabilities of the site and that the risk to the environment and residents is effectively managed. At all its sites, the Group monitors the soil and groundwater, in accordance with its operating permits, in order to prevent pollution.

Moreover, in order to more firmly anchor its presence in the regions, ENGIE has established a structured system of dialog with its stakeholders, pursuant to the main international standards (AA1000, ISO 26000, the Global Compact principles, and OECD guidelines). This system is based on regular meetings with NGOs and non-profit associations, and on the development of long-term partnerships in connection with ENGIE's activities. The dialog is defined at Group level and then rolled out to each regional hub according to specific local requirements in terms of issues, activities and regulations. As part of these new 2030 CSR objectives, ENGIE aims to cover 100% of its industrial activities in 2020 with a structured stakeholder dialog and consultation mechanism.

Gas pipelines account for the largest amount of land use by ENGIE. As the gas lines are buried, they do not break up natural habitats, but may nevertheless generate land-use conflicts. GRTgaz has therefore established amicable easement agreements in France with all the owners of the land crossed, following consultation periods (the signing rate for amicable agreements is regularly >90% for projects). These agreements define land usage restrictions for the owners (prohibition on building in pipeline locations and planting vegetation higher than 2.70 m) in exchange for compensation. More specific work is carried out with the agricultural industry to preserve land use for farmers as part of their professional activity.

For the development of new wind and photovoltaic renewable energy production sites, the choice of the site is paramount. The arable nature of the land is an essential element taken into account very early in the project to avoid any subsequent conflict. In France, calls for tenders for photovoltaic power plants are made under the aegis of the French Energy Regulatory Commission. Proposing a site on arable land causes valuable points to be lost in tenders and this is another reason for selecting other types of land. For wind farms, development on arable land is possible provided that an assessment is carried out before and after the project by an independent agricultural expert. This allows for fair compensation to be paid to owners or farmers for the use of these lands.

3.6 Societal information

The responsible growth model devised by ENGIE is based on structured dialog tailored to all the stakeholders in the Group's business activities.

3.6.1 Dialog with stakeholders and partnerships

ENGIE maintains an ongoing and proactive dialog with all stakeholders around its industrial activities. Based on existing approaches, the Group supports its operating entities in deepening and structuring their practices, from the implementation of dialog strategies to their operational deployment in the project teams.

The goal is to optimize performance and increase value creation by giving precedence to the expectations and needs of the territories and deepening the ownership of the Group's activities by its beneficiaries.

This assistance puts industrial activities in line with the new objective of creating plans for discussion in all the Group's business activities by 2030.

The support is based on a Group methodology which is adapted to the strategic, technical and geographical specificities of the operational activities. It is based on international standards such as ISO 26000, AA1000, IFC (International Finance Corporation, World Bank) and the Equator Principles.

On the one hand, it consists of raising awareness and training of employees in the structuring of dialog with stakeholders in connection with the Group's training entity, ENGIE University. On the other hand, the methodology consists of technical support for the implementation of dialog action plans adapted to the challenges and expectations of the territories.

In 2021 structuring dialog with the stakeholders was integrated in various training programs of ENGIE University. This training was conducted with a variety of audiences and concerning a very broad spectrum of business lines, such as optimization of sales performance, managing gas storage and geothermal energy projects, centralized functions and general training about sustainability.

The different dialog spaces hosted discussions about ENGIE's climate trajectory, as part of the Stakeholders Committee meeting held by the Group on this topic during the first half of the year, and as part of the access space, about various issues that operating people encounter in their territories.

This culture of listening and dialog is extended through societal and environmental partnerships with, in particular, *France Nature Environnement*, Emmaüs and the ONE (Ocean Nature and Environment) Foundation.

At the international level, ENGIE is a member of the United Nations Global Compact in the Global Compact Advanced category.

3.6.2 Combating fuel poverty

3.6.2.1 Fuel poverty of individual customers

In 2021, ENGIE contributed €6 million to the *Fonds de Solidarité pour le Logement* (French solidarity housing fund). Around 63,900 families received support as a result of this fund which is managed by departments and/or metropolitan areas. The aid granted averaged €230.

The ENGIE Solidarity portal, created in April 2018 and specifically designed for social workers to support our vulnerable customers, was well used in 2021: 265,000 interactions between departmental and regional social services and ENGIE solidarity teams compared with 220,435 in 2020 (+20%).

ENGIE has created a network of mediation partners with over 120 customer assistance centers throughout the country as of the end of 2021. Mediators at these associations, who are trained by ENGIE, talk to customers facing payment difficulties, help them to understand their bills, give them advice on their energy spending and can help them to set up structured payment plans or direct them towards social services to apply for assistance.

In 2021, the Group continued its initiatives to raise awareness of domestic gas appliance safety and saving energy. These initiatives include the CIVIGAZ scheme, a civic service mission created and operated with the *Fondation Agir Contre l'Exclusion* (Act Against Exclusion Foundation), which in 2021 mobilized 72 young civic service volunteers, making over 6,100 home visits. In addition to detecting and resolving dangerous gas-related situations, some households in fuel poverty were signposted to energy and social housing welfare organizations. The partnership between GRDF and Soliha (Housing Support), intended to support households with plans to renovate their homes and to ensure that their domestic gas appliances are safe, was rolled out in 2021 across 16 regions, making it possible to support 500 families with their home-improvement plans.

3.6.2.2 The environmental and social fund "ENGIE Rassembleurs d'Énergies"

The Group supports social enterprise and disadvantaged populations through the social and environmental fund, ENGIE Rassembleurs d'Énergies. ENGIE invests in social enterprises promoting shared and sustainable growth for all based on clean, affordable energy and on innovative, sustainable business models.

The fund is utilized for various themes which combine financial performance and a strong social and environmental impact: individual or collective decentralized solar electrification in Latin America, sub-Saharan Africa and India; clean, secure cooking solutions, particularly biogas solutions in emerging economies or concentrated solar; energy efficiency, mainly in social housing in Europe; the circular economy and more recently, sustainable and inclusive mobility.

At December 31, 2021 the portfolio companies had provided access to clean, sustainable energy to over 6.5 million beneficiaries worldwide. The companies also generated more than 27,000 direct and indirect jobs, 50% of which were for women. 20,000 Group employees invested part of their savings in the ENGIE Rassembleurs d'Énergies solidarity mutual fund (FCPE), thus giving meaning to their savings with a direct connection to their occupation.

The 22 active companies in the portfolio operate on four continents (Europe, Africa, Asia and Latin America) and in around 20 countries. These companies cover 11 sustainable development goals through a wide range of technologies that respond to the issue of inclusive growth, in particular through access to sustainable energy and the reduction of fuel poverty. Through them, Rassembleurs d'Énergies provides solutions for at-risk populations. In 2021, the fund strove to support its portfolio companies affected by the economic crisis and completed the sale of its interest in a company it had assisted since 2013. At year end 2021 ENGIE Rassembleurs d'Énergies had committed a total of €38 million.

3.6.2.3 ENGIE Corporate Foundation

ENGIE Foundation's three main priorities are:

- Child welfare – education;
- access for all to energy - the protection of biodiversity;
- employment and the fight against poverty.

Created 30 years ago, in 1992, the purpose of the ENGIE Foundation is to give a chance to those who do not have one - isolated or vulnerable populations - to demonstrate ENGIE's societal commitment in the field of mutual aid, to bring the Group's value and purpose to life. The ENGIE Foundation renewed its mandate for five years in October 2020, with an annual endowment of €7.8 million.

To respond to major challenges, the ENGIE Foundation relies on the commitment of its employees, and in particular ENGIE's internal NGOs (Energy assistance) (France, Belgium, Italy and Monaco)), with three priorities:

- acting with impact;
- contributing to a response to social issues, being present at the heart of the regions, and
- giving "*l'énergie des possibles*" (energy of all possibilities), to help projects happen in areas such as children and young people, community and the environment.

Taking care of life and our planet has been the ENGIE Foundation's mantra for almost 30 years. With 30% of projects in 2021 dedicated to access to renewable and sustainable energy and biodiversity, the Foundation is committed to the environment on an ongoing basis. Its aim is to take part in projects that are ambitious and have impact, and contribute to the collective effort of the 2030 Agenda via the achievement of Sustainable Development Goals (SDGs).

In terms of biodiversity and the climate, the ENGIE Foundation supported, in particular, the Great Bubble Barrier project to clean a river in Porto, Portugal, as well as the launch of a Biodiversity and Oceans platform with the Respect Ocean organization.

In 2021, the ENGIE Foundation supported more than 110 projects worldwide with more than 400,000 beneficiaries.

3.6.3 Just transition

In keeping with its mission, ENGIE factors into its decisions the social impacts of the energy transition.

While the transition to a net zero economy brings with it numerous positive externalities, it also includes major social challenges, especially in the energy sector: the loss of jobs in such industries as fossil fuel extraction and production, and rising energy prices, with a particular impact on low-income households.

It is important therefore to focus on the creation of new supply chains, with opportunities both for the existing workforce and for new arrivals.

The International Labor Organization (ILO) has accordingly defined the concept of "fair transition" as a strategy aimed at attenuating the negative social consequences of the transition to sustainable economic models and at maximizing the positive aspects of transitioning to a low-carbon emission economy.

In accordance with the Paris Climate Agreement, ENGIE is committed to transitioning to net zero by 2045, while keeping an eye on the consequences for its workforce and the creation of decent work and quality jobs, in keeping with the development priorities set nationally.

In this respect, ENGIE is implementing principles of fair transition for the benefit of its workers, consumers, communities and suppliers.

The principles of fair transition for workers consist of attracting and developing talent, including workers and their representatives in the fair transition process, assisting and training workers, and providing social services.

ENGIE University has launched its Sustainability Academy. One of the purposes of this initiative is to highlight the expertise and commitment of the Group's employees in taking sustainability into account in their business occupations. Another purpose is to share this expertise with the entire company and its ecosystem. The Sustainability Academy offers several levels of training, from acculturation to expertise, and will employ a variety of formats.

In November 2020, ENGIE also opened an apprenticeship training center dedicated to energy transition and climate-related occupations. Because of its partnerships with the Lycée Raspail and the AFORP apprenticeship training center, the new center aims to make work-study programs the pre-eminent pathway to the future occupations of the Group and to accelerate its strategy to net zero-carbon.

The Group also provides worker protections with the launch of a global "ENGIE Care" program of social coverage, covering four key areas worldwide. This program, which was created with international trade unions, aims to provide every employee, anywhere in the world, with social protection in four key areas: hospitalization, death benefits, disability (permanent and total) and parental leave (for mothers and fathers).

As to consumers, efforts consist of steps to promote affordable energy.

ENGIE offers free, or nearly free, ways for consumers to track their energy usage, to receive personalized advice, and to manage their usage and their comfort on a target budget or by remote readings.

ENGIE promotes with its customers by rewarding them for saving energy. One such initiative is My Program to Act, which compensates them for green actions in the form of "kilo-acts." These kilo-acts can then be re-invested by customers in CSR actions.

As to communities, efforts relate to creating local, sustainable value, developing new industrial value chains having a positive fallout on the territories and adding to their resilience, to a robust process of consulting with stakeholders and entering into partnerships.

The Aumaillerie biogas plant, commissioned in 2020, is a typical regional project developed by ENGIE Bioz. Based in Fougères in Brittany, this plant treats a mix of livestock effluents and crop residues in partnership with farmers and local businesses, with a production capacity of 20 Gwh/year, or the equivalent of the yearly consumption of 2,000 households. It provides nearly 20% of the gas locally consumed. Three people keep the site running. 150 people participated in financing the project, raising €500,000. The funding objective was reached in only a few weeks, a sign of the attractiveness of the project.

The PV farm in La Tieule, Drôme (EG) is also a means of inclusion, with social and economic repercussions for the territory: multiple joint businesses (hives, honey-bearing plants), collaboration with an ESAT to produce organic honey and aromatic bushes, eco-pasturing.

Finally, ENGIE encourages our "preferred" suppliers to commit to a trajectory of decarbonization aligned with or certified by SBTi.

3.7 Purchasing, subcontracting and suppliers

Suppliers and subcontractors represent key stakeholders in the Group's value chain.

The Group's Purchasing function has defined a clear vision organized around the following goals:

- to contribute to the Group's operational performance by putting forward a panel of competitive and differentiated suppliers to the operational teams;
- to uphold the Group's commitments to its suppliers;
- to contribute to the Group's CSR approach and carbon neutrality and
- to develop key talent and expertise within the Purchasing sector and promote Purchasing within the Group's career paths.

In order to achieve this ambition, the Purchasing function relies on a management system structured around:

- a **Purchasing Charter**: this public document (https://www.engie.com/sites/default/files/assets/documents/2022-02/ProcurementCharter_ENGIE_2021-007_EN.pdf), which is shared with supliers, outlines ENGIE's strategy. In particular, it specifies the Group's requirements in terms of:
  - the suppliers' health and safety commitments,
  - a commitment from suppliers to engage in ethical business relationships and take into account social responsibility, ethics, embargoes and anti-corruption,
  - the search for competitive bids and sustainable and innovative solutions;
- a **Purchasing Governance**: document defining Group-wide principles for the management of external expenditure and setting out the operating rules for Purchasing. It aims to reinforce the separation of tasks between buyers and purchasing advisers, while encouraging their cooperation when selecting the best offerings.

The requirements of these two documents, as well as the Group's more general requirements, are set out in the operational processes. These processes cover the management of purchasing categories and supplier panels as well as the stages of purchasing and procurement. They include the ethical requirements of: the Ethics Charter, the Corporate Social Responsibility Policy Global Care, the Code of Conduct for Relations with Suppliers, and the Due Diligence Policy for Direct Suppliers and Subcontractors.

The Purchasing function is helping the Group to achieve its 2030 goals through a sustainable purchasing process driven by actions with equipment suppliers in all business segments. These goals constitute a milestone and are part of the Group's ambition to become carbon neutral by 2045.

In 2020, the Group Purchasing Department set two CSR goals, which will later be rolled out throughout its management system.

Objective title	Criterion	2025 objective	2030 objective
1. Decarbonization of the main suppliers	250 preferred suppliers aligned with or certified by the SBT	25%	100%
2. Developing responsible purchasing	CSR assessment of suppliers measured by the percentage of preferred suppliers and major suppliers with an ECOVADIS rating higher than "managed CSR risk"	70%	100%
	Promotion of inclusive purchasing measured by the share of inclusive purchasing aligned with the GT3 recommendations. A working group made up of French companies (BnpParibas, Accor, Crédit Agricole, Danone, etc.)	60%	100%

To achieve these goals, the Purchasing function implements operational processes by following key steps, using a Plan-Do-Check-Act method:

- analysis of risks and opportunities by purchasing category prioritized by country, based on a risk matrix developed in partnership with EcoVadis;
- definition of mitigation plans and supplier selection criteria using the analysis above. The CSR commitment of suppliers is assessed across four dimensions: ethics, human rights, environment and sustainable purchasing. These plans may include document audits or on-site audits;
- establishment of specific contract clauses to strengthen our requirements. These may include the application of penalties in the event of non-compliance;
- the performance delivered by the suppliers, measured periodically in the context of the business reviews and the review of the associated improvement plans.

These four steps are verified through the internal control and audit processes in order to ensure the continuous improvement of the approach.

The actions of the Purchasing Department focus primarily on the Group's preferred suppliers (250), followed by the major suppliers of each Group GBU (1,350), which represents around 20% of total expenditure. It is the goal of the Procurement Department to gradually broaden these two panels of suppliers till they account for about 80% of total spending.

The achievement of these ambitious goals is supported by a progressive program of ongoing training within the Purchasing function and at the heart of the Group's entities.

In 2021, the training plan focused on:

- the implementation of a due diligence policy for suppliers and subcontractors within the entities;
- ethics and supplier relations;
- online training with three modules, mandatory for the entire purchasing staff:
  - fraud and Corruption, zero tolerance,
  - our Group, our Ethics,
  - Competition Law.

Given the health context, these training courses were delivered via video conferencing and the Ulearn online training platform. This learning method was a way of reaching a wider audience.

In addition, these CSR topics are regularly included in the management routines of the Purchasing function, and in meetings organized with technical experts and operational counterpart involved in the Purchasing process.

3.8 Ethics and compliance

The Group's senior executives drive and oversee the Group's ethics and compliance policy and ensure that it is properly applied. A message of "zero tolerance" with respect to all ethical shortcomings and particularly forms of fraud and corruption is regularly communicated by the Chief Executive Officer. All managers at all levels of the Group convey the same message.

ENGIE's principles of action are based on international standards. All the Group's measures to prevent and combat corruption comply with these. The same is true for the Group's strategy on human rights and its personal data protection program.

The Group has made voluntary anti-corruption commitments. ENGIE adheres to the United Nations Global Compact, the tenth principle of which relates to combating corruption. ENGIE also adheres to the French chapter of the Transparency International NGO.

3.8.1 Ethics and compliance governance

Ethics and compliance within the Group are overseen by the Board of Directors via its Ethics, Environment and Sustainable Development Committee (EESDC).

The Compliance Committee assesses the handling of ethical incidents and monitors the process for updating the Group's ethics and compliance framework. At Group level, it brings together the General Secretariat, the Director of Human Resources and the directors of the following departments: Ethics, Compliance & Privacy, Internal Audit, Internal Control and Legal.

The Ethics, Compliance & Privacy Department (ECPD) is functionally attached to the Group General Secretariat, to which it reports. The ECPD oversees the incorporation of ethics into the Group's strategy, management and practices. It proposes ethics and compliance policies and procedures for the Group. It supports their implementation at all levels of the Group. It coordinates the implementation of the Group's vigilance plan (see Section 3.9) and deals with whistleblower reports arising under the Group procedure which it manages. The ECPD coordinates the network of Ethics & Compliance Officers (more than 230 people in 2021) and Data Privacy Managers (more than 130 people in 2021) across the entire Group.

The Ethics & Compliance Officers and Data Privacy Managers mainly ensure that the Group's Ethics & Compliance and Data Privacy framework are implemented at the level of their entities. Their activities are within the scope of responsibility of the CEO or manager of the entities for which they act.

Since 2018, the Group Ethics, Compliance & Privacy Department has been the competent department for all matters requiring the establishment of a compliance procedure, and most importantly, a procedure to prevent and combat fraud and corruption. It is also charged with personal data protection, with export controls and embargoes and with interest representation.

3.8.2 Risk assessment

The assessment of ethical risks is included in the Group's risk analysis process (Enterprise Risk Management or ERM) (see Section 2.1.1). Five ethical risks have been identified: corruption; human rights violation; failure to take account of competition law and/or embargoes; fraud; and lack of ethics management. The Group's risk analysis approach also includes data privacy risk. It covers in particular the risk of personal data breaches and the risk of non-compliance with the General Data Protection Regulation (GDPR).

The process for assessing corruption risks, human rights violation risks and data privacy risks uses a common analysis methodology for all the Group GBU. In particular, the Group has developed a self-diagnostic scorecard on corruption risk and a checklist regarding human rights violations risk. It has also issued guidelines on the assessment of the risk of personal data breaches.

3.8.3 Reference texts

ENGIE's ethics and compliance policy aims to develop an ethics culture and practice based on:

3.8.3.1 The ENGIE Code: the Ethics Charter and the Practical Guide to Ethics

The Ethics Charter establishes the general framework for the professional conduct of every employee. It specifies ENGIE's four fundamental ethical principles. It also describes the Group's ethics and compliance organization.

The Practical Guide to Ethics determines the day-to-day application of ethics. It includes the Group's decision to refrain from any financing of political activities.

These two documents constitute our Code of Ethics and apply to all Group employees. They are shared with external stakeholders.

Work to overhaul the Ethics Charter began in 2021 and the new Ethics Charter will be presented in 2022.

3.8.3.2 The Integrity reference system

The "Integrity" reference system is a collection of policies and procedures for preventing fraud, corruption and influence peddling. All of the ethical assessment procedures were reviewed in 2018 and 2019. Thus, the stakeholders of investment projects, beneficiaries of corporate sponsorship and patronage, suppliers and business consultants are the subject of enhanced preventive action.

As from the end of 2021, new hires to the positions most exposed to corruption risk are also subject to ethical checks.

In 2020, the Group overhauled its gifts and invitations policy. It also rolled out a new register of business consultants. Lastly, the Group has created a new gifts and invitations register that was rolled out in 2021. These registers are fully digitized, shared by all the Group's entities and designed as management and monitoring tools.

3.8.3.3 The Human Rights reference system and policy

The "Human Rights" reference system and policy comprise ENGIE's commitments to respect internationally recognized human rights. The system specifies the operational processes for analyzing and managing risks. It thus enables the Group to be vigilant about the impact of its activities on the human rights of all individuals. The reference system and policy are the cornerstones of the human rights component of the Group's vigilance plan (see also Section 3.9).

3.8.3.4 The Ethics Compliance reference system

The "Ethics Compliance" reference system sets out how the Group implements its ethics and compliance system and measures compliance. It also includes the Group's procedures for complying with rules on embargoes, export controls, and competition law.

Since 2017, the Group has had a specific compliance system in place to monitor interest representation actions. In accordance with the law of December 9, 2016, this system enables Group entities to comply with their obligation to report to the French High Authority for the Transparency of Public Life (*Haute Autorité pour la Transparence de la Vie Publique* or HATVP).

Since 2017, furthermore, the Group's reference system has also aimed to ensure compliance in terms of personal data protection, in accordance with the requirements of European Regulation 2016/679 on personal data protection. In this context, the Group defined procedures and reviews in 2019 and completed them in 2020.

Lastly, guidelines for identifying early warning signs in ethical matters were rolled out in the Group in 2019.

3.8.3.5 Codes of conduct

Codes of conduct are used to apply ENGIE's ethics commitments to business practices and operations. These codes of conduct include the "Code of conduct in supplier relations," and the "Code of conduct on lobbying".

These documents are available on ENGIE's website via the following link: https://www.engie.com/en/group/ethics-and-compliance.

3.8.4 Whistleblowing and reporting of ethics incidents

The Group's new whistleblowing policy was defined in 2017. It includes the legal requirements of the Sapin 2 law and those of the law on the duty of vigilance. On July 1, 2018, a new procedure for collecting alerts via the email address ethics@engie.com and a dedicated telephone number, was set up at the Group level. Both channels are outsourced to an external service provider, which is responsible for receiving the alerts. This new procedure was opened to all of the Group's staff worldwide on January 1, 2019. Alerts may be received in several languages and the service is available 24/7.

The system is described on the Group's website via the following link: https://www.engie.com/en/ethics-and-compliance/whistleblowing-system. It is an addition to the Group's other reporting routes, which can be accessed by any employee and any person outside the Group.

Alerts and managerial reports of ethical failures are monitored via the My Ethics Incident digital tool for collecting ethical incidents, which has been rolled out to all the Group's entities. It covers seven areas: accounting and financial integrity, conflicts of interest, social responsibility and human rights, business ethics, confidential information, the protection of intangible assets, and personal data. In 2021, 187 alerts were input as part of the Group's whistleblowing procedure (201 in 2020, 183 in 2019) and 277 managerial reports of ethical incidents were made to the Group's Ethics, Compliance & Privacy Department (283 in 2020, 282 in 2019 and 218 in 2018). The Group provides more detailed information on the relevant areas of ethics and the sanctions applied on the web page https://www.engie.com/en/group/ethics-and-compliance/policies-and-procedures/ethical-compliance-referential.

3.8.5 Training

The Group has implemented a mandatory ethics and compliance training plan for all of its employees. The training plan is tailored to the roles and activities of the employees concerned. It is supported by a guide for mapping the populations most exposed to corruption risk. In 2020, the Group rolled out a new digital tool to monitor the progress at all levels of the digital training provided to Group employees (videos and e-learning).

All Group employees are required to complete a training path comprising training videos on subjects involving significant ethical issues: gifts, invitations, corruption, whistleblowing and conflicts of interest. The employees who are most exposed to corruption risk, are required to complete a training path specifically for them. This training path is based on the Group's e-learning modules which provide in-depth knowledge of the Group's ethical issues, particularly in relation to fraud, corruption and competition law. In addition thereto, the managers ("GMRs") also have to take part in the seminar on the prevention of fraud and corruption (96% of GMRs took part in 2021). Members of the ethics and compliance line are also required to take the same training.

In addition, purchasers are specifically trained in topics related to fraud and corruption risk and duties of vigilance in a dedicated training course (see Section 3.7). In 2021, the focus was placed on the implementation of a due diligence policy for suppliers and subcontractors within the entities. Face-to-face training courses on competition law increased in 2020 and 2021. Training courses on the prevention of fraud and corruption risk for individuals in charge of institutional relations in France and training for Data Privacy Managers continued in 2021. The same was true for training on human rights (see Section 3.9.1.1).

3.8.6 Controls and certifications

The monitoring of the implementation of the ethics and compliance policy is based on an annual compliance procedure. In this context, the Ethics & Compliance Officers produce a report on the work and progress accomplished by their entity in this area. This report is submitted to the relevant supervising entity. It is accompanied by a compliance letter from the manager certifying their commitment to the application of the ethics and compliance program within the organization for which they are responsible. At the start of the year, a bilateral assessment of the activities and risks of each organizational entity attached to a GBU is carried out by the Ethics, Compliance & Privacy Director. The consolidated annual report resulting from this process is submitted to the Group's Executive Committee and to the Ethics, Environment and Sustainable Development Committee.

This compliance procedure is part of a broader control procedure. This is based in particular on the annual internal control campaigns which assess the level of implementation of ethics, embargo and personal data policies. It is also based on policy controls that are built into the internal audit campaigns.

The Group is also engaged in external audits of its ethics and compliance framework. It obtained anti-corruption certification from Mazars and ADIT in 2015. In 2018, ENGIE obtained ISO 37001 (anti-corruption management systems) certification from ETHIC'Intelligence, an accredited certification body. This certification was renewed in 2019 and 2020 following supervisory audits. In 2021, ENGIE launched its 2nd ISO 37001 certification audit campaign with the support of Euro Compliance, an accredited certification body. The Group thus obtained its 2nd ISO 37001 in 2021. All of these audits were carried out at Group level and in several operating entities that are representative of the Group's activities.

3.9 Vigilance Plan

In accordance with Law 2017-399 of March 27, 2017, this section summarizes the broad strokes of the Group's vigilance plan. A developed version of the vigilance plan, its progress report, as well as details of the policies and actions are available on the Group's website: https://www.engie.com/en/group/ethics-and-compliance/policies-and-procedures.

The plan covers all the measures established by ENGIE SA to prevent risks related to its activities and those of its controlled subsidiaries. It covers serious violations relating to human rights and fundamental freedoms, the health and safety of individuals and the environment. The Group's adherence to international standards is the minimum basis for commitments that the Group intends to apply wherever it operates.

These approaches and the common whistleblowing system have already been in use for several years. Completely integrated to the ethics organization, it benefits from steering, governance and dedicated monitoring.

3.9.1 Identification and management of the risks of serious harm to individuals and the environment

The Group exercises vigilance through policies that cover all issues and procedures relating to the identification and assessment of risks. Goals and follow-up and assessment processes are put in place on the basis of these procedures.

3.9.1.1 Prevent and manage the risks related to human rights

The major risks of negative impacts on the human rights of any individual due to the Group's activities are related to the fundamental rights of workers. The following risks are targeted: details of the risks can be accessed via https://www.engie.com/en/group/ethics-and-compliance/policies-and-procedures.

Fundamental rights of employees	Rights of local communities	Subcontracting/suppliers/partners
• Health and safety conditions • Freedom of association • Non-discrimination • Combating forced labor • Working hours • Living conditions of workers • Private life	• Health of surrounding populations • Living conditions of surrounding populations (food, water, housing, culture, access to resources, etc.) and the right to a healthy environment • Displacement and rehousing of populations • Combating the suppression of the Group's opponents	• Working conditions and health and safety of subcontractors • Energy procurement • Traceability and procurement of the materials used for the Group's products and services • Practices of commercial partners in projects

Security of employees and sites

- Practices of private or public forces of order in the exercise of their security mission, and in particular practices relating to the use of force
- Security of employees in high-risk countries

The Group's human rights policy, adopted in 2014 and constantly evolving, specifies the Group's commitments and provides for regular processes to identify and manage risks. In particular, every year, the entities must assess their activities with regard to their impact on human rights, via a dedicated self-diagnostic scorecard (see Section 3.8.2). They must also assess any new business activity via a dedicated scorecard designed to identify the risk factors specific to the planned activity.

The risks are assessed according to the country, the activity, the presence of vulnerable populations, the products/services used, and the type of business relationship. Some partners (see Section 3.9.2) are also subject to ethical due diligence procedures, explicitly including human rights.

In 2021, the entities in two major regions, South America (SOUTHAM) and Asia - Middle East - Africa (AMEA), along with GEMS and Tractebel, were assessed as being at risk in terms of human rights, either because of their country of activity or the sector in which they do business. At the operational level, the specific risks identified are the subject of specific action plans described on the aforementioned website. A face-to-face training course on the Group's human rights approach was developed in 2019 and targets operational collaborators and managers directly concerned by this topic. An e-learning module on human rights for all employees has been also in use for several years now.

The monitoring of the application of these processes is incorporated into the ethics compliance report (quantitative indicators) and into the internal control system (see Section 3.8.6).

2021 results	634 employees trained in person on human rights, 64% of whom were operational functions, and half of these from at-risk entities, and 21,178 employees trained by e-learning.
Internal control (Section 2.3)	71.2% of the Group's entities assessed the roll-out of the vigilance plan at their level as effective [(1)]. 88.3% of the entities that assessed the roll-out of the human rights policy considered it to be effective [(1)].
Ethics compliance report	95%: Coverage of the annual human rights risk sheet. 100%: Number of due diligence procedures (with human rights risk) on partners in the context of the Group's investment committees

(1) Maximum level 4 according to the internal control standards

3.9.1.2 Prevent and manage risks related to health and safety and to personal security

The mapping of personal health and safety risks includes both risks of harm to the health and safety of people working for the Group (employees, temporary workers and subcontractors) and risks relating to industrial facilities that are owned by the Group or maintained and/or operated by the Group for customers, which could generate risks for people working for the Group or for neighbors of these industrial facilities.

With regard to serious and fatal accidents, the Group aims, in decreasing order of priority, to first eliminate the exposure of people to risks and then to establish collective and then individual prevention measures. The prevention system implemented by the Group includes the following measures:

- compliance with the Life-Saving Rules by everybody in all circumstances;
- identification and handling of "HiPos": events and situations with high potential of severity, which are precursors to serious accidents;
- work stoppages if safety conditions are not met ("Stop the work" approach)*;*
- shared vigilance, consisting of also overseeing the safety of others;
- a last-minute risk analysis just before starting work, to take into account any changes in the working environment (the "life-saving minute" approach).

In addition, an action plan specifically designed to prevent serious and fatal electricity-related accidents has been rolled out to all Group entities. Other measures to prevent serious and fatal accidents are described in Section 3.4.8.2.4 "The management of risks relating to health and safety at work."

These various measures must be implemented, not only by the Group's employees, but also by the employees of subcontracting companies working on behalf of the Group.

The monitoring of the measures implemented and the assessment of their effectiveness takes place by means of management safety visits and inspections, internal audits and peer reviews.

As well as these specific measures to prevent serious and fatal accidents, the Group has launched its new health and safety action plan for the period 2021-2025, which is based on the following three areas:

- "No Life at Risk" (prevention of risks directly related to the execution of activities);
- "No Mind at Risk" (prevention of risks related to the context of execution of activities);
- "No Asset at Risk" (prevention of risks related to industrial processes).

As a result of the fatal accidents experienced by the Group in 2021, a number of specific actions were taken:

- a "safety stand down" was held with all teams to discuss safety at work;
- in-depth health and safety reviews at certain construction sites deemed to be particularly at risk;
- strengthening of safety, quality assurance and control standards;
- assessment of the Group's health and safety maturity and organization by a specialist provider to identify improvements to be made.

With regard to well-being at work, the Group has defined and disseminated to employees its "nine commitments for well-being at work."

With regard to the prevention of Covid-19, the Group guidelines, both general and by subject, have been implemented in all of the entities, accompanied by a specific announcement. A summary of the anti-Covid-19 measures implemented is available in Section 3.4.8.2.2 "The management of risks arising from the Covid-19 pandemic."

The other measures intended to ensure the health and safety of individuals working for the Group are presented in Section 2.2.7.5 "Health and safety at work" and in Section 3.4.8 "Health and safety policy." Details of the measures are provided on the Group's website: https://www.engie.com/engagements/global-care

The measures put in place by the Group to ensure the security of individuals are described in Section 2.2.7.4.

3.9.1.3 Prevent and manage environmental and societal risks

From an environmental perspective, the major risk for the Group is climate risk, followed by biodiversity, water and pollution risks. These global and local environmental risks are identified annually at both Group and local level in order to establish a list of "at risk" sites. From a societal point of view, the risks analyzed are the impact of activities on local communities and their social consequences.

The Group's CSR Policy guides the vigilance process with regard to environmental and social matters (see Section 3.1.1). Environmental and societal risks are analyzed periodically at every level of the company. This policy is deployed in each GBU, subsidiary, and site. Its implementation is monitored through goals and action plans that are reviewed every year. This review process enables us to make sure our obligations, with respect to environmental and societal vigilance, are properly satisfied.

The environmental policy fully incorporates this risk analysis. The control of its CO_2 emissions is a major issue for the Group, causing it to establish a specific action plan. This plan is supplemented by non-financial targets and international commitments such as SBTi, which are described in detail in the integrated report. The environmental policy also aims to institute action plans at various levels to avoid, reduce, and if necessary, offset the environmental impacts of the Group's activities.

The societal policy is focused on stakeholder engagement. Its implementation includes a toolbox, training programs and a center of expertise.

In addition, since 2021, the Group has taken nine CSR criteria into account for its major investment projects, assessed using risk and opportunity analyses. These criteria mainly relate to: reducing GHG emissions, adaptation to climate change, biodiversity, water, pollution, the circular economy, ethics, health and safety, collaboration with stakeholders and sustainable purchasing. These criteria are described in detail on the website at https://www.engie.com/en/analysts/governance/duty-of-vigilance-environmental-societal-risks.

3.9.1.4 Prevent and manage risks related to energy supply

The risks related to the Group's energy supply (biomass, natural gas, LNG, etc.) have been identified as a specific issue of vigilance for the Group. These are subject to the Group's reporting rules and governance and managed directly by the responsible entities, which identify the specific risks of each activity by energy source and at the country and energy supplier level. If necessary, mitigation measures are included in the contracts with the related suppliers.

A CSR strategy was formalized to meet these challenges, with specific action plans per energy source.

The governance structure was strengthened to ensure that the duty of vigilance is included in decision-making processes. The supply chain risk assessment approach has been systematized, based on the 3P (People, Planet and Profit) approach.

3.9.1.5 Prevent and manage risks related to non-energy purchases

The Group's Purchasing management system is designed to supervise and reduce the risks associated with purchasing. It includes:

- a Purchasing Charter that specifies ENGIE's commitments and requirements vis-à-vis its suppliers;
- purchasing governance that describes the methods of implementation through 12 key rules. To these rules is added, for each entity, the obligation to carry out an analysis of ethical risks. This analysis takes into account the occupations, purchasing categories and amounts, and organizations and projects. It encourages the rotation of actors in the purchasing function engaged in supplier relationships;
- operational processes dealing with the management of purchasing categories, supplier panels and the stages of sourcing process;
- a code of conduct in supplier relation, which was revised in 2021 to ensure the implementation of the principles throughout the supply chain.

The purchasing processes are implemented through the following key stages:

- the assessment of new preferred (Group level) and major (entity level) suppliers;
- the analysis of risks and opportunities by purchasing category and by country, based on a risk matrix developed in partnership with EcoVadis. Three purchasing categories are considered high risk: engineering/turnkey installation, chemicals and batteries;
- the implementation of an associated management plan taking into account the eligibility criteria of suppliers. These plans may include, for example, audits, specific contractual provisions to limit the risk, an ethics clause, etc. A risk reduction plan is automatically implemented for suppliers with an EcoVadis score below 45/100;
- the measurement of the performance delivered by the suppliers and related improvement plans;
- the implementation, in 2021, of a specific enhanced vigilance plan to identify and manage the risks of forced labor practices in the Group's Chinese supply chains. The principal measures taken to identify and manage these risks are presented in Section 2.2.6.4.

The proper implementation of these processes is verified via the INCOME internal control program (see Section 2.3). With 28 different controls, the INCOME PRO reference system covers all purchasing processes.

Lastly, the Purchasing management system is facilitated by a continuous training plan for the entire Purchasing sector. Face-to-face and videoconferencing sessions are supplemented by the delivery of online modules via Ulearn, the Group's training intranet. In 2021, around 500 purchasers took part in the "Ethics and supplier relations" training course through face-to-face sessions and videoconferencing. Three Ulearn training modules were mandatory for the entire purchasing function: Fraud and Corruption, Zero Tolerance; Our Group, Our Ethics; and Competition Law.

3.9.2 Third-party assessment

In 2021, 100% of the partners in the Group's investment projects were subject to due diligence, including a systematic study of "vigilance" topics.

In addition, the Group's new preferred and major suppliers are automatically assessed via due diligence (by the category managers and chief procurement officers) before contracting takes place. Since 2019 this rule has been gradually extended to cover our panel of 1,600 recurring suppliers. To date, 995 have been evaluated in terms of ethics by EcoVadis, including, in 2021, 591 new or re-evaluated suppliers.

Directly or indirectly, 100% of the Ethics Officers have access to a specialist due diligence tool. As an illustration, over 5,000 first-level due diligence searches were performed by the Ethics, Compliance & Privacy Department in 2021 using our due diligence tools.

3.9.3 Whistleblowing and collection of alerts

The whistleblowing system has been open to all employees, permanent or temporary, and to all external stakeholders, since January 2019. An external service provider forwards the anonymous report to ENGIE for processing (see Section 3.8.4). In 2021, 187 alerts were received via the system, 46 of which concern subjects related to the duty of vigilance. Details of the alerts are provided on the website at https://www.engie.com/en/group/ethics-and-compliance/policies-and-procedures. They can be summarized as follows:

Allegations of bullying and sexual harassment	Interpersonal relationships between employees	Allegations of discrimination	Questions related to the environment and the rights of communities
29	9	7	1

All allegations of discrimination and harassment were dealt with in 2021 and action plans and disciplinary sanctions are automatically adopted whenever such facts emerge.

3.9.4 Steering, governance and follow-up of the deployment of the plan

3.9.4.1 Steering and follow-up at the highest corporate level

The Group has set up monitoring and global coordination at the highest level to meet the law's objectives in an effective way. The plan was approved by the Group's Executive Committee, which entrusted its management to the Ethics, Compliance & Privacy Department (ECPD), under the responsibility of the General Secretariat. A report on the effective implementation of the plan is presented annually to the EESDC of the Board of Directors.

A specific committee is responsible for the operational implementation of the plan. Its aim is to ensure that the plan is distributed and that information can be fed back easily. The members are:

Department	ECPD	CSR	Group Purchasing Department	Global Care	Internal control	Risk
Regions	SOUTHAM	NORTHAM	France	Europe	AMEA	EQUANS

In addition, each entity must ensure that the vigilance plan has been effectively rolled out within its scope. The monitoring of these actions by the entities is included in the annual compliance report (see Section 3.8.6).

3.9.4.2 Stakeholder relations

The plan and the progress made in its implementation are presented and regularly discussed with the employee representative bodies. It has been implemented via the existing committees at Group level, as well as the European Works Council, the EESDC, and the Board of Directors. The entities were also asked to present the vigilance plan to their employee representative organizations.

In addition, since 2021, societal risks have been mapped at the level of industrial activities, services and decommissioning project through a process of dialog with stakeholders deployed in the Group's entities. This six-stage process (see Section 3.6.1) allows for the construction and follow-up of tailor-made action plans. Details of the methodology are provided on the website at https://www.engie.com/en/analysts/governance/duty-of-vigilance-environmental-societal-risks

3.9.5 Duty of vigilance correlation table

Risk categories covered by the Vigilance Plan	Location in the URD	Page
Risks related to human rights	Section 3.8.1 "Ethics and compliance governance"	118
Risks related to health and safety and to personal security	Section 3.4.8.2 "The health and safety management system"	101
Environmental and societal risks	Section 3.1.1 “CSR policy and governance”	70
Risks related to non-energy purchasing	Section 3.7 “Purchasing, outsourcing and suppliers”	115
The four risks above	Section 2.2 “Risk factors”	41

Details of the categories above are provided on the Group's website: : https://www.engie.com/en/group/ethics-and-compliance/policies-and-procedures

3.10 Report by one of the Statutory Auditors, appointed as independent third party, on the consolidate non financial statement

This is a translation into English of the original report issued in French and it is provided solely for the convenience of English-speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France

Year ended the December 31, 2021

Independent third party's report on the consolidated non–financial statement presented in the management report

To the Annual General Meeting,

In our capacity as an independent third party, accredited by the COFRAC under number n° 3-1681 (scope of accreditation available on the website www.cofrac.fr), and as a member of the network of one of the statutory auditors of ENGIE (hereinafter "entity"), we conducted our work aiming at providing a conclusion expressing a limited level of assurance on the compliance of the consolidated non-financial statement for the year ended December 31, 2021 (hereinafter the "Statement") with the provisions of Article R. 225-105 of the French Commercial Code (*Code de commerce*) and on the fairness of the historical information (whether observed or extrapolated) provided pursuant to 3° of I and II of Article R. 225-105 of the French Commercial Code (hereinafter the "Information") prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), included in the management report pursuant to the requirements of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code de commerce*).

Conclusion

Based on the procedures performed, as described in "Nature and scope of the work" section, and on the elements we have collected, we did not identify any material misstatements that would call into question the fact that the consolidated non–financial statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.

Preparation of the non-financial performance statement

The absence of a generally accepted and commonly used framework or developed practices to rely on for the assessment and measurement of information allows the use of different, but acceptable, measurement techniques that may affect comparability between entities and over time.

Therefore, the Information should be read and understood with reference to the Guidelines, the significant elements of which are presented in the Statement.

The entity's responsibility

It is the responsibility of ENGIE's Board of Directors to:

- select or set appropriate criteria for the preparation of the Information;
- prepare a Statement in accordance with legal and regulatory requirements, including a presentation of the business model, a description of the main non-financial risks, a presentation of the policies applied with regard to these risks as well as the results of these policies, including key performance indicators and, in addition, the information required by Article 8 of Regulation (EU) 2020/852 (green taxonomy);
- and to implement the internal control procedures it deems necessary to ensure that the Information is free from material misstatement, whether due to fraud or error.

The Statement has been prepared in accordance with the entity's procedures, the main elements of which are presented in the Statement.

Responsibility of the independent third party

On the basis of our work, our responsibility is to provide a report expressing a limited assurance conclusion on:

- the compliance of the Statement with the requirements of Article R. 225-105 of the French Commercial Code *(Code de commerce)*;
- the fairness of the information provided in accordance with Article R. 225-105 I, 3° and II of the French Commercial Code *(Code de commerce)*, i.e., the outcomes, including key performance indicators, and the measures implemented considering the principal risks.

As it is our responsibility to form an independent conclusion on the Information as prepared by management, we are not allowed to be involved in the preparation of the Information, as this could compromise our independence.

However, it is not our responsibility to comment on:

- the entity's compliance with other applicable legal and regulatory requirements, in particular the information required by Article 8 of Regulation (EU) 2020/852 (green taxonomy), the French duty of care law and anti-corruption and tax avoidance legislation;
- the fairness of the information required by Article 8 of Regulation (EU) 2020/852 (green taxonomy);
- the compliance of products and services with the applicable regulations.

Regulatory provisions and applicable professional standards

The work described below was performed in accordance with the provisions of Articles A. 225-1 et seq. of the French Commercial Code *(Code de commerce)*, as well as with the professional guidance of the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) applicable to such engagements and with ISAE 3000 [(1)].

(1) ISAE 3000 - Assurance engagements other than audits or reviews of historical financial information

Independence and quality control

Our independence is defined by the requirements of Article L. 822-11-3 of the French Commercial Code and the French Code of Ethics (*Code de Déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with applicable legal and regulatory requirements, the ethical requirements and French professional guidance.

Means and resources

Our work mobilized the skills of twelve people and took place between September 2021 and March 2022 on a total duration of thirty weeks.

In carrying out those procedures, we obtained assistance from our specialists in the fields of sustainable development and social responsibility. We conducted about ten interviews with the persons responsible for the preparation of the Statement including, in particular, representatives from Human Resources, Health and Safety, and environment.

Nature and scope of the work

We planned and performed our work taking into account the risks of material misstatement of the Information.

In our opinion, the procedures we have performed in the exercise of our professional judgment enable us to provide a limited level of assurance conclusion:

- we obtained an understanding of all the consolidated entities' activities comprised in the consolidation scope and the description of the main risks;
- we assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, where appropriate;
- we verified that the Statement includes each category of social and environmental information set out in Article L. 225-102-1 III of the French Commercial Code *(Code de commerce)* as well as compliance with human rights and anti-corruption and tax avoidance legislation;
- we verified that the Statement provides the information required under Article R. 225-105 II of the French Commercial Code *(Code de commerce)*, where relevant with respect to the main risks, and includes, where applicable, an explanation for the absence of the information required under Article L. 225-102-1 III, paragraph 2 of the French Commercial Code *(Code de commerce)*;
- we verified that the Statement presents the business model and a description of the main risks associated with all the consolidated entities' activities, including, where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the main risks;
- we referred to documentary sources and conducted interviews to
  - assess the process used to identify and confirm the main risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the main risks and the policies presented, and
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important [(1)]; concerning certain risks ("Climate change contribution", "Impact of climate change", "Biodiversity", "Diversity", "Corruption"), our work was carried out on the consolidating entity level, for the others risks, our work was carried out on the consolidating entity and on a selection of entities;
- we verified that the Statement covers the scope of consolidation, i.e. all the consolidated entities in accordance with Article L. 233-16 of the French Commercial Code *(Code de commerce)*;
- we obtained an understanding of internal control and risk management procedures the entity has implemented and assessed the data collection process to ensure the completeness and fairness of the Information;
- for the key performance indicators and other quantitative outcomes that we considered to be the most important[(2)], we implemented:
  - analytical procedures to verify that the consolidation of the data collected was appropriate and the consistency of any changes in those data;

(1) **Social information :** *results of the policies related to Diversity and Employment of young people*

Environmental information *: Climate change (main sources of GHG emissions related to operations, reduction of GHG emissions objectives, adaptation measures), water management action plans for sites facing high or extreme water stress, biodiversity protection*

Societal information : *fight against corruption*

(2) **Social information:** *Total workforce, Total workforce – Breakdown by SPC, Total workforce – Breakdown by type of contract, Proportion of women in workforce, Proportion of women in management, Proportion of staff consisting of students on work-study programs, Average monthly personnel, Average monthly personnel in FTE, Proportion of declared disabled employees, Number of hires on permanent contract, Number of hires on fixed-term contract, Number of arrivals for miscellaneous reasons, Number of resignations, Number of dismissals including contractual termination, Number of retirements, number of departures for miscellaneous reasons, Number of ends of fixed-term contract, Turnover, Voluntary turnover, Number of mobilities between BU, Number of mobilities between entities of the same BU, Number of hours worked, Proportion of employees trained, Training hours including e-learning, Gross salaries – Breakdown by SPC, Percentage of female senior managers*

Health and safety information: *Number of fatal accidents (employees), Number of work accidents among staff with at least one day off, Number of hours worked (employees), Frequency rate (employees), Severity rate French framework (employees), Severity rate ILO framework (employees), Number of work accidents with at least one day off (contractors and temporary workers on sites with controlled access), Hours worked (subcontractors and temporary workers on sites with controlled access), Frequency rate for employees and subcontractors on sites with controlled access*

Environmental information : *Percentage of relevant revenue covered by an EMAS certification, Percentage of relevant revenue covered by an ISO 14001 (non-EMAS) certification, Renewable – Net installed power (electric and thermal), Renewable – Electricity and heat produced, Primary energy consumption – total (excluding own consumption), Electricity and thermal energy consumption (excluding own consumption), Energy efficiency of fossil fuel plants (including biomass/biogas), Percentage of power capacity from renewables, Total direct GHG emissions – Scope 1, Indirect emissions related to energy ("Scope 2"), Carbon intensity of energy production, Total GHG emissions ("Scope 1 and Scope 3") related to energy production, Fresh water – Total withdrawal and total discharge, Non-fresh water – Total withdrawal and total discharge, Total consumption (fresh water and non-fresh water), Percentage of fresh water withdrawals per MWh of energy generation, Total quantity of non-hazardous waste and by-products discharged (including sludge), Total quantity of non–hazardous waste and by-products recovered (including sludge), Total quantity of hazardous waste and by-products discharged (including sludge and excluding radioactive waste), Total quantity of hazardous waste and by-products recovered (including sludge and excluding radioactive waste), NOx emissions, SO2 emissions, Fine particle emissions*

- tests of details, using sampling techniques, in order to verify that the application of the definitions and procedures is appropriate and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities [(1)] and covers between 3% and 73% of the consolidated data relating to the key performance indicators and outcomes selected for these tests (40% of the workforce, 48% of work accidents among staff, 30% of hours worked and between 3% and 73% of environmental data);

- we assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.

The procedures carried out in a limited assurance engagement are less extensive in scope than those that would be required for a reasonable assurance engagement conducted in accordance with professional standards; a higher level of assurance would have required us to perform more extensive verification procedures.

Paris-La Défense, March 4, 2022

The Independent Third Party

French original signed by

EY & Associés

Alexis Gazzo

Partner, Sustainable Development

(1) **Environmental information:** *Compagnie Nationale du Rhône (CNR), CN'AIR, Cofely Installation in West-North Territory, ENGIE energy production and distribution subsidiaries – West-North Territory, Compagnie Parisienne de Chauffage Urbain (CPCU), Valaxion, DK6 (Dunkirk), EEMS, Maxima, Rosignano, SPEM (Montoir), Vilvoorde, Tihange, Dinorwig power plants, ENGIE Servizi, Termoélectrica Andina, Termica Red Dragon, Tocopilla (unit 16) and Inversiones Hornitos power plants (ENGIE Energia Chile), Itá Energética, Ferrari and Salto Santiago power plants (ENGIE Brasil Energia), Pelican Point power plant, GRTgaz, Chémery storage site, Bio*

Social information :

Audits performed at intermediary consolidation level: Germany, Italy, Romania, Asia, Australia, Middle-East, South America, Tractebel

Audits performed at sites' level: INEO, ENGIE Services Chile, Cofely Services (Belgium), MCI, ENGIE Servizi, ENGIE Insight Services, Cofely Besix FM LLC (United Arab Emirates), Munich Building Technologies Topco GmbH, Tractebel Engineering Pvt Ltd (India), GRDF, Electrabel – Nuke, Electrabel M&S Belgium, DGP, DCP, ENGIE Home Services

Health & Safety information :

Audits performed at intermediary consolidation level: Energy Solutions

Audits performed at sites' level: ENGIE Soluções, ENGIE Services Chile, GRDF, Electrabel – Nuke, ENGIE Home Services, GRTgaz

3.11 Statutory auditors' reasonable assurance report on selected social, environmental and governance information

This is a free English translation of the report by one of the Statutory Auditors issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

Year ended December 31, 2021

Pursuant to your request and in our capacity as Statutory Auditors of ENGIE (the "Company"), we performed a review in the aim of providing reasonable assurance on the environmental and social indicators selected by ENGIE and identified by the symbols ◻◻ in sections 3.4 and 3.5 of the Universal Registration Document (the "Information" (1)) for fiscal year 2021.

Conclusion

In our opinion, the Information selected by the Company and identified by the symbols ◻◻ in sections 3.4 and 3.5 of the Universal Registration Document has been prepared, in all material aspects, in accordance with the criteria used by the company (hereinafter the "Reporting Criteria").

Information preparation

The absence of a generally accepted and commonly used reference framework or established practices on which to base the assessment and measurement of the Information enables the use of different but acceptable measurement techniques that may impact comparability between entities and over time.

Accordingly, the Information must be read and interpreted with reference to the Guidelines, summarized the Universal Registration Document in the section "Methodological elements" and "Note on the methodology of social indicators", available upon request at the Company's headquarters from the Group Environmental and Social Responsibility Department, the Group Health and Safety Department and the Group Human Resources Department.

Limits inherent in the preparation of the Information

The Information may be subject to uncertainty inherent to the state of scientific and economic knowledge and the quality of external data used. Some information is sensitive to the choice of methodology and the assumptions and/or estimates used for its preparation and presented in section 3 of the Universal Reference Document.

Responsibility of the Company

The Information has been prepared under the responsibility of ENGIE executive management, in accordance with the Reporting Criteria for social and environmental reporting data, a summary of which appears in the Universal Registration Document in the section "Methodological elements" and "Note on the methodology of social indicators", available upon request at the Company's headquarters from the Group Environmental and Social Responsibility Department, the Group Health and Safety Department and the Group Human Resources Department.

Responsibility of the Statutory Auditors

Based on our work, our responsibility is to express reasonable assurance on the fact that the Information has been prepared, in all material respects, in accordance with the Reporting Criteria. The conclusions expressed here below cover only this Information and not all of the information set forth in section 3.4 and 3.5 of the Universal Registration Document.

As it is our responsibility to issue an independent conclusion on the Information prepared by the executive management, we are not authorized to participate in the preparation of the Information, as this could compromise our independence.

Applicable regulatory provisions and professional

The work described below was performed in accordance with the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) relating to this engagement and with the international standard ISAE 3000 (revised).

Independence and quality control

Our independence is defined by regulatory texts, the French Code of Ethics for Statutory Auditors (Code de Déontologie) and the requirements of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures aimed at ensuring compliance with ethical requirements, French professional standards and applicable legal and regulatory requirements.

(1) **Social, health and safety information:** *Total workforce, Total workforce - Breakdown by SPC, Total workforce – Breakdown by type of contract, Proportion of women in workforce, Proportion of women in management, Proportion of employees trained, Number of hours worked, Number of work accidents among staff with at least one day off, Frequency rate (employees)*

Environmental information: *Primary energy consumption – total (excluding own consumption), Electricity and thermal energy consumption (excluding own consumption), Energy efficiency of fossil fuel plants (including biomass/biogas), Renewable – Net installed power (electric and thermal), Renewable – Electricity and heat produced, Total quantity of hazardous waste and by-products discharged (including sludge and excluding radioactive waste), Total quantity of hazardous waste and by-products recovered (including sludge and excluding radioactive waste), Total direct GHG emissions - Scope 1, Indirect emissions related to energy ("Scope 2"), Carbon intensity of energy production*

Nature and scope of procedures

We planned and performed our work taking account of the risk of material misstatement of the Information.

- We have assessed the appropriateness of the Reporting Criteria with respect to its relevance, completeness, reliability, neutrality and clarity, by taking into consideration, when relevant, the sector's best practices;
- We have verified the set-up of a process to collect, compile, process, and check the completeness and consistency of the Information;
- We have consulted the documentary sources and have interviewed the relevant staff from the Group Environmental and Social Responsibility Department, the Group Health and Safety Department and the Group Human Resources Department in order to analyze the deployment and application of the Reporting Criteria;
- We have set up analytical procedures on the Information and verified, using sampling techniques, the calculations as well as the consolidation of Information;
- We have tested the Information for a representative sample of entities that we selected[1] based on their activity, their contribution to the consolidated Information, their location and a risk analysis. We have conducted interviews to verify the proper application of procedures and conducted substantive tests, using sampling techniques, to verify the calculations performed and reconcile data with supporting evidence. The selected sample represented between 23% and 50% of the key performance indicators and results selected for these tests.

We consider that the sampling techniques and sample sizes we have used in exercising our professional judgement enable us to express a reasonable assurance conclusion. Due to the use of sampling techniques and the other limits inherent to the operation of any information and internal control system, the risk that a material anomaly would not be identified in the Information cannot be totally eliminated.

Paris-La Défense, March 4, 2022

The Statutory Auditors

French original signed by

DELOITTE & ASSOCIES		ERNST & YOUNG et Autres	
Patrick E. Suissa	Nadia Laadouli	Charles-Emmanuel Chosson	Guillaume Rouger

(1) **Environmental information:** *Compagnie Nationale du Rhône (CNR), CN'AIR, Cofely Installation in West-North Territory, ENGIE energy production and distribution subsidiaries – West-North Territory, Compagnie Parisienne de Chauffage Urbain (CPCU), Valaxion, DK6 (Dunkirk), EEMS, Maxima, Rosignano, SPEM (Montoir), Vilvoorde, Tihange, Dinorwig power plants, ENGIE Servizi, Termoéléctrica Andina, Termica Red Dragon, Tocopilla (unit 16) and Inversiones Hornitos power plants (ENGIE Energia Chile), Itá Energética, Ferrari and Salto Santiago power plants (ENGIE Brasil Energia), Pelican Point power plant, GRTgaz, Chémery storage site, Bioz*

Social information:

Audits performed at intermediary consolidation level: Germany, Italy, Romania, Asia, Australia, Middle-East, South America, Tractebel

Audits performed at entity level: INEO, ENGIE Services Chile, Cofely Services (Belgium), MCI, ENGIE Servizi, ENGIE Insight Services, Cofely Besix FM LLC (United Arab Emirates), Munich Building Technologies Topco GmbH, Tractebel Engineering Pvt Ltd (India), GRDF, Electrabel – Nuke, Electrabel M&S Belgium, DGP, DCP, ENGIE Home Services

Health and Safety information:

Audits performed at intermediary consolidation level: Energy Solutions

Audits performed at entity level: ENGIE Soluções, ENGIE Services Chile, GRDF, Electrabel – Nuke, ENGIE Home Services, GRTgaz

4

Governance

The information presented in this chapter forms the report of the Board of Directors on corporate governance, prepared in accordance with the provisions of the final paragraph of Article L.225-37 of the French Commercial Code. This report was prepared on the basis of the decisions of the Board of Directors. The sections of the report relevant to the activities of the respective Board committees were presented to them and approved by the Board at its meeting of February 14, 2022.

This Report includes the information below regarding the composition of the Board of Directors, the conditions under which it prepared its work, and any limits imposed by the Board of Directors on the powers of the Chief Executive Officer. It also covers ENGIE's policy on diversity of expertise within the Board. This report sets out, in Section 4.4 "Compensation and benefits of members of the administrative and management bodies," the applicable provisions, principles and rules established to determine the compensation and benefits of any kind awarded to corporate officers (the changes to the composition of the Board of Directors proposed at the Shareholders' Meeting of April 21, 2022 are set out in Section 4.2.2.).

4.1 Corporate governance bodies

4.1.1 Composition of the Board of Directors

Pursuant to Article 13 of the Company by-laws and the provisions of Articles L.225-17, L.22-10-5 and L.22-10-6 of the French Commercial Code, the Board of Directors of ENGIE is composed of a maximum of 22 members, including three Directors who represent the employees and one Director who represents employee shareholders.

The Directors serve a four-year term. The terms of office of Directors expire at the close of the General Shareholders' Meeting convened in the year during which the term expires to approve the financial statements for the previous year.

The Shareholders' Meeting on May 20, 2021, elected Catherine MacGregor and Jacinthe Delage as Directors.

On the date of this report, the Company is administered by a Board of Directors composed of 14 members, including:

- seven Directors elected by the Shareholders' Meeting pursuant to the provisions of the French Commercial Code relating to public limited companies;
- two Directors elected by the Shareholders' Meeting on the recommendation of the French State pursuant to Article 6 of Ordinance No. 2014-948 of August 20, 2014, in view of the French State's interest in ENGIE's share capital;
- one Director representing the French State, appointed by decree under Article 4 of Ordinance 2014-948 of August 20, 2014;
- three Directors elected representing employees, pursuant to Articles L.22-10-6 et seq. of the French Commercial Code; and
- one Director representing employee shareholders, pursuant to Article L.22-10-5 of the French Commercial Code, elected by the Shareholders' Meeting.

The Board of Directors has six independent Directors (see Sections 4.1.1.1 "Profiles, experience and expertise of Directors in office," and 4.1.1.5 "Independence of Directors in office"). This means that the percentage of Independent Directors is 60%, it being specified that, pursuant to the Afep-Medef Code, the number of Directors representing employees and employee shareholders is not counted in the calculation of the percentage of Independent Directors.

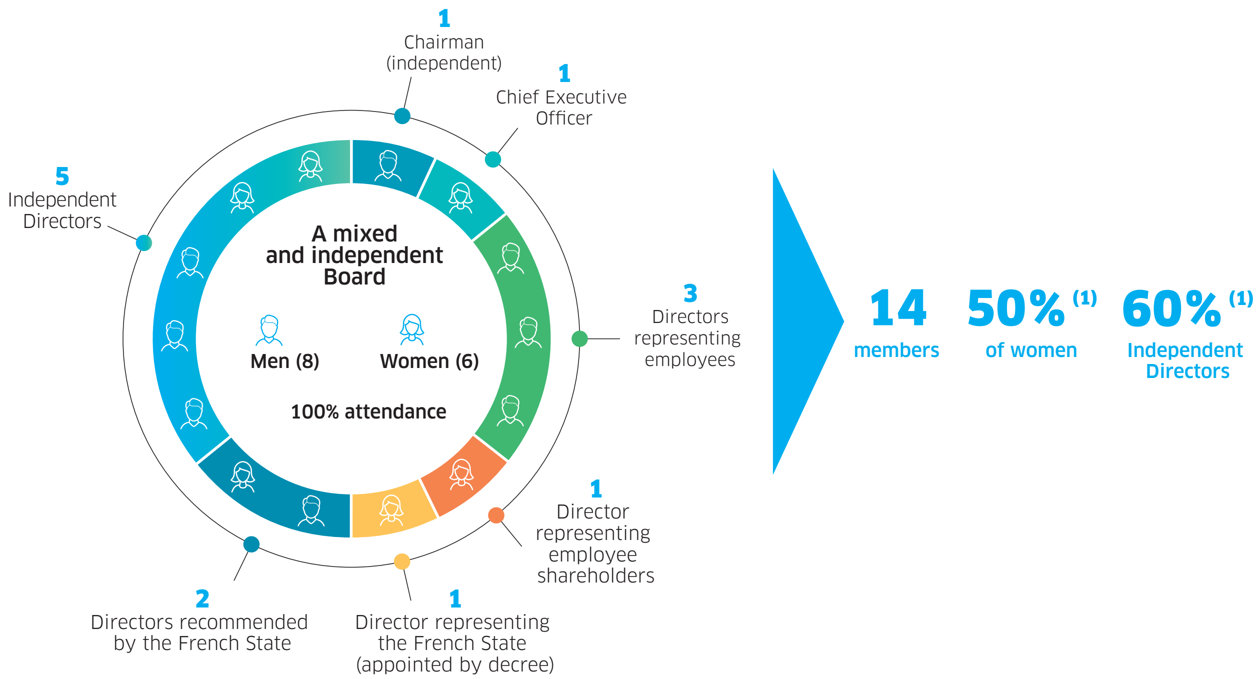
When one or more directors' seats become vacant, and after ascertaining the size of the Board of Directors, the Appointments, Compensation and Governance Committee (ACGC) defines, with the support of the Chair of the Board of Directors, the profile sought in light of the diversity policy, amongst others, (see Section 4.1.1.7 "Diversity policy for members of the Board of Directors") and in particular to ensure that its composition is adequate for the Group's activities, challenges and strategic plans.

Based on this profile, the ACGC Chair, with the support of the Chair of the Board of Directors, supervises the search and selection process of new independent directors, where necessary with the assistance of one or more recruitment firms. Candidates are long listed and then short listed.

Interviews of candidates are held at the end of the process with a view to submitting a recommendation to the Board. During these interviews, the ACGC ensures in particular the independence, availability and motivation of the prospective candidate and his/her adherence to the Group's values.

The replacement of Directors appointed by the General Shareholders' Meeting, whose positions have become vacant during the term of office, due to death or resignation, is subject to the laws and regulations in force. Note that these measures may not be applied in the event of the vacancy, for any reason, of the seat of a Director elected by the employees or of the seat of the Director representing the employee shareholders.

As of the date of this report, the key features of the Board of Directors composition are the following :



(1) *Pursuant to the applicable rules of the French Commercial Code and the Afep-Medef Code, in assessing the ratio of women to men and the percentage of independent Directors on Boards of Directors, the law stipulates that Directors representing employees or employee shareholders are not counted*

Changes in composition of the Board of Directors and committees in 2021

	Departure	Appointment	Renewal
Board of Directors	Isabelle Bui (5/19/2021) Christophe Aubert (5/20/2021)	Stéphanie Besnier (5/19/2021) Jacinthe Delage (5/20/2021) Catherine MacGregor (5/20/2021)	-
Audit Committee	Isabelle Bui (5/19/2021) Christophe Aubert (5/20/2021)	Stéphanie Besnier (5/20/2021) Christophe Agogué (7/29/2021)	-
SITC (1)	Isabelle Bui (5/19/2021)	Stéphanie Besnier (5/20/2021)	-
ACGC (2)	Isabelle Bui (5/19/2021)	Stéphanie Besnier (5/20/2021)	-
EESDC (3)	Christophe Agogué (7/29/2021)	Jacinthe Delage (7/29/2021)	-

(1) *Strategy, Investment and Technology Committee*
(2) *Appointments, Compensation and Governance Committee*
(3) *Ethics, Environment and Sustainable Development Committee*

4.1.1.1 Experience and expertise of the Directors in office

Pursuant to the provisions of Article L.225-17 of the French Commercial Code, which established the principle of balanced gender representation on Boards of Directors, ENGIE's Board of Directors includes six female Directors from a total of 14.

In assessing the ratio of women to men on Boards of Directors, the law stipulates that Directors representing employees and employee shareholders are not taken into account

As the Board of Directors of ENGIE includes three male Directors representing employees and one female Director representing employee shareholders, the assessment is based on 10 Directors, five of whom are women (a ratio of 50%).

ENGIE also seeks to increase the diversity and international experience of its Board of Directors. Four nationalities are represented by the 14 Directors (Australian, British, Canadian and French). Please refer to Section 4.1.1.7 Diversity policy for members of the Board of Directors.

Summary presentation of the Board of Directors

First and last name, gender (1) and age	Nationality	Number of ENGIE shares held (2)	Number of offices in other listed companies (excl. ENGIE)	Indepen-dent Director	Date of initial appointment	Expiration of term	Seniority on the Board (3)	Participation in Board committees (4)
Jean-Pierre Clamadieu M, 63 		50,000	2	✓	05/18/2018	2022	3	Chairman of the SITC ACGC (5)
Catherine MacGregor F, 49 		30,000	0	✗	05/20/2021	2025	0	ACGC (5) SITC (5) EESDC (5)
Fabrice Brégier M, 60 		500	1	✓	05/03/2016	2024	5	ACGC
Françoise Malrieu F, 76 		3,000	0	✓	05/02/2011	2023	10	Chair of the ACGC, Audit Committee, EESDC
Ross McInnes M, 67 		500	2	✓	05/18/2018	2022	3	Chairman of the EESDC Audit Committee SITC
Marie-José Nadeau F, 68 		1,000	0	✓	04/28/2015	2023	6	Chairman of the Audit Committee SITC
Lord Peter Ricketts of Shortlands M, 69 		750	0	✓	5/03/2016 (6)	2024	5	ACGC
Stéphanie Besnier F, 44 		0	2	✗	05/19/2021	2025	0	Audit Committee SITC ACGC
Patrice Durand M, 68 		1,500	0	✗	12/14/2016	2023	5	SITC
Mari-Noëlle Jégo-Laveissière F, 53 		500	1	✗	04/28/2015	2023	6	EESDC
Christophe Agogué M, 60 		125	0	NA (7)	05/18/2018	2022	3	Audit Committee
Alain Beullier M, 57 		51	0	NA (7)	01/21/2009	2022	13	ACGC
Philippe Lepage M, 57 		287	0	NA (7)	04/28/2014	2022	7	SITC
Jacinthe Delage F, 45 		725	0	NA (7)	05/20/2021	2025	0	EESDC

(1) Female (F), Male (M)
(2) Directors co-opted or elected by the Shareholders' Meeting on the recommendation of the French State, the Director representing the French State and the Directors representing employees or employee shareholders are exempt from ownership of shares of the Company (see Section 4.1.2.1 "Chairmanship and Organization")
(3) In years elapsed
(4) SITC: Strategy, Investment and Technology Committee
ACGC: Appointments, Compensation and Governance Committee
EESDC: Ethics, Environment and Sustainable Development Committee
(5) Attends this committee, or these committees, without being a member
(6) With effect from August 1, 2016
(7) Pursuant to the Afep-Medef Code, the number of Directors representing employees or employee shareholders is not taken into account in calculating the percentage of independent Directors (see Section 4.1.1.5)

Directors elected by the Shareholders' Meeting (7)

JEAN-PIERRE CLAMADIEU

Chairman of the Board of Directors

Chairman of the Strategy, Investment and Technology Committee

Attends without being a member the meetings of the Appointments, Compensation and Governance Committee

Age: 63
Nationality: French
First appointment: 05/18/2018
Expiration of term: 2022
Shares held: 50,000 shares
Business address:
ENGIE – 1, place Samuel de Champlain – 92400 Courbevoie

Jean-Pierre Clamadieu is a graduate of the École Nationale Supérieure des Mines de Paris and an engineer of the Corps des Mines. He began his career within the French administration, particularly working for the Ministry of Industry and as technical advisor to the Minister of Labor. In 1993, he joined the Rhône-Poulenc group where he held several management positions. In 2003, he was appointed Chief Executive Officer of the Rhodia group, and then Chairman-CEO in 2008. In September 2011, following the merger of the Rhodia and Solvay groups, Jean-Pierre Clamadieu was named Vice Chairman of the Solvay Executive Committee. From May 2012 to the end of February 2019, Jean-Pierre Clamadieu served as Chairman of the Executive Committee and CEO of Solvay. On May 18, 2018, he was appointed Director and Chairman of the Board of ENGIE. On October 8, 2020, he was also appointed Chairman of ENGIE Foundation.

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in companies outside the Group

- Lead Independent Director of AXA [(1)]
- Director of Airbus [(1)]
- Chairman of the Board of Directors of the National Opera of Paris
- Director of France Industrie
- Member of the European Round Table for Industry
- Member of the Steering Committee of the Montaigne Institute
- Chairman of the Chamber of Commerce of Brazil in France

Offices that have expired in the last five years

- Director and CEO of Solvay (Belgium) [(1)]
- Director of Faurecia [(1)]
- Director of the International Council of Chemical Associations (ICCA)
- Chairman of the Council of France-Brazil business leaders of Medef International
- Vice-Chairman of the Executive Committee of the World Business Council for Sustainable Development (Switzerland)

Areas of expertise

- Office of Chair or Director of a large company
- General Management
- Industrial sector

(1) Listed company

CATHERINE MACGREGOR

Director

Chief Executive Officer

Attends without being a member the meetings of the Appointments, Compensation and Governance Committee,

Attends without being a member of the Strategy, Investment and Technology Committee,

Attends without being a member of the Ethics, Environment and Sustainable Development Committee.

Age: 49
Nationality: French
First appointment: 05/20/2021
Expiration of term: 2025
Shares held: 30,000 shares
Business address:
ENGIE – 1, place Samuel de Champlain – 92400 Courbevoie

Catherine MacGregor joined the ENGIE group on January 1, 2021, as Chief Executive Officer, having spent her entire career in the energy sector. Catherine MacGregor is a graduate of the Ecole Centrale de Paris (CentraleSupélec).

From 2019 to 2020, she worked for TechnipFMC, where, as head of Technip Energies – which housed the company's engineering activity – and a member of the TechnipFMC Executive Committee, her role involved preparing the public offering of the entity.

Previously, Catherine MacGregor worked at Schlumberger for 23 years, the world's leading provider of reservoir identification, drilling, production and processing technologies for the oil and gas industry. She held various positions in different geographic areas (including the Democratic Republic of the Congo, Scotland and the United States). For example, she was the Head of Operational Divisions (Reservoir Identification, Drilling and Measuring, etc.) and President of the African and European regional divisions. On October 8, 2020, she was appointed as a director of the Board of Directors of the ENGIE Foundation.

Principal activities outside the Company

None

Current offices held

Offices and positions in companies outside the Group

- Advisory member of the Board of Directors of Toulouse School of Economics
- Director of AFEP
- Member of the Executive Committee of the World Business Council for Sustainable Development (Switzerland)
- Director and member of the Board of Directors and office of Entreprises pour l'Environnement

Offices that have expired in the last five years

- Director of the École Centrale Supélec (2015-2019)

Areas of expertise

- General Management
- Industrial sector
- Energy sector

FABRICE BRÉGIER

Director

Member of the Appointments, Compensation and Governance Committee

Age: 60
Nationality: French
First appointment: 05/03/2016
Expiration of term: 2024
Shares held: 500 shares
Business address:
ENGIE – 1, place Samuel de Champlain – 92400 Courbevoie

A graduate of the École Polytechnique, Chief Engineer at the Corps des Mines, Fabrice Brégier began his career at the DRIRE Alsace (Ministry of Industry and Trade), before being appointed Sub-Director of Economic, International and Financial Affairs with the Ministry of Agriculture (Directorate-General for Food) in 1989. After serving as an Advisor to several French Ministers, Mr. Brégier joined Matra Défense in 1993, where he was successively Chairman of Franco-German joint ventures and Director of Stand-Off activities at Matra BAe Dynamics. In 1998, he became CEO of Matra BAe Dynamics. In 2001, he was appointed CEO of MBDA, the leading European missile systems company. Early in 2003, Fabrice Brégier joined Eurocopter, becoming Chairman and CEO in April. In 2005, he was appointed Director of EADS' Eurocopter Division and member of the EADS Executive Committee, then in 2006 was appointed Chief Operating Officer of Airbus and a member of the EADS Executive Committee. From 2012 to 2018, Fabrice Brégier served as Chairman and CEO of Airbus. In September 2018, he became Chairman of Palantir Technologies France, a leading company in the field of Big Data.

Principal activities outside the Company

Chairman of Palantir Technologies France

Current offices held

Offices and positions in companies outside the Group

- Chairman of Palantir Technologies France
- Director of KK Wind Solutions
- Director and member of the Board of Director and member of the Appointments and Compensation Committee of SCOR (1)

Offices that have expired in the last five years

- Chief Operating Officer of Airbus (1) and Chairman of Airbus Commercial Aircraft

Areas of expertise

- General Management
- Digital, innovation, new technologies
- Industrial sector

(1) Listed company

FRANÇOISE MALRIEU

Director

Chair of the Appointments, Compensation and Governance Committee

Member of the Audit Committee

Member of the Ethics, Environment and Sustainable Development Committee

Age: 76
Nationality: French
First appointment: 05/02/2011
Expiration of term: 2023
Shares held: 3,000 shares
Business address:
19, avenue Léopold-II –
Paris 16e

Françoise Malrieu is an expert in finance and governance. A graduate of the HEC School of Management, she launched her career in 1969 in the financial analysis department of BNP, later becoming director of the department. She joined Lazard Frères in 1987, where she led the merger-acquisitions department. As a Manager, then Managing Partner, she participated in a number of operations, particularly the privatization programs. In 2001, she joined Deutsche Bank as Managing Director responsible for the corporate finance activity. She ended her career in banking in 2010. After several years putting her expertise and knowledge of businesses to use in the service of governance, she now actively participates in the study and development of industry best practices. As a member of the executive boards of several associations, she helps businesses and associations work together to implement projects that have a social impact.

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in companies outside the Group

- Director of the La Poste Group
- Director of Lazard Frères Banque

Offices that have expired in the last five years

- Member of the Supervisory Board of Oberthur Technologies
- Member of the Supervisory Board of Bayard Presse SA

Areas of expertise

- Finance
- Office of Chair or Director of a large company
- CSR

ROSS MCINNES

Director

Chairman of the Ethics, Environment and Sustainable Development Committee

Member of the Strategy, Investment and Technology Committee

Member of the Audit Committee

Age: 67
Nationalitie: French and Australian
First appointment: 05/18/2018
Expiration of term: 2022
Shares held: 500 shares
Business address:
SAFRAN –
2, boulevard du Général-Martial-Valin –
Paris 15e

A graduate of the University of Oxford, Ross McInnes began his career in 1977 with Kleinwort Benson in London and then in Rio de Janeiro. In 1980, he joined Continental Bank (which became Bank of America) where he successively held several positions in corporate finance operations, first in Chicago and then in Paris. In 1989, Ross McInnes joined Eridania Beghin-Say, where he was appointed Chief Financial Officer in 1991, and a member of the Board of Directors in 1999. The following year, Ross McInnes joined Thomson-CSF (now Thales) as Senior Vice-President and Chief Financial Officer and worked on the transformation of the Group until 2005. He then joined the PPR Group (now Kering) as Senior Vice-President for Finance and Strategy, then became a member of the Supervisory Board of Générale de Santé in 2006. He temporarily chaired the Management Board of Générale de Santé from March until June 2007. He also holds the positions of Vice-Chairman of Macquarie Capital Europe, specializing primarily in infrastructure investments. In March 2009, Mr. McInnes joined Safran and became Executive Vice President, Economic and Financial Affairs in June of that year. He served as a member of the Safran Management Board from July 2009 to April 2011, then as Deputy Chief Executive Officer until April 2015. On April 23, 2015, he became Chairman of the Safran Board of Directors. Since February of 2015, Ross McInnes has also served as Special Representative for economic relations with Australia, appointed by the Minister of Foreign Affairs and International Development in the context of French economic diplomacy. From November 2016 to November 2019, he was a member of the High Committee on Corporate Governance. In February 2017, he joined SICOM, the general partner of VIVESCIA Industries, as a “qualified person”. In October 2017, the French Prime Minister appointed Mr. McInnes Co-Chairman of the “Public Action 2022” Committee to propose actions to reform public policies. The Committee has since achieved its goals. Since January 2018, Ross McInnes has been a Trustee and Director of the IFRS Foundation. In October 2018, the Prime Minister tasked him with promoting France to British or foreign companies in the non-financial sector located in the United Kingdom. Ross McInnes is also a Director of Eutelsat Communications (1).

Principal activities outside the Company

Chairman of the Board of Directors of Safran (1)

Current offices held

Offices and positions in companies outside the Group

- Chairman of the Board of Directors of Safran (1)
- Director of Eutelsat Communications (1)
- Trustee and Director of the IFRS Foundation

Offices that have expired in the last five years

- Director of Lectra (1)
- Director of Faurecia (1)
- Director of IMI Plc (1) (United Kingdom)

Areas of expertise

- Office of Chair or Director of a large company
- Finance
- Industrial sector

(1) Listed company

MARIE-JOSÉ NADEAU

Director

Chair of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Age: 68
Nationality: Canadian
First appointment: 04/28/2015
Expiration of term: 2023
Shares held: 1,000 shares
Business address:
300, avenue des sommets, App. 1102 Verdun (Québec) – H3E 2B7 (Canada)

Marie-José Nadeau is an expert on the energy sector. She is an honorary Chair of the international organization World Energy Council, which she chaired from 2013-2016, after being Director during fifteen years.

A trained attorney who holds a Master's degree in public law from the University of Ottawa, she assumed strategic functions in the Canadian and Quebec governments before serving as Secretary General and Executive Vice-President for Corporate Affairs at Hydro-Québec (Canada).

She is Director of TRANSMOUNTAIN Corporation, a Canadian company that operates and is developing an important network of pipelines in Western Canada and the United States and Director of the Electric Power Research Institute (United States), an international R&D organisation specialized in innovative technologies related to the power and environment sectors.

In 2009, she was awarded the title of Advocatus Emeritus by the Quebec Bar for her contribution to the legal profession. In 2016, she was received as a member of the Order of Canada in recognition for her commitment to education and the environment.

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in companies outside the Group

- Director of TRANSMOUNTAIN Corporation (Canada)
- Director of the Electric Power Research Institute (United States)

Offices that have expired in the last five years

- Chair of the World Energy Council (United Kingdom)
- Secretary General and Executive Vice-President, Corporate Affairs at Hydro-Québec (Canada)
- Director of the Montreal Symphony Orchestra and Churchill Falls and Labrador Corporation Limited (Canada)
- Chair of the Advisory Council of the Electric Power Research Institute (United States)
- Director of Metro Inc. (1) (Canada)

Areas of expertise

- Energy sector
- Office of Chair or Director of a large company
- Executive Board

(1) Listed company

LORD PETER RICKETTS OF SHORTLANDS

Director

Member of the Appointments, Compensation and Governance Committee

Age: 69
Nationality: British
First appointment: 05/03/2016
Expiration of term: 2024
Shares held: 750 shares
Business address:
ENGIE – 1, place Samuel de Champlain – 92400 Courbevoie

A graduate of Oxford University, with a Master of Arts in English Literature from Pembroke College, Honorary DLC from the University of Kent and Honorary LLD from the University of Bath, Lord Peter Ricketts of Shortland began his career in 1974 at the Foreign and Commonwealth Office (FCO). In 1975, he was assigned as a Political Attaché in Singapore, and then served as the UK's Permanent Representative to NATO in Brussels, before joining the FCO. At the FCO, he served as the Assistant Private Secretary to former Foreign Secretary Sir Geoffrey Howe in 1983, First Secretary at the British Embassy in Washington (United States) in 1985, Division Chief in Hong Kong in 1990, Advisor for European and Economic Affairs at the British Embassy in France in 1995, and Deputy Director of Policy in 1997. In 2000 he was appointed Chairman of the Joint Intelligence Committee, then in 2001 he was named Policy Director of the FCO. From 2003 to 2006 he was Permanent Representative of the United Kingdom to NATO. In 2006, he became Secretary General of the FCO, and in 2010 he was named National Security Advisor of the United Kingdom. Finally, from 2012 to January 2016, he was the United Kingdom's Ambassador to France and Monaco. In October 2016, he was appointed to the House of Lords.

Principal activities outside the Company

Chairman of the Franco-British Council
Member of the House of Lords, London (United Kingdom)
Vice-Chair, Royal United Services Institute, London (United Kingdom)
Member, Royal Academy

Current offices held

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

- Strategic Consultant, Lockheed Martin (UK)

Areas of expertise

- Geostrategic challenges
- Public sector
- Social dialog/human resources

Director representing the French State, appointed by decree (1)

Director from the public sector

STEPHANIE BESNIER

Director representing the French State, appointed by decree

Member of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Member of the Appointments, Compensation and Governance Committee

Age: 44
Nationality: French
First appointment: 05/19/2021
Expiration of term: 2025
Shares held: 0 share
Business address:
Agence des Participations de l'État
139, rue de Bercy 75572 –
Paris Cedex 12

Stéphanie Besnier holds a postgraduate degree (DEA) in Economic Policy and Analysis, is a former student of the Ecole Polytechnique (1997) and a graduate of the Ecole Nationale des Ponts et Chaussées. She started her professional career in 2001 as an analyst at BNP Paribas London, then in 2003 at the Treasury Department (Ministry of Economy and Finance) as assistant to the head of the Multilateral Affairs Office, in charge of Latin American countries. In 2004, she was in charge of railway companies at the Agence des Participations de l'Etat. In 2007, she joined the investment holding company Wendel as business manager, then investment director (2010), director (2014) and senior director (2016). In 2018, she was appointed Associate Director, co-head of the investment activity in Europe and in charge of venture and late stage investments.

Since May 1, 2021, she has been Deputy Chief Executive of the Agence des participations de l'Etat.

Principal activities outside the Company

Deputy Chief Executive of the APE

Current offices held

Offices and positions in companies outside the Group

- Director of SAFRAN (1) as a representative of the French State
- Director of ORANGE (1) as a representative of the French State

Offices that have expired in the last five years

- Director of Bureau Veritas (1)
- Director of IHS Towers

Areas of expertise

- Office of Chair or Director of a large company
- Public sector
- Finance

(1) Listed company

Directors elected by the Shareholders' Meeting on the recommendation of the French State (2)

PATRICE DURAND

Director elected by the Shareholders' Meeting on the recommendation of the French State

Member of the Strategy, Investment and Technology Committee

Age: 68
Nationality: French
First appointment: 12/14/2016
Expiration of term: 2023
Shares held: 1,500 shares
Business address:
22, avenue Théophile-Gautier – Paris 16e

A graduate of the Ecole Polytechnique and of the Ecole Nationale d'Administration, Patrice Durand began his career in 1978 as Sub-Prefect, Director of the office of the Prefect of Eure-et-Loir and then the Haute-Normandie region in 1979. From 1981 to 1994, he served successively as head of mission in the Directorate-General of Administration at the Ministry of the Interior, Deputy Secretary-General and Secretary-General of the Paris Club; Head of the Office of Energy, Transport, and Mines and Secretary of the Economic and Social Development Fund, Head of Capital Goods and Other Investments and Deputy Director of Treasury Management. In 1994, he became Executive Vice President, then in 1995, Deputy CEO in charge of economic and financial affairs at Air France. From 1999 onwards, he was a member of the Executive Committee, in charge, among other things, of the finances of the Central Risk Management, General Inspection, Legal Affairs, Asset Management, IT and Processing departments, before becoming Deputy CEO of the Crédit Lyonnais Group in 2002. In 2003, he was also named Director of Operations and Logistics and a member of the Executive Committee of Crédit Agricole SA. In 2005, he joined Thales as Deputy CEO in charge of finance and administration. From 2012 to 2015, he was Deputy CEO in charge of finance and operations at the Ingenico Group. Since 2016, he has served as a Director of French and foreign companies.

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

- Member of the Supervisory Board of Global Collect Services BV and GCS Holding BV (Netherlands)
- Director of Ingenico Holdings Asia (Hong Kong) and Fujian Landi Commercial Equipment Co. Ltd (China)

Areas of expertise

- Finance
- Industrial sector
- Services sector

MARI-NOËLLE JÉGO-LAVEISSIÈRE

Director elected by the Shareholders' Meeting on the recommendation of the French State

Member of the Ethics, Environment and Sustainable Development Committee

Age: 53
Nationality: French
First appointment: 04/28/2015
Expiration of term: 2023
Shares held: 500 shares
Business address:
ORANGE - 111, quai du Président-Roosevelt - 92130 Issy-les-Moulineaux

A graduate of the École Normale Supérieure in Paris, Mari-Noëlle Jégo-Laveissière is also an engineer of the Corps des Mines. She began her career in 1996 in the Distribution Network Department of France Télécom's Paris Regional Department. She then held other management positions within the group known as Orange since July 1, 2013, particularly in Marketing, Research and Development, and International Networks and Businesses. Mari-Noëlle Jégo-Laveissière, Executive Director of Innovation, Marketing and Technology and member of the Executive Committee of the Orange Group since March 2014, was appointed Deputy CEO of the Orange Group, Chief Technology and Innovation Officer on May 2, 2018.

Since September 1, 2020, she is Deputy CEO of Orange in charge of Europe (outside France).

Principal activities outside the Company

Deputy CEO of Orange in charge of Europe (outside France)

Current offices held

Offices and positions in companies outside the Group

- Deputy CEO of the Orange Group [(1)], in charge of Europe (outside France)
- Director of Valéo [(1)]
- Director of NoWCP
- Director of Orange Romania, Orange Poland, Orange Belgium, Orange Spain, Orange Bank

Offices that have expired in the last five years

- Director of Agence Nationale des Fréquences (ANFR),
- Director of Soft@Home,
- Director of Viaccess

Areas of expertise

- Digital, innovation, new technologies
- Services sector
- CSR

(1) Listed company

Directors elected to represent employees (3)

CHRISTOPHE AGOGUÉ

Director elected by employees, sponsored by the Federation of the Gas and Electricity Industries – CFE-Énergies trade union

Member of the Audit Committee

Age: 60
Nationality: French
First appointment: 05/18/2018
Expiration of term: 2022
Shares held: 125 shares
Business address:
GRDF – 6, rue Condorcet – Paris 9e

Christophe Agogué is an HEC graduate with a specialization in finance. In 1986, he joined EDF where he was responsible for negotiations with COGEMA on the reprocessing of used fuel. After a period in the management office, he was responsible for managing and then served on the Management Board of the subsidiary Nersa, in charge of the Superphénix reactor. In 2001, he moved to Gaz de France where he led the real estate department and participated in the operations to buy back the transport network from the French State, and in the first studies on the regulation of infrastructure activities. Having joined GRDF at its inception, he works on the construction of several transmission tariffs. He has held union positions on behalf of CFE-Énergies since 2009. He will be the union representative to the Central Works Committee of GRDF and to the ENGIE France Group Committee and is the secretary for his local Works Committee.

Principal activities outside the Company

GRDF [(1)] employee responsible on Regulation Economy Department
Author of essays, novels and plays

Current offices held

Offices and positions in Group companies

- Director of ENGIE Rassembleurs d'Energies [(1)]

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

Areas of expertise

- Finance
- Social dialog/human resources
- Energy sector

(1) ENGIE group

ALAIN BEULLIER

Director elected by employees, sponsored by the Chemical Energy Federation – CFDT trade union

Member of the Appointments, Compensation and Governance Committee

Age: 57
Nationality: French
First appointment: January 21, 2009
Expiration of term: 2022
Shares held: 51 shares
Business address:
ELENGY – Zone portuaire, BP 35 – Montoir-de-Bretagne (44550)

Alain Beullier joined EDF GDF in 1984, holding various positions in the Customer Service and Sales Advisory departments in several EDF GDF services centers in the Paris region. Currently an employee of Elengy, responsible for monitoring environmental regulation, Alain Beullier was named Director representing the "Other Employees" category by employee vote on December 18, 2008, was re-elected on March 14, 2014 and on March 15, 2018. Alain Beullier holds a corporate director's certificate issued by Sciences Po Executive Education and the Institut Français des Administrateurs, class of 2016.

Principal activities outside the Company

Elengy [1] employee responsible for the monitoring of environmental regulations

Current offices held

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

Areas of expertise

- CSR
- Energy sector
- Social dialog/human resources

(1) ENGIE group

PHILIPPE LEPAGE

Director elected by employees, sponsored by the National Federation of Mines and Energy – CGT trade union

Member of the Strategy, Investment and Technology Committee

Age: 57
Nationality: French
First appointment: 04/28/2014
Expiration of term: 2022
Shares held: 287 shares
Business address:
ELENGY – Zone portuaire, BP 35 – Montoir-de-Bretagne (44550)

Recruited in 1982, Philippe Lepage was High-voltage Maintenance Technician from October 1982 to July 2002, and Chemical Production Supervisor from July 2002 to January 2009. Since January 2009, he has been Assistant Shift Supervisor at the LNG terminal at Montoir-de-Bretagne. Philippe Lepage was named Director representing the "Other Employees" category by employee vote on March 14, 2014 and was re-elected on March 15, 2018.

Principal activities outside the Company

Elengy employee [1] attached to the General Secretariat

Current offices held

Offices and positions in Group companies

- Director representing employees of Elengy [1] elected by employee vote on May 25, 2009, re-elected on October 14, 2014 and on February 8, 2021

Offices and positions in companies outside the Group

- Member of the French Gas Association, representing employees for the CGT union to the Gas Sectoral Social Dialog Committee of the European Commission and a member of the Business Line Strategy Committee on "New Energy Systems" and of the Skills Working Group

Offices that have expired in the last five years

None

Areas of expertise

- Digital, innovation, new technologies
- Energy sector
- Regulatory environment

(1) ENGIE group

Director elected by the Shareholders' Meeting to represent employee shareholders (1)

JACINTHE DELAGE

Director elected by the Shareholders' Meeting to represent employee shareholders, on the recommendation of the Link France mutual fund (FCPE), and sponsored by the Group's Association of Employee and Former Employee Shareholders (AG2S)

Member of the Ethics, Environment and Sustainable Development Committee

Age: 45
Nationality: French
First appointment: 05/20/2021
Expiration of term: 2025
Shares held: 725 shares and 1,100 shares rights through various performance share plans
Business address:
ENGIE – 1, place Samuel de Champlain – 92400 Courbevoie

Jacinthe Delage has post-graduate degrees in economic and environmental law and holds an administrator's certificate from ESSEC. After working in companies such as Novergie and Neuf Cegetel as an attorney, she joined ENGIE Cofely in April 2007 as a business development attorney in the South-West region. She then held various successive legal positions within the Group between February 2009 and January 2016 in the CPCU, the Corporate Competition and Regulation department and the General Secretariat of the France BtoB BU. Since November 2018, she has been Head of the Legal Department of ENGIE Réseaux which specializes in heating and cooling networks in France at ENGIE Solutions. She has also been the Ethics Officer there since September 2020.

In 2021, she became the representative of AG2S list unitholders on the Supervisory Board of the Link France mutual fund (FCPE).

Principal activities outside the Company

Employee of ENGIE Energie Services (1), as head of the Legal Department of the Ile de France region for the Main Networks and Mobility (MNM) entity, head of the legal support team for the heating and cooling networks businesses within MNM

Current offices held

Offices and positions in Group companies

- Member of the Management Committee of SAS GéoMarne (1)
- Member of the Management Committee of the Ile de France and Nord regions of ENGIE Solutions (1) - Major Infrastructure and Mobility

Offices that have expired in the last five years

- None

Areas of expertise

- Energy sector
- Public sector
- Regulatory environment

(1) ENGIE group

4.1.1.2 Government Commissioner

In accordance with Article L.111-70 of the French Energy Code, the Minister of Energy appoints a Government Commissioner to the Company who attends meetings of the Board of Directors and the committees in an advisory capacity and may present his/her observations to any Shareholders' Meeting.

Laurent Michel, appointed by ministerial order dated November 13, 2014, holds this position. By ministerial order of the Minister for Ecological Transition dated July 15, 2021, Alice Vieillefosse was appointed Substitute Government Commissioner as of September 1, 2021, replacing Phillipe Geiger, who had been appointed to that role by ministerial order dated March 2, 2021 and who had taken up his role on March 15, 2021.

4.1.1.3 Representative of the Social and Economic Committee

Pursuant to Articles L.2312-72 et seq. of the French Labor Code, one full member of the Social and Economic Committee, appointed by the latter, attends all meetings of the Board of Directors in an advisory capacity. Hamid Aït Ghezala holds this position.

4.1.1.4 Absences of conflict of interest or conviction

The Chairman draws the attention of the Board to any conflicts of interest that he has identified, or of which he has been made aware, relating, if applicable, to the Chief Executive Officer or the members of the Board of Directors. He reviews any potential conflicts of interest and agreements disclosed pursuant to Article 1.12 of the Internal Regulations of the Board of Directors.

In addition to the provisions of the French Commercial Code which govern related-party agreements, the Directors' Charter (see Section 4.1.2.1 "Chairmanship and Organization") stipulates that each Director must make every effort to avoid any conflict that may exist between his/her moral and material interests and those of the Company, must inform the Board of any conflict of interest in which he/she may be directly or indirectly involved and, where he/she cannot avoid the conflict of interest, must abstain from discussions and voting on any decision concerning such matters.

To ENGIE's knowledge, there are no potential conflicts of interest between the Directors' duties with regard to ENGIE and their private interests and/or other duties.

There are no family ties among the Directors.

To ENGIE's knowledge, during the past five years, none of the Directors or executives of ENGIE has been convicted of fraud, served as manager in a bankruptcy, receivership, liquidation or administration situation, been subject to legal proceedings brought and/or official public sanction issued by a statutory or regulatory authority, or been prevented by a court from serving as a member of the management body or supervisory board of an issuer, nor from participating in the management or oversight of the business of an issuer.

Furthermore, no loans or guarantees have been granted to, or on behalf of, members of the Company's board or management.

4.1.1.5 Independence of Directors in office

Article 1.1.2 of the Internal Regulations requires the Board to review the independence of each of its members, based on criteria determined by the Board. This review must be conducted annually, prior to the Shareholders' Meeting held to approve the financial statements for the previous fiscal year. The process for assessing the independence of each Director was performed by the ACGC at its meeting of January 24, 2022, and then by the Board of Directors at its meeting of February 14, 2022.

Both bodies reviewed the status of each Director on a case-by-case basis with respect to the Afep-Medef Code to which they refer.

It is specified that the following Directors, who were appointed as a result of legal or statutory obligations, cannot be deemed independent:

- Stéphanie Besnier, Director representing the French State, appointed, by Article 4 of Ordinance 2014-948 of August 20, 2014, as well as Patrice Durand and Mari-Noëlle Jégo-Laveissière, Directors elected by the Shareholders' Meeting on the recommendation of the State, pursuant to Article 6 of Ordinance 2014-948 of August 20, 2014;
- Alain Beullier, Philippe Lepage and Christophe Agogué, Directors representing employees pursuant to Articles L.22-10-6 et seq. of the French Commercial Code; Jacinthe Delage, Director representing employee shareholders, pursuant to Article L.22-10-5 of the same code.

Six Directors are considered independent (see also Section 4.1.1.1 "Profiles, experience and expertise of the Directors in office"). This means that the percentage of Independent Directors is 60%, it being specified that, pursuant to the Afep-Medef Code, the number of Directors representing employees and employee shareholders is not counted in the calculation of the percentage of Independent Directors.

Independence of the Directors under the independence criteria set forth in section 9 of the Afep-Medef Code

	Independent (I) Not independent (NI)	Corporate employee during the previous 5 years	Cross-director-ships	Significant business relations	Family ties	Statutory Auditor	Term of office longer than 12 years	Status of non-executive corporate officer	Status of major shareholder
Jean-Pierre Clamadieu	I								
Catherine MacGregor	NI	✗							
Fabrice Brégier	I								
Françoise Malrieu	I								
Ross McInnes	I								
Marie-José Nadeau	I								
Lord Peter Ricketts of Shortlands	I								
Stéphanie Besnier	NI								✗
Patrice Durand	NI								✗
Mari-Noëlle Jégo-Laveissière	NI								✗
Christophe Agogué	NI/NA (1)	✗							
Alain Beullier	NI/NA (1)	✗					✗		
Philippe Lepage	NI/NA (1)	✗							
Jacinthe Delage	NI/NA (1)	✗							

✗ = Independence criterion not met

(1) Pursuant to the Afep-Medef Code, the number of Directors representing employees or employee shareholders is not taken into account in calculating the percentage of Independent Directors

Criterion 1: Corporate employee during the previous five years

The director must not be or have been during the previous five years:

- *an employee or executive corporate officer of the Company;*
- *an employee, executive corporate officer or Director of a company consolidated by the Company;*
- *an employee, executive corporate officer or Director of the parent company of the Company or of a company consolidated by said parent company.*

Criterion 2: Cross-director-ships

The director must not be an executive corporate officer of a company in which the Company directly or indirectly holds the office of Director, or in which an employee designated as such or an executive corporate officer of the Company (current or within the last five years) holds the office of Director.

Criterion 3: Significant business relations

The director may not be a significant customer, supplier, business banker, financing banker, consultant:

- *of the Company or its Group;*
- *or for whom the Company or its Group represents a significant share of the business.*

The assessment of the significant nature (or not) of the relationship with the Company or its Group is debated by the Board, and the quantitative and qualitative criteria that led to this assessment (continuity, economic dependence, exclusivity, etc.) are explained in the annual report.

Criterion 4: Family ties

The director has no close family ties with a corporate officer.

Criterion 5: Statutory Auditor

The Director has not been the Statutory Auditor of the Company during the previous five years.

Criterion 6: Term of office longer than 12 years

The Director has not served for more than 12 years. The status of independent Director is lost on the twelve-year anniversary date.

Criterion 7: Status of non-executive corporate officer

A non-executive corporate officer may not be considered independent if he or she receives variable remuneration in cash or securities or any remuneration related to the performance of the Company or the Group.

Criterion 8: Status of major shareholder

Directors representing major shareholders of the Company or its parent company may be considered independent when such shareholders do not exercise control over the Company. However, if a director exceeds a threshold of 10% of the capital or voting rights, the Board, based on a report by the Appointments Committee, systematically reviews the independent status of the director(s) concerned, taking into account the structure of the Company's capital and whether or not potential conflicts of interest exist.

4.1.1.6 Multiple Directorships

The number of offices held by the directors in listed companies outside the Group, including foreign companies, was assessed as of February 14, 2022, in accordance with the recommendations Article 19 of the Afep-Medef Code, which stipulates that: *"An executive corporate officer may not hold more than two other offices as a Director in listed companies outside his/her group, including foreign companies. A Director may not hold more than four other offices in listed companies outside the group, including foreign companies."*

	Number of offices held in external listed companies [(1)]	Compliance with the Afep-Medef Code
Jean-Pierre Clamadieu	2	✓
Catherine MacGregor	0	✓
Fabrice Brégier	1	✓
Françoise Malrieu	0	✓
Ross McInnes	2	✓
Marie-José Nadeau	0	✓
Lord Peter Ricketts of Shortlands	0	✓
Stéphanie Besnier	2	✓
Patrice Durand	0	✓
Mari-Noëlle Jégo-Laveissière	1	✓
Christophe Agogué	0	✓
Alain Beullier	0	✓
Philippe Lepage	0	✓
Jacinthe Delage	0	✓

(1) According to the criteria of the Afep-Medef Code

4.1.1.7 Diversity policy for members of the Board of Directors

The Board of Directors works to promote diversity on the Board in terms of the professional qualifications and experience, gender, nationality and age of its members.

With regard to the professional qualifications and experience of the Directors, the objective of the Board is to ensure that its composition is adequate for ENGIE's activities, challenges and strategic plans, thereby contributing to the quality of the decisions made.

Following discussions with investors in 2019, the Board of Directors decided, on the recommendation of the ACGC, to change the way in which information about Directors is provided to the market, taking a more individual approach centered exclusively on the key areas of expertise of each Director.

Information on three key areas of expertise is provided for each Director, based on his or her professional qualifications and experience. These are set out in the table below and under each of their biographies.

With respect to the proportion of women and men, the legal requirement for 40% of Board members to be women and 40% to be men has been met. The proportion of women on the Board as of February 14, 2022 is 50%[(1)].

Four nationalities are represented by the 14 Directors (Australian, British, Canadian and French).

Finally, in terms of age, the Board has only one Director aged over 70. The applicable legal requirement, in the absence of a specific provision in the bylaws, is therefore satisfied i.e. Directors over the age of 70 do not make up more than one third of the Directors in office.

(1) Pursuant to the applicable rules of the French Commercial Code and the Afep-Medef Code, in assessing the ratio of women to men and the percentage of independent Directors on Boards of Directors, the law stipulates that Directors representing employees or employee shareholders are not counted

Individual key areas of expertise of Directors

List of areas of expertise	General Management	Office of Chair or Director of a large company	CSR	Finance	Digital, innovation, new technologies	Social dialog Human Resources	Energy sector	Services sector	Industrial sector	Public sector	Geostrategic issues	Regulatory environment
Jean-Pierre Clamadieu	✓	✓							✓			
Catherine MacGregor	✓						✓		✓			
Fabrice Brégier	✓				✓				✓			
Françoise Malrieu		✓	✓	✓								
Ross McInnes		✓		✓					✓			
Marie-José Nadeau	✓	✓					✓					
Lord Peter Ricketts of Shortlands						✓				✓	✓	
Stéphanie Besnier		✓		✓						✓		
Patrice Durand				✓				✓	✓			
Mari-Noëlle Jégo-Laveissière			✓		✓			✓				
Christophe Agogué				✓		✓	✓					
Alain Beullier			✓			✓	✓					
Philippe Lepage					✓		✓					✓
Jacinthe Delage							✓			✓		✓

4.1.2 Functioning of the Board of Directors

4.1.2.1 Chairmanship and organization

The operating procedures of the Board of Directors are defined in Article 14 of the bylaws. Its organizational procedures are set out in Article 1 of the Board of Directors' Internal Regulations, which specify the ways and means by which the Board can operate efficiently on behalf of the Company and its shareholders, as well as the responsibilities incumbent on each Director.

The Board of Directors meets as often as the Company's interests require and, in accordance with its Internal Regulations, at least six times a year, including at least once each quarter. Board of Directors' meetings may be held via any means of videoconference or telecommunication that allows Directors to be identified and ensures their effective participation.

Board meetings are also attended by the Government's Commissioner and the representative of the Central Social and Economic Committee, who have an advisory role, and by the General Secretary and the Secretary to the Board of Directors.

Once a year, the Board of Directors carries out a self-assessment under the guidance of the ACGC; at least every two years, this assessment is carried out externally.

Also once a year, without the presence of the CEO and those Directors who have an employment contract with a Group company, the Chairman convenes a meeting of directors to assess the CEO's performance. The Chairman informs the members of the Board about the convocation of these meetings. The Chairman may invite Employee Directors to take part in all or part of these meetings.

The Secretary of the Board of Directors provides administrative services to the Board and records the minutes of its meetings.

Under Article 13.6 of the bylaws, all Directors must own at least fifty (50) shares in the Company, unless an exemption has been granted under the applicable laws or regulations. On the recommendations of the ACGC, this bylaw obligation was strengthened in the Internal Regulations by an obligation for each Director to hold a minimum of 500 shares, unless exempted by legal or regulatory provisions.

This obligation must be met no later than twelve (12) months after joining the Board of Directors. This requirement does not apply to Directors ratified or elected by the Shareholders' Meeting on the recommendation of the French State, the Director representing the French State, the Directors representing the employees or the Director representing employee shareholders (the number of shares personally owned by the Directors is provided in Section 4.1.1.1 above).

The appendices to the Internal Regulations include the Directors' Charter and the Code of Conduct, which set out the rights and duties of each Director.

The Directors' Charter includes the rules relating to Directors' terms of office, compliance with the company's interests, the laws and bylaws, independence criteria, duty of expression, conflicts of interest, professionalism, involvement and effectiveness.

Directors undertake to devote the necessary time and attention to their duties. They must stay informed of the activities and the specifics of the Company, its issues and values, including by talking with principal officers. They must assiduously and diligently attend Board meetings.

The individual attendance rates of the Directors for meetings of the Board and its committees are set out in Section 4.1.2.6 "Attendance by Directors at meetings of the Board of Directors and its committees in 2021" below.

The Code of Conduct sets out the rules governing trading in the Company's securities and the offense of insider trading applicable to Directors, corporate officers and all employees. It expresses the Company's desire to ensure prudent management of its securities, and to comply and ensure others' compliance with current regulations governing securities transactions carried out by corporate officers and employees.

In addition to the foregoing, the Regulations for Employee Directors, approved by the Board of Directors at its meeting of December 9, 2009, lay down conditions under which Directors representing employees are to exercise their duties.

The Chairman of the Board of Directors:

- organizes and directs the work of the Board, and reports on this to the Shareholders' Meeting;
- chairs the Board's meetings, oversees deliberations, ensures compliance with the Internal Regulations, and may suspend the session at any time;
- upholds the quality of dialog and ensures that the Board's decisions are made on a collective basis;
- makes sure that the Board spends enough time on discussions and allots time to each of the items on the agenda in proportion to the importance that each issue represents for the Company. The Directors ensure, collectively, that the time allotted to each of them to express their views is evenly balanced;
- pays particular attention to ensuring that the issues raised on the agenda receive an appropriate response;
- ensures that the Board and its committees function properly, assisting them and submitting questions to them for opinions;
- ensures that the principles of good governance are applied (particularly that Directors have the information they need to carry out their duties, sufficiently in advance and in a clear and appropriate form);
- ensures that the Shareholders' Meetings that he/she chairs are properly organized;
- answers shareholders' questions and, more generally, ensures that good relations are maintained with shareholders. If necessary, he/she provides assistance in responding to the requests of shareholders not represented on the Board, and makes him or herself available to meet with them and listen to their comments and suggestions (see also Section 4.2 "Dialog with shareholders").

In consultation with the Chief Executive Officer, the Chairman of the Board is also responsible for:

- organizing the strategic work of the Board and monitoring the preparation and implementation of succession plans for the members of the Group Executive Committee;
- representing the Group at a high level with national and international bodies in the interest of the Group.

The Chairman also:

- devotes his/her best efforts to promoting the Group's values and image in all circumstances;
- keeps the members of the Board informed, as necessary, between two meetings;
- is the only person authorized to speak and act on the Board's behalf;
- draws the attention of the Board to any conflicts of interest that he/she has identified, or of which he/she has been made aware, concerning, where applicable, the Chief Executive Officer or the members of the Board of Directors. He/she reviews any potential conflicts of interest and agreements disclosed pursuant to Article 1.12 of the Internal Regulations of the Board of Directors;
- participates in the organization of the periodic self-assessment of the Board conducted by the ACGC, as well as discussions on governance issues relating to the Board's operating procedures.

The Board may assign information or consultation missions to the Chairman on specific subjects within the Board's purview.

The Chairman works in coordination with the CEO, who has responsibility for Group administration and operational management.

As well as exercising the powers conferred on him/her by law, he/she may be consulted by the executive management team on any matter relating to the conduct of the business.

The Chairman is kept regularly informed by the CEO about significant events in the life of the Group, particularly with regard to strategy, organization, investment and disinvestment. At the CEO's invitation, the Chairman may attend internal meetings with the Company's managers and teams to provide his/her point of view on strategic issues.

If he or she is unable to serve, the Chairman is replaced, pursuant to Article 1.3.1 of the Internal Regulations, by a Vice-Chairman or, if that is not possible, by the Chief Executive Officer if the CEO is a Director or, if not, by another Director chosen by the Board at the beginning of the meeting.

4.1.2.2 Tasks of the Board of Directors

The Board of Directors, on a collective basis, determines the Company's business strategy and oversees its implementation. Subject to the applicable laws and regulations and the Company bylaws, it determines the supervisory framework of General Management. It also exercises the following powers:

- appointing the executive corporate officers;
- dealing with all matters concerning the smooth running of the Company and, through its decisions, managing the Company's business;
- working to promote long-term value creation by the company by taking into consideration the social and environmental challenges of its activities;
- ensuring that shareholders and investors receive relevant, balanced and educational information about the Company's strategy and development model, the handling of significant non-financial issues and the Company's long-term prospects;
- performing any checks and verifications it considers appropriate;
- reviewing, at least once a year:
  - the budget,
  - the Group's industrial strategy,
  - the Group's financial strategy,
  - market trends, the competitive context and principal challenges, including in the area of the Group's social and environmental responsibility,
  - the professional and salary equality policy.

The Chief Executive Officer is vested with the broadest powers to act in all circumstances in the name of the Company and represents the Company in its relations with third parties. However, certain significant operations are subject to prior authorization by the Board of Directors, such as the following operations:

- acquiring or divesting any of the Company's direct or indirect interests in any company formed, or to be formed, taking an interest in the formation of any company, joint venture, consortium or body or subscribing to any issue of shares, share equivalents or bonds in which the Company's or the Group's financial exposure exceeds €250 million for the transaction in question;
- becoming involved in asset contribution or exchange transaction, with or without a cash balance, relative to goods, securities, stocks or bonds for an amount exceeding €250 million;
- entering into supply, works or service contracts (with the exceptions of contracts related to long-term energy purchase transactions), including successive amendments thereto, if any, for an amount exceeding €400 million;

- resolving disputes by way of agreement, settlement or arbitration decision for an amount exceeding €200 million;
- entering into long-term energy purchasing plans on behalf of the Group that involves quantities, per transaction, in excess of:
  - 30 billion kWh of gas per year, including the terms of transmission,
  - 20 billion kWh of electricity per year, including the terms of transmission;
- entering into significant transactions beyond the scope of the Company's stated strategy;
- for an amount exceeding €200 million;
- entering into the following transactions for an amount exceeding €1.5 billion:
  - granting or contracting any loans, borrowings, credit or cash advances by the Company, or authorizing any Group subsidiary or financing medium for this purpose,
  - acquiring or assigning any receivables, by any method,
  - entering into significant agreements with the French State relating to the objectives and terms and conditions of implementation of public service assignments entrusted to the Company or its subsidiaries, within the limits set by law.

Each year, the Board of Directors authorizes the Chief Executive Officer to issue guarantees, other securities and bonds for amounts determined by the Board of Directors.

4.1.2.3 Work of the Board of Directors

13	14	100%
MEETINGS	DIRECTORS	PARTICIPATION

The Board of Directors of ENGIE met 13 times in 2021, with an attendance rate of 100%. The average individual attendance rate at meetings of the Board of Directors and the committees for 2021 is indicated, for each director, in Section 4.1.2.6 “Attendance by Directors at meetings of the Board of Directors and its committees in 2021”.

The agenda of Board meetings is established by the Chairman in consultation with the Chief Executive Officer. The objective is to prioritize discussions for issues which, under the Group's governance principles and pursuant to the texts in force, such as the Internal Regulations, involve a decision.

Each meeting begins with one item devoted to health and safety, followed by a review of the Group's position (business performance).

Meetings of Directors with no executive functions at the Company (so-called “executive sessions”) very regularly take place after Board meetings. The subjects raised vary; if necessary, they will be reported to the Chief Executive Officer.

Main activities in 2021

Group strategic planning and monitoring of its operations:

- repositioning of ENGIE for long-term and sustainable growth by focusing on Renewables and Infrastructure to support its customers' decarbonization;
- operational implementation of new strategic guidelines;
- continuation of geographical refocusing;
- full exit from nuclear by 2025 and discontinuation of Long Term Operation (LTO) work;
- preparation and follow-up for the Board's annual strategic planning seminar (see box);
- implementation of a specific system to achieve the Group's objectives in the offshore wind market;
- adjustment of the way in which the internal rate of return is calculated within the context of the acceleration of investments in renewables.

Investments and sales of assets:

- review of a series of investment and divestment projects requiring a decision by the Board, including:
  - the sale process for EQUANS entered into in the autumn with an undertaking to purchase signed by Bouygues;,
  - the sale of the 60.5% stake in ENGIE EPS SA to the Taiwanese company TCC,
  - the sale of 11.5% of GRTgaz to the Caisse des Dépôts and to CNP Assurances,
  - the sale of ENDEL to the Altrad Group, and
  - the partial withdrawal from Gaztransport & Technigaz (GTT).

Strategic planning seminar

The members of the Board of Directors met at their annual strategic planning seminar and discussed developments in the sector as well as the expectations of the Group's stakeholders. Six months after its launch, they have taken a step forward with the Group's strategic road map, having shared the findings of strategic workshops held on the future of gas infrastructure, ambitions for electricity infrastructure internationally and for retail energy supply, and on the Group's research and innovation model. They also conducted a more comprehensive review of the Group's activities and exposure in Brazil.

Finance, audit and risks:

- approval of the separate and consolidated financial statements, proposed allocation of earnings and their draft press releases;
- dividend policy and guidance;
- approval of the provisional management documents;
- approval of the budget and medium-term business plan;
- renewal of the annual authorizations granted to the Chief Executive Officer to issue bond loans and to issue guarantees and other securities;
- refinancing of the syndicated credit line maturing in 2022;
- 2021 risk review.

Governance, appointments and compensation:

- information on the composition of the Executive Committee, roll-out of the new organization;
- lessons to be learned from the dialog between the Chairman and the shareholders, investors and proxy advisors, particularly in the context of governance roadshows;
- preparation for the Combined Shareholders' Meeting and responses to written questions from shareholders;
- diversity, expertise and independence policy for Directors in office;
- elections of Directors representing employees;
- appointments to the Board committees;
- the report on the Chairman of the Board's term of office;
- assessment of the functioning of the Board;
- the employee shareholding policy and future plans;
- compensation for corporate officers;
- performance share plans.

Corporate Social Responsibility:

- CSR objectives: carbon neutrality and trajectory, exit from coal and customer decarbonization;
- examination of the adequacy of investment projects vis-a-vis each of the Group's CSR criteria, thus taking into account social, ethical and climatic challenges;
- professional and salary equality policy;
- declaration on modern slavery provided under UK regulations;
- internal CSR reports.

Executive sessions

Meetings of Directors with no executive functions take place very regularly after Board meetings. These executive sessions discuss various issues beyond simple assessment of executive corporate officers' performance.

The Audit Committee and the ACGC are systematically preceded, or followed, by a meeting of their members, without management present. Members of the EESDC meet once a year without management to discuss the functioning of the committee and matters that its members would like it to address.

Training

In 2021, Directors received two group training sessions which took the form of theme-based information sessions. The first focused on the decommissioning of Belgian nuclear power plants (context, industrial, organizational and social aspects, regulatory framework). The second dealt with the activities of the Global Energy Management (GEM) BU (overall activity of the BU, risk management systems, financial results and main GEM issues to be considered in ENGIE strategy).

In addition to the bespoke training program provided to all new Directors, the Company regularly holds individual training sessions at the request of the Directors.

In 2022, there are plans to hold further information sessions for Directors. The first session will be on energy scenarios, and the second on Corporate Social Responsibility and non-financial reporting. The other topics have not yet been determined.

4.1.2.4 Committees

Four standing committees assist the Board of Directors:

- the Audit Committee;
- the Strategy, Investment and Technology Committee;
- the Appointments, Compensation and Governance Committee, and
- the Ethics, Environment and Sustainable Development Committee.

Each committee is chaired by an Independent Director.

These committees are tasked with studying matters of concern to the Group that the Board or the Chairman has submitted for their opinion. They are also charged with preparing the Board's work and decisions on such matters and projects and reporting their conclusions to the Board in the form of reports, proposals, opinions, information or recommendations.

The committees perform their duties under the responsibility of the Board of Directors. No committee may, on its own initiative, address issues that fall outside the scope of its mission. The committees have no decision-making power.

On the Chairman's recommendation, and having heard the opinion of the Appointments, Compensation and Governance Committee, the Board of Directors appoints the members and Chairman of each committee, based on the skills, experience and availability of each Director (see Section 4.1.1.1 "Profiles, experience and expertise of the Directors in office" and the table "Changes in composition of the Board of Directors and Committees in 2021" under Section 4.1.1).

In order to carry out their work, the committees may interview members of Company and Group divisions and/or commission technical studies on matters within their competence at the Company's expense, provided that they have informed the Chairman of the Board about this, and that they report on it to the Board. If the committees use the services of external consultants, they must ensure that the advice concerned is objective.

The practice of holding executive sessions, i.e. part of the committee's meeting taking place without the presence of management, is either systematic or occasional, depending on the committee concerned.

The General Secretariat provides secretarial services to the Board committees.

Audit Committee
Chair
Marie-José Nadeau
3 2
6 +5 joint meetings with the SITC (1)
100% attendance
75% independent (2)

Appointments, Compensation and Governance Committee
Chair
Françoise Malrieu
2 3
6
97% attendance
75% independent (2)

Board of Directors
Chairman
Jean-Pierre Clamadieu
6 8
13
100% attendance
60% independent (2)

The Ethics, Environment and Sustainable Development Committee
Chairman
Ross McInnes
3 1
7
96% attendance
66% independent (2)

Strategy, Investment and Technology Committee
Chairman
Jean-Pierre Clamadieu
2 4
7 +5 joint meetings with the Audit Committee
96% attendance
60% independent (2)

(1) Strategy, Investment and Technology Committee
(2) Pursuant to the Afep-Medef Code, Directors representing employees and employee shareholders are not taken into account when determining the proportion of Independent Directors within the Board and its committees

In addition, an ad hoc Committee, comprising Jean-Pierre Clamadieu, Catherine MacGregor, Françoise Malrieu, Ross McInnes, Marie-José Nadeau, Christophe Agogué and Stéphanie Besnier, met twice to prepare the Board's decision on the disposal of EQUANS.

4.1.2.4.1 The Audit Committee

6	5	5	100%
MEETINGS	JOINT MEETINGS WITH THE SITC	DIRECTORS	PARTICIPATION

The Audit Committee has five members: Marie-José Nadeau (1) (Chair), Christophe Agogué (since July 29, 2021), Stéphanie Besnier (since May 20, 2021), Françoise Malrieu (1) and Ross McInnes (1).

The Audit Committee met six times in 2021, with an attendance rate of 100%. The Statutory Auditors attended all of these meetings, with the exception of the joint meetings with the SITC.

Each meeting of the Committee was followed by an executive session.

4.1.2.4.1.1 Main tasks

The main tasks of the Audit Committee are:

- to monitor the process of preparing financial information and, if necessary, to make recommendations to ensure its integrity;
- to examine in advance, and provide an opinion on, the draft annual and interim financial statements;
- to interview, whenever it deems this to be necessary, the Statutory Auditors, General Management, Financial Management, Internal Audit and any other management member;
- to examine important financial press releases before they are released;
- to select, appoint and re-appoint the Statutory Auditors;
- to monitor the performance by the Statutory Auditors of their assignments;
- to ensure that the Statutory Auditors comply with the conditions of independence;
- to monitor the provision by the Statutory Auditors of services other than the auditing of the financial statements and the application of the rules for the capping of the related fees;
- to examine, each year, the Statutory Auditors' fees and their scheduled work;
- to monitor the efficiency of the Group's internal control and auditing systems and procedures;
- to examine, with the internal audit managers, the plans and actions taken in the area of internal audit, the conclusions of these planned measures and actions and the subsequent recommendations and follow-up;
- to monitor the efficiency of the Group's risk management systems and procedures, with regard to procedures for preparing and processing accounting and financial data;
- to regularly obtain updates on the Group's financial position, cash position and significant commitments and risks.

(1) Independent Director

The Committee reports regularly to the Board on the performance of its duties. It also reports on the results of the audit assignment, how it contributed to the completeness of the financial information and the role it played in this process. It immediately notifies the Board of any problems encountered.

4.1.2.4.1.2 Main activities in 2021

The Audit Committee's activities were mainly focused on the following matters:

- the consolidated and separate financial statements as at December 31, 2020 and June 30, 2021, the financial information for the first and third quarters of 2021 and their related press releases;
- the annual and interim assumptions and forecasts and the provisional management documents;
- 2021 financial trajectory and guidance;
- the quarterly activity reports from the internal audit, the follow-up of audit recommendations and the 2021 and 2022 annual audit plans;
- the 2020 review of the Group's internal control and targets for 2021;
- the nuclear priority risk;
- the monitoring of plans to dispose of shareholdings, including EQUANS and GTT;
- the operating accounts of the Chairman and the Board of Directors;
- the draft Universal Registration Document 2020 (apart from sections covered by other committees) and the draft financial resolutions submitted to the Shareholders' Meeting;
- prior approval of any work assigned to the Statutory Auditors that falls outside their audit assignment and the monitoring of these assignments; the report on the 2020 fees of the Statutory Auditors and their 2021 work program;
- the industrial risks associated with some major projects;
- the Group insurance review;
- the presentation of the activities of the 'GBS' shared service center, their evolution and contribution to the Group's performance;
- the Group's tax policy, the main tax disputes and fiscal reform plans;
- the transparency of foreign operations;
- related-party and current agreements;
- the cybersecurity priority risk;
- the 2021 financing policy and refinancing of the syndicated credit line maturing in 2022;
- investor relations, including feedback from roadshows.

4.1.2.4.2 The Strategy, Investment and Technology Committee

7	5	6	96%
MEETINGS	JOINT MEETINGS WITH THE AUDIT COMMITTEE	DIRECTORS	PARTICIPATION

The Strategy, Investment and Technology Committee has six members: Jean-Pierre Clamadieu [(1)] (Chair), Stéphanie Besnier (since May 20, 2021), Patrice Durand, Philippe Lepage, Ross McInnes [(1)] and Marie-José Nadeau [(1)].

The Chief Executive Officer attends meetings of the SITC.

The SITC met 12 times in 2021, with an average attendance rate of 96%.

4.1.2.4.2.1 Main tasks

The main tasks of the Committee are:

- to provide an opinion on the Company's main strategic aims, particularly with regard to strategy;
- to examine all external and internal growth projects, disposals, strategic agreements, alliances or partnerships, that are submitted to the Board;
- to examine strategic decisions relating to technological developments, as well as questions concerning the construction and upgrading of industrial facilities and annual and multi-year supply, works or services contracts, purchasing policy and significant real estate projects.

4.1.2.4.2.2 Main activities in 2021

The Committee's activities were mainly focused on the following matters:

- the Group's commitments to exiting coal;
- the specific system implemented to achieve the Group's objectives in the *offshore* wind market and adjustment of the way in which the internal rate of return is calculated within the context of the acceleration of investments in renewables;
- a series of investment and disposal projects;
- the staging posts of projects in progress;
- feedback on acquisitions and look-back on a series of acquired projects;
- the preparation of and follow-up for the Board's annual strategic seminar;
- the monitoring of industry trends and highlights.

Work of joint meetings of the Audit Committee and the SITC:

- the full exit from nuclear by 2025 and the discontinuation of Long Term Operation (LTO) work;
- the new strategic road map, unveiled on May 18, 2021, including GBU road maps, Group objectives and the short-term financial plan;
- support for the planned disposal of EQUANS (the industrial plan and valuation items);
- budget and medium-term business plan.

(1) Independent Director

4.1.2.4.3 The Appointments, Compensation and Governance Committee

6	5	97%
MEETINGS	DIRECTORS	PARTICIPATION

The Appointments, Compensation and Governance Committee has five members: Françoise Malrieu [1] (Chair), Alain Beullier, Fabrice Brégier [1], Stéphanie Besnier (since May 20, 2021) and Lord Peter Ricketts of Shortlands [1].

The Chairman and the Chief Executive Officer attend meetings of the ACGC, unless the meetings address matters that concern them.

Each meeting of the Committee results in an executive session.

The ACGC met six times in 2021, with an average attendance rate of 97%. One Director missed one meeting.

4.1.2.4.3.1 Main tasks

The main tasks of the Committee are to examine and make recommendations to the Board of Directors on:

- all nominations for a seat on the Board that must be submitted to the Shareholders' Meeting for approval, as well as for the position of committee member of Chairman;
- the succession of the Company's Chairman and Chief Executive Officer;
- the compensation, pension and welfare plans, benefits in kind and various pecuniary rights awarded to the Chairman and to the Chief Executive Officer, as well as to any members of the Board that hold employment contracts with the Company;
- directing the process for the annual assessment of the Board's work;
- assessing, with the Chairman, the proper operation of governing bodies;
- the consultative review of the succession plan for the Company's executives and information on General Management projects relating to the appointment of members of the Executive Committee and on their compensation policy;
- the review of all nominations of the Chairman and the Chief Executive Officer for any corporate office in a listed company outside the Group;
- maintaining bonus share awards for members of the Executive Committee.

4.1.2.4.3.2 Main activities in 2021

The Committee's activities were mainly focused on the following matters:

Appointments and Governance:

- the policy on diversity within the Board, the composition of the Board and its committees, independence and expertise of Directors;
- assessment of the functioning of the Board and its committees;
- the report on the Chairman of the Board's term of office;
- succession plans;
- the process of electing Directors representing employees;
- information on the composition of the Executive Committee and on the implementation and roll-out of the new organization;
- recommendations issued by investors and proxy advisors during governance roadshows led by the Chairman of the Board of Directors;
- the employee shareholding policy and the future plan;
- draft resolutions within its remit submitted to the Shareholders' Meeting;
- the governance Chapter of the draft Universal Registration Document 2020.

Compensation:

- compensation for corporate officers;
- the success rate of share plans;
- performance share plans for 2021;
- information regarding compensation of members of the Executive Committee and the compensation policy for senior management;
- equity ratios;
- draft resolutions within its remit submitted to the Shareholders' Meeting;
- the Compensation section of the draft Universal Registration Document 2020.

(1) Independent Director

4.1.2.4.4 The Ethics, Environment and Sustainable Development Committee

7	4	96%
MEETINGS	DIRECTORS	PARTICIPATION

The Ethics, Environment and Sustainable Development Committee has four members: Ross McInnes [(1)] (Chair), Jacinthe Delage (since July 29, 2021), Mari-Noëlle Jégo-Laveissière and Françoise Malrieu [(1)].

The Chief Executive Officer attends meetings of the EESDC.

The Committee members meet once a year without management to discuss the functioning of the Committee and the matters that they would like it to address.

The Committee met seven times in 2021, with an average attendance rate of 96%. One Director missed one meeting.

4.1.2.4.4.1 Main tasks

The main tasks of the Committee are:

- to ensure that the Group has the right level of commitment with regard to ethics, non-financial compliance, and corporate, social and environmental responsibility;
- to examine the Group's policies, guidelines and charters in these areas;
- to examine human resources policies and learn about the monitoring of the corresponding risks;
- to ensure, where applicable, the establishment of a system to prevent and detect corruption and influence peddling;
- to examine the risks and opportunities related to climate change and more generally to monitor the Group's approach to non-financial issues and the long-term outlook, including by setting non-financial objectives.

4.1.2.4.4.2 Main activities in 2021

The Committee's activities were mainly focused on the following matters:

Ethics and compliance:

- the annual report on Ethics and compliance;
- changes in ethics policies;
- the declaration on modern slavery (UK regulations).

Environmental and social responsibility:

- the Group's CSR performance and a report by one of the Statutory Auditors on this performance;
- CSR objectives and their roll-out, including the carbon neutrality target, the carbon trajectory and the "Sciences Based Targets" certification;
- the CO_2 medium-term business plan,
- the coal exit policy;
- the draft resolution known as Say on Climate;
- the "climate change" priority risk and the implementation of the recommendations of the "Task force on Climate-related Financial Disclosure" (TCFD);
- the publication in accordance with the "Sustainability Accounting Standards Board" (SASB);
- the new materiality matrix;
- the draft integrated report;
- the non-financial statement and the CSR Section of the draft Universal Registration Document 2020;
- the examination, before notification to all the Directors, of an internal CSR report, providing, amongst other things, information on all salient facts affecting ENGIE, internal and external news, any disputes and including a specific focus on climate, water and biodiversity.

Employer's social responsibility:

- the annual health and safety report;
- the review of every fatal accident and health and safety action plans (the EESDC held two extraordinary meetings to discuss these issues);
- the "HR risks associated with transformation issues" priority risk;
- the results of the annual employee engagement survey;
- the professional and salary equality policy and indices.

(1) Independent Director

4.1.2.5 Assessment of the operations of the Board of Directors

The assessment of the operations of the Board of Directors and its committees in 2021 was led by the Appointments, Compensation and Governance Committee (ACGC), with the assistance of an external consultant.

The questionnaire used, which was verified by the ACGC, included both close-ended questions, which allowed for statistical monitoring of the responses received, and open-ended questions, which allowed Directors to clarify their answers and make comments and proposals for changes.

Questions focused on the operational functioning of the Board and its committees, the development and implementation of strategy, the Board's approach to climate issues and its priorities for 2022.

The work carried out under the aegis of the Chairman of the ACGC was reported to that committee on January 24, 2022 and to the Board of Directors on February 14, 2022.

The Board's assessment and Chairman's report showed that governance is considered to have progressed a great deal, with strong points including the successful integration of the new Chief Executive Officer who has built a relationship of trust with the Board, a Chairman who has led the Board to make great strides in the efficiency of its working methods, a Board that is more compact and has learned to work together despite the constraints imposed by Covid, effective operation of the Board's committees and the ad hoc Committee during special operations and, lastly, a highly effective strategic planning seminar.

The Board aims to continue to focus on monitoring the implementation of the strategic plan and the transformation and to regularly review its consistency with the Group's purpose. The Board also aims to develop the retrospective analysis of investments so that their performance can be analyzed.

In addition, the Board is committed to continuing its in-depth examination of climate issues in strategic discussions. Although the Board believes that it has sufficient skills to understand climate issues, specific training, notably in the form of theme-based information sessions, could be organized effectively.

Lastly, with regard to the Board's operation, there should be a return to physical meetings and site visits wherever possible.

The Board of Directors and the Committees duly noted the recommendations from this assessment work and will take necessary action on them. A theme-based information Board session on energy and climate transition was held on February 4, 2022, and a session on performance and non-financial reporting is planned for the 2nd half of 2022.

The attendance rate of Directors at Board and Committee meetings in 2021 has been published in Section 4.1.2.6 below.

4.1.2.6 Attendance by Directors at meetings of the Board of Directors and its committees in 2021

	Board of Directors	Audit Committee	SITC	ACGC	EESDC
Jean-Pierre Clamadieu	100%		100%		
Catherine MacGregor (1)	100%				
Stéphanie Besnier	100% (2)	100% (1)	75% (1)	67% (1)	
Fabrice Brégier	100%			100%	
Isabelle Bui (3)	100%	100%	75%	100%	
Françoise Malrieu	100%	100%		100%	100%
Ross McInnes	100%	100%	100%		100%
Marie-José Nadeau	100%	100%	100%		
Lord Peter Ricketts of Shortlands	100%			100%	
Patrice Durand	100%		100%		
Mari-Noëlle Jégo-Laveissière	100%				86%
Christophe Agogué	100%	100% (4)			100% (5)
Alain Beullier	100%			100%	
Philippe Lepage	100%		100%		
Christophe Aubert (6)	100%	100%			
Jacinthe Delage	100% (1)				100% (4)
OVERALL ATTENDANCE RATE	**100%**	**100%**	**96%**	**97%**	**96%**

(1) Since May 20, 2021
(2) Since May 19, 2021
(3) Until May 19, 2021
(4) Since July 29, 2021
(5) Until July 29, 2021
(6) Until May 20, 2021

4.2 Dialog with shareholders

4.2.1 Dialog of the Chairman

The Chairman maintained a regular dialog with individual shareholders of the Group.

Against the backdrop of the health crisis and pursuant to legal requirements, the Shareholders' meeting was held behind closed doors on May 20, 2021. To encourage an ongoing and open dialog with the Group, and in addition to the legal provision for written questions, shareholders were able to ask their questions (written, audio, video) before the Shareholders' Meeting. They were also able to ask their questions live, throughout the meeting, via a dedicated online platform. To prepare for the Shareholders' Meeting, the Chairman met with members of the ENGIE Shareholders' Advisory Committee, the main associations of individual shareholders, and the representatives of employee shareholders. The Shareholders' Meeting was broadcast live and in its entirety on the Group's website and is still available for viewing in replay.

The Chair also went to meet individual shareholders, in particular, at the Investor Day, held in Paris on November 23, 2021.

During 2021, the Chairman also spoke with the main institutional investors and voting advisory agencies, particularly in the context of the governance roadshows that took place in March 2021, discussing strategy, governance, compensation and CSR, including climate issues.

The dialog will continue in 2022.

4.2.2 Shareholders' Meeting of April 21, 2022 – Composition of the Board of Directors

At its meeting on February 14, 2022, the Board of Directors decided to convene a Combined General Shareholders' Meeting on April 21, 2022.

The terms of office of Jean-Pierre Clamadieu, Chairman of the Board, and Ross McInnes will expire at the end of this Shareholders' meeting.

At its meeting of December 16, 2021, the Board of Directors decided to propose the renewals of the terms of office of Jean-Pierre Clamadieu and Ross McInnes.

The Board's last assessment (the results of which are reported in Section 4.1.2.5) therefore shows that it functions efficiently under Mr. Clamadieu's chairmanship. The Board intends to confirm Mr. Clamadieu's role as Chairman of the Board of Directors if his term of office is renewed by your Shareholders' Meeting. This renewal is part of ENGIE's framework of ongoing separation of the roles of Chairman and Chief Executive Officer, which is suited to the Group's situation and challenges and enables it to benefit from the complementarity of the profiles, experience and careers of Jean-Pierre Clamadieu and Catherine MacGregor.

Ross McInnes, Chairman of the EESDC, member of the Audit Committee and the SITC, brings to the Board his experience of international listed companies and his financial and governance expertise.

ENGIE's Board of Directors met on March 2, 2022, decided to propose the appointment of Marie-Claire Daveu.

Marie-Claire Daveu's experience in environmental and social responsibility as well as her knowledge of renewable energy will bolster the Group's governance and round off the diverse range of skills and experience within the Board of Directors, in line with the challenges facing ENGIE and its strategic orientations.

At the end of the Shareholders' Meeting, subject to approval of these resolutions, the Board of Directors will consist of 15 members. The percentage of Independent Directors will be 64% and the percentage of women will be 55% [1].

The Board of Directors decided to hold the Combined Shareholders' Meeting of April 21, 2022, in person at Paris Expo Porte de Versailles - 1, place de la Porte de Versailles - Paris 15 (France), provided that no new government guidelines related to Covid-19 are introduced, in which case the meeting would be held behind closed doors.

We would therefore like shareholders to note that both postal and electronic means may be used to vote at the Shareholders' Meeting and to send written questions to the Board, under the conditions set out by the regulations.

The documents for the Shareholders' meeting will be available on the Company website (www.engie.com/assemblee-generale-avril-2022).

Shareholders are invited to visit this page of the website regularly. It will specify the arrangements for participating.

(1) *Pursuant to the applicable rules of the French Commercial Code and the Afep-Medef Code, in assessing the ratio of women to men and the percentage of independent Directors on Boards of Directors, the law stipulates that Directors representing employees or employee shareholders are not counted*

4.3 General Management

Since January 1, 2021 the Company's Chief Executive Officer is Catherine MacGregor. Her term of office as Chief Executive Office will expire at the same time as her Directorship, i.e. at the end of the Shareholders' meeting held in 2025 to approve the financial statements for the fiscal year ending on December 31, 2024.

The Chief Executive Officer is invested with the broadest powers to act in all circumstances on behalf of the Company, exercises her functions within the limits of the corporate objective and subject to the powers that the law expressly attributes to Shareholders' General Meetings and the Board of Directors. According to the internal rules, the respective powers and duties of the Chairman of the Board of Directors and the Chief Executive Officer are determined by the Board of Directors and the Internal Regulations of the Board (see Section 4.1.2.1 "Chairmanship and organization").

Two executive bodies - the Executive Committee and the Operational Management Committee - are responsible for formulating ENGIE's strategy and monitoring its implementation.

The Executive Committee, which is in charge of Group management, comprises the Executive Vice-Presidents under the management of the Chief Executive Officer. It formulates strategic decisions according to the guidelines defined by the Board of Directors. It develops ENGIE's long-term outlook and ensures that the short-term objectives are achieved. It makes all major decisions particularly concerning investment, reviews performance, and monitors the pace of the Group transformation.

At the date of this document, the Executive Committee has the following 11 members:

- **Catherine MacGregor,** Chief Executive Officer;
- **Paulo Almirante,** Executive Vice President in charge of Renewables activities, also in charge of Global Energy Management and Nuclear Generation activities;
- **Sébastien Arbola,** Executive Vice President in charge of Hydrogen, Thermal Generation and Energy Supply activities;
- **Jean-Sébastien Blanc,** Executive Vice President in charge of Human Resources;
- **Frank Demaille,** Executive Vice President in charge of Transformation and Geographies;
- **Yves Le Gélard,** Executive Vice President in charge of Digital and Information Systems;
- **Cécile Prévieu,** Executive Vice President in charge of Energy Solutions;
- **Pierre-François Riolacci,** Executive Vice President in charge of Finance, Corporate Social Responsibility and Procurement;
- **Édouard Sauvage,** Executive Vice President in charge of Networks activities;
- **Jérôme Stubler,** Executive Vice President and Chief Executive Officer of EQUANS;
- **Claire Waysand,** Executive Vice President in charge of the Corporate Secretariat, Strategy, Research & Innovation, Communication.

The Operational Management Committee, known as OPCOM, is in charge of operational activities, and is composed of the Executive Vice-Presidents, the Chief Executive Officers of the entities, the directors of the Global Business Units, the regions and main countries and the managers of the main functional departments.

It is chaired by the Chief Executive Officer. The OPCOM implements ENGIE's strategic decisions; it is also in charge of taking the Group's transformation closer to the geographical areas.

In accordance with Article L.22-10-10 para. 2 of the French Commercial Code, the report on corporate governance includes "*information on how the company seeks balanced representation of women and men within the committee set up, where appropriate, by the General Management for the purposes of regularly assisting it in carrying out its general functions, and information on the results in terms of diversity in the 10% of positions with higher responsibility. If the company does not apply such a policy, the report shall contain an explanation of the reasons for this*".

As the "*committee set up, where appropriate, by the General Management for the purposes of regularly assisting it in carrying out its general functions*" corresponds to the Executive Committee.

With respect to 10% of positions with higher responsibility, if the scope described by the French Commercial Code is that of the Company, i.e. ENGIE SA, in terms of the organization of the Group, its integrated structure, and its positioning in more than 40 countries for a total of 171,474 employees, it seems more appropriate to consider the Group as a whole with regard to the spirit of the law. Excluding the Executive Committee, the Group has approximately 485 executives, of which 64 are EQUANS executives, across all the geographic areas in which it is present whose role is to deliver the Group's strategy. ENGIE considers that the relevant scope to use for the 10% of positions with higher responsibility is that of the OPCOM.

The Executive Committee consists of 11 members, including three women (27.3%), and three nationalities. On the recommendation of the General Management, the Board of Directors set a target of at least 40% of women and at least 40% of men on the Executive Committee by 2025.

On January 1, 2022, the OPCOM was composed of 55 members, including 15 women (27.3%). It comprises 12 nationalities. The Group's new organization resulted in 41 members of the OPCOM being appointed in 2021, including 10 women. Excluding EQUANS, the OPCOM was composed of 50 members, including 15 women (30%).

For several years, the Group's appointments policy has strengthened gender diversity. The Group seeks to develop mixed talent pools, comprising executive managers with strong potential, thus helping to increase female representation in the two bodies mentioned above, namely the Executive Committee and OPCOM. Therefore, for key positions in the Group, the final appointment decision is made on the basis of a list of candidates that includes men and women. Most appointments are made from this talent pool, comprising around 570 people, 34% of whom are women (500 people, 35.9% of whom are women not including EQUANS).

These actions aim to change career paths and talent development, opening them up to various profiles, so as to eventually form governance bodies that fully embody the Group's diversity policy.

4.4 Compensation and benefits paid to members of the administration and management bodies

4.4.1 Compensation of executive corporate officers

Compensation of executive corporate officers is determined by the Board of Directors based on the recommendations of the Appointments, Compensation and Governance Committee (ACGC). It is subject to a presentation and binding votes at the Annual Shareholders' Meeting in accordance with Articles L.22-10-8, L.22-10-9, and L.22-10-34 of the French Commercial Code.

The compensation policy is reviewed annually by the ACGC and is based in particular on specific studies.

In its recommendations to the Board of Directors, the ACGC seeks to propose a compensation policy that is in line with corporate responsibility and the practices of comparable major international groups for similar positions, based on a benchmark established by a specialized external firm that includes companies listed on the CAC 40, the Eurostoxx 50 (excluding companies in the financial sector), and the Eurostoxx Utilities indices.

Pursuant to Article 9.6 of the Afep-Medef Code, the Chairman of the Board of Directors, as an independent director, does not receive variable compensation linked to the Company's performance.

Compensation of the other executive corporate officers generally includes:

- a fixed component, which remains unchanged throughout the term of office, unless the Board of Directors, on the recommendation of the ACGC, decides otherwise;
- a variable component, balanced relative to total compensation, the purpose of which is to reflect the executive's personal contribution to the Group's development and results; and
- a long-term incentive component, subject to performance conditions.

Stringent performance criteria are set both for the variable component and for long-term incentive plans, maintaining a link between the Group's performance and the compensation of its directors in the short, medium and long term and contributing to the Company's strategy and sustainability.

The compensation policies applicable to the Chairman of the Board and the Chief Executive Officer as of 2022 are described in Section 4.4.1.10.3.

4.4.1.1 Fixed compensation

Fixed compensation in 2021

Jean-Pierre Clamadieu, Chairman of the Board of Directors, received compensation of €450,000.

The fixed annual compensation of Catherine MacGregor, Chief Executive Officer, was set at €1,000,000, plus an annual benefit in kind of €4,060.

Fixed compensation in 2022

Please refer to Section 4.4.1.10.3.

4.4.1.2 Variable compensation

Variable compensation in 2020

Jean-Pierre Clamadieu, Chairman of the Board of Directors, received no variable compensation in respect of his office.

As for Isabelle Kocher, Chief Executive Officer from January 1 to February 24, 2020, on February 24, 2020, the Board of Directors decided to set the annual variable component for fiscal year 2020 as a pro rata proportion of the annual variable amount awarded to the CEO for 2019, i.e. a gross amount of €110,250.

As for Claire Waysand, acting Chief Executive Officer from February 24 to December 31, 2020, on February 26, 2020, the Board of Directors, on the proposal of the ACGC, set specific compensation for her term as acting Chief Executive Officer of up to €400,000, subject to two performance conditions: the efficient functioning of the collective management team and her ability to ensure the Group's operational management during that period. On the proposal of the ACGC, on December 17, 2020 the Board of Directors decided to set this specific compensation at its ceiling of €400,000 in view of the quality of management during the transition period, in particular with regard to the aforementioned criteria.

In addition, under Claire Waysand's employment contract, the annual variable compensation corresponds to a target bonus of 100% of the annual fixed compensation, which corresponds to a 100% achievement of the targets, with a cap of 150% in the event of overperformance.

Sixty-five percent of this bonus is subject to quantitative criteria (50% recurring income, Group share and 25% each for COI and economic net debt) and 35% to qualitative assessment. Lastly, a penalty of up to 20% of the target may apply (health and safety/compliance)

The qualitative portion was subject to the following performance criteria:

- management of the Covid-19 crisis and preparation of the exit from the crisis (60%):
  - employee health and safety,
  - continuity of essential services and rapid recovery of all activities,
  - securing of liquidity and mitigation of financial impacts;
- progress in Group simplification and selectivity of activities and geographical areas (20%);
- quality of relations between Board and Management and commitment of the Executive Committee and teams (20%).

At its meeting of February 25, 2021, the Board of Directors, on the recommendation of the ACGC:

- noted that the success rate of the quantitative criteria was 37.5% (broken down as follows: Net recurring income Group share, per share (1/2): 0%; COI (1/4): 0%; economic net debt (1/4): 150%);
- set the success rate of the qualitative criteria at 132%.

Based on the respective weightings of the quantitative (65%) and qualitative (35%) criteria, the overall success rate was determined to be 70.58%.

The amount of the variable portion for 2020 paid to Claire Waysand under her employment contract thus amounts to €388,190 for the entire 2020 fiscal year, i.e. €323,491 as a pro rata proportion from February 24 to December 31, 2020.

Variable compensation in 2021

Jean-Pierre Clamadieu, Chairman of the Board of Directors, receives no variable compensation in respect of his office.

Regarding Catherine MacGregor, Chief Executive Officer, the target annual variable compensation to be paid in 2022 for 2021 amounts to 100% of the fixed compensation (€1,000,000) for a 100% target achievement rate, with a maximum of 140% of the fixed compensation (€1,400,000) in the event that targets are exceeded.

It breaks down into two components: a financial component (65%) and a non-financial component (35%).

For the financial component, the criteria used are net recurring income, Group share (25%), COI (25%), free cash flow (excluding GEM) (25%) and economic net debt (25%). The financial targets for 2021 were based on the Group's provisional budget as prepared by the Board of Directors on February 25, 2021.

The non-financial component includes:

- the simplification and strengthening of the organization: implementation of the organization, Executive Committee, commitment (30%);
- efficiency in implementing strategy: Equans, GBU growth strategy, performance management (40%);
- occupational accidents frequency rate (10%);
- CO_2 emissions related to power generation (10%);
- cutperformance of the sector average as published by each of the following five rating agencies: SAM, Sustainalytics, Vigeo-Eiris, MSCI and CDP Climat are included (10%).

At its meeting of February 14, 2022, the Board of Directors, on the recommendation of the ACGC:

- noted that the success rate of the financial criteria was 129% (broken down as follows: Net recurring income Group share, per share: 140%; COI: 140%; Free cash flow: 123%; Economic net debt: 112%);
- set the success rate of non-financial criteria at 121% (broken down as follows: 110%, strategy: 130%; occupational accidents frequency rate: 140% - however, see the bonus reduction specified below; CO2 emissions related to power generation: 117%; out performance in terms of CSR ratings: 100%).

Based on the respective weightings of financial and non-financial criteria, the overall success rate was determined to be 126%, or €1,259,000.

Given the severity of the accidents in 2021 and on the proposal of the Chief Executive Officer, the Board decided that a 15% reduction in the target bonus, or €150,000, will be applied to the bonus payable in 2022 for 2021 which will be reduced from €1,259,000 to €1,109,000.

The variable component for 2021 was thus €1,109,000. It will only be paid to Catherine MacGregor if approved by the shareholders at the Shareholders' Meeting of April 21, 2022.

Variable compensation in 2022

Please refer to Section 4.4.1.10.3.

4.4.1.3 Long-term incentive compensation (Performance Units)

The ACGC, following the recommendations of the Afep-Medef Code, which seeks to promote the long-term engagement of corporate leaders, recommended to the Board of Directors that the executive corporate officers compensation include a long-term incentive component, provided that this is reasonable and subject to strict performance conditions, and is comparable to that of other beneficiaries. The Board of Directors decided on February 26, 2020 that this component may not, when initially awarded, represent more than 50% of the CEO's overall compensation.

Until 2021, long-term incentive plans took the form of Performance Units (PUs).

Performance Units for fiscal year 2020

No PUs were awarded for 2020.

Performance Units for fiscal year 2021

Jean-Pierre Clamadieu, Chairman of the Board of Directors, was not awarded any PUs for 2021, in accordance with the compensation policy, which stipulates that the compensation of the Chairman of the Board will not include any annual or multi-year variable compensation or long-term incentive plans.

On the recommendation of the Appointments, Compensation and Governance Committee, the Board of Directors, at its meeting on February 25, 2021, awarded Catherine MacGregor, Chief Executive Officer, 120,000 PUs for 2021. The PU awarded for 2021 were valued at €7.34 per unit.

Performance Units for fiscal year 2022

From 2022, it is proposed to include the Chief Executive Officer in the performance share plan, which is due to replace the Performance Units currently received. Please refer to Section 4.4.1.10.3.

4.4.1.4 Pension plans

Jean-Pierre Clamadieu is not covered by any supplementary pension plan in respect of his duties as Chairman of the Board of Directors.

Catherine MacGregor, the Chief Executive Officer continues to benefit from a supplementary pension plan, under which the Company does not guarantee the amount of the pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82 of the French Tax Code) and half is a cash sum, given the immediate taxation on commencement of this mechanism. The employer contribution corresponds to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It will also depend on the Company's performance, since the calculation base includes the variable portion linked to the Group's results. The Chief Executive Officer also benefits from the mandatory pension plan (Article 83 of the French Tax Code) applicable to all senior Group managers.

4.4.1.5 Employment contract, special retirement plans, severance pay and non-compete clause

	Employment contract	Supplementary pension plan	Compensation or benefits due or likely to be due on termination or change of function	Compensation due under a non-compete clause
Jean-Pierre Clamadieu *Chairman*	no	no	no	no
Catherine MacGregor *Chief Executive Officer*	no	see 4.4.1.4	see below	see below

In the event of departure from the Group, the former Chief Executive Officer will be bound by a non-compete commitment for a period of one year from the end of his or her term of office and will receive one year's compensation payable in twelve monthly installments. The Board of Directors may waive the application of this clause at the time of the officer's departure.

In the event of forced departure not resulting from serious misconduct on the part of the executive corporate officer, and regardless of the form of such departure, the Chief Executive Officer shall receive an indemnity of two years' compensation, which shall be payable only if the performance conditions attached to the annual variable component of the compensation for the two years preceding the year of departure have been met by at least 90% on average.

In addition, all provisions of the Afep-Medef Code are applicable to the non-compete commitment and severance payments, in particular with regard to those two payments combined, which may not exceed two years of compensation. "*Year of compensation*" within the meaning of the non-compete commitment and severance payments referred to above means the last annual fixed compensation plus the annual variable compensation paid calculated on the basis of the average annual variable compensation paid for the two years preceding the year of departure.

4.4.1.6 Summary of compensation of each executive corporate officer

In euros	2021 Amount due for 2021	2021 Amount paid in 2021	2020 Amount due for 2020	2020 Amount paid in 2020
Jean-Pierre Clamadieu				
Chairman				
Fixed compensation	450,000	450,000	450,000	450,000
Variable compensation	0	0	0	0
Employer contribution to retirement plan	0	0	0	0
Extraordinary compensation	0	0	0	0
Directors' fees	0	0	0	0
Benefits in kind	0	0	0	0
TOTAL	**450,000**	**450,000**	**450,000**	**450,000**

In euros	2021 Amount payable for 2021	2021 Amount paid in 2021	2020 Amount due for 2020	2020 Amount paid in 2020
Catherine MacGregor				
Chief Executive Officer				
Fixed compensation	1,000,000	1,000,000	Not applicable	Not applicable
Variable compensation	1,109,000	0	Not applicable	Not applicable
Employer contribution to retirement plan	527,250	000	Not applicable	Not applicable
Extraordinary compensation	0	0	Not applicable	Not applicable
Directors' fees	0	0	Not applicable	Not applicable
Benefits in kind	4,060	4,060	Not applicable	Not applicable
TOTAL	**2,640,310**	**1,004,060**	**NOT APPLICABLE**	**NOT APPLICABLE**

4.4.1.7 Overview of compensation of each executive corporate officer

In euros	2021	2020
Jean-Pierre Clamadieu		
Chairman		
Compensation due for the fiscal year (detailed in the preceding table)	450,000	450,000
Valuation of options granted for the fiscal year	0	0
Valuation of Performance Shares granted for the fiscal year	0	0
Valuation of Performance Units granted for the fiscal year	0	0
TOTAL	**450,000**	**450,000**

In euros	2021	2020
Catherine MacGregor		
Chief Executive Officer		
Compensation due for the fiscal year (detailed in the preceding table)	2,640,310	Not applicable
Valuation of options granted for the fiscal year	0	Not applicable
Valuation of Performance Shares granted for the fiscal year	0	Not applicable
Valuation of Performance Units granted for the fiscal year	880,800	Not applicable
TOTAL	**3,521,110**	

The valuation of Performance Units (PUs), based on a model provided by an external specialist firm, is based on an approach used for all of its client companies to obtain comparable valuations. It uses parameters and assumptions that are consistent with the principles of IFRS, but takes into account all possible performance conditions (external and internal), not just "market" performance conditions as in IFRS 2. This valuation also takes into account the share price, the annual expected dividend yield, historical share price volatility, the risk-free interest rate, a three-year maturity, a three-year vesting period and an exercise period of three years. The valuation used was €11.15 for the 2014 award, €9.69 for the 2015 award, €7.73 for the 2016 award, €6.09 for the 2017 award, €6.58 for the 2018 award, €7.84 for the 2019 award and €7.34 for the 2021 award.

This valuation is theoretical, to the extent that the final vesting of PUs (several years after the grant date) depends on the achievement of strict and demanding performance conditions.

4.4.1.8 Compensation components paid in 2021 or awarded for the same year to each executive corporate officer of the Company, subject to shareholder approval

In accordance with Article L. 22-10-34 II of the French Commercial Code, the Shareholders' Meeting of April 21, 2022 will vote on the fixed, variable and extraordinary components of the total compensation and benefits of any kind paid in, or awarded for, 2021 to Jean-Pierre Clamadieu, Chairman of the Board, and Catherine MacGregor, Chief Executive Officer.

The variable or extraordinary compensation components awarded for 2021 can only be paid after approval by the Shareholders' Meeting of the components of the compensation of the corporate executive officer concerned.

4.4.1.8.1 Compensation components paid in, or awarded for, 2021 to Jean-Pierre Clamadieu, Chairman of the Board

Compensation components	Amounts paid in 2021	Amounts awarded for 2021	Details
Fixed compensation	€450,000	€450,000	Jean-Pierre Clamadieu's fixed annual compensation amounts to €450,000.
Annual variable compensation	None	None	Jean-Pierre Clamadieu receives no annual variable compensation.
Employer contribution to retirement plan	None	None	Jean-Pierre Clamadieu receives no employer pension contribution.
Multi-annual variable compensation	None	None	Jean-Pierre Clamadieu receives no multi-annual variable compensation.
Directors' fees	None	None	Jean-Pierre Clamadieu receives no directors' fees.
Extraordinary compensation	None	None	Jean-Pierre Clamadieu receives no extraordinary compensation.
Allocation of stock options, Performance Shares and any other long-term compensation	None	None	Jean-Pierre Clamadieu is not allocated stock options, Performance Shares or any other long-term compensation.
Compensation associated with the commencement or termination of duties	None	None	Jean-Pierre Clamadieu receives no compensation associated with the commencement or termination of duties.
Supplementary pension plan	None	None	Jean-Pierre Clamadieu is not a beneficiary of any supplementary pension plan.
Benefits of any kind	None	None	Jean-Pierre Clamadieu did not benefit from the use of a company vehicle.

4.4.1.8.2 Compensation components paid in, or awarded for, 2021 to Catherine MacGregor, Chief Executive Officer

Compensation components	Amounts paid in 2021	Amounts awarded for 2021	Details
Fixed compensation	€1,000,000	€1,000,000	Catherine MacGregor's fixed compensation was set at €1,000,000
Annual variable compensation	None	€1,109,000	The target annual variable compensation to be paid in 2022 for 2021 amounts to 100% of the fixed compensation (€1,000,000) for a 100% target achievement rate, with a maximum of 140% of the fixed compensation (€1,400,000) in the event that targets are exceeded. It breaks down into two components: a financial component (65%) and a non-financial component (35%). For the financial component, the criteria used are net recurring income, Group share (25%), COI (25%), free cash flow (excluding GEM) (25%) and economic net debt (25%). The financial targets for 2021 were based on the Group's provisional budget as prepared by the Board of Directors on February 25, 2021. The non-financial component includes: • the simplification and strengthening of the organization: implementation of the organization, Executive Committee, commitment (30%); • efficiency in implementing strategy: Equans, GBU growth strategy, performance management (40%); • occupational accidents frequency rate (10%); • CO_2 emissions related to power generation (10%); • outperformance of the sector average as published by each of the following five rating agencies: SAM, Sustainalytics, Vigeo-Eiris, MSCI and CDP Climat are included (10%). At its meeting of February 14, 2022, the Board of Directors, on the recommendation of the ACGC: • noted that the success rate of the financial criteria was 129% (broken down as follows: Net recurring income Group share, per share: 140%; COI: 140%; Free cash flow: 123%; Economic net debt: 112%); • set the success rate of non-financial criteria at 121% (broken down as follows: 110%, strategy: 130%; occupational accidents frequency rate: 140% - however, see the bonus reduction specified below; CO_2 emissions related to power generation: 117%; out performance in terms of CSR ratings: 100%). Based on the respective weightings of financial and non-financial criteria, the overall success rate was determined to be 126%, or €1,259,000. Given the severity of the accidents in 2021 and on the proposal of the Chief Executive Officer, the Board decided that a 15% reduction in the target bonus, or €150,000, will be applied to the bonus payable in 2022 for 2021 which will be reduced from €1,259,000 to €1,109,000. The variable component for 2021 was thus €1,109,000. It will only be paid to Catherine MacGregor if approved by the shareholders at the Shareholders' Meeting of April 21, 2022.
Multi-annual variable compensation	None	None	Catherine MacGregor did not receive any multi-annual variable compensation.
Directors' fees	None	None	Catherine MacGregor did not receive any compensation for her office as a Director.
Extraordinary compensation	None	None	Catherine MacGregor did not receive any extraordinary compensation.
Awarding of stock options, Performance Shares and any other long-term compensation	None	Valuation: €880,800	Catherine MacGregor was awarded 120,000 Performance Units for 2021 (see note on this theoretical valuation in Section 4.4.1.7 of the 2021 Universal Registration Document).

Compensation components	Amounts paid in 2021	Amounts awarded for 2021	Details
Compensation associated with the commencement or termination of duties	None	None	In the event of departure from the Group, the former Chief Executive Officer will be bound by a non-compete commitment for a period of one year from the end of his or her term of office and will receive one year's compensation payable in twelve monthly installments. The Board of Directors may waive the application of this clause at the time of the officer's departure. In the event of forced departure not resulting from serious misconduct on the part of the executive corporate officer, and regardless of the form of such departure, the Chief Executive Officer shall receive an indemnity of two years' compensation, which shall be payable only if the performance conditions attached to the annual variable component of the compensation for the two years preceding the year of departure have been met by at least 90% on average. In addition, all provisions of the Afep-Medef Code are applicable to the non-compete commitment and severance payments, in particular with regard to those two payments combined, which may not exceed two years of compensation. "Year of compensation" within the meaning of the non-compete commitment and severance payments referred to above means the last annual fixed compensation plus the annual variable compensation paid calculated on the basis of the average annual variable compensation paid for the two years preceding the year of departure.
Supplementary pension plans	None	€527,250	Lastly, the Chief Executive Officer continues to benefit from a supplementary pension plan, under which the Company does not guarantee the amount of the pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82) and half is a cash sum, given the immediate taxation on commencement of this mechanism. The employer contribution corresponds to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It will also depend on the Company's performance, since the calculation base includes the variable portion linked to the Group's results. The employer contribution for 2021 amounts to €527,250 and will be paid in 2022 subject to a favorable vote from the shareholders at the Shareholders' Meeting on April 21, 2022. The Chief Executive Officer also benefits from the mandatory pension plan (Article 83) applicable to all senior Group managers. The contribution (Article 83) for 2021 is €26,327.
Benefits of any kind	€4,060	€4,060	Catherine MacGregor benefited from the use of a company car.

4.4.1.9 Comparison tables of the level of compensation of corporate officers in relation to the compensation of employees – Annual changes in performances

Compensation multiples for the office of Chairman

Table of ratios relating to I.6 and 7 of Article L.22-10-9 of the French Commercial Code [1]

In euros	2017	2018	2019	2020	2021
Compensation for the **Office of Chairman:** Jean-Pierre Clamadieu from 05/18/2018 - Previously Gérard Mestrallet was Chairman		350,000	433,064	450,000	450,000
Change from the previous year			24%	4%	0%
Information on the scope of consolidation of the listed company – not representative in terms of activity and the number of employees					
Average employee compensation	72,365	73,875	73,845	76,791	77,142
Change from the previous year	5%	2%	0%	4%	0%
Median employee compensation	64,361	66,175	66,487	72,571	66,967
Ratio to average employee compensation	-	-	-	-	-
Change from the previous year	-	-	-	-	-
Ratio to median employee compensation	-	-	-	-	-
Change from the previous year	-	-	-	-	-
Additional information about the expanded scope of consolidation (France) [2]					
Average employee compensation	45,551	46,307	46,476	46,870	48,278
Change from the previous year	1%	2%	0%	1%	3%
Median employee compensation		Not available			
Ratio to average employee compensation		7.6	9.3	9.6	9.3
Change from the previous year			23%	3%	-3%
Ratio to median employee compensation		Not calculable			
Change from the previous year	-	-	-	-	-
Company performance [3]					
COI organic growth	5%	5%	14%	-16%	47%
Change from the previous year	150%	0%	180%	-214%	194%
ROCE	6.30%	6.50%	6.10%	5.45%	8.90%
Change from the previous year	9%	3%	-6%	-11%	63%
Net recurring income, Group share (excluding E&P and LNG) (in billion euros)	2.54	2.38	2.46	1.70	3.20
Change from the previous year	-9%	-6%	3%	-31%	85%

(1) The information contained in this Section is established pursuant to the Afep guidelines, updated in February 2021
(2) The ratio deemed relevant is that which takes into account all employees in France
(3) Performance is assessed on a consolidated basis

Compensation multiples for the office of the Chief Executive Officer

Table of ratios relating to I.6 and 7 of Article L.22-10-9 of the French Commercial Code

FY N-1	**2017**	**2018**	**2019**	**2020**	**2021**
Compensation for the **Office of Chief Executive Officer:** Isabelle Kocher from May 3, 2016 to February 24, 2020, then C. Waysand in the interim period from February 24, 2020 to December 31, 2020, then Catherine MacGregor from January 1, 2021	2,319,438	2,550,142	2,588,572	1,287,669	2,608,350
Change from the previous year	-2%	10%	2%	-50%	103%
Information on the scope of consolidation of the listed company – not representative in terms of activity and the number of employees					
Average employee compensation	72,365	73,875	73,845	76,791	77,142
Change from the previous year	5%	2%	0%	4%	0%
Median employee compensation	64,361	66,175	66,487	72,571	66,967
Ratio to average employee compensation	-	-	-	-	-
Change from the previous year	-	-	-	-	-
Ratio to median employee compensation	-	-	-	-	-
Change from the previous year	-	-	-	-	-
Additional information about the expanded scope of consolidation (France) [(1)]					
Average employee compensation	45,551	46,307	46,476	46,870	48,278
Change from the previous year	1%	2%	0%	1%	3%
Median employee compensation			Not available		
Ratio to average employee compensation	50.9	55.1	55.7	27.5	54.0
Change from the previous year		8%	1%	-51%	97%
Ratio to median employee compensation			Not calculable		
Change from the previous year	-	-	-	-	-
Company performance [(2)]					
COI organic growth	5%	5%	14%	-16%	47%
Change from the previous year	150%	0%	180%	-214%	194%
ROCE	6.30%	6.50%	6.10%	5.45%	8.90%
Change from the previous year	9%	3%	-6%	-11%	63%
Net recurring income, Group share (excluding E&P and LNG) (in billion euros)	2.54	2.38	2.46	1.70	3.20
Change from the previous year	-9%	-6%	3%	-31%	85%

(1) The ratio deemed relevant is that which takes into account all employees in France
(2) Performance is assessed on a consolidated basis

4.4.1.10 Compensation policy for corporate officers

The compensation policies for corporate officers below will be submitted for shareholder approval at the Ordinary Shareholders' Meeting of April 21, 2022, in accordance with Article L.22-10-8 of the French Commercial Code.

4.4.1.10.1 Compensation policy for directors

On the recommendation of the Board of Directors, the Shareholders' Meeting sets the total annual amount of Directors' compensation to be distributed by the Board among its members.

On the recommendation of the Appointments and Compensation Committee, the Board of Directors, at its meeting of December 11, 2013, amended the rules for distributing the annual amount of directors' fees, set by the Shareholders' Meeting of July 16, 2008 at €1.4 million (unchanged since 2008) in line with an individual distribution system, combining a fixed portion with a predominant variable portion based on the attendance of Directors at Board and Committee meetings, in accordance with the Article 21.1 of the Afep-Medef Code.

The rules of distribution applied are presented below. They are unchanged in 2022 compared to 2021. They were last amended on July 29, 2019. It should be noted that executive corporate officers do not receive compensation for their participation on the Board of Directors.

Director		Fixed fee	€15,000 per year
		Variable fee, dependent on attendance	€55,000 (1), if 100% attendance
Audit Committee	Chairman	Fixed fee	€15,000 per year
		Variable fee, dependent on attendance	€44,000 (1), if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€22,000 (1), if 100% attendance
SITC	Chairman (2)	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€27,500 (1), if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€16,500 (1), if 100% attendance
EESDC	Chairman	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€22,000 (1), if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€16,500 (1), if 100% attendance
ACGC	Chairman	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€22,000 (1), if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€16,500 (1), if 100% attendance

(1) Variable portion increased by 25% for European non-residents and 50% for non-European non-residents, in the event of physical attendance at meetings

(2) Jean-Pierre Clamadieu, Chairman of the SITC, does not receive any compensation for his participation in the work of the Board and this committee

4.4.1.10.2 Directors appointed by the Shareholders' Meeting

The corporate officers who are not executives received the compensation shown in the table below for fiscal year 2021. Unless otherwise indicated, no other compensation was paid to these officers by the Company or by its subsidiaries for the said fiscal year.

In euros	Fiscal year 2021 (1)	Fiscal year 2020 (1)
Fabrice Brégier	91,500 (2)	91,500 (2)
Patrice Durand (3)	77,775 (2)	77,775 (2)
Mari-Noëlle Jégo-Laveissière (3)	75,812 (2)	74,970 (2)
Françoise Malrieu	150,500 (2)	150,500 (2)
Ross McInnes	150,500 (2)	150,500 (2)
Marie-José Nadeau	177,087 (4)	166,389 (4)
Lord Peter Ricketts of Shortlands	96,048 (4)	97,672 (4)
TOTAL	**819,222**	**809,306**

(1) Directors' compensation due for a given fiscal year are paid during the fiscal year concerned

(2) Before deduction of withholding tax relating to tax and social contributions

(3) Director elected from the private sector by the Shareholders' Meeting on the proposal of the French State

(4) Before deduction of withholding tax levied on Directors' fees paid to Directors residing outside France

Director representing the French State and the Directors elected by the Shareholders' Meeting on the proposal of the French State

The Directors representing the French State, Isabelle Bui then Stéphanie Besnier, did not personally receive any compensation from the Company or from companies controlled by the Company for their term of office in 2021.

The Directors from the private sector appointed by the Shareholders' Meeting on the proposal of the French State, namely Mari-Noëlle Jégo-Laveissière and Patrice Durand, received 85% of the directors' fees corresponding to their office, pursuant to the ministerial Order of December 28, 2014, as amended by the ministerial order of January 5, 2018, taken in application of Article 6 of Ordinance No. 2014-948 of August 20, 2014 concerning governance and equity operation of companies with a public shareholder (see the table above).

In respect of the foregoing, the balance of the directors' compensation corresponding to these offices (€160,229) was paid directly to the Public Treasury in compliance with regulations.

Directors representing the employees and employee shareholders

Directors representing employees and employee shareholders on the ENGIE Board of Directors received no compensation (directors' fees or other) from the Company or from companies controlled by the Company in consideration of their service as directors.

These Directors are Christophe Agogué, Alain Beullier, Philippe Lepage, Jacinthe Delage and Christophe Aubert.

4.4.1.10.3 Compensation policy for executive corporate officers

The compensation policy for executive corporate officers is determined by the Board of Directors based on the recommendations of the ACGC. It is subject to a presentation and binding votes at the Annual Shareholders' Meeting in accordance with Article L.22-10-8 of the French Commercial Code.

The compensation policy is reviewed annually by the ACGC and is based in particular on specific studies.

Pursuant to Article 3.3.1 of the Board's Internal regulations, executive corporate officers do not take part in meetings of the ACGC on matters relating to them.

In its recommendations to the Board of Directors, the ACGC seeks to propose a compensation policy that is in line with corporate responsibility and the practices of comparable major international groups for similar positions, based on a benchmark established by a specialized external firm that includes companies listed on the CAC40 and the Eurostoxx Utilities indices.

Pursuant to Article 9.6 of the Afep-Medef Code, the Chairman of the Board of Directors, as an independent director, does not receive variable compensation linked to the Company's performance.

Compensation of the other executive corporate officers generally includes:

- a fixed component, which remains unchanged throughout the term of office, unless the Board of Directors, on the recommendation of the ACGC, decides otherwise;
- a variable component, balanced relative to total compensation, the purpose of which is to reflect the executive's personal contribution to the Group's development and results; and
- a long-term incentive component, subject to performance conditions.

Stringent performance criteria are set both for the variable component and for long-term incentive plans, maintaining a link between the Group's performance and the compensation of its directors in the short, medium and long term and contributing to the Company's strategy and sustainability.

If the approval rate for the compensation policy is less than 80% at the last Shareholders' Meeting, the ACGC looks at the direction of the vote of the shareholders that opposed the approval of this policy and the possible follow-up to be given to their vote.

Compensation policy for the Chairman of the Board for 2022

The compensation of the Chairman of the Board of Directors for 2022 remains unchanged from 2021. It includes annual fixed compensation. It does not include any annual or multi-year variable compensation or long-term incentive plans.

The fixed annual compensation is €450,000.

In accordance with current policy, executive corporate officers do not receive directors' fees for their participation in the work of the Board and its committees.

The Chairman of the Board receives social security coverage and health care coverage.

He may benefit from the use of a company vehicle.

Compensation of the Chief Executive Officer for 2022

The Chief Executive Officer's compensation includes a fixed component, a variable annual component and a long-term incentive component.

The fixed component is €1,000,000. It was determined according to the role, experience and reference market of the CEO, particularly in relation to the fixed compensation of executive corporate officers of groups similar to ENGIE in terms of size and scope, and, more generally, on the basis of the above benchmark. It is reviewed annually. It does not change for the duration of the term of office, which is four years, unless the Board of Directors, on the recommendation of the ACGC, votes otherwise, in particular with regard to the market context, or any changes in ENGIE's profile or Group employee compensation.

The annual variable component is designed to reflect the executive's personal contribution to the Group's development and results. It is balanced in relation to the fixed component and determined as a percentage of fixed compensation.

The target annual variable component amounts to 100% of the fixed compensation (€1,000,000) for a 100% target achievement rate, with a maximum of 140% of the fixed compensation (€1,400,000) in the event that targets are exceeded.

It is calculated annually, according to the Chief Executive Officer's performance, using financial criteria to compensate economic performance (65%), and non-financial criteria (35%), where at least one criterion reflects the Group's CSR objectives, in accordance with the purpose ("Raison d'être") of ENGIE as stated in the bylaws.

For the financial component, the criteria used are net recurring income, Group share (25%), COI (25%), free cash flow (25%) and economic net debt (25%). The financial targets for 2022 were based on the Group's provisional budget as prepared by the Board of Directors on February 14, 2022. If energy prices change significantly, the Board may take the impact of prices on the targets initially set into consideration when assessing their achievement.

In particular, the non-financial component includes the marked improvement in safety performance compared with 2021, assessed with the aid of a series of indicators (frequency rate, severity rate, number of fatal accidents, etc.), the reduction of CO_2 emissions related to power generation in line with the trajectory set for the purposes of hitting the 2030 target, 35% female managers hired and an improvement in the Group's CSR rating. These four criteria account for 30% of the non-financial component and each one is given an equal weighting. The other non-financial criteria (which account for 70% of this component), insofar as they may contain strategically sensitive information, will be made public in 2023.

Last year, the Board of Directors began to align the Chief Executive Officer's long-term incentive component, which used to take the form of Performance Units, with that of Executive Committee members, senior managers and other employees who receive performance shares. This first stage of the alignment focused on Performance Unit and performance share performance conditions.

The Board aims to bring this alignment to an end by including the Chief Executive Officer in the performance share plan, which is due to replace the Performance Units currently received. The number of performance shares that would be awarded to the Chief Executive Officer is, for 2022, identical to the number of Performance Units that would have been received, i.e. an annual award of 120,000 performance shares.

The Chief Executive Officer's long-term incentive component will, therefore, take the form of performance shares subject to the same performance conditions as those attached to the performance share plans for some employees under the 27th resolution, submitted to the Shareholders' Meeting on April 21, 2022. These performance conditions are exclusively quantifiable. They include at least one non-financial performance condition that reflects the Group's CSR objectives, in accordance with the Company's purpose as stated in the bylaws. This long-term incentive component is designed to encourage executives to make a long-term commitment as well as to increase their loyalty and align their interests with the Company's corporate interests and the interests of shareholders. This particular component may not account for more than 50% of the executive's total compensation at the initial award. In accordance with Article 25.3.3 of the Afep-Medef Code, the Chief Executive Officer formally undertakes not to use hedging mechanisms for these performance shares.

It should be noted that the Chief Executive Officer's target is to create a portfolio of ENGIE shares equivalent to two years' fixed compensation, i.e. €2,000,000. Until this target is met, two-thirds of the performance shares vested to the Chief Executive Officer will be non-transferable. On December 31, 2021, the Chief Executive Officer held 30,000 ENGIE shares acquired in a personal capacity.

The financial performance conditions relate to growth in net recurring income, Group share over two years compared with a benchmark panel, hereinafter referred to as the "Panel" (constituting 25% of the total performance conditions), to changes in total shareholder return (TSR) (stock market performance, reinvested dividend) over three years compared with this same Panel (constituting 25%), and to the return on capital employed (ROCE) in the Medium-Term Business Plan (MTBP) approved by the Board of Directors (on a pro forma basis) (constituting 30%).

The Panel selected for the relative assessment of the growth of the NRIgs and TSR is composed of EDP, ENEL, Iberdrola, Naturgy, Snam and RWE, with each of these companies receiving an identical weighting.

For the assessment of the performance condition related to the growth of the NRIgs, the growth will be calculated as the ratio of the NRIgs for the 12 months preceding June 30 of the plan's year of maturity to the NRIgs for the 12 months preceding June 30 of the first year in which performance was measured.

To assess the performance condition relating to the TSR over three years, in order to spread any effects of volatility (gain or loss), the TSR (stock market performance, reinvested dividend) will be calculated by taking the averages of the three-year TSRs for ENGIE and for the Panel companies over a period of two months, ending at least one month before the scheduled delivery date of the performance shares.

Thus, the performance shares will be subject to exclusively quantifiable non-financial performance conditions (together constituting 20% of the total performance conditions), selected for consistency with the Company's statutory purpose, i.e. its objectives to reduce greenhouse gas emissions from power generation (10%), increase the proportion of renewable capacities (5%) and increase the proportion of women in management (5%). The target objectives will be in line with the trajectory established to achieve the target objectives by 2030.

The TSR (stock market performance, reinvested dividend) success rate will be zero for a result below 100% of the target. For a result equal to 100% of the target, the success rate will be equal to 50%. For a result equal to or greater than 120% of the target, the success rate will be equal to 120%. For a result greater than 100% and less than or equal to 120% of the target, the success rate will be progressive and linear between 50% and 120%. It is specified that a result of 100% of the target corresponds to the average of the companies of the Panel.

The success rate for NRIgs growth will be zero for a result below 75% of the target. For a result equal to 100% of the target, the success rate will be equal to 80%. For a result equal to or greater than 120% of the target, the success rate will be equal to 120%. The progression between these points is linear. It is specified that a result of 100% of the target corresponds to the average of the companies of the Panel.

The ROCE success rate will be zero for a result below 75% of the target. For a result equal to 100% of the target, the success rate will be equal to 100%. For a result equal to or greater than 120% of the target, the success rate will be equal to 120%. The progression between these points is linear.

With regard to non-financial performance conditions, if the result is equal to the target, the success rate will be 100%. The Board will stringently define limits corresponding to a success rate of 0% and a maximum rate of 120%, according to medium-term targets and the specific nature of each of these indicators.

The determination of the above performance criteria derives from the Board of Directors' commitment to the variable nature of the long-term incentive component which rewards financial and non-financial performance in the medium and long term. They are therefore not meant to be reviewed. However, in the event of exceptional circumstances (such as a change in accounting standards, a significant change in scope, the completion of a transformative transaction, a substantial change in market conditions or an unforeseen change in the competitive environment), the Board of Directors may, on an exceptional basis, adjust upward or downward the results of one or more of the performance criteria associated with the long-term incentive component to ensure that the results of applying these criteria reflect the Group's performance. This adjustment would be made by the Board of Directors on the proposal of the ACGC, after the Board of Directors was assured that the adjustment can reasonably restore the balance or objective initially sought, adjusted for all or part of the impact of the event on the period under review and that the interests of the Company and its shareholders are aligned with the interests of the executive corporate officer. The Board would then justify, in detail, the adjustments made, which will be communicated.

The total sucess rate for the Performance Shares will be capped at 100%.

The payment of the variable and extraordinary compensation components and the award of performance shares for 2022 will be contingent on the approval of shareholders at the 2023 Ordinary Shareholders' Meeting.

Lastly, the Chief Executive Officer will continue to benefit from a supplementary pension plan, under which the Company does not guarantee the amount of the pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82) and half is a cash sum, given the immediate taxation on commencement of this mechanism. The employer contribution will correspond to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It will also depend on the Company's performance, since the calculation base includes the variable portion linked to the Group's results. The Chief Executive Officer will also benefit from the mandatory pension plan (Article 83 of the French Tax Code) applicable to all senior Group managers.

The Chief Executive Officer will also benefit from health care and social security schemes equivalent to the collective schemes for ENGIE's executive officers in France.

The Chief Executive Officer, if also a director, does not receive any directors' fees for sitting on the Board of Directors.

In the event of departure from the Group, the former Chief Executive Officer will be bound by a non-compete commitment for a period of one year from the end of his or her term of office and will receive one year's compensation payable in twelve monthly installments. The Board of Directors may waive the application of this clause at the time of the officer's departure.

In the event of forced departure not resulting from serious misconduct on the part of the executive corporate officer, and regardless of the form of such departure, the Chief Executive Officer shall receive an indemnity of two years' compensation, which shall be payable only if the performance conditions attached to the annual variable component of the compensation for the two years preceding the year of departure have been met by at least 90% on average.

In addition, all provisions of the Afep-Medef Code are applicable to the non-compete commitment and severance payments, in particular with regard to those two payments combined, which may not exceed two years of compensation. "Year of compensation" within the meaning of the non-compete commitment and severance payments referred to above means the last annual fixed compensation plus the annual variable compensation paid calculated on the basis of the average annual variable compensation paid for the two years preceding the year of departure.

Lastly, the Chief Executive Officer benefits from the use of a company vehicle.

4.4.2 Compensation of executives who are not corporate officers (members of the Executive Committee)

Compensation of executives who are not corporate officers (members of the Executive Committee) is composed of a fixed portion and a variable portion.

Changes in the fixed portion of compensation are linked to changes in specific situations, expansion or significant change in responsibilities and to repositioning made necessary in view of internal equity or a clear discrepancy vis-à-vis the external market.

The main purpose of the variable portion is to reward the contributions of executives to the Group's results.

The amounts below include the variable portions paid in 2021 for 2020 and paid in 2020 for 2019.

Sixty-five percent of the variable component paid in 2021 for fiscal year 2020 was calculated based on economic criteria (NRIgs, COI, free cash flow, economic net debt) and 35% on qualitative criteria.

Summary table of gross compensation, including benefits in kind, for executives who are not corporate officers (Executive Committee members) [(1)]

In euros	**2021**	**2020**
Fixed	5,171,898	5,635,333
Variable	4,476,708	7,765,000
TOTAL	**9,648,606**	**13,400,333**
Total of members	16	13

(1) Compensation is calculated excluding severance pay and taking into account actual time worked during the year in question

Pension provisions

Pursuant to the European Directive of April 16, 2014, Order No. 2019-697 relating to supplementary occupational retirement plans, published on July 4, 2019, terminated the existing L137-11 plans (referred to as "Article 39") and prohibited the acquisition of new rights and the entry of any new members as from that date.

Following the closure of the plan and the crystallization of random entitlements in 2019, in 2020 the Group converted the random entitlements of beneficiaries, including members of the Executive Committee, into a defined-contribution plan called "Article 82".

4.4.3 Information on the award of bonus shares or Performance Shares (1)

4.4.3.1 Availability of Performance Shares

The current Articles L.225-197-1 and L. 22-10-59 of the Commercial Code place restrictions on the free availability of Performance Shares granted to executive corporate officers under share plans.

In accordance with these provisions, a system was established specifying the obligation to hold as registered shares a certain percentage (set by the Board of Directors) of vested Performance Shares. The objective is that after a certain point, the executive corporate officers and, more generally, Executive Committee members would hold a portfolio of ENGIE shares corresponding to a fraction of their compensation.

At its meeting of March 1, 2017, the Board of Directors decided, on the recommendation of the Appointments, Compensation and Governance Committee, to update the existing system as follows:

- fixed target: build a share portfolio equivalent to two years' fixed compensation for the Chief Executive Officer, and to one and a half years for other members of the Executive Committee. This objective is set in terms of the number of shares for each person concerned, and is calculated based on the fixed annual compensation prevailing at January 1 of the year in question and on the average share price over the previous year;
- until the target is met: continue to hold 2/3 of the vested Performance Shares and, for the Chief Executive Officer, with regard to performance unit plans, reinvest in ENGIE shares 2/3 of the income from the exercise of the PUs net of tax and social security withholding.

4.4.3.2 Bonus share or Performance Share plans implemented during fiscal year 2021

Authorization of the Shareholders' Meeting of May 20, 2021

The 19th resolution of the ENGIE Ordinary and Extraordinary Shareholders' Meeting of May 20, 2021 authorized the Board of Directors to award bonus shares to employees and/or corporate officers of companies belonging to the Group (with the exception of corporate officers of the Company) up to the limit of 0.75% of the share capital on the date of the decision to allocate shares, with an annual cap of 0.25% of said share capital. It should also be noted that the Shareholders' Meeting was not asked to grant an authorization for stock options.

Performance Share Plan for 2020 (Board meeting of February 25, 2021)

Under the authorization given by the Shareholders' Meeting of May 18, 2018, the Board of Directors, at its meeting of February 25, 2021, decided to implement a Performance Share Plan for certain employees in the Trading business, in accordance with the order of November 3, 2009 and with European Directives CRDIII and CRDIV regarding the compensation of financial market professionals, and with the order of December 13, 2010. The main features of this plan and other plans granted for 2018 are listed on pages 165 et seq. of the 2019 registration document filed with the AMF on March 18, 2020.

Performance Share plans for 2021 (Board meetings of December 16, 2021 and February 14, 2022)

Under the authorization granted by the Shareholders' Meeting of May 20, 2021, the Board of Directors, at its meeting of December 16, 2021, decided to implement Performance Share Plans for certain employees of ENGIE and its subsidiaries (excluding executive corporate officers of ENGIE). The Board of Directors decided to maintain a significant number of beneficiaries. This plan aims to recognize employees who play a great part in implementing the strategic road map, to retain the loyalty and increase the commitment of our talent and to offer competitive compensation to executives. The plan is based on existing shares with no dilutive effect for shareholders.

The main features of this plan, which involves 5,029,075 shares for 6,951 people, are as follows:

(1) *Please note that there are no more ENGIE stock options as of November 9, 2017*

Vesting period	From 12/16/2021 to 03/14/2025 (2026 for senior executives outside France)
Continuous service condition *(Current employment contract with a Group company at these dates, except in cases of retirement, death, disability or exceptional decision)*	On 03/14/2025 (2026 for senior executives outside France)
Vesting date	03/15/2025 (2026 for senior executives outside France)
Holding period *(mandatory, except in the case of death or disability)*	No holding period except for senior executives in France for whom the holding period runs from 03/15/2024 to 03/14/2025 (no holding if vesting occurs in 2026)
Transferable from	On or after 3/15/2025, and for senior executives, on or after 3/15/2026
Performance conditions	With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a quadruple condition applies for all beneficiaries: a) 25% is based on NRIgs, calculated as the ratio between the Group's growth and Panel's average growth (1), and b) 30% is based on ROCE for 2024 compared to the budgeted target ROCE, c) 25% is based on the TSR (stock market performance, dividend reinvested) of ENGIE shares over three years compared to a Panel (1) over a period of two months, ending at least one month before March 15, 2025; d) 20% is based on non-financial performance conditions: • greenhouse gas emissions from energy production (10%); • increasing the share of renewable capacities (5%); • increasing the percentage of women in management (5%). For the assessment of the performance conditions, the slopes are as follows: • for a result below 75%, the success rate will be equal to 0%; • for a result equal to 100%, the success rate will be equal to: – 50% for the condition relating to TSR, – 80% for the condition relating to RNRPG, – 100% for the conditions relating to ROCE and non-financial conditions; • for a result equal to or greater than 120%, the success rate will be equal to 120%. The progression between these points is linear. The arithmetic mean of the three success rates in a), b), c) and d) above represents the percentage of shares that will vest. The total success rate will be capped at 100%. This condition applies to all performance shares awarded to the Group's executives and beyond the first tranche of 150 shares awarded to all other beneficiaries.

(1) *The "Panel" means the panel of companies composed of EDP, ENEL, Iberdrola, Naturgy, Snam and RWE (with each of these companies receiving an identical weighting)*

In addition, under the authorization given by the Shareholders' Meeting of May 20, 2021, the Board of Directors, at its meeting of February 14, 2022, decided to implement a Performance Share Plan for certain employees in the Trading business, in accordance with the ministerial order of November 3, 2009 and with European Directives CRDIII and CRDIV regarding the compensation of financial market professionals, and with the ministerial order of December 13, 2010.

The allocation concerned 130 people within the Trading business, for a total of 448,027 ENGIE performance shares. The Board of Directors set the following schedule and general conditions for the plan:

Vesting period	02/14/2022 to 03/14/2024 for around half the shares 02/14/2022 to 03/14/2025 for the remaining shares
Continuous service condition *(Current employment contract with a Group company at these dates, except in cases of retirement, death, disability or exceptional decision)*	03/14/2024 for around half the shares 03/14/2025 for the remaining shares
Vesting date	03/15/2024 for around half the shares 03/15/2025 for the remaining shares
Holding period	No holding period
Transferable from	From 03/15/2024 for around half the shares From 03/15/2025 for the remaining shares
Performance conditions	Based on the Trading business's profit before tax for fiscal year 2023 for around half the shares Based on the Trading business's profit before tax for fiscal year 2024 for the remaining shares

4.4.4 Performance shares awarded to and available for sale by each executive corporate officer – Summary of current plans

4.4.4.1 ENGIE performance shares awarded to each ENGIE executive corporate officer by ENGIE and all other companies of the ENGIE Group in 2021

None

4.4.4.2 ENGIE Performance Shares that became available for sale by each executive corporate officer of ENGIE in fiscal year 2021

None

4.4.4.3 Summary of current ENGIE Performance Share plans

	2016	2017		2018	
For year:	**2016 Plan**	**2017 Plan**	**2017 Traders' Plan**	**2018 Plan**	**2018 Traders' Plan**
Date of authorization from the General Shareholders' Meeting	05/03/2016	05/12/2017	05/12/2017	05/18/2018	05/18/2018
Date of Board decision	12/14/2016	12/13/2017	03/07/2018	12/11/2018	02/27/2019
Share price in euros (1)	8.44	11.64	10.79	9.36	11.41
Start of vesting period (2)	12/14/2016	12/13/2017	03/01/2018	12/11/2018	02/27/2019
End of vesting period	03/14/2020 (4)	03/14/2021 (8)	03/14/2020 (3) 03/14/2021 (3)	03/14/2022 (13)	03/14/2021 (3) 03/14/2022 (3)
Start of holding period	none (5)	none (9)	none	none (14)	none
End of holding period	none (6)	none (10)	none	none (15)	none
Related conditions	(7)	(11)	(12)	(16)	(17)
Shares vested as at 12/31/2020	120,007	4,885,500	59,991	4,810,290	164,114
Shares vested from 01/01/2021 to 12/31/2021	120,007	3,088,159	59,991	7,400	81,561
Shares canceled from 01/01/2021 to 12/31/2021	-	1,722,371	-	152,700	14,155
Balance of shares as at 12/31/2021	-	74,970	-	4,650,190	68,398

(1) Weighted average price (according to the method used for the consolidated financial statements)
(2) Early vesting possible in the event of death or permanent disability. Condition of continuous service at the vesting date
(3) For 50% of shares
(4) For all beneficiaries except senior executives outside France and Belgium for whom the vesting period ends on March 14, 2021 with no holding period
(5) For all beneficiaries except senior executives outside France and Belgium for whom the vesting period ends on March 14, 2021 with no holding period
(6) For senior executives in France and Belgium, a holding period from March 15, 2020 to March 14, 2021, inclusive, applies
(7) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share, for fiscal years 2018 and 2019, one-third based on ROCE for fiscal years 2018 and 2019, and one-third based on the TSR (stock market performance, dividend reinvested) of ENGIE compared with the TSR (stock market performance, dividend reinvested) of the panel
(8) 03/14/2022 for senior executives outside France and Belgium
(9) 03/15/2021 for senior executives in France and Belgium
(10) 03/15/2022 for senior executives in France and Belgium
(11) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share, for fiscal years 2019 and 2020, one-third based on ROCE for fiscal years 2019 and 2020, and one-third based on the TSR (stock market performance, dividend reinvested) of ENGIE stock compared with the TSR (stock market performance, dividend reinvested) of the panel. This condition applies to all shares awarded to the Group's senior executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries
(12) 50% based on 2019 ENGIE Global Markets profit before tax and 50% based on 2020 ENGIE Global Markets profit before tax
(13) 03/14/2023 for senior executives outside France and Belgium
(14) 03/15/2022 for senior executives in France and Belgium
(15) 03/15/2023 for senior executives in France and Belgium
(16) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share, for fiscal years 2020 and 2021, one-third based on ROCE for fiscal years 2020 and 2021, and one-third based on the TSR (stock market performance, dividend reinvested) of ENGIE compared with the TSR (stock market performance, dividend reinvested) of the panel. This condition applies to all shares awarded to the Group's executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries
(17) 50% based on 2020 ENGIE Global Markets profit before tax and 50% based on 2021 ENGIE Global Markets profit before tax

For year:	2019 Plan	2019 Traders' Plan	2020 Plan	2020 Traders' Plan	2021 Plan	2021 Traders' Plan
	2019		2020		2021	
Date of authorization from the General Shareholders' Meeting	05/18/2018	05/18/2018	05/18/2018	05/18/2018	05/20/2021	05/20/2021
Date of Board decision	12/17/2019	02/26/2020	12/17/2020	02/25/2021	12/16/2021	02/14/2022
Share price *(in euros)* (1)	11.59	13.61	9.93	10.9	9.28	12.13
Start of vesting period (2)	12/17/2019	02/26/2020	12/17/2020	02/25/2021	12/16/2021	02/14/2022
End of vesting period	3/14/2023 (4)	03/14/2022 (3) 03/14/2023 (3)	03/14/2024 (9)	03/14/2023 (3) 03/14/2024 (3)	03/14/2025 (14)	03/14/2024 (3) 03/14/2025 (3)
Start of holding period	none (5)	none	none (10)	none	none (15)	none
End of holding period	none (6)	none	none (11)	none	none (16)	none
Related conditions	(7)	(8)	(12)	(13)	(17)	(18)
Shares vested as at 12/31/2020	5,062,615	272,530	5,072,390	301,735	none	none
Shares vested from 01/01/2021 to 12/31/2021	7,025	15,802	1,500	-	none	none
Shares canceled from 01/01/2021 to 12/31/2021	120,350	0	165,055	1,683	none	none
Balance of shares as at 12/31/2021	4,935,240	256,728	4,905,835	300,052	5,029,075	none

(1) *Weighted average price (according to the method used for the consolidated financial statements)*
(2) *Early vesting possible in the event of death or permanent disability. Condition of continuous service at the vesting date*
(3) *For 50% of shares*
(4) *03/15/2024 for senior executives outside France and Belgium*
(5) *03/15/2023 for senior executives in France and Belgium*
(6) *03/15/2024 for senior executives in France and Belgium*
(7) *With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share, for fiscal years 2021 and 2022, one-third based on ROCE for fiscal years 2021 and 2022, and one-third based on the TSR (stock market performance, dividend reinvested) of ENGIE compared with the TSR (stock market performance, dividend reinvested) of the panel. This condition applies to all shares awarded to the Group's executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries*
(8) *50% based on 2021 ENGIE Global Markets profit before tax and 50% based on 2022 ENGIE Global Markets profit before tax*
(9) *03/15/2025 for senior executives outside France*
(10) *03/15/2024 for senior executives in France*
(11) *03/15/2025 for senior executives in France*
(12) *With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share, for fiscal years 2022 and 2023, one-third based on ROCE for fiscal years 2022 and 2023, and one-third based on the TSR (stock market performance, dividend reinvested) of ENGIE compared with the TSR (stock market performance, dividend reinvested) of the panel. This condition applies to all shares awarded to the Group's executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries*
(13) *50% based on 2022 ENGIE Global Markets profit before tax and 50% based on 2023 ENGIE Global Markets profit before tax*
(14) *03/15/2026 for senior executives outside France*
(15) *03/15/2025 for senior executives in France*
(16) *03/15/2026 for senior executives in France*
(17) *With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a quadruple condition applies for all beneficiaries: 30% ROCE 2024 compared with target ROCE, 25% performance of TSR compared with the Panel, 25% growth in ENGIE's net recurring income Group share compared with the Panel, 20% non-financial conditions relating to CSR (greenhouse gas emissions from power generation (10%)), increase in renewable energy capacity (5%) and increase in the proportion of women in management (5%)). This condition applies to all shares awarded to the Group's executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries*
(18) *50% based on 2023 ENGIE Global Markets profit before tax and 50% based on 2024 ENGIE Global Markets profit before tax*

4.4.4.4 Summary of Bonus and Performance Shares held by executive corporate officers at December 31, 2021

None.

4.4.5 Performance shares granted in fiscal year 2021 by ENGIE and by all companies included in the ENGIE performance share scope to the ten non-corporate officer employees of the issuer and its companies who received the greatest number of performance shares

Total number of shares awarded	Share price (1) *(in euros)*	Issuer	Plan
555,000	9.28	ENGIE	12/17/2021

(1) Weighted average price, according to the method used for the consolidated financial statements

4.4.6 Summary of transactions disclosed by executive management and corporate officers in fiscal 2021

	Date of transaction	Type of transaction	Financial instrument	Quantity	Unit price *(in euros)*	Transaction price *(in euros)*
Jean-Pierre Clamadieu	08/02/2021	Acquisition	Equity investments	10,000	11.3467	113,467
Catherine MacGregor	03/01/2021	Acquisition	Equity investments	15,000	12.3050	184,575
	08/02/2021	Acquisition	Equity investments	15,000	11.3123	169,684.50
Paulo Almirante	03/15/2021	Acquisition	Equity investments	33,335 (1)	(3)	(3)
Sébastien Arbola	03/15/2021	Acquisition	Equity investments	8,867 (1)	(3)	(3)
				8,925 (2)	(3)	(3)
Frank Demaille	03/15/2021	Acquisition	Equity investments	8,925 (2)	(3)	(3)
	08/04/2021	Acquisition	Equity investments	2,500	11.6060	29,015
	11/03/2021	Disposal	Equity investments	2,600	12.4640	32,406.40
Judith Hartmann	03/15/2021	Acquisition	Equity investments	29,750 (2)	(3)	(3)
Yves Le Gélard	03/15/2021	Acquisition	Equity investments	35,700 (2)	(3)	(3)
Cécile Prévieu	03/15/2021	Acquisition	Equity investments	8,330 (2)	(3)	(3)
Claire Waysand	08/02/2021	Acquisition	Equity investments	5,000	11.3580	56,790

(1) Vesting of Performance Shares allocated for 2016
(2) Vesting of Performance Shares allocated for 2017
(3) As soon as the performance shares are vested, their gross value is correlated to the price of the ENGIE share. It should be noted that, as of March 15, 2021, the ENGIE share price was €12.21

4.5 Additional information concerning corporate governance

To prevent conflicts of interest within French public limited companies, the French Commercial Code provides for an authorization and control procedure for agreements between the Company and its corporate officers or its key shareholders.

Likewise for agreements entered into with other companies with which it has corporate officers in common.

This authorization and control procedure for related-party agreements is organized in five phases:

- information supplied to the Board of Directors;
- prior authorization of the signing, amendment, renewal or cancellation of a related-party agreement by the Board of Directors;
- information supplied to the Statutory Auditors on related-party agreements authorized over the fiscal year and on those that are already authorized and are ongoing;
- special report of the Statutory Auditors;
- consultation of the Ordinary Shareholders' Meeting. After reviewing the Statutory Auditors' special report, the Shareholders' Meeting decides whether or not to approve the agreements.

Without officially being subject to this procedure, agreements that have already been authorized and which are ongoing, are reviewed by the Board on an annual basis.

Their existence and consequences are noted in the report presented by the Statutory Auditors to the Shareholders' Meeting.

4.5.1 Agreements relating to current operations concluded under normal conditions

In accordance with the legislative provisions and on the recommendation of the Audit Committee, the Board of Directors adopted a procedure on December 17, 2019 to assess whether the agreements relating to current operations, concluded under normal conditions by the company, actually fulfill these conditions

(see www.engie.com/documentsutiles)

A committee within ENGIE's General Secretariat informed about all draft agreements likely to be classified as a regulated or current agreement is tasked with analyzing the characteristics of this agreement and both submitting it to the authorization and control procedure provided for in the regulated agreements, and classifying it as an agreement concerning current operations concluded under normal conditions.

This procedure also provides for follow-up in the form of an annual update on its implementation to the Audit Committee and the Board of Directors. In accordance with the regulations, it should also be noted that persons directly or indirectly involved in one of the above agreements do not take part either in discussions or in voting on its assessment and its adoption.

4.5.2 Related party agreements and regulated agreements

The special report of the Statutory Auditors on related party agreements referred to in Article L.225-38 et seq. of the French Commercial Code for fiscal year 2021 is provided in Section 4.7 of this chapter.

Details of transactions with related parties as specified by the regulations adopted under EC regulation 1606/2002, are provided in Note 22 to the Consolidated Financial Statements (Section 6.2).

4.5.3 Service contracts binding members of corporate governance bodies

To ENGIE's knowledge, there is no service contract binding members of the Company's management bodies or any of its subsidiaries that provides for benefits to be granted under such a contract.

4.5.4 Authorizations relating to share capital and share equivalent and their utilization

The Company's shareholders delegated the following powers and authorizations in relation to financial matters to the Board of Directors:

Authorizations granted by the Combined Shareholders' Meeting of May 14, 2020

Resolution	Nature of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
19th	Issue of shares and/or marketable securities with PSR(1) *(to be used outside public tender offer periods only)*	**26 months until July 13, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 18, 2018 (13th resolution)	€**225** million for shares(2)(3) and €**5** billion for marketable securities representing debt	None	Full amount of the authorization
20th	Issue of shares and/or marketable securities without PSR(1) *(to be used outside public tender offer periods only)*	**26 months until July 13, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 18, 2018 (14th resolution)	€**225** million for shares(2)(3) and €**5** billion for marketable securities representing debt	None	Full amount of the authorization
21th	Issue of shares and/or marketable securities without PSR(1) in the context of an offer governed by Article L. 411-2 of the French Monetary and Financial Code *(to be used outside public tender offer periods only)*	**26 months until July 13, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 18, 2018 (15th resolution)	€**225** million for shares(2)(3) and €**5** billion for marketable securities representing debt	None	Full amount of the authorization
22th	Increase in the amount of capital increases (*greenshoe option*) carried out pursuant to the 19th, 20th and 21st resolutions *(to be used outside public tender offer periods only)*	**26 months until July 13, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 18, 2018 (16th resolution)	Up to **15%** of the initial issue(2)(3)	None	Full amount of the authorization
23th	Issue of ordinary shares and/or various securities in consideration for contributions of securities made to the Company, up to a limit of 10% of the share capital *(to be used outside public tender offer periods only)*	**26 months until July 13, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 18, 2018, (17th resolution)	€**225** million for shares(2)(3) and €**5** billion for marketable securities representing debt	None	Full amount of the authorization
26th	Authorization to reduce the share capital by canceling treasury shares	**26 months until July 13, 2022** Terminates the delegations granted by the Combined Shareholders' Meeting of May 18, 2018, (25th resolution)	10% of the share capital per 24 month period	None	Full amount of the authorization

(1) *PSR: Preferential Subscription Rights*
(2) *Amounts common to issues of marketable securities decided under the 19th, 20th, 21st, 22nd, 23rd resolutions of the Combined Shareholders' Meeting of May 14, 2020*
(3) *Common ceiling set by the 24th resolution of the Combined Shareholders' Meeting of May 14, 2020, under the 19th, 20th, 21st, 22nd, 23rd resolutions of the Combined Shareholders' Meeting of May 14, 2020: €265 million*

Authorizations granted by the Combined Shareholders' Meeting of May 20, 2021

Resolution	Nature of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
5th	Authorization to trade in the Company's shares	**18 months until November 19, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 14, 2020 (6th resolution)	Maximum purchase price: **€30** Maximum shareholding: **10%** of share capital Aggregate amount of purchases: **€7.3** billion ***May not be used during a public tender offer for the shares of the Company***	0.62% of share capital at 12/31/2021	Remaining 9.38% of share capital
16th	Capital increase reserved for employees who are members of employee saving plans of the ENGIE group	**26 months until July 19, 2023** Terminates the delegation granted by the Combined Shareholders' Meeting of May 14, 2020 (27th resolution)	**2%** of the share capital as of the date of implementation of the delegation. **Amount common with the 17th resolution of the Combined Shareholders' Meeting of May 20, 2021**	None	Full amount of the authorization
17th	Capital increase reserved for all entities formed as part of the implementation of the international employee shareholding plan offered by the ENGIE group	**18 months until November 19, 2022** Terminates the delegation granted by the Combined Shareholders' Meeting of May 14, 2020 (28th resolution)	**0.5%** of the share capital as of the date of implementation of the delegation, **which will be counted against the 2% ceiling under the 16th resolution of the Combined Shareholders' Meeting of May 20, 2020** (1)(2)	None	Full amount of the authorization
18th	Authorization to be given to the Board of Directors for the purpose of awarding bonus shares (i) to employees and/or corporate officers of ENGIE Group companies (with the exception of corporate officers of ENGIE SA) and (ii) to employees participating in a group international employee shareholding plan of the ENGIE group (World Plans)	**38 months until July 19, 2024** Terminates, up to the unused portion, the delegation granted by the Combined Shareholders' Meeting of May 18, 2018 (28th resolution)	**0.75%** of the share capital, (with an annual cap of 0.25% of the share capital), **ceiling common to the 18th** and **19th resolutions of the Combined Shareholders' Meeting of May 20, 2021**	None	Full amount of the authorization
19th	Authorization for the purpose of awarding bonus shares to certain employees and corporate officers of ENGIE Group companies, except for corporate officers of ENGIE SA (Discretionary Plans)	**38 months until July 19, 2024** Terminates, up to the unused portion, the delegation granted by the Combined Shareholders' Meeting of May 18, 2018 (29th resolution)	**0.75**% of the share capital (with an annual cap of 0.25% of the share capital), **ceiling common to the 18th and 19th resolutions of the Combined Shareholders' Meeting of May 20** (3)	Award on December 16, 2021, of 5,029,075 performance shares, i.e. 0.21% of the share capital as at December 31, 2021, and on February 14, 2022, of 448,027 performance shares, i.e. a total allocation of 0.22% of the share capital as at February 14, 2022	0.1% of the share capital

(1) *The overall maximum nominal amount of issues decided under the 16th and 17th resolutions was set at €265 million by the 24th resolution of the Combined Shareholders' Meeting of May 14, 2020*

(2) *The nominal amount of issues decided under the 17th resolution is deducted from the ceiling of 2% of the share capital set by the 16th resolution*

(3) *This is a common ceiling set by the Combined Shareholders' Meeting of May 20, 2021 for the awards approved under the 18th and 19th resolutions*

4.5.5 Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings

Notice to attend meetings (Articles 20, 21 and 22 of the bylaws)

Combined Shareholders' Meetings and, where applicable, Special Shareholders' Meetings, are called, meet and deliberate in accordance with the conditions provided for by law. The party issuing the notice convening the meeting also draws up the meeting agenda. However, one or more shareholders may, in accordance with the conditions provided for by law, request that draft resolutions be entered on the agenda.

The meeting may take place at the Company's head office or at any other location stated in the notice.

Meetings are chaired by the Chairman of the Board of Directors or, in his absence, by the Vice-Chairman of the Board of Directors, a Deputy Chief Executive Officer if he or she is also Director, or, in the absence of a Deputy Chief Executive Officer, by a Director specially authorized by the Board for this purpose. Otherwise, the meeting elects its own Chairman.

The two members of the General Shareholders' Meeting present who accept the duties thereof and who hold the greatest number of votes act as vote tellers. The officers of the meeting appoint the secretary, who may be chosen from outside the shareholders.

An attendance sheet is kept in accordance with the conditions provided for by law. Minutes of meetings are drawn up and copies thereof are issued and certified in accordance with the conditions provided for by law.

Attendance at meetings (Article 20 of the bylaws)

All shareholders have the right to attend the meetings provided their shares are paid in full.

The right to attend meetings or to be represented therein is subject to the registration of the securities in the shareholder's name by midnight (CET) of the second business day prior to the meeting, either in the registered securities' accounts held by the Company or in bearer securities' accounts held by the authorized intermediary.

The Board of Directors may, if it deems necessary, send to the shareholders individualized admission cards in each shareholder's name and require them to be presented in order to gain access to the Shareholders' Meeting.

If the Board of Directors so decides at the time the Meeting is called, shareholders may participate in the meeting by videoconference or by any telecommunication or remote transmission means, including via the Internet, that permits their identification in accordance with the terms and conditions set under current regulations. Where applicable, this decision shall be announced in the notice convening the meeting published in the *Bulletin des Annonces Légales Obligatoires* (Bulletin of Mandatory Legal Announcements or BALO).

Voting rights (Articles 10, 11, 12 and 20 of the bylaws)

Unless otherwise provided for by law, each shareholder has as many voting rights and may cast as many votes at meetings as he or she holds shares, which are fully paid up. Effective April 2, 2016, in accordance with Article L.22-10-46 of the French Commercial Code, all registered and fully paid-up shares registered in the name of the same beneficiary for at least two years are automatically entitled to a double voting right (see Section 5.1.1.3 "Voting rights").

The shares are indivisible with regard to the Company. Where the shares are subject to a right of usufruct, voting rights attached to shares belong to the beneficial owner of the shares in the case of Ordinary Shareholders' Meetings, and to the bare owner in the case of Extraordinary Shareholders' Meetings.

Any time it is necessary to own several shares in order to exercise any right whatsoever, the owners of isolated shares or an insufficient number of shares may exercise such a right provided that they combine or, as the case may be, buy or sell the necessary shares or rights.

Any shareholder may cast a vote by proxy in accordance with the terms and conditions provided for by the law and regulations in all meetings. The owners of securities mentioned in the seventh paragraph of Article L.228-1 of the French Commercial Code may be represented, in accordance with the conditions provided for by law, by a registered intermediary. Any shareholder may cast a vote by proxy in accordance with the terms and conditions provided for by the law and regulations. The shareholders may, in accordance with the terms and conditions provided for by the law and regulations, send their postal proxy form either as a printed form or, further to a decision of the Board of Directors published in the notice of meeting and the notice to attend the meeting, by electronic transmission.

Dividends (Article 26.2 of the bylaws)

Any shareholder who can, at the end of a fiscal year, provide proof of registration for at least two years and continuation thereof on the dividend payment date for the fiscal year in question, shall receive a 10% increase in the dividend for the shares so registered, over the dividend paid on other shares. This increase will be capped at 0.5% of the share capital for a single shareholder.

Golden share (Article 6 of the bylaws)

In accordance with the French Energy Code and Decree No. 2015-1823 of December 30, 2015, the share capital includes a golden share resulting from the conversion of one ordinary share, which is held by the French State and is aimed at protecting France's critical interests in the energy sector and ensuring the continuity and safeguarding of energy supplies (see Section 5.4.4 "Golden share").

Changes in rights attached to shares

Except where otherwise specified by law, the rights attached to the Company's shares may be modified only by the Extraordinary Shareholders' Meeting, subject to the special terms relating to the French State's golden share under Article 6 of the bylaws (see also Section 5.4.4 "Golden share").

In accordance with the provisions of the applicable law and regulations, which define the rights attached to ENGIE shares, any amendment of the bylaws must be approved by a two-thirds majority at the Extraordinary Shareholders' Meeting. All increases in the commitments of the shareholders must be unanimously approved by all shareholders.

4.5.6 Information on elements that could have an impact on Takeover Bids or Public Exchange Offers

Pursuant to Article L.22-10-11 of the French Commercial Code, the elements that could have an impact in the event of a public tender offer or exchange offer are specified in Section 3.4.4 "Employees Savings and Shareholding", 4.1 "Corporate governance bodies", 4.1.2 "Functioning of the Board of Directors", 4.4 "Compensation and benefits paid to members of the administration and management ", 4.5.4 "Authorizations relating to share capital and share equivalents and their utilization", 4.5.5 "Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings", 5.4.2 "Breakdown of share capital", 5.4.3 "Statutory disclosure thresholds", 5.4.4 "Golden share" and 7.1 "General information concerning ENGIE and its bylaws".

4.5.7 Statutory Auditors

Deloitte & Associés

Company represented by Patrick Suissa and Nadia Laadouli.

6, place de la Pyramide, 92908 Paris-La Défense Cedex, France

Deloitte & Associés has been a Statutory Auditor for the Company since July 16, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of May 14, 2020 for a period of six years and will expire at the close of the 2026 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2025.

Ernst & Young et Autres

Company represented by Charles-Emmanuel Chosson and Guillaume Rouger.

1/2, place des Saisons, 92400 Courbevoie – Paris-La Défense 1, France

Ernst & Young et Autres has been a Statutory Auditor for the Company since May 19, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of May 14, 2020 for a period of six years and will expire at the close of the 2026 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2025.

Previously, Ernst & Young Audit was an auditor between 1995 and 2007.

4.6 Corporate Governance Code

ENGIE maintains its commitment to implementing corporate governance guidelines and for this purpose refers to the Afep-Medef Corporate Governance Code for listed companies (amended in January 2020).

On the date of this Document, the Company applies all the provisions of this Code.

4.7 Statutory auditors' report on related party agreements

This is a translation into English of a report issued in French and it is provided solely for the convenience of English-speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

Shareholders' Meeting held to approve the financial statements for the year ended December 31, 2021

To the ENGIE Shareholders' Meeting,

In our capacity as statutory auditors of your Company, we hereby present to you our report on related party agreements.

We are required to inform you, on the basis of the information provided to us, of the terms and conditions of those agreements indicated to us, or that we may have identified in the performance of our engagement, as well as the reasons justifying why they benefit the Company. We are not required to give our opinion as to whether they are beneficial or appropriate or to ascertain the existence of other agreements. It is your responsibility, in accordance with Article R. 225-31 of the French Commercial Code *(Code de commerce)*, to assess the relevance of these agreements prior to their approval.

We are also required, where applicable, to inform you in accordance with Article R. 225-31 of the French Commercial Code *(Code de commerce)* of the continuation of the implementation, during the year ended December 31, 2021, of the agreements previously approved by the Annual General Meeting.

We performed those procedures which we deemed necessary in compliance with professional guidance issued by the French Institute of Statutory Auditors *(Compagnie nationale des commissaires aux comptes)* relating to this type of engagement. These procedures consisted in verifying the consistency of the information provided to us with the relevant source documents.

A. Agreements submitted for approval to the Annual General Meeting

Agreements authorized during the year ended December 31, 2021

We hereby inform you that we have not been notified of any agreements authorized during the year ended December 31, 2022 to be submitted to the Annual General Meeting for approval in accordance with Article L.225-38 of the French Commercial Code *(Code de commerce)*.

B. Agreements previously approved by the Annual General Meeting

B.1. Agreements approved in prior years whose implementation continued during the year ended December 31 2021

In accordance with Article R. 225-30 of the French Commercial Code *(Code de commerce)*, we have been notified that the implementation of the following agreements, which were approved by the Annual General Meeting in prior years, continued during the year ended December 31, 2021.

With M. Clamadieu, Chairman of the Board of Directors of your Company

a) Nature, purpose and terms: Benefit plan for Jean–Pierre Clamadieu

Your Board of Directors, at its meeting of June 19, 2018, resolved to grant M. Clamadieu a benefit plan equivalent to the policy for all ENGIE executives in France, through a group insurance policy taken out by your Company. This policy provides life insurance and disability insurance.

b) Nature, purpose and terms: Healthcare plan for Jean–Pierre Clamadieu

Your Board of Directors, at its meeting of December 11, 2018, approved a health insurance policy equivalent to the policy for all ENGIE executives in France, granted through a group insurance policy taken out by your Company. This policy covers the standard coverage items for reimbursement of medical costs for the insured and his beneficiaries as of March 1, 2019.

Paris-La Défense, March 4, 2022

The Statutory Auditors *French original signed by*

DELOITTE & ASSOCIES		ERNST & YOUNG et Autres	
Patrick E. Suissa	Nadia Laadouli	Charles-Emmanuel Chosson	Guillaume Rouger

5

Information on the share capital and shareholding

5.1 Information on capital

5.1.1 Share capital and voting rights

5.1.1.1 Share capital

ENGIE shares are listed on Compartment A of Euronext Paris and Euronext Brussels under ISIN Code FR0010208488 and ticker symbol ENGI. ENGIE shares are included in the CAC 40 index, the main index published by Euronext Paris, and are eligible for the Deferred Settlement Service (SRD). ENGIE is also listed on the following indexes: STOXX Europe 600, Euro STOXX, STOXX Europe 600 Utilities, MSCI Euro, SBF 120, MSCI Pan-Euro, Euro STOXX Utilities.

As of December 31, 2021, ENGIE's share capital stood at €2,435,285,011, divided into 2,435,285,011 fully paid-up shares with a par value of €1 each.

5.1.1.2 Pledges, guarantees and collateral

Pledges of assets

The percentage of shares pledged is not significant.

Other pledges

In millions of euros	Total Value	2022	2023	2024	2025	2026	2027 to 2031	> 2031	Account Total	Corresponding %
Intangible assets	115	113	0	0	-	-	-	2	6,784	1.7%
Property, plant and equipment	1,373	52	14	11	5	1	4	1,285	51,079	2.7%
Equity investments	3,510	359	1	265	-	-	558	2,326	11,326	31.0%
Bank accounts	371	261	24	48	8	2	25	4	13,890	2.7%
Other assets	405	0	0	343	0	-	9	53	61,491	0.7%
TOTAL	**5,774**	**786**	**39**	**667**	**13**	**4**	**596**	**3,669**	**144,571**	**4.0%**

Note: The total amount of the pledge relating to equity instruments may relate to consolidated equity instruments with zero value in the consolidated balance sheet (elimination of these equity instruments upon consolidation).

5.1.1.3 Voting rights

Each shareholder has as many voting rights and may cast as many votes at meetings as he or she holds shares which are fully paid up.

However, in accordance with Article L.22-10-46 of the French Commercial Code, all registered and fully paid-up shares registered in the name of the same beneficiary for at least two years are automatically entitled to a double voting right.

On December 31, 2021, the Company had 2,435,285,011 shares corresponding to 3,185,164,184 theoretical voting rights.

Pursuant to Article L.111-68 of the French Energy Code as modified by law n°2019-486 of May 22, 2019, the French government is required to hold at least one share of the Company.

In addition, pursuant to the French Energy Code and Decree 2007-1790 of December 20, 2007, ENGIE's share capital includes a golden share (for details, see Section 5.4.4 "Golden share").

5.1.2 Potential capital and share equivalents

As of December 31, 2021, there were no share equivalents conferring direct or indirect access to ENGIE's share capital.

5.1.3 Five-year summary of changes in the share capital

Date	Event	Nominal *(in euros)*	Premium *(in euros)*	Share capital *(in euros)*	Number of shares	Par value per share *(in euros)*
08/02/2018	Increase of the share capital resulting from the subscription of 4,813,039 shares under the capital increase reserved for participants in an employee savings plan offered by the Group (Link 2018)	4,813,039	47,745,346.88	2,440,098,050	2,440,098,050	1.00
08/02/2018	Increase of the share capital resulting from the subscription of 1,223,127 shares under the capital increase reserved for participants in an employee savings plan offered by the Group (Link 2018)	1,223,127	12,133,419.84	2,441,321,177	2,441,321,177	1.00
08/02/2018	Reduction of the share capital resulting from the cancellation of 6,036,166 treasury shares	6,036,166	-	2,435,285,011	2,435,285,011	1.00

5.1.4 Stock repurchase

5.1.4.1 Treasury stock

The sixth resolution of the Combined Shareholders' Meeting of May 21, 2020 authorized the Company to trade in its own shares in order to manage its shareholders' equity according to the applicable laws and regulations.

Terms:

- maximum purchase price: €30 (excluding transaction costs);
- maximum number of shares that may be purchased for the duration of the program: 10% of the share capital;
- maximum total amount of acquisitions, net of fees: €7.3 billion.

A one-year liquidity agreement, renewable by tacit agreement, of an initial value of €55 million was signed on May 2, 2006, on the Euronext Paris market with Rothschild & Cie Banque. The amount of this agreement was raised to €150 million on July 22, 2008.

A new contract was signed on January 24, 2019, in order to comply with the AMF's decision of July 2, 2018, setting the maximum amount of the contract at €50 million as of January 1, 2019.

The main purpose of this agreement is to reduce the volatility of the ENGIE share and therefore the risk perceived by investors. This agreement complies with the Code of Conduct drawn up by the *Association Française des Entreprises d'Investissement* (French Association of Investment Companies). This agreement continued to apply in 2021.

Between January 1 and December 31, 2021, the Company purchased 11,986,865 shares, for a total value of €146.8 million (or €12.25 per share) under the liquidity agreement. Over the same period, and also under this agreement, ENGIE sold 11,986,865 shares for a total price of €146.8 million (or €12.25 per share).

Furthermore, between January 1 and December 31, 2021, ENGIE did not purchase any shares to cover its commitments to the employee shareholding plan.

Between January 1 and February 28, 2022, ENGIE purchased 2,029,622 shares for a total value of €28 million (or €13.80 per share) under the liquidity agreement. Over the same period, and also under this agreement, ENGIE sold 2,029,622 shares for a total price of €28 million (or €13.80 per share).

Furthermore, between January 1 and February 28, 2022, ENGIE did not purchase any shares to cover its commitments to the beneficiaries of stock options, bonus shares, and company savings plans.

On February 28, 2022, the Company held 0.62% of its share capital, or 15,082,849 shares to cover its commitments to the beneficiaries of stock options, bonus shares, and company savings plans.

5.1.4.2 Description of the stock repurchase program to be submitted to the Shareholders' Meeting of April 21, 2022

Pursuant to Articles 241-1 to 241-7 of the AMF's General Regulations, the purpose of the following program description is to set out the objectives, terms and conditions of ENGIE's stock repurchase program, as it will be submitted to the Shareholders' Meeting to be held on April 21, 2022.

A. Main features of the program

The main features and goals of the program are summarized below:

- relevant securities: shares listed on Eurolist – SRD at the Paris Stock Exchange or on Eurolist at the Brussels Stock Exchange;
- maximum capital repurchase percentage authorized by the Shareholders' Meeting: 10% of the share capital;
- maximum unit purchase price: €30 (excluding transaction costs).

B. Objectives of the stock repurchase program

The objectives of the ENGIE stock repurchase program are summarized below:

- to ensure liquidity in the Company's shares by an investment service provider under liquidity agreements;
- to provide for the subsequent cancellation of the repurchased shares under a decision or authorization to reduce the share capital by the Extraordinary Shareholders' Meeting;
- to allocate or assign such shares to employees or former employees and corporate officers or former corporate officers of the Group;
- to set up stock purchase plans, bonus share plans on existing shares, or employee shareholding plans under company savings plans;
- to allocate or sell such shares to any entity as part of implementing an international employee shareholding plan;
- to provide for the holding and subsequent delivery of shares (as exchange, payment or otherwise) in the context of external growth transactions within the limit of 5% of the share capital;
- to provide for the hedging of securities conferring entitlement to Company share allocations, through issuance of shares, upon the exercise of the rights attached to securities conferring entitlement to Company shares by conversion, redemption, exchange, upon presentation of a warrant or other means of allocation;
- to implement any other market practices previously or subsequently authorized or to be authorized by market authorities.

C. Terms and conditions

Maximum percentage of share capital that may be repurchased and maximum amount payable by ENGIE

The maximum number of shares that may be purchased by ENGIE may not exceed 10% of the share capital of the Company on the date of the Shareholders' Meeting, i.e. 243.5 million shares, for a maximum theoretical amount of €7.3 billion. ENGIE reserves the right to hold the maximum amount authorized.

On February 11, 2022, ENGIE directly held 15,089,849 shares, i.e. 0.62% of the share capital.

Therefore, based on the estimated share capital on the date of the Meeting, the stock repurchase program could cover 228.4 million shares, representing 9.38% of the share capital, for a maximum amount of €6.6 billion.

Maximum term of the stock repurchase program

The stock repurchase program will be in effect for a period of 18 months beginning on the date of this Shareholders' Meeting, i.e. until October 20, 2023.

5.1.4.3 Book value and nominal value

The book value and the nominal value of the shares held by ENGIE itself or in its name, or by its subsidiaries, are indicated respectively in Note 7 of Section 6.4.2 "Notes to parent company financial statements," and in Section 5.1.3. "Five-year summary of changes in the share capital."

5.2 Non-equity securities

5.2.1 Deeply subordinated securities

On July 2, 2021, ENGIE carried out a new issue of €750 million in deeply subordinated perpetual notes (see also Section 5.3). At the same time, ENGIE bought back outstanding deeply subordinated securities on the markets for a nominal amount of €532.6 million (€149.1 million for the FR0011942283 bond and €383.5 million for the FR0013310505 bond). In addition, on July 10, 2021, ENGIE opted to redeem €363.4 million in outstanding undated deeply subordinated securities, with a 4.750% coupon, placed on July 10, 2013 (FR0011531730). Together, these transactions extended the life of the inventory of deeply subordinated securities under very favorable market conditions.

Following these transactions, as of December 31, 2021, the outstanding amount of deeply subordinated perpetual bonds issued by the Group was the following:

Currency	Coupon rate	Issue date	Maturity	First option for redemption	Outstanding amount *(in millions of euros)*	Exchange	ISIN Code
EUR	3.875%	06/02/2014	Perpetual	06/02/2024	392.9	Paris	FR0011942283
EUR	1.375%	01/16/2018	Perpetual	04/16/2023	274.2	Paris	FR0013310505
EUR	3.250%	01/28/2019	Perpetual	02/28/2025	1,000.0	Paris	FR0013398229
EUR	1.625%	07/08/2019	Perpetual	07/08/2025	500.0	Dublin	FR0013431244
EUR	1.500%	11/30/2020	Perpetual	11/30/2028	850.0	Paris	FR0014000RR2
EUR	1.875%	07/02/2021	Perpetual	07/02/2031	750.0	Paris	FR00140046Y4

All of the above securities are rated Baa3 by Moody's, BBB- by Standard and Poor's, and BBB by Fitch.

In accordance with the provisions of IAS 32, and given their characteristics, these instruments are recognized in equity in the Group's consolidated financial statements (see Note 19.2.1 of Section 6.2.2 "Notes to consolidated financial statements").

5.2.2 Euro Medium Term Note (EMTN) Program

ENGIE has a €25 billion Euro Medium Term Note (EMTN) program. This program, valid for twelve months, is renewed every year. The latest version of the program's base prospectus is available on ENGIE's website, in the Credit section.

5.2.3 Bond issues

The main features of the bond issues outstanding as of December 31, 2021, issued by the Company, are detailed in Note 11 of Section 6.4.2 "Notes to the parent company financial statements".

5.3 Green Bonds

5.3.1 Description of the bond

To support its development plan in line with its purpose (Raison d'être"), particularly in renewable energies and energy efficiency, ENGIE issued three Green Bonds in 2021, including two senior tranches totaling €1.5 billion and one hybrid tranche for €750 million.

At the same time as the placement of this last tranche, a new tender offer was launched on the hybrid green bond issued in January 2018, part of which had already been repurchased in 2020. At the end of this transaction, a total of €383.5 million of this bond was redeemed, and the outstanding amount reduced to €274.2 million.

Following these transactions, as of December 31, 2021, the outstanding amount of green bonds issued by the Group was the following:

Type	Currency	Coupon rate	Issue date	Maturity	Outstanding amount *(in millions of euros)*	Exchange	ISIN Code	Details on allocations
Senior	EUR	2.375%	05/19/2014	05/19/2026	1300	Paris	FR0011911247	Registration documents 2014, 2015 and 2016
Senior	EUR	0.875%	03/27/2017	03/27/2024	700	Paris	FR0013245859	Registration Document 2017
	EUR	1.500%	03/27/2017	03/27/2028	800	Paris	FR0013245867	
Senior	EUR	0.375%	09/28/2017	02/28/2023	500	Paris	FR0013284247	Registration Document 2018
	EUR	1.375%	09/28/2017	02/28/2029	750	Paris	FR0013284254	
Hybrid	EUR	1.375%	01/16/2018	Perpetual (first call date 04/16/2023)	274.2	Paris	FR0013310505	Registration Document 2018 and Universal registration document 2019
Hybrid	EUR	3.250%	01/28/2019	Perpetual (first call date 02/28/2025)	1,000	Paris	FR0013398229	Universal registration document 2019
Senior	EUR	0.375%	06/21/2019	06/21/2027	750	Paris	FR0013428489	Universal registration document 2020
	EUR	1.375%	06/21/2019	06/21/2039	750	Paris	FR0013428513	
Senior	EUR	0.500%	10/24/2019	10/24/2030	900	Paris	FR0013455813	Universal registration document 2020
Senior	EUR	1.750%	03/27/2020	03/27/2028	750	Paris	FR0013504677	Universal registration documents 2020 and 2021
	EUR	2.125%	03/27/2020	03/30/2032	750	Paris	FR0013504693	
Hybrid	EUR	1.500%	11/30/2020	Perpetual (first call date 11/30/2028)	850	Paris	FR0014000RR2	Universal registration documents 2020 and 2021
Hybrid	EUR	1.875%	07/02/2021	Perpetual (first call date 07/02/2031)	750	Paris	FR00140046Y4	Universal registration document 2021
Senior	EUR	0.375%	10/26/2021	10/26/2029	750	Paris	FR0014005ZP8	Universal registration document 2021
	EUR	1.000%	10/26/2021	10/26/2036	750	Paris	FR0014005ZQ6	

The total amount of Green Bonds issued by ENGIE reached €14.25 billion at the end of 2021, of which €12.32 billion is still outstanding. ENGIE has thus confirmed its leadership and its commitment to playing a leading role in energy transition while supporting the development of green finance.

The Green Bonds meet the terms of a referential framework (Green Bond Framework and Green Financing Framework published in March 2020) that ENGIE has defined for its green bond issues. The Green Bond Framework and Green Financing Framework are available on ENGIE's website.

It is to be recalled that the principles of the Green Financing Framework are as follows:

- the funds raised are allocated to projects supporting the transition to a low-carbon economy directly linked to ENGIE's strategy ("Green Eligible Projects"). The Green Eligible Projects must fall in a pre-defined category of projects and meet certain technical criteria. The eligibility criteria were determined by ENGIE and approved by VE (previously Vigeo Eiris);
- until the funds raised are entirely allocated to Green Eligible Projects (or after, in case of a substantial change in allocations), ENGIE is committed to providing information in its Universal registration document on the fund allocations made during the period concerned;
- the funds can be allocated to Green Eligible Projects carried out after the issue of the green financing instrument, or can be used to refinance past investments in Green Eligible Projects, without any time limit for Capex-type of investments, or not more than 36 months prior to the issue of the green financing instrument for Opex-type of expenses. The amounts allocated are calculated after deduction of any external funding already dedicated to these projects;
- the funds raised can be allocated for refinancing other green financing instruments previously issued by ENGIE. For each issue, ENGIE undertakes to allocate at least 25% of the funds raised to Green Eligible Projects to which no funds have ever been allocated before;
- as of 31 December of each year, the Group must hold cash (and cash equivalents) of an amount at least equal to the funds raised by the Green Bond, less amounts allocated to fund Green Eligible Projects as of that date.

ENGIE aims to have fully allocated each Green Bond within two years of the date of issue (three years if the bond has a maturity of 10 years or more). If, for a given fiscal year, several *Green Bonds* must be allocated, the allocation in that year will be based, as far as possible, on the following principles:

- first by issuance date order, i.e. priority will be given to bonds issued first; and
- then in order of duration, with a shorter tranche having priority over a longer one.

In the specific case of refinancing of Green Eligible Projects, these projects will be allocated to all the Green Bonds in proportion to the amounts remaining to be allocated to them. It is however specified that in the event of repurchase of Green Bonds with a new concomitant green issue, the Green Eligible Projects will be reallocated as a priority to this new issue.

In line with its commitments, ENGIE requested one of its Statutory Auditors (Deloitte & Associés), to provide a statement certifying compliance of the selected projects with the eligibility criteria and the amounts allocated to those projects.

ENGIE refers to the four principles established by the International Capital Market Association ("Green Bond Principles"), which are:

- the use of the proceeds;
- existing processes to evaluate and select Green Eligible Projects;
- the management of the proceeds, and
- reporting.

5.3.2 Projects and eligibility criteria

The categories of projects covered by the Green Financing Framework in 2020 are described below:

- renewable energy production (hydropower, geothermal energy, wind, solar, bioenergy, low-carbon hydrogen, marine energy);
- energy storage (electricity storage by pumped storage and batteries);
- electricity transmission and distribution infrastructure;
- energy efficiency (including district heating network);
- carbon capture and storage;
- green Buildings;
- clean transportation (including electric charging stations);
- sustainable management of living natural resources and land use.

The technical eligibility criteria for the different categories of the Green Financing Framework are available on ENGIE's website.

Internal governance the Green Bond Committee was established in 2017. This Committee meets regularly to review market developments and Green Eligible Projects and to approve the allocation of the Green Bonds. It is jointly led by the CSR Department and the Finance Department and brings together the Purchasing Department, the Global Care Department and the main GBU concerned.

5.3.3 Green Eligible Projects

During 2021, the Group proceeded to the allocation of €2.17 billion of Green Eligible Projects, as per the below repartition:

In millions of euros			Amount allocated in 2021		
Allocated Green Bond	**Nominal amount**	**Amount (re)allocated in 2020 [(1)]**	**Reallocations after repurchase**	**New allocations**	**Allocation balance**
Senior 8 y March 2020 (ISIN FR0013504677)	750	229.5 [(1)]	-	520.5	-
Senior 12 y March 2020 (ISIN FR001350693)	750	229.5 [(1)]	-	520.5	-
Hybrid PNC8 [(2)] November 2020 (ISIN FR0014000RR2)	850	516.6 [(1)]	-	333.4	-
Hybrid PNC10 [(2)] July 2021 (ISIN FR00140046Y4)	750	-	250.0	500.0	-
Senior 8 y October 2021 (ISIN FR0014005ZP8)	750	-	-	43.5	706.5
Senior 15 y October 2021 (ISIN FR0014005ZQ6)	750	-	-	-	750.0
TOTAL	**4,600**	**975.6**	**250.0**	**1,917.9**	**1,456.5**

(1) See 2020 Universal registration document
(2) PNC : Perpetual Non Call

In accordance with the allocation rules described above, the 15-year senior green bond of October 2021 (ISIN FR0014005ZQ6) did not receive any allocation in 2021.

5.3.3.1 Reallocation after repurchase

In the context of the above-mentioned tender offer, the green hybrid bond issued in July 2021 for €750 million (ISIN FR00140046Y4) benefited from the partial reallocation of the Green Eligible Projects allocated to the repurchased bond, i.e. the green hybrid bond of January 2018 (ISIN: FR0013310505). The table below sets out these reallocations:

In millions of euros	Projects	Country	Hybride €750M PNC10 Jul. 21
Renewable energy			
Hydro Power			**4.5**
South America	Salto Osorio	Brazil	
Solar Power			**113.7**
South America	ECL solar (Capricornio, Tamaya)	Chile	
	Abril, Calpulalpan, Sol de Insurgentes, Villa Ahumada, Trompezon	Mexico	
	Floresta	Brazil	
Africa	Fenix	Uganda	
	Kathu	South Africa	
	Mobisol	Several countries [1]	
	Powercorner	Tanzania	
	Scaling Solar	Senegal	
Asia and Oceania	Kadapa	India	
Europe	Seneca	Spain	
North America	SoCore, Fund IV	United States	
Middle East	Nadec	Saudi Arabia	
Wind power			**106.1**
North America	East Forks, Jumbo Hill, Seymour Hills	United States	
South America	ECL onshore wind (e.g. Calama)	Chile	
	Mesa 3, Mesa 4	Mexico	
Asia and Oceania	SECI3&4, GUNVL	India	
Europe	Phoenix 1, Goya	Spain	
	Seagull 1 & 2, Wind4Flanders Proj. 3&4, ICO Windpark, Wind4Wallonia 1 & 2, Seamaid [2]	Belgium	
	Windfloat [3]	Portugal	
	Thor	Norway	
Africa	Ras Ghareb	Egypt	
Bioenergy			**18.8**
Europe	Biomethane and network connection	France	
	Biogas Plus	Netherlands	
Energy Efficiency			**6.9**
Europe	ENGIE New Ventures (Gogoro, Redaptive, Connected Energy, Lancey Energy Storage)	France	
TOTAL			**250.0**

(1) Tanzania, Kenya, Rwanda
(2) Project transferred to the JV with EDPR (OW)

5.3.3.2 New allocations

The main Green Eligible Projects financed by the Green Bond issues of March 2020 (ISIN: FR0013504677 and FR0013504693), of November 2020 (ISIN: FR0014000RR2), July 2021 (ISIN: FR00140046Y4) and October 2021 (ISIN: FR0014005ZP8) that meet the aforementioned conditions of the Green Bond Financing are listed in the table below:

In millions of euros	Projects	Country	Senior €750M 8 yrs Mar. 20	Senior €750M 12 yrs Mar. 20	€850M PNC8 Nov. 20	€750M PNC10 Jul. 21	Senior €750M 8 yrs Oct. 21
Renewable energy							
Bioenergy			**57.1**	**57.1**	**36.5**	**54.8**	**4.8**
Europe	ENGIE BIOZ, Biogaz injection, synthetic methane projects	France					
Solar Power			**107.1**	**107.1**	**68.6**	**102.9**	**9.0**
South America	Assu Fotovoltaico	Brazil					
	ECL Solar (Capricornio, Tamaya, Coya)	Chile					
	Abril, Calpulalpan	Mexico					
North America	Bluestone, Hawtree, Hopkins, Powells Creek, Solidago, Sunvalley, Sunny Brook, Whitehorn, Salt City, Anson	USA					
Europe	CN'AIR , ENGIE Green	France					
	Pontinia, Wood Mazara, Wood Paterno	Italy					
	Amon Ra	Poland					
	Mavrodin, Eximprod, Sonne	Romania					
	Solar rooftop	various					
Africa	Xina Solar	South Africa					
Asia and Oceania	GUVNL Solar	India					
	Large Scale Solar	Malaysia					
	PV Canala	France (Nouvelle-Calédonie)					
Wind Power			**145.7**	**145.7**	**93.4**	**140.0**	**12.2**
North America	Dakota Range, Iron Star, Limestone, Priddy	USA					
South America	ECL Onshore wind	Chile					
	Umaranas, Trairi, Santa Monica	Brazil					
	Mesa 4	Mexico					
Asia and Oceania	SECI 3&4	India					
Europe	CN'AIR, ENGIE Green	France					
	Meridion, Ocean Winds	Spain					
	Bella Wind	Germany					
	Wood Ramingallo, Porto Torres	Italy					
Hydro Power			**29.0**	**29.0**	**18.6**	**27.8**	**2.4**
Europe	CNR, SHEM	France					
	Pfreimd	Germany					
South America	Sao Salvador	Brazil					
Geothermal power			**2.6**	**2.6**	**1.7**	**2.5**	**0.2**
Europe	Véligéo, Champs sur Marne, PRD Bordeaux, Rueil	France					
Low carbon H_2			**6.4**	**6.4**	**4.1**	**6.2**	**0.5**
Europe	Jupiter 1000, Hypster	France					
Africa	Rhyno	South Africa					
R&D			**6.4**	**6.4**	**4.1**	**6.1**	**0.5**
Europe	R&D	France					

In millions of euros	Projects	Country	Senior €750M 8 yrs Mar. 20	Senior €750M 12 yrs Mar. 20	€850M PNC8 Nov. 20	€750M PNC10 Jul. 21	Senior €750M 8 yrs Oct. 21
Energy Storage							
Battery			**4.9**	**4.9**	**3.2**	**4.7**	**0.4**
Asia and Oceania	Hazelwood Battery Energy Storage System	Australia					
Pumped Storage			**108.5**	**108.5**	**69.5**	**104.2**	**9.1**
Europe	First Hydro	United Kingdom					
	Coo	Belgium					
R&D			**0.7**	**0.7**	**0.4**	**0.6**	**0.1**
Europe	R&D	France					
Energy Efficency							
Energy Efficency			**48.3**	**48.3**	**31.0**	**46.4**	**4.0**
Europe	District heating networks	France					
	District heating networks	Italy					
R&D			**3.8**	**3.8**	**2.4**	**3.6**	**0.3**
Europe	R&D	France					
TOTAL			**520.5**	**520.5**	**333.4**	**500.0**	**43.5**

The projects and the related Capex set out in the above table for a total amounting to €1.92 billion are allocated globally to the Green Bonds of March 2020 (8 and 12 year tranches), November 2020, July 2021 and October 2021 (8 year tranche), in proportions to complete and finalize of the allocation of the green bonds issued first, according to the age criterion described above.

As a reminder, the Green Bonds issued in 2014, 2017, 2018 and 2019 have been fully allocated. Details of the Eligible Projects and the corresponding allocations were published in the 2014 to 2020 registration and universal registration documents.

Total funds allocated to Green Eligible Projects throughout 2021 are related to investment of €64.6 million for the period to 2019, €46.1 million for 2020 and €1,807.2 million for 2021.

The retained allocations contribute to the funding or acquisition of Green Eligible Projects in (i) renewable energy (wind, solar, hydropower and/or bioenergy), (ii) energy storage, and (iii) energy efficiency.

1) Renewable Energy

Energy transition and the development of renewable energy on a global scale are a strategic priority for ENGIE. In 2021, the Group set itself the target of stepping up its investments in renewable energy to enable it to install 3 GW of additional capacity in 2021, then 4 GW per year on average from 2022 to 2025, and finally 6 GW per year from 2026. The Group's installed electricity production capacity, taken at 100% for its renewable energy production businesses, reached 34.4 GW in 2021, accounting for more than 34% of its installed capacity. ENGIE is targeting a 58% share of renewable energy installed capacity in its generation portfolio taken at 100% by 2030. In 2021, ENGIE continued to expand its portfolio of renewable assets, mainly in wind, solar and geothermal by developing new projects in particular in North America, South America and Europe. In France, the Group, through ENGIE BIOZ, and its infrastructure business lines, pursued its efforts to develop the sector of methanization of waste into renewable gases and to recover them through injection into the natural gas transmission and distribution network. These low-carbon resources play an essential role in energy transition and the fight against climate change.

During 2021, a total of €1.305 million had been allocated to Green Eligible Projects in the field of renewable energy sources in respect of the Green Bonds of March 2020 (8 year and 12 year tranches), November 2020, July 2021 and October 2021 (8 year tranche). When fully operational, these projects should contribute to avoiding greenhouse gas emissions by a minimum of 4.12 million metric tons of CO_2 eq. per year.

The methodology for calculating avoided emissions is based on a comparison of the Life-Cycle Analysis (LCA) emission value of the energy generation technology being used by the project and the one of the energy mix of the country in question. ENGIE estimates the contribution to avoided emissions resulting from Green Bond-funded projects by multiplying the difference between the two LCA values stated with the plant's capacity and the technology's average load factor. The contribution to avoided emissions are calculated for one year of operation of the projects, considered in a full operational mode and taken at 100% regardless of the Group's ownership rate of these projects.

Per-country reference data for the average operating rates of technologies used and the average CO_2 emissions rates per kWh of the generation mix were drawn from data from Enerdata. The technologies' LCA data is derived from work performed by the Intergovernmental Panel on Climate Change (IPCC). For Clean Development Mechanism (CDM) projects registered and approved by the United Nations, the resulting contribution to avoided emissions is derived from the underlying methodologies. For the projects involving bioenergy and injection in the network, the quantities of biogas produced and injected into the network are regarded as avoiding an equivalent quantity of energy of the country mix.

2) Energy storage

Energy storage solutions play a major role in the energy transition and are an essential link in the electricity networks. By storing energy produced at times when wind and solar sources are at their most productive, and/or when demand is lowest, they respond to the need to balance intermittent supplies of renewable energy, which make up an increasing proportion of energy production.

ENGIE invests in pumped storage and battery storage for this reason.

The Dinorwig (1,728 MW) and Ffestiniog (360 MW) pumped storage facilities in the United Kingdom are owned and operated by First Hydro, which is 75% owned by ENGIE. In July 2021, ENGIE and its partner redeemed at their maturity the bonds issued by First Hydro. These bonds had been issued in 1996 to finance the purchase of the above-mentioned pumped storage facilities. ENGIE's share of this refinancing was £300 million and was done with own funds. It was allocated to the refinancing of these assets. The plants represent a critical back-up resource during periods of excessive demand on the UK's electricity network. Work has also begun on maintaining and extending the life of these facilities.

The Coo plant (Belgium) is also a pumped storage unit. Investments are being made to expand its storage facilities in order to increase its installed power by 79 MW.

The Group finally launched the construction of the power battery storage project at Hazelwood in Australia, which is the largest private battery project in the country. The facility will deliver 150 MW of flexible energy and play a critical role in increasing renewable energy production in the State of Victoria, while ensuring network stability.

During 2021, a total amount of €420.5 million was allocated to Green Eligible Projects developed in the field of energy storage in respect of the Green Bonds of March 2020 (8 year and 12 year tranches), November 2020, July 2021 and October 2021 (8 year tranche). When fully operational, these projects should contribute to reducing greenhouse gas emissions by a minimum of 0.04 million metric tons of CO_2 eq. per year.

The methodology for calculating the contribution of these projects to avoided emissions for storage projects is based on a comparison of the emission factors of the energy production technique implemented by the project and the reference scenario. In the case of pumped storage, the gas turbine is taken as the reference. ENGIE estimates the contribution to avoided emissions of Green Bond-funded projects by multiplying the difference between the above emission factors by the average production of the facilities. The contribution to avoided emissions are calculated for one year of operation of the projects, considered in a full operational mode and taken at 100% regardless of the Group's ownership rate of these projects.

3) Energy Efficiency

Another strategic focus of the Group is the development of high efficiency energy networks supporting the transition to a low-carbon economy. In 2021, ENGIE continued to develop urban heating or cooling networks in Europe and mainly in France. In the United States, ENGIE has entered into a partnership with the University of Georgetown (Washington DC) for the management of energy infrastructure and campus techniques with ambitious targets in terms of sustainable development and energy savings. For the entire duration of the agreement, ENGIE will be responsible for improving, operating and maintaining electrical, heating, cooling and water distribution systems, with a target of reducing energy intensity by 35% by 2030.

During 2021, a total of €192.1 million had been allocated to Green Eligible Projects in the field of energy efficiency in respect of the Green Bonds of March 2020 (8 year and 12 year tranches), November 2020, July 2021 and October 2021 (8 year tranche). When fully operational, these projects should contribute to reducing greenhouse gas emissions by a minimum of 0.38 million metric tons of CO_2 eq. per year.

For the calculation of the contribution to reduced emissions related to energy efficiency projects, the methodology is to multiply the energy savings generated by the project by the reference emission factor. For heating network facilities fueled by biomass, ENGIE multiples the energy savings generated by the projects by the natural gas emission factor. The contributions to reduced emissions are calculated for one year of operation of the projects, considered in a fully operational mode and taken at 100% regardless of the Group's ownership rate of these projects.

5.3.3.3 Statement of finalized overall allocations

5.3.3.3.1 Green bonds of March 2020 (tranches: 8 year ISIN FR0013504677 - 12 year ISIN FR0013504693)

The main geographic areas concerned by the projects allocated to the March 2020 Green Bonds are Europe and North and South America, which respectively accounted for 56.8%, 23.1% and 17.0% of the amounts invested. With regard to the technologies used, the main sub-categories of project allocated to the March 2020 *Green Bonds* are wind (30.2%), solar (19.9%), energy storage (15.1%), bioenergy (12.5%) and energy efficiency (11.2%).

Geographical areas	**Allocated funds** *(in %)*
Europe	56.8%
North America	23.1%
South America	17.0%
Asia and Oceania	1.9%
Africa	1.3%

Technology	**Allocated funds** *(in %)*
Wind	30.2%
Solar	19.9%
Energy Storage	15.1%
Bioenergy	12.5%
Energy efficiency	11.2%
Hydropower	7.5%
Other (geothermal energy, low carbon H_2)	3.6%

5.3.3.3.2 Hybrid green bond of November 2020 (ISIN FR0014000RR2)

The main geographic areas concerned by the projects allocated to the November 2020 Green Hybrid are Europe and North and South America, which respectively accounted for 46.7%, 22.0% and 21.0% of the amounts invested. With regard to the technologies used, the main sub-categories of project concerned by the allocation to the November 2020 Green Hybrids are wind (32.9%), solar (28.3%), bioenergy (11.5%), energy efficiency (8.8%) and energy storage (8.5%).

Geographical areas	Allocated funds *(in %)*
Europe	46.7%
South America	22.0%
North America	21.0%
Africa	5.4%
Asia and Oceania	4.9%

Technology	Allocated funds *(in %)*
Wind	32.9%
Solar	28.3%
Bioenergy	11.5%
Energy efficiency	8.8%
Energy Storage	8.5%
Hydropower	6.3%
Other (geothermal energy, low carbon H_2 clean mobility)	3.7%

5.3.3.3.3 Hybrid green bond of July 2021 (ISIN FR00140046Y4)

The main geographic areas concerned by the projects allocated to the July 2021 Green Hybrid are Europe and North and South America, which respectively accounted for 43.9%, 26.4% and 17.3% of the total amount invested. With regard to the technologies used, the main sub-categories of project allocated to the July 2021 Green Hybrid are wind (32.8%), solar (28.9%), energy storage (14.5%), bioenergy (9.8%) and energy efficiency (7.2%).

Geographical areas	Allocated funds *(in %)*
Europe	43.9%
North America,	26.4%
South America	17.3%
Africa	6.8%
Asia and Oceania	5.5%

Technology	Allocated funds *(in %)*
Wind	32.8%
Solar	28.9%
Energy Storage	14.5%
Bioenergy	9.8%
Energy efficiency	7.2%
Hydropower	4.3%
Other (geothermal energy, low carbon H_2	2.5%

In line with the Group's commitments, a more detailed description of the impacts in terms of avoided emissions and the related methodology is available on the Sustainable Development page of the Group's website (www.engie.com/rse/green-bonds).

5.3.4 Attestation from one of the Statutory Auditors of ENGIE SA on the information related to the allocation, as of December 31, 2021, of funds raised through the Green Bonds issued on March 27, 2020, November 30, 2020, July 2, 2021 and October 26, 2021

This is a free translation into English of the attestation from one of the Statutory Auditors of ENGIE SA on the information related to the allocation, as of December 31, 2020, of funds raised through the Green Bonds issued on March 27, 2020, November 30, 2020, July 2, 2021, and October 26, 2021 originally issued in French and is provided solely for the convenience of English speaking readers. This attestation should be read in conjunction and construed in accordance with French law and professional auditing standards applicable in France.

To the Group's Chief Executive Officer,

In our capacity as statutory auditor of ENGIE SA (the "**Company**") and in accordance with your request, we have prepared this attestation on the information related to the allocation, as of December 31, 2021, of funds raised through the Green Bonds issued on March 27, 2021, for a total amount of €1.5 billion in two tranches, on November 30, 2020, for a total amount of €0.85 billion, on July 2, 2021, for a total amount of €0.75 billion, and on October 26, 2021, for a total amount of €0.75 billion under the tranche maturing in 2029 (the "**Issues**"), contained in the attached document and in the "**Green Bonds**" section of the 2021 Universal Registration Document, and prepared pursuant to the use of proceeds referred to in the final terms of the Issues, signed on March 26, 2020 (FR0013504677 and FR0013504693), November 26, 2020 (FR0014000RR2), June 30, 2021 (FR00140046Y4) and October 22, 2021 (FR0014005ZP8) (the "**Final Terms**").

This document, prepared for the purposes of informing the Green Bond debt securities holders, presents in reference to the Green Financing Framework an allocation, during the 2021 financial year, of the funds raised from the Issues on March 27, 2020, November 30, 2020, July 2, 2021, and October 26, 2021:

- eligible projects (the **"Green Eligible Projects"**), over the period from January 1, 2019 to December 31, 2021, in the amount of €1,917.9 million; and
- refinancing of eligible projects, previously financed by the Green Bond of January 16, 2018 (FR0013310505) (the "**Refinanced Eligible Projects"**) in the amount of €250.0 million.
- it being recalled that in respect of these Issues, an amount of €975.6 million had been allocated in 2020 to the refinancing of eligible projects.

This information was prepared under your responsibility, based on the accounting records used for the preparation of the consolidated financial statements for the years ended December 31, 2019, December 31, 2020 and December 31, 2021.

Our role is to report on:

- the compliance, in all material respects, of the Green Eligible Projects and the Refinanced Eligible Projects referred to in the attached document, with the Green Financing Framework referred to in the attached document and in the appendices to the Final Terms (the "**Green Eligibility Criteria**");
- the consistency of the amounts raised from the Issues allocated to Green Eligible Projects, as of December 31, 2021, with data underlying the accounting records;
- the consistency of the amounts raised from the Issues allocated to Refinanced Eligible Projects, as of December 31, 2021, with the previously financed amounts;
- the consistency with the consolidated financial statements for the year ended December 31, 2021 of an amount of cash, cash equivalents and money market instruments higher than the remaining balance of net proceeds not allocated as of December 31, 2021.

However, we have no responsibility for:

- challenging the Green Eligibility Criteria and, in particular, we give no interpretation on the Final Terms;
- forming an opinion on the use of the funds allocated to Green Eligible Projects and Refinanced Eligible Projects after such funds have been allocated.

In the context of our role as Statutory Auditor, we have audited, jointly with the other Statutory Auditor, the consolidated financial statements of the Company for the years ended December 31, 2019, 2020 and 2021. Our audits were conducted in accordance with professional standards applicable in France, and were planned and performed for the purpose of forming an opinion on the consolidated financial statements taken as a whole and not on any individual component of the accounts used to determine the information. Accordingly, our audit tests and samples were not carried out with this objective and we do not express any opinion on any component of the accounts taken individually. The consolidated financial statements for the year ended December 31, 2021, which have not yet been approved by the Shareholders' Meeting, have been certified and our report thereon is dated March 4, 2021.

Our engagement, which constitutes neither an audit nor a review, was performed in accordance with professional standards applicable in France. For the purposes of this attestation, our work consisted, using sampling techniques or other methods of selection, in:

- understanding the procedures implemented by the Company for producing the information contained in the attached document in accordance with the provisions of the Green Financing Framework;
- verifying the compliance, in all material respects, of the Green Eligible Projects and the Refinanced Eligible Projects referred to in the attached document with the Green Eligibility Criteria;
- verifying the consistency of the amounts raised from the Issues allocated to Green Eligible Projects with data underlying the accounting records;
- verifying the consistency of the amounts raised from the Issues allocated to Refinanced Eligible Projects with the previously financed amounts; and
- verifying that the cash, cash equivalents and money market instruments balance as in the consolidated financial statements for the year ended December 31, 2021 is higher than the remaining balance of net proceeds not allocated as of December 31, 2021.

On the basis of our work, we have no matters to report on:

- the compliance, in all material respects, of the Green Eligible Projects and the Refinanced Eligible Projects with the Green Eligibility Criteria;
- the consistency of the amounts raised from the Issues allocated to Green Eligible Projects as of December 31, 2021 with data underlying the accounting records;
- the consistency of the amounts raised from the Issues allocated to Refinanced Eligible Projects, as of December 31, 2021, with the previously financed amounts; and
- the consistency with the consolidated financial statements for the year ended December 31, 2021 of an amount of cash, cash equivalents and money market instruments higher than the remaining balance of net proceeds not allocated as of December 31, 2021.

This attestation has been prepared solely for your attention within the context described above and may not be used, distributed or referred to for any other purpose.

In our capacity as statutory auditor of ENGIE SA, our responsibility towards the Company and its shareholders is defined by French law and we do not accept any extension of our responsibility beyond that provided for by French law. We are not liable and accept no responsibility towards any third party.

This attestation is governed by French law. The French courts have exclusive jurisdiction to hear any litigation, claim or dispute that may arise from our engagement letter or this attestation, or any question relating to it. Each party irrevocably waives its rights to oppose an action brought before these courts, to claim that the action was brought before an incompetent court, or that these courts have no jurisdiction.

Paris-La Défense, March 4, 2022

One of the Statutory Auditors

Deloitte & Associés

Nadia Laadouli

Patrick E. Suissa

5.4 Shareholding

5.4.1 Stock exchange quotation

Trading volumes and high and low prices of ENGIE shares in Paris

2021	High (1) *(in euros)*	Low (1) *(in euros)*	Trading volume (2)
January	13.85	12.62	5,554,985
February	13.40	12.09	4,760,210
March	12.20	11.44	6,696,386
April	12.50	12.09	4,662,495
May	13.14	12.15	5,218,908
June	12.39	11.55	4,948,772
July	11.75	11.09	5,337,013
August	12.37	11.35	4,510,216
September	12.26	11.34	8,173,840
October	12.39	11.54	5,310,328
November	13.48	12.40	5,938,003
December	13.19	12.76	4,790,394

(1) *Rate obtained from daily closing prices*
(2) *Daily average (source: Bloomberg)*

Subsequent to the deregistration of ENGIE with the U.S. Securities & Exchange Commission on October 30, 2009, ENGIE maintains an unlisted Level 1 American Depositary Receipt (ADR) program on a U.S. stock exchange. These ADRs are traded on the Nasdaq over-the-counter market.

5.4.2 Breakdown of share capital

As of December 31, 2021, the Company held 2,435,285,011 shares, including 15,083,149 in treasury stock. The Company's share capital did not change during 2021.

Major changes in ENGIE shareholdings during the past three fiscal years

	12/31/2021			12/31/2020		12/31/2019	
	Number of shares	% of share capital	% of theoretical voting rights (1)	% of share capital	% of theoretical voting rights (1)	% of share capital	% of theoretical voting rights (1)
Public	1,424,571,328	58.50	50.28	63.35	54.71	64.13	55.12
French State	575,693,307	23.64	33.20	23.64	33.19	23.64	33.67
The Capital Group Companies	122,336,505	5.02 (2)	4.00 (2)	-	-	-	-
CDC group	111,821,777 (3)	4.59 (4)	4.28 (4)	4.59 (4)	3.83 (4)	2.62	2.35
CNP Assurances	-	-	-	-	-	0.96	0.75
BlackRock	108,856,847	4.47 (5)	3.46 (5)	4.46 (6)	3.43 (6)	4.52 (7)	3.53 (7)
Employee shareholding	76,922,098	3.16	4.31	3.20	4.26	3.22	3.87
Treasury stock	15,083,149	0.62	0.47	0.76	0.58	0.91	0.71
Management	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
TOTAL	**2,435,285,011**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

(1) *Pursuant to Article 223-11 of the AMF General Regulations, the number of theoretical voting rights is calculated on the basis of all shares to which voting rights are attached, including shares held by the Group, from which voting rights have been removed*
(2) *Information not available on December 31, 2021 (data on November 16, 2021 from the disclosures threshold notification)*
(3) *Shares allocated in the following way: CDC (directly) holds 88,303,888 shares (3.62% of the share capital and 3.56% of voting rights) and CNP Assurances hold 23,517,889 shares (0.97% of the share capital and 0.75% of voting rights)*
(4) *CDC Group (Caisse des Dépôts et Consignations + CNP Assurances)*
(5) *Information not available on December 31, 2021 (data on December 30, 2021 from the disclosures threshold notification)*
(6) *Information not available on December 31, 2020 (data on December 7, 2020 from the disclosures threshold notification)*
(7) *Information not available on December 31, 2019 (data on December 30, 2019 from the disclosure threshold notification)*

Pursuant to the provisions of Article L. 233-13 of the French Commercial Code, it is stipulated that, to ENGIE's knowledge, only the French State and The Capital Group Companies held a stake of 5% or more of the share capital or voting rights at the end of fiscal year 2021.

On December 31, 2021, individual shareholders held 169 million shares, or nearly 7% of the Company's share capital.

5.4.3 Disclosure thresholds

Date threshold crossed	Movement	% of share capital	% of theoretical voting rights	Reporting party
03/11/2021	Increase	23.64%	33.39%	FRENCH State
11/16/2021	Increase	5.02%	4.00%	The Capital Group Companies
01/06/2022	Decrease	23.64%	33.20%	French State

Following the change in the total number of voting rights, the State exceeded the legal threshold of one-third of voting rights on March 11, 2021 and dropped below the threshold on January 6, 2022.

On November 16, 2021, The Capital Group Companies exceeded the legal threshold of a twentieth (5%) of ENGIE's share capital. This threshold was crossed due to shares being purchased by ENGIE on the market.

To the Company's knowledge, as of the date of this Universal registration document, only the French State and The Capital Group Companies hold share capital and/or voting rights in ENGIE that exceed one of the legal thresholds.

5.4.4 Golden share

Pursuant to Article L.111-68 of the French Energy Code as modified by law n°2019-486 of May 22, 2019, the French government is required to hold at least one share of the Company.

Pursuant to Article L.111-69 of the French Energy Code, ENGIE's share capital includes a "golden share" resulting from the conversion of one common share owned by the French State to preserve the essential interests of France in the energy sector relating to the continuity and security of the energy supply. The golden share is granted to the French government indefinitely and entitles it to veto decisions made by ENGIE or its French subsidiaries, which directly or indirectly seek to sell in any form whatsoever, transfer operations, assign as collateral or guarantee, or change the intended use of certain assets covered by the French Energy Code, if it considers they could harm French energy interests, particularly as regards the continuity and safeguarding of supplies.

Under the terms of Article D.111-21 of the French Energy Code, the assets covered by the French State's right of veto pursuant to the golden share are:

- natural gas transmission pipelines located in France;
- assets related to the distribution of natural gas in France;
- underground natural gas storage located in France;
- liquefied natural gas facilities located in France.

Pursuant to those same provisions, all decisions of this nature must be reported to the French Minister of the Economy.

The decisions mentioned above are deemed to be authorized if the Minister of the Economy does not veto them within one month of the date of their disclosure, as recorded by a receipt issued by the administration. This period may be extended for a period of 15 days by order of the Minister of the Economy. Before the expiration of the aforementioned one-month period, the Minister of the Economy may waive the right to veto. If there is a veto, the Minister of the Economy will communicate the reasons of his or her decision to the Company in question. The decision of the Minister of the Economy may be appealed.

Pursuant to Decree No. 2019-1071 of October 22, 2019 and Decree No. 93-1296 of December 13, 1993, any transaction executed in violation of these rules is automatically null and void.

As of the date of this Universal registration document, to ENGIE's knowledge, there is no agreement relating to an operation on any entity that is a member of the ENGIE Group, concerned by these provisions, or any agreement which, if implemented, could lead to a change in its control.

5.4.5 Dividend distribution policy

ENGIE seeks to pursue a dynamic and attractive dividend distribution policy. The Board of Directors has thus reaffirmed the Group's dividend policy, which aims to distribute 65 to 75% of net recurring income, Group share, including a dividend floor of €0.65 per share for the period from 2021 to 2023.

For 2021, the Board of Directors has therefore proposed to distribute 66% of the net recurring income, Group share, i.e. a dividend of €0.85 per share. This proposal will be submitted to the shareholders for approval at the Shareholders' Meeting on April 21, 2022.

Furthermore, in order to encourage and reward shareholder loyalty, the General Shareholders' Meeting of April 28, 2014 instituted a 10% dividend mark-up for shareholders who have held their shares in registered form for at least two years, this 10% being the maximum amount authorized by Article L.232-14 of the French Commercial Code. This measure was applied for the first time to the dividend payment for fiscal year 2016 and will be capped at 0.5% of the share capital for a single shareholder, as stipulated in Article L.232-14 of the French Commercial Code.

The Group's outlook and guidance, presented in Section 6.1.1.1.2 "2022-2024 outlook and guidance", do not constitute under any circumstances a commitment by the Company. Future dividends will be assessed on a year-by-year basis depending on the Company's performance, financial position and any other factors considered relevant by the Board of Directors in preparing its proposals to the Shareholders' Meeting.

As a reminder, on April 1, 2020, the Board of Directors decided not to distribute dividends for fiscal year 2019, in a spirit of responsibility and prudence in exceptional context of the Covid-19 epidemic. The dividend distribution policy, after being suspended on April 1, 2020, was reconfirmed at the Shareholders' Meeting of May 14, 2020.

Dividend per share in the last five years

Fiscal year *(fully paid up shares)*	**Net dividend per share** *(in euros)*
2016	1.00
2017	0.70
2018	1.12
2019	0
2020	0.53

After a period of five years, unclaimed dividends are automatically paid to the French Treasury.

5.5 Financial reporting schedule

Publication of annual earnings 2021 and mid-term ambitions	02/15/2022
Annual Shareholders' Meeting	04/21/2022
Publication of Q1 results 2022 and mid-term ambitions	05/17/2022
Publication of the 2022 half-year results	07/29/2022

6

Financial information

6.1 Review of the financial position

6.1.1 Management report

6.1.1.1 ENGIE 2021 results

The previously published financial statements presented hereafter have been restated to take into account the presentation in the financial statements at December 31, 2020 (the income statement, statement of comprehensive income and statement of cash flows) of EQUANS activities held for sale (see Note 5 "Main changes in scope") as discontinued operations insofar as they represent a separate major line of business within the meaning of IFRS 5 – Non-current assets held for sale and discontinued operations. A reconciliation of the reported data with the restated comparative data is presented in Note 2 "Restatement of 2020 comparative data" to the consolidated financial statements.

ENGIE 2021 Financial Results

Strategy put into action

Strong 2021 performance at the top end of expectations

Growth in earnings expected over the medium-term

Business Highlights

- Continued investment in growth, particularly in Renewables with 3 GW commissioned in 2021 taking total installed capacity to over 34 GW.
- EQUANS disposal on track with completion expected in H2 2022, as planned;
- Major progress on simplification through €9.2 billion of disposals signed or completed;
- High availability of Belgian Nuclear at 92%;
- Further progress on coal exit with disposal of Jorge Lacerda in Brazil and closure of Tejo in Portugal;
- New organisation established: 4 GBU with P&L accountability driving discipline and consistency.

Financial Performance

- 2021 guidance[1] achieved at the top end of the range with "total" NRIgs of €3.2 billion, including EQUANS;
- Continuing NRIgs of €2.9 billion, significant growth in EBIT, up 42% organically to €6.1 billion, leveraging a favorable price environment and operational performance;
- Strong liquidity and balance sheet enabled seamless management of commodity price environment, with impact of margin calls on CFFO;
- 2021 proposed dividend of €0.85 per share;
- 2022-2024 guidance announced with 2024 NRIgs expected in the range of €3.3-3.5 billion.

6.1.1.1.1 Key financial figures at December 31, 2021

In billions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
Revenues	57.9	44.3	+30.6%	+33.1%
EBITDA	10.6	8.9	+18.6%	+21.9%
EBIT	6.1	4.5	+36.8%	+42.2%
Net recurring income of continuing activities, Group share	2.9	1.7	+69.7%	
Net recurring income, Group share	3.2	1.7	+85.4%	
Net income, Group share	3.7	(1.5)	-	-
CAPEX (1)	8.0	7.5	+6,0%	-
Cash Flow From Operations (CFFO) (2)	6.3	6.6	-5,3%	-
Net financial debt (3)	25.3	22.5	2.9 *vs* Dec. 31, 2020	
Economic net debt	38.3	37.4	0.9 *vs* Dec. 31, 2020	
Net financial debt	3,6x	4,2x	-0.6x	

(1) Net of DBSO (Develop, Build, Share & Operate) and tax equity proceeds
(2) Cash Flow From Operations: Free Cash Flow before maintenance Capex and nuclear provisions funding
(3) Net financial debt is pro forma EQUANS intercompany debt (€0.4 billion)

(1) Main assumptions for the FY 2021 guidance upgraded in November 2021: market commodity prices as of October 29, 2021; average forex rates for FY 2021: €/$: 1.20; €/BRL: 6.28; up to €0.1 billion dilution effect at the EBIT level from 2021 disposals; no major deterioration in the pattern of Covid restrictions experienced in 9M 2021, no P&L impact from the French gas regulated tariff freeze, a recurring effective tax rate of 27%, average temperature in France for Q4 2021; no major regulatory or macro-economic changes; no change in Group accounting policies; no 'discontinued operations' accounting

6.1.1.1.2 2022-2024 outlook and guidance

The forecasts set forth below are based on data, assumptions and estimates considered to be reasonable by the Group at the date of issuance of this document.

These data and assumptions may evolve or be amended due to uncertainties related to the economic, financial, accounting, competitive, regulatory and tax environment or other factors that the Group may not be aware of at the date of registration of the management report. In addition, the fulfillment of forecasts requires the success of the Group's strategy. The Group therefore makes no commitment or warranty regarding the fulfillment of the forecasts set out in this section.

The forecasts presented below and the underlying assumptions, also been prepared in accordance with the provisions of Delegated Regulation (EU) No. 2019/980 supplementing Regulation (EU) No. 2017/1129 and the ESMA recommendations on forecasts.

The forecast presented below result from the budget and medium-term plan process as described in Note 14 to the consolidated financial statements for the year ended December 31, 2021; they have been prepared on a comparable basis with historical financial information and in accordance with the accounting methods applied to the Group's consolidated financial statements.

6.1.1.1.2.1 Assumptions

- **strategy**: confirmation and deepening of the Group ambition to establish ENGIE as a leading force in the energy and climate transition. The Group will focus on the completion of the ongoing strategic reviews in order to create more value and efficiently allocate its capital for growth, in particular in Renewables, Infrastructure and Asset-based activities in Client Solutions;
- **sanitary conditions**: no stringent lockdowns due to Covid-19;
- foreign exchange rates: average forex:
  - €/USD: 1.14 for 2022, 1.16 for 2023 and 1.18 for 2024,
  - €/BRL: 6.38 over 2022-24;
- **regulated tariffs in France Infrastructures**:
  - distribution, transport and storage: tariffs as published by the CRE in January 2020,
  - regasification: tariffs as published by the CRE in January 2021;
- **regulated gas and power tariffs in France**: full pass through of supply costs in French BtoC supply tariffs;
- average hydraulic, wind and solar **production**;
- **nuclear**:
  - nuclear phase-out starting with Doel 3 in October 2022 and Tihange 2 in February 2023,
  - Belgian nuclear availability: c. 90% in 2022, 88% in 2023 and 95% in 2024 – based on availabilities as published on REMIT as of January 1, 2022, excluding definitive shutdowns (translating into c. 88%/60%/53% assuming a 0% availability for the reactors to be definitely shut down as per the Belgian law);
- **hedged volumes and prices** for outright power production as of December 31, 2021:
  - 80% at €60/MWh in 2022,
  - 64% at €55/MWh in 2023,
  - 32% at €57/MWh in 2024;
- **market commodity prices**: H2 2021 average prices:

In €/MWh	2022	2023	2024
Power Base BE	118	79	67
Power Base FR	132	84	71
CSS Peak / Base NL	20 /(1)	10 /(4)	9 /(3)
CSS Peak / Base BE	18 /(4)	12 /(5)	12 /(3)
CSS Peak / Base IT	22 /(10)	15 / 6	15 / 5
CSS Peak / Base FR	50 / 10	24 /(1)	21 / 0
Gas TTF	48	29	22
CO_2	63	64	65

- **climate**: normalized conditions in France (gas distribution and energy supply + normalized hydro, wind and solar production);
- **recurring net financial costs**: -€1.4-1.6 billion over 2022-24;
- **discount rate for post-employment benefit provisions**: based on market conditions at December 31, 2021, as described in Note 21 to the consolidated financial statements;
- no significant accounting changes compared to 2021;
- no major regulatory or macro-economic changes compared to 2021.

6.1.1.1.2.2 2022-2024 Guidance

The progress made last year on the strategic plan to 2023 sets the foundation for ENGIE towards achieving its purpose of carbon neutrality while delivering long-term growth.

In the medium-term to 2024, the Group expects to deliver growth mainly driven by investment in Renewables and higher results from Energy Solutions, alongside a resilient contribution from Networks. Earnings should also benefit from significant performance improvements. Together these drivers are expected to more than offset the reduction from Belgian Nuclear, due to the planned phase-out of capacity by 2025, driving progressive growth in earnings and dividends.

European commodity price assumption in the guidance for residual merchant exposure: in light of the highly volatile European commodity price environment, ENGIE has applied an updated approach to the forward price assumption in the guidance. This price assumption is applicable to unhedged positions and is particularly relevant for Belgian, French Nuclear and French Hydro production. The price assumption used in the guidance for 2022-2024 provided today is based on the average of European forward prices as seen across H2 2021. This is an updated approach compared to the past, where guidance was based on European forward prices at December 31, of the prior year.

Therefore, ENGIE anticipates for 2022 to 2024:

In €billion	2022 Results	2023 Results	2024 Results
EBITDA	10.7 – 11.1	10.9 – 11.3	11.3 – 11.7
EBIT	6.1 – 6.5	6.2 – 6.6	6.4 – 6.8
RNRpg guidance	3.1 – 3.3	3.2 – 3.4	3.3 – 3.5

ENGIE remains committed to a "strong investment grade" rating and continues to target a leverage ratio of below or equal to 4.0x economic net debt to EBITDA.

For reference, applying the previous approach of assuming prices at December 31, 2021 would arithmetically translate to significantly higher NRIgs for the 2022 to 2024 period as follows: by +€0.6 billion for 2022, by +€0.4 billion for 2023 and by +€0.2 billion for 2024.

6.1.1.1.2.3 Overview of key targets

The Group has set up clear objectives for each of its core business.

In Renewables, ENGIE targets to reach 50 GW of capacity installed at 100% by 2025 and 80 GW by 2030. These targets are covered by a growing and realistic pipeline.

In Networks, French Regulated asset base is expected to grow c.1.5% per annum over 2021-2024 and international networks will provide growth.

Energy Solutions benefits from a growing pipeline of €14 billion.

CAPEX

ENGIE confirms its €15-16 billion growth Capex target over 2021-2023 and expects to invest c.€5 billion mainly in the same key activities in 2024.

Maintenance Capex is expected to be maintained at c. €2.5 billion per annum on average to 2024 and decreasing over time.

Performance

Performance plan of €0.6 billion net EBIT contribution is confirmed for 2021-2023. Improvements are expected to come from operational excellence for c.€0.25 billion, support functions for c. €0.20 billion and loss-making entities for c. €0.15 billion. This performance plan will continue to 2024, with continued improvement expected to contribute to similar magnitude as in 2022-2023.

Disposals

2021-2023 indication has been upgraded to at least €11 billion net financial debt impact from €9-10 billion previously.

ENGIE is well advanced with already c. €9.2 billion of disposals signed or completed. For 2024, disposals are expected to significantly slow down with limited portfolio management.

EBIT evolution

ENGIE expects growth throughout the period, mainly fueled by investments (c. +€1.0 billion) and performance (c. +€0.7 billion), only partly offset by scope (c.-€0.3 billion) and other effects, as volumes, prices or foreign exchange, for an aggregate effect of c.-€0.7 to -1.1 billion.

EBIT CAGR from 2021 to 2024 is expected to reach 5-6% for core business and 1.5-3.5% for the whole ENGIE (including Nuclear).

Main drivers for 2022 EBIT evolution by activity

	Expected drivers
Renewables	Growth driven by newly commissioned capacity, higher prices and reversal of 2021 Texas cold snap, partly offset by no more benefit from GFOM rulings in Brazil
Networks	Reversal of 2021 cold temperatures and lower (smoothed) RAB remuneration in France, partly offset by growth in Latin America
Energy Solutions	Better operational performance, partly offset by reversal of 2021 cold temperatures
Thermal	Normalization of strong 2021 performance in Europe and impact of coal exit offset by higher contribution in Chile
Supply	Under pressure due to reversal of 2021 cold temperatures and high commodity price context
Nuclear	Higher achieved prices, offset by lower volumes (first reactor stopped in Belgium in October 2022) and higher Belgian nuclear tax

Main drivers for 2021-2024 EBIT evolution by activity

	Expected drivers	Estimated 2024 EBIT
Renewables	Investments contribution, higher prices, positive one-offs 2021	+ + + +
Networks	Lower RAB remuneration in France, temperature normalization, investments contribution	-
Energy Solutions	Investments contribution, EVBox contribution improvement	+ +
Thermal	Dilution, higher spreads, lower ancillaries and higher fleet availability	-
Supply	Temperature normalization, margin increase, growth in B2C services and power customer portfolio	+
Nuclear	Lower volumes (Belgian phase out), higher prices	- -

Each "+" sign amounts to c. +€200 million, each "-" sign amounts to c. -€200 million.

6.1.1.1.3 Dividend policy reaffirmed and €0.85 per share proposal for 2021

ENGIE is focused on delivering a progressively growing and sustainable dividend for shareholders.

The Board has reaffirmed the Group's dividend policy with a payout ratio of 65-75% of net recurring income Group share, and a floor of €0.65 per share for the 2021 to 2023 period.

For 2021, the Board has proposed a payout ratio of 66%. This translates to a dividend of €0.85 per share, which will be proposed for shareholder approval at the Annual General Meeting on the April 21, 2022.

6.1.1.1.4 Delivering on the strategic plan, setting the foundation for long-term success

In 2021, ENGIE delivered on commitments in an unprecedented energy environment, benefitting from its integrated business model. This is reflected in high levels of assets availability, opportunities captured from flexible generation, contractual positions actively managed and strong financial liquidity maintained.

Acceleration in Renewables, Energy Solutions, and development of international Networks

ENGIE has continued its growth throughout 2021.

The Group commissioned 9 GW of renewable capacity over the 2019-2021 period despite increasing global supply chain tensions experienced over 2021, leading to over 34 GW total installed capacity. The Group is stepping-up in Renewables growth with 4 GW capacity addition on average per year expected by 2025 to reach 50 GW of total installed renewables capacity at 100%. To support its ambition, ENGIE has a robust pipeline of c. 66 GW of identified projects.

After a period of uncertainty due to the pandemic, commercial development has resumed in Energy Solutions, where the city of Paris has selected ENGIE and its partner RATP Group to manage its cooling network with the renewal of the concession for 20 years in December 2021.

International Networks progressed with the start of commercial operation for Gralha Azul and first energization tests for Novo Estado, the two power transmission lines being built by ENGIE in Brazil.

Progress at pace on disposal plan

In 2021, ENGIE made very strong progress on its refocusing plan, with c. €9.2 billion of disposals signed or completed to date. Given the strong momentum, ENGIE now expects total net financial debt impact of at least €11 billion between 2021 and 2023, compared with the initial €9-10 billion indication.

Simplifying and refocusing

On November 5, 2021, ENGIE entered into exclusive negotiations with Bouygues for the sale of 100% of EQUANS. This is a major step forward in the Group's execution of its strategic plan towards building a simpler ENGIE that is focused on accelerating investment in its core activities. EQUANS is a global multi-technical services leader, which was created on July 1, 2021, as a separate division within ENGIE. Bouygues' firm and binding offer values 100% of EQUANS at €7.1 billion on an enterprise value basis[(1)]. The proposed transaction is expected to reduce ENGIE's net financial debt by €6.8 billion. This transaction is progressing as planned and still expected to close in H2 2022, subject to regulatory approvals and customary closing conditions.

Also, on August 31, ENGIE received a firm and irrevocable offer from ALTRAD group for ENDEL, a fully-owned subsidiary specialized in industrial maintenance and energy services. This represents another milestone in implementing ENGIE's strategy to simplify its service activities.

In May, ENGIE completed the 10% sale of GTT. With this partial sale, GTT is consolidated under the equity method as from June. Simultaneously to this, ENGIE issued a €290 million zero coupon bonds exchangeable into GTT shares in 2024. In case of full exchange of the bonds, ENGIE would retain a stake of c. 20% down from 40% prior to this transaction.

Lastly, ENGIE completed the sale of ENGIE EPS in July.

On geographic rationalization, the Group has exited or signed agreements to exit 18 countries[(2)] in 2021. Once closing is completed, the Group will be operating in 35 countries. ENGIE targets to be in less than 30 countries by 2023.

(1) Including IFRS 16 debt
(2) Including EQUANS' countries

Infrastructures re-balancing

On December 22, 2021, ENGIE, along with its partner SIG, announced the completion of the sale of an 11.5% stake in GRTgaz. This transaction implied a valuation to RAB of 148%, reduced ENGIE's net financial debt by €1.1 billion and demonstrates ENGIE and its partner's shared view on the long-term role of both gas and renewable gases.

Disciplined capital allocation

Total Capex in 2021 amounted to €8.0 billion, with growth Capex at €4.3 billion.

Fully in line with the strategic plan presented in May 2021 towards Net Zero by 2045, growth Capex was allocated to Renewables (44%), Networks (31%) and Energy Solutions (17%) and substantially (over 90%) to organic developments.

Performance plan delivering

The performance plan being implemented delivered its first results, enabling ENGIE to meet its 2021 full year target of €0.1 billion of net EBIT contribution. Operational excellence and support functions optimization contributed to earnings growth.

As a reminder, ENGIE targets a net EBIT contribution of €0.6bn over the period 2021 to 2023.

6.1.1.1.5 Update on Belgian nuclear assets

The Belgian government has proposed a new draft law that is expected to be voted in spring 2022. It focuses on the availability of funds against nuclear provisions and proposes a timetable for the funding of dismantling and waste management costs by 2030. If voted through, this would lead to an additional funding for dismantling costs to 2030, representing up to c. €0.7 billion per annum between 2022 and 2024. Electrabel had already accounted for and committed to both, the waste disposal and dismantling costs, and its solid financial position enables the orderly management of these fundings. There is no change to the amount of provisions or the calculation scheme. ENGIE does not expect any change to Net Economic Debt from this draft law under discussion.

The next triennial review of the nuclear provisions towards dismantling costs and waste management will take place in H2 2022. Consistent with the 2019 process, the review will consider any updates required to the nuclear provisions based on discount rates and a review of baseline scenario for cost estimates.

6.1.1.1.6 Progress on Net Zero ambition and key ESG targets

Progress on coal exit supporting Net Zero ambition

ENGIE is committed to achieving its Net Zero ambition covering all three scopes by 2045 following a "well below 2°C" trajectory with intermediate milestones. In line with this target, ENGIE has become one of the founding members of the First Movers Coalition, launched at the COP26 in November 2021. By joining the coalition, ENGIE commits to buying low-carbon equipment to help develop decarbonized supply-chains.

ENGIE continues to progress on coal exit with the closing in October of the disposal of Jorge Lacerda in Brazil, which comprises a 0.7 GW coal plant. This transaction contributes towards a gradual transition of the regional economy while reducing potential local socio-economic impacts and demonstrates the importance of a just transition to the Group.

In addition, ENGIE's last coal power plant in Europe located in Portugal stopped operations in November 2021.

ENGIE is committed to exiting all coal assets in Europe by 2025 and globally by 2027, including coal generation for district heating and cooling networks.

At the end of 2021, coal represented 2.9 GW of ENGIE's 100.3 GW centralized power generation portfolio.

Key ESG targets

In 2021, greenhouse gas emissions from energy production were reduced to 67 million tons.

ENGIE also increased the share of renewables in its portfolio to 34% in 2021 from 31% at the end of 2020 with the commissioning of 3 GW of renewables.

On gender diversity, ENGIE had 25% women in management at the end of 2021 and is implementing action plans towards its ambition of reaching gender balance by 2030.

Say on climate resolution

As part of its dialogue with ENGIE's shareholders, the Board of directors has decided to consult them at the next Annual General Meeting on the Group's climate transition strategy.

6.1.1.1.7 Health & Safety

In 2021 the ENGIE group and its subcontractors experienced severe accidents including 16 fatalities, notably at construction sites. A major company-wide response and comprehensive action plan is being implemented by the ENGIE leadership, to re-assess all safety standards and procedures in every activity and geography to ensure the application of the highest safety standards across the Group and its subcontractors.

The ENGIE group is strongly committed to playing its role in ensuring every employee, supplier or subcontractor working on an ENGIE site returns home safe, each day.

6.1.1.1.8 Operational and financial review

6.1.1.1.8.1 Revenues

Revenues at €57.9 billion was up 30.6% on a gross basis and 33.1% on an organic basis.

Contributive revenues, after elimination of intercompany transactions

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
Renewables	3,661	2,971	+23.2%	+32.9%
Networks	6,700	6,718	-0.3%	+1.8%
Energy Solutions	9,940	8,840	+12.4%	+13.0%
Thermal	4,089	3,281	+24.5%	+29.0%
Supply	13,237	10,792	+22.7%	+22.5%
Nuclear	56	39	+44.3%	+44.3%
Others	20,183	11,664	+73.0%	+77.9%
TOTAL	**57,866**	**44,306**	**+30.6%**	**+33.1%**

Revenue for **Renewables** amounted to €3,661 million, up 23.2% on a gross basis and up 32.9% on an organic basis. Gross increase included negative foreign exchange effects mainly in Brazil. On an organic basis, revenue increased mainly in France and Brazil, thanks to better achieved hydro prices. Revenues from assets commissioned in Latin America, the United States and France also contributed to the increase.

Revenue for **Networks** amounted to €6,700 million, down 0.3% on a gross basis and up 1.8% on an organic basis. Gross increase included negative foreign exchange effects mainly in Latin America and Brazil and scope out in Turkey. Organically, French networks revenue increased mainly as a result of higher distributed volumes due to colder temperature compared to 2020. Outside France, revenue increase was driven by Gralha Azul and Novo Estado power transmission lines construction progress in Brazil.

Energy Solutions revenue amounted to €9,940 million, up 12.4% on a gross basis and 13.0% on an organic basis. Gross increase included negative foreign exchange effects notably in the United States. Organically, activity increased significantly in France for both distributed energy infrastructure and energy efficiency services, demonstrating strong Covid recovery. Activities in Italy and in North America also experienced positive organic growth.

Revenue for **Thermal** was up 24.6% on a gross basis and up 29.0% on an organic basis. Gross increase included negative foreign exchange effects mainly in Latin America and negative scope effect with the disposal of Jorge Lacerda in Brazil in October 2021. Organic variance is explained by the strong performance of Thermal activities in Europe thanks to exceptional market conditions allowing to capture higher spreads and increased ancillaries, notably from pumped storage in the UK and Belgium. Thermal activities in the Middle East contributed to the performance with higher dispatch as well as in Latin America with tariff indexation, only partly offset by lower dispatch in Brazil.

Revenue for **Supply** amounted to €13,237 million, up 22.7% on a gross basis and 22.5% on an organic basis. Besides positive foreign exchange effects, increase was mainly driven by higher commodity prices and a positive volume effect on gas due to colder temperature as well as Covid recovery, fostering growth in services.

Nuclear reported almost no external revenue post-elimination of intercompany operations, as its production was sold internally to other ENGIE businesses.

Revenue for the **Others** segment amounted to €20,183 million. The 73.0% reported increase is mainly driven by increase in commodity prices combined with a growth in volumes for Giants and BtoB Supply.

6.1.1.1.8.2 EBITDA

EBITDA at €10.6 billion, was up 18.6% on a gross basis and up 21.9% on an organic basis.

Activity/geography matrix

In millions of euros	France	Rest of Europe	Latin America	USA & Canada	Middle East, Asia & Africa	Others	Dec. 31, 2021
Renewables	462	176	1,035	83	11	(67)	1,700
Networks	3,520	119	470	-	18	(7)	4,121
Energy Solutions	593	207	(3)	71	41	(109)	799
Thermal	-	743	424	43	448	(30)	1,628
Supply	356	60	-	-	48	(20)	445
Nuclear	-	1,413	-	-	-	-	1,413
Others	-	-	1	10	(2)	449	457
TOTAL EBITDA	**4,931**	**2,717**	**1,928**	**208**	**565**	**215**	**10,563**

In millions of euros	France	Rest of Europe	Latin America	USA & Canada	Middle East, Asia & Africa	Others	Dec. 31, 2020
Renewables	391	142	924	85	74	(40)	1,576
Networks	3,289	108	449	2	6	(6)	3,848
Energy Solutions	534	186	4	27	48	(62)	738
Thermal	-	607	614	40	472	(25)	1,708
Supply	256	200	2	-	25	(48)	433
Nuclear	-	415	-	-	-	-	415
Others	-	21	(1)	15	(8)	162	189
TOTAL EBITDA	**4,470**	**1,680**	**1,992**	**168**	**617**	**(19)**	**8,908**

6.1.1.1.8.3 EBIT

EBIT at €6.1 billion was up 36.8% on a gross basis and up 42.2% on an organic basis.

- foreign exchange: a total adverse impact of €94 million mainly driven by the depreciation of the Brazilian real and the US dollar;
- scope: a net negative scope effect of €69 million mainly due to the sale of 10% of GTT's shares that led to a change in consolidation method for the 30% remaining and the partial sale of solar assets in India. These effects were partly offset by the sale of 29.9% of SUEZ which contributed negatively in 2020 and positive contribution from hydro acquisition in Portugal in December 2020;
- French temperature: compared to average, the temperature effect stood at c. €118 million, generating a positive variation of €338 million compared to a warmer than average 2020 across Networks, Supply and Others[1] in France.

EBIT contribution by activity

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)	o/w temp. effect (France) *vs.* 2020
Renewables	1,185	1,093	+8.4%	+21.7%	-
Networks	2,314	2,060	+12.3%	+13.1%	210
Energy Solutions	366	305	+19.8%	-0.4%	-
Thermal	1,183	1,259	-6.0%	-3.9%	-
Supply	174	184	-5.5%	-6.4%	101
Nuclear	970	(111)	-	-	-
Others	(46)	(297)	+84.4%	+86.7%	26
TOTAL	**6,145**	**4,493**	**+36.8%**	**+42.2%**	**338**
EQUANS [1]	368	85	-	-	-
EBIT including EQUANS	6,513	4,578	+42.3	+46.8%	338

(1) EQUANS being accounted under IFRS 5 – non-current assets held for sale and discontinued operations

Activity/geography matrix

In millions of euros	France	Rest of Europe	Latin America	USA & Canada	Middle East, Asia & Africa	Others	Dec. 31, 2021
Renewables	273	120	866	(13)	7	(68)	1,185
Networks	1,825	74	403	-	18	(7)	2,314
Energy Solutions	309	124	(5)	63	27	(152)	366
Thermal	-	564	189	41	421	(33)	1,183
Supply	202	(29)	-	-	25	(23)	174
Nuclear	-	970	-	-	-	-	970
Others	-	-	-	(1)	(2)	(43)	(46)
TOTAL EBIT	**2,609**	**1,823**	**1,453**	**91**	**495**	**(325)**	**6,145**

(1) First effects in the "Others" activities due to the transfer of Entreprises & Collectivités from "Supply" to "Others".

In millions of euros	France	Rest of Europe	Latin America	USA & Canada	Middle East, Asia & Africa	Others	Dec. 31, 2020
Renewables	152	89	775	54	62	(40)	1,093
Networks	1,608	66	386	2	4	(6)	2,060
Energy Solutions	256	106	1	17	35	(109)	305
Thermal	-	437	367	37	443	(25)	1,259
Supply	111	118	2	-	6	(52)	184
Nuclear	-	(111)	-	-	-	-	(111)
Others	-	20	(1)	-	(8)	(308)	(297)
TOTAL EBIT	**2,127**	**724**	**1,530**	**110**	**542**	**(540)**	**4,493**

Renewables: leveraging price tailwinds and contribution of newly commissioned assets

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
EBIT	1,185	1,093	+8.4%	+21.7%
Total CAPEX	2,007	1,631	+23.0%	-
CNR achieved prices *(€/MWh)*	56.4	43.9	+28.5%	-
DBSO [(1)] Margins (EBIT level)	31	98	-68.1%	-
Operational KPIs				
Commissioning *(GW at 100%)*	3.0	3.0	-	-
Hydro volumes France *(TWh at 100%)*	15.1	15.3	-0.5%	-

(1) Develop, Build, Share and Operate

3 GW of renewable assets were commissioned in 2021 in ENGIE's key geographies, including 1.8 GW of wind assets and 1.1 GW of solar assets, taking total renewable installed capacity at 100% to 34.2 GW at the end of 2021.

In November 2021, ENGIE, alongside with its partner Crédit Agricole Assurances, signed an agreement to acquire Eolia, a leading renewable player in Spain. With 0.9 GW of operating assets and 1.2 GW of renewable projects pipeline, this acquisition will add to ENGIE's scale in the Iberian Peninsula. ENGIE will bring industrial value by leading on delivery of pipeline and providing multiple services, as O&M, Asset management, Energy Management, and development services, to operating assets. Once closed, this transaction will have a €0.4 billion net financial debt impact for ENGIE for a c. €2 billion Enterprise value.

In addition to Eolia, ENGIE further strengthened its pipeline through the acquisition of Assu Sol in Brazil.

More recently, in January 2022, Ocean Winds, ENGIE's joint venture with EDPR dedicated to offshore wind, has been awarded the rights to develop c. 1 GW of new offshore wind capacity in Scotland and the exclusive rights to develop, within a joint venture with Aker Offshore wind (33.3%), 870 MW of floating offshore wind capacity in South Korea. Additional rights for 450 MW are expected to follow.

The Group also supported its customers in their efforts in the energy transition by signing a total amount of 2.1 GW of green corporate Power Purchase Agreements (cPPAs), confirming ENGIE's top position as a green cPPAs supplier in the world.

Renewables reported a 21.7% organic EBIT increase, driven by higher prices (+€335 million) mainly for hydro in France and in Brazil as well as the GFOM hydro compensation (+€87 million *versus* last year). Capacity commissioned, mainly in the United States and Brazil, also contributed to this increase (+€102 million). This performance was partly offset by the impact of the Texas extreme weather event earlier in 2021 (-€90 million), lower DBSO margins and lower volumes in hydro both in Brazil and France.

Networks: colder temperature in Europe and higher international contribution

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
EBITDA	4,121	3,848	+7.1%	+7.6%
EBIT	2,314	2,060	+12.3%	+13.1%
Total CAPEX	2,525	2,591	-2.6%	-
Operational KPIs				
Temperature effect – France *(EBIT in €m)*	7	(135)	210	-
Smart meters *(m)*	9.2	6.9	2.2	-

French gas networks delivered high levels of reliability and solid operational performance on efficiency alongside progressing on the development of renewable gases, which have a growing role to play for the long-term. 2.2 million of smart meters were installed over 2021, almost 9.2 million smart meters have been deployed in total. Moreover, 147 new biomethane production sites have been connected to ENGIE's network leading to a total of 351 sites connected. Altogether these units can contribute to a yearly production of up to 6.1 TWh.

In Brazil, commercial operation started for Gralha Azul, and first energization tests have been carried out on the Novo Estado, the two power transmission lines being built by ENGIE. TAG is also performing very well, achieving results above the acquisition plan.

Networks reported a 13.1% organic EBIT increase.

French infrastructures EBIT was up €216 million driven by colder temperature and recovery from adverse Covid impacts in 2020, partly offset by lower transmission volumes subscribed and lower tariffs revenues reflecting regulatory reviews, as expected. EBIT outside France was also up €51 million with organic growth in Brazil from TAG, in addition to colder temperature in Rest of Europe.

Energy Solutions: positive business development and performance improvement offset by higher costs of EVBox

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
Revenues	9,940	8,840	+12.4%	+13.0%
EBIT	366	305	+19.8%	-0.4%
Total CAPEX	901	767	+17.5%	
Operational KPIs				
Distrib. Infra installed cap. *(GW)*	23	22,6[1]	+1.8%	-
EBIT margin (excluding EVBox)	5.2%	4.1%	+110 bps	-
Backlog – French concessions *(€ billion)*	16.8	13.3	+3.5%	-

(1) Restated data to exclude countries ENGIE exited or stopped developments following geographical rationalization presented in May 2021

0.4 GW net installed capacity have been added in distributed energy Infrastructures in 2021 (considering 0.8 GW capacity sold in Qatar) and 1.5 GW are already under construction.

On December 6, 2021, ENGIE, alongside with its partner RATP, was selected by the City of Paris to manage its cooling network starting in April 2022. Renewal of this 20-year concession covers the production, storage, transport, and distribution of the city's cooling energy, and will generate a projected revenue of €2.4 billion over the course of the contract. ENGIE will also be responsible for the 158 km network extension by 2042, to serve all the districts in Paris and to open up to new clients such as hospitals, nurseries, schools, and retirement homes.

Energy Solutions reported a negative 0.4% organic EBIT variation. Distributed energy infrastructures activities EBIT increased by +€14 million to reach €385 million, mainly driven by good operating performance notably in North America and France as well as colder temperature for district heating in France. Energy Efficiency services EBIT was up +€74 million to €126 million with progressive Covid recovery allowing to deliver improved operating performance. These positive variances were fully offset by higher costs linked to the development of EVBox (contribution down -€90 million to a negative of €145 million in 2021).

In December 2021, TPG, EVBox and ENGIE mutually decided to terminate the Business Combination Agreement signed in December 2020, as the parties were unable to agree on a new deal ahead of the expiration date of December 31, 2021. This was driven by a number of factors including the severe impacts of the global component shortage crisis on the EVBox business, which impacted sales and margins due to higher costs. ENGIE is implementing actions to limit the impacts of supply shortages and address the underperformance. ENGIE believes the future is very bright for EVBox as a market leading charging solutions provider and remains committed to supporting EVBox in its growth journey.

Thermal: headwinds in Chile, higher spreads and ancillaries captured by flexible assets in Europe

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
EBITDA	1,628	1,708	-4.7%	-2.4%
EBIT	1,183	1,259	-6.0%	-3.9%
Operational KPIs				
Average captured CSS Europe *(€/MWh)*	19.0	12.0	+62.9%	-
Installed capacity *(GW at 100%)*	59.9	63.6	(3.7)	-

Thermal achieved high level of reliability with internal unplanned unavailability below 5%.

Thermal provides important flexibility in a backdrop of intermittent renewables and is contributing to future security of supply.

On October 31, 2021, ENGIE's two Combined Cycle Gas Turbine (CCGT) projects in Vilvoorde and on the Awirs site, with a capacity of 875 MW each, were selected for a 15-year within the first Belgian Capacity Remuneration Mechanism (CRM) auction. The projects represent an investment of c. €0.5 billion per project. Subject to full completion of the permitting process, the Group will start construction of the Awirs project to target commissioning by November 1, 2025. For the Vilvoorde plant, a new filing for environmental permit has been submitted in January 2022, subsequent to a negative decision in the Flemish Region in October last year. Both power plants will be compatible with the transition towards carbon-neutral electricity generation in the long run, as they will be equipped to use renewable gases.

Thermal GBU continues to progress on reducing CO_2 emissions. In line with this, ENGIE closed the sale of Jorge Lacerda in Brazil in October 2021 and stopped operations in November of its last coal power station in Europe located in Portugal, reducing coal installed capacity at 100% to less than 3 GW.

Thermal reported a 3.9% organic EBIT decrease. Overall, 2021 was a positive year following a very good 2020.

Contracted EBIT decreased by -€200 million to €656 million mainly driven by the combined impact of higher sourcing spot prices driven by a poor hydrology, lower availability of thermal plants and higher fuel prices in Chile. Merchant EBIT increased +€151 million to €527 million benefitting from higher ancillaries and spreads for flexible European gas plants and pumped storage assets.

Supply: lower margins and reversal of 2020 positive one-offs partly offset by higher volumes

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
EBITDA	445	433	+2.6%	+2.0%
EBITDA	174	184	-5.5%	-6.4%
French temperature effect *(EBIT in m€)*	34	(67)	86	

In France, ENGIE serves 2.6 million BtoC customers with regulated gas tariffs. To support affordability in the current commodity price environment, the French Government decided to implement a tariff freeze for regulated customers from November 1, 2021. In October, the French Government proposed an amendment to the 2022 budget law with a view to compensating ENGIE and other suppliers for loss in revenue due to this measure. This amendment was later voted into law by the Senate and by the National Assembly. This allows ENGIE to book trade receivables and be kept economically neutral.

Supply EBIT was €174 million, down 6.4% on an organic basis.

This EBIT decrease was mainly driven by negative prices effect (-€112 million *versus* last year), with lower power margins in Belgium and gas margins in Romania, only partly offset by higher margins and better hedging in Australia. Other effects (-€34 million) as reversal of 2020 positive one-offs also weighed on yearly variation.

Volume effects were positive (+€143 million) with colder temperature and Covid recovery.

Nuclear: exceptional performance driven by higher prices and better availability

En millions d'+euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported basis)	% change (organic basis)
EBITDA	1,413	415		
EBIT	970	(111)		
Total Capex	1,462	1,740	-16,0%	
Operational KPIs				
Output *(BE + FR, @ share, TWh)*	47.4	36.5	+10.9 TWh	-
Availability (Belgium at 100%)	91,8%	62,6%	+ 2,920 bps	-

ENGIE's Nuclear assets in Belgium achieved high level of availability of 92% (63% in 2020), leading to much higher levels of output compared to last year.

EBIT for Nuclear amounted to €970 million for 2021, after three consecutive years of negative EBIT, 2020 EBIT having been negative by €111 million. This performance is achieved thanks to a mix of higher achieved prices (+€733 million) and better availability (+€518 million), both on drawing rights in France and units in Belgium. It is partly offset by increasing taxes specific to units in Belgium reaching a total €149 million. Depreciation & amortization was lower following the 2020 impairment.

Others: strong commercial and trading performance and lower corporate costs

EBIT amounted to -€46 million, representing a €250 million increase compared to 2020. This increase was mainly driven by GEMS (Global Energy Management & Sales[1]) strong commercial and trading performance especially in H2 2021 in the context of high volatility, Covid recovery, and colder temperatures. Overall, GEMS was up €318 million to €564 million.

Other activities were also lowered by the normalization of GTT's contribution (down -€34 million to €70 million) after a very strong 2020.

Lastly, Corporate costs were lower year-on-year.

EQUANS, discontinued operations

Following the entry into exclusive negotiations with Bouygues on November 5, 2021, EQUANS has been accounted for as "held for sale and discontinued operations" under the IFRS 5 accounting standard, therefore presented in FY 2021 results as "Discontinued operations"

Total earnings, including EQUANS for comparability with guidance were as follows:

In € billion	Reported / Continuing operations	Discontinued operations	Total	Guidance
EBITDA	10.6	0.6	11.2	10.8-11.2
EBIT	6.1	0.4	6.5	6.1-6.5
NRIgs	2.9	0.2	3.2	3.0-3.2
Economic net debt / EBITDA	3.6x	-	3.5x	≤ 4.0x

"Total" column numbers are the basis for the comparison with the FY 2021 guidance that was last updated on November 10, 2021.

6.1.1.1.9 Comparable basis organic growth analysis

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported/ organic basis)
Revenues	**57,866**	**44,306**	**+30.6%**
Scope effect	(49)	(509)	-
Exchange rate effect	-	(342)	-
Comparable data	**57,817**	**43,455**	**+33.1%**

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported/ organic basis)
EBITDA	**10,563**	**8,908**	**+18.6%**
Scope effect	(34)	(156)	-
Exchange rate effect	-	(116)	-
Comparable data	**10,529**	**8,637**	**+21.9%**

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	% change (reported/ organic basis)
EBIT	**6,145**	**4,493**	**+36.8%**
Scope effect	(32)	(101)	-
Exchange rate effect	-	(94)	-
Comparable data	**6,113**	**4,298**	**+42.2%**

The calculation of organic growth aims to present comparable data both in terms of the exchange rates used to convert the financial statements of foreign companies and in terms of contributing entities (consolidation method and contribution in terms of comparable number of months). Organic growth in percentage terms represents the ratio between the data for the current year (Y) and the previous year (Y-1) restated as follows:

- the Y-1 data is corrected by removing the contributions of entities transferred during the Y-1 period or prorata temporis for the number of months after the transfer in Y;
- the Y-1 data is converted at the exchange rate for the period Y;
- the Y data is corrected with the N acquisition data or prorata temporis for the number of months prior to the Y-1 acquisition.

(1) BtoB Supply activities transferred from Supply to GEM in "Other" activities during 2021

6.1.1.2 Other income statement items

The reconciliation between EBIT and Net income/(loss) is presented below:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)	% change (reported basis)
EBIT	**6,145**	**4,493**	**+36.8%**
(+) Mark-to-Market on commodity contracts other than trading instruments	721	198	
(+) Non-recurring share in net income of equity method entities	50	(137)	
Current operating income including operating MtM and share in net income of equity method entities	**6,916**	**4,554**	**+51.9%**
Impairment losses	(1,028)	(3,502)	
Restructuring costs	(204)	(257)	
Changes in scope of consolidation	1,107	1,641	
Other non-recurring items	(69)	(879)	
RESULT FROM OPERATING ACTIVITIES	**6,722**	**1,558**	**+331.6%**
Net financial income/(loss)	(1,350)	(1,634)	
Income tax benefit/(expense)	(1,695)	(666)	
Net income/(loss) relating to discontinued operations	**80**	**(151)**	
NET INCOME/(LOSS)	**3,758**	**(893)**	
Net recurring income/(loss) Group share	**3,158**	**1,703**	
Net recurring income/(loss) Group per share	**1.26**	**0.63**	
Net income/(loss) Group share	**3,661**	**(1,536)**	
Non-controlling interests	**97**	**644**	

(1) *Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as discontinued operations in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")*

The reconciliation between Net recurring income/(loss) Group share and Net income/(loss) Group share is presented below:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Net recurring income/(loss) Group share	**3,158**	**1,703**
Impairment & Others	(1,122)	(4,822)
Restructuring costs	(204)	(257)
Changes in scope of consolidation	1,107	1,641
Mark-to-Market on commodity contracts other than trading instruments	721	198
Net income/(loss) Group share	**3,661**	**(1,536)**

(1) *Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as discontinued operations in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")*

Result from operating activities amounted to €6,722 million, representing an increase compared with 2020, mainly due to EBIT growth, lower impairment losses, and lower other non-recurring items, partially offset by lower gains on asset disposals.

Result from operating activities was also affected by:

- net impairment losses of €1,028 million (compared with €3,502 million in 2020) mainly relating to assets concerned by the exit from coal fired power generation announced by the Group in 2021 (€228 million), assets concerned by the strategic review of Client Solutions announced by the Group in 2020, in France, Africa and Asia (€196 million), and assets whose medium and long-term outlook has been revised or that have encountered operational difficulties, in particular renewable production assets in Latin America and thermal power generation assets in Asia (€311 million) *(see Note 10.1)*;
- restructuring costs of €204 million (compared with €257 million in 2020) *(see Note 10.2)*;
- positive scope effects of €1,108 million, mainly relating to the disposal of 10% of GTT's share capital and the remeasurement of the remaining 30% (€628 million), and the earnout related to the sale of 29.9% of ENGIE's stake in SUEZ (€347 million) *(see Note 10.3)*;
- other non-recurring items for a negative €69 million (*versus* a negative €879 million in 2020). In 2020, this amount included in particular the initial accounting impact of extending the trading management method launched by the GEM BU in 2017 to the rest of the Group's gas positions in Europe for a negative €726 million, as well as the impacts of the adjustment to provisions for the dismantling and rehabilitation of industrial sites *(see Note 10.4)*.

The **net financial loss** amounted to €1,350 million in 2021, compared with €1,634 million in 2020 *(see Note 11)* despite an increase in the average cost of gross debt. This improvement is mainly due to the positive impact of changes in the fair value of money market funds held by Synatom. Adjusted for non-recurring items, the net financial loss was €1,494 million in 2021, compared with €1,377 million in 2020. This deterioration is notably due to the increase in the cost of debt in Brazil, of around 12% compared with 7% in 2020, driven by inflation. Debt in Brazil – 80% of which is at a variable rate in line with the inflation indexation of the underlying operating revenues – represents around 10% of consolidated debt.

The **income tax expense** for 2021 amounted to €1,695 million (*versus* €666 million in 2020). Adjusted for these nonrecurring items, the recurring effective tax rate was 29.3% in 2021 compared with 30.5% in 2020, mainly due to:

- the decrease in the 2021 statutory income tax rate in France (28.40% *versus* 32.02% in 2020), and the change in the interest rate mix in the various countries – *around -2.1 points*;
- the favorable change in untaxed losses, particularly in Belgium, the USA, Italy and Germany – *around -7 points*;

These items were partially offset by:

- decreases in deferred tax assets in certain countries (Australia, Luxembourg, the Netherlands), and the increase in provisions for uncertain tax positions in others – *around +7 points*;
- the effect on deferred tax positions of the increase in the future income tax rate voted in the United Kingdom – *around +1 point*.

The total effective tax rate rose sharply (36.9% compared with a negative 169.9% in 2020), mainly due to the non-taxation of losses on non-recurring items (notably on certain derivatives) in Belgium, Australia and the United States, and by changes in provisions for tax contingencies. The effective tax rate in 2020 appeared low due to a very low earning.

Net recurring income Group share relating to continuing operations amounted to €2.9 billion compared to €1.7 billion at December 31, 2020. The increase was mainly driven by the strong increase in EBIT and the recurring effective tax rate decrease from 30.5% to 29.3%.

Net recurring income Group share including EQUANS contribution amounted to €3.2 billion compared to €1.7 billion at December 31, 2020.

Net income Group share including EQUANS amounted to €3.7 billion. The € 5.2 billion increase compared to 2020 was mainly linked to the higher net recurring income Group share and lower impairment loses.

2021 impairment of €1.0 billion was mainly related to coal assets in Brazil and Renewables in Mexico.

2021 capital gains of €1.1 billion were mainly related to the sale of 10% shareholding in GTT (incl. the revaluation of the retained 30%) and the earn-out on the 29.9% shareholding in SUEZ sold in 2020.

Net income attributable to non-controlling interests amounted to €97 million, compared with €644 million in 2020. This decrease was primarily the result of renewable generation partnerships in the United States, that recorded unrealized losses on economic commodity hedges on net short positions in an environment of sharply increasing commodity prices.

Return on capital employed (ROCE) improved over the year from c. 5.7% in 2020 to c. 9.1% in 2021, mainly thanks to a EBIT improvement and the tax rate variation.

6.1.1.3 Changes in net financial debt

Net financial debt stood at €25.4 billion, up €2.9 billion compared to December 31, 2020.

The increase was mainly attributable to:

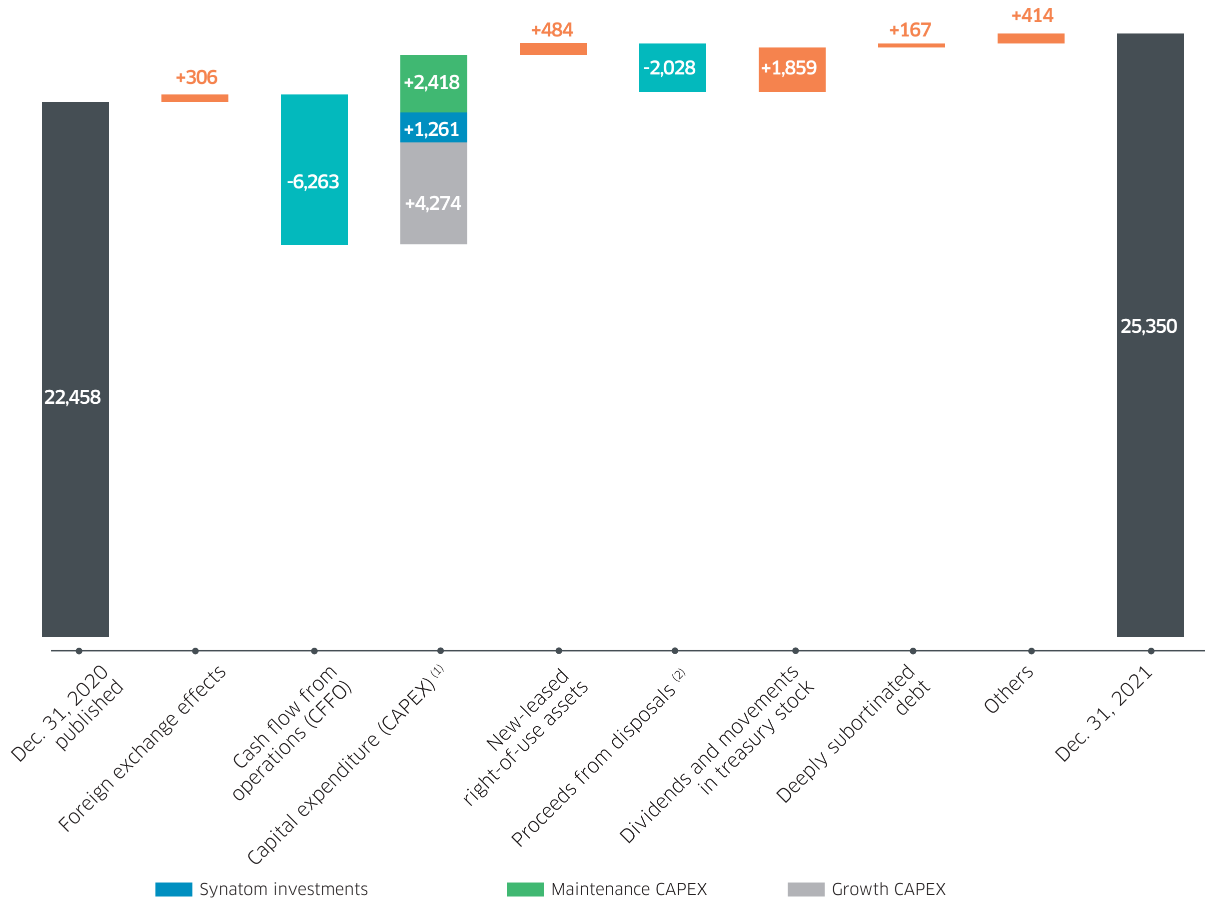
- total capital expenditures over the period of €8.0 billion, of which Belgian nuclear provisions funding of €1.3 billion;
- dividends paid to ENGIE SA shareholders (€1.4 billion) and to non-controlling interests (€0.4 billion mainly in Latin America and to GRTgaz);
- other items included, €1.5 billion, mainly related to new leased right of use assets, hybrid repayments and foreign exchange rates effects;

only partly offset by:

- Cash Flow From Operations of €6.3 billion (€8.5 billion excluding margin calls); and
- disposals of €2.0 billion, mainly GRTgaz.

Changes in net financial debt break down as follows:

In millions of euros



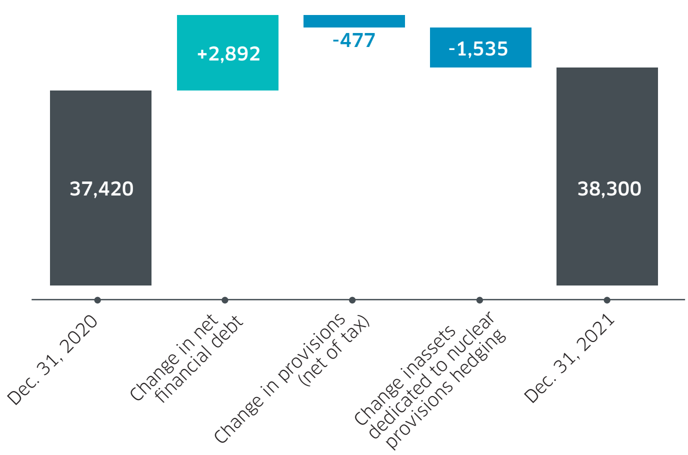
(1) *Capital expenditure net of DBSO proceeds*

(2) *Excluding DBSO proceeds*

Economic net debt stood at €38.3 billion, up €0.9 billion compared to 31 December 2020. The increase of net financial debt was partly offset by nuclear provision funding (-€1.3 billion) and actuarial gains on employee benefits provisions (-€0.8 billion).

Changes in economic net debt break down as follows:

In millions of euros



The **net financial debt to EBITDA ratio** stood at 2.4x, down 0.1x compared to December 31, 2020. The average cost of gross debt was 2.63%, up 25bps compared with December 31, 2020.

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Net financial debt	25,350	22,458
EBITDA	10,563	8,908
NET DEBT/EBITDA RATIO	**2.40**	**2.52**

The **economic net debt** to EBITDA stood at 3.6x, down 0.4x compared to December31, 2020, and in line with target ratio of less than or equal to 4.0x.

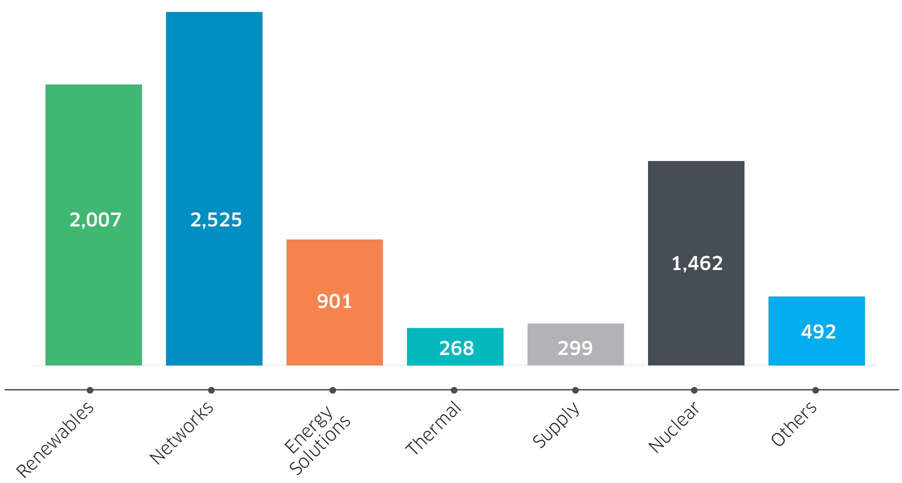
In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Economic net debt	38,300	37,420
EBITDA	10,563	8,908
ECONOMIC NET DEBT/EBITDA RATIO	**3.62**	**4.20**

6.1.1.3.1 Cash flow from operations (CFFO)

Cash flow from operations amounted to €6.3 billion, down €0.4 billion compared to 2020. This decrease is mainly due to negative changes in Working Capital requirements (-€1.4 billion), primarily driven by margin calls (-€2.2 billion) more than offsetting higher operating cash flows (+€1.3 billion). Tax and interest paid were also slightly higher.

Capital expenditure (CAPEX) by business

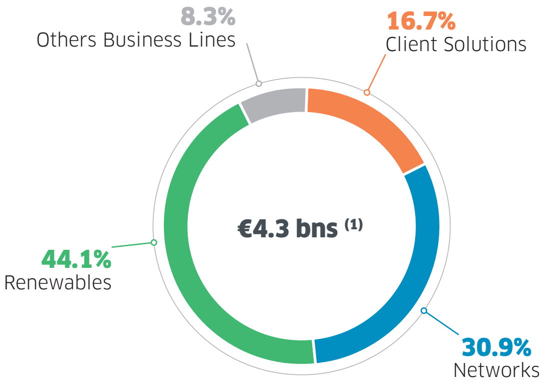
In millions of euros



6.1.1.3.2 Net investments

Total Capex amounted to €6.1 billion, including growth Capex of €4.3 billion.

Growth capital expenditure amounted to €4.3 billion, breaking down as follows by business:



Main projects *(€bn)*	
Renewables	1.9
USA - Wind & Solar	0.8
France Renewables	0.3
Latin America - Wind & Solar	0.3
Networks	1.3
GRDF – Smart meters + network development	0.6
Brazil - Power transmission lines	0.3
Client Solutions	0.7
US Georgetown University	0.2
ENGIE Solutions – various projects	0.2

(1) Net of disposals under DBSO operations, excluding Corporate, and Synatom reallocated to maintenance expenditure

The **activity/geography matrix** for capital expenditure is presented below:

In millions of euros	France	Rest of Europe	Latin America	USA & Canada	Middle East, Asia & Africa	Others	Dec. 31, 2021
Renewables	244	122	462	773	183	104	1,887
Networks	812	68	440	-	-	-	1,320
Energy Solutions	209	122	15	298	24	45	712
Thermal	-	8	26	-	(57)	7	(17)
Supply	74	46	-	-	11	24	155
Nuclear	-	-	-	-	-	-	-
Others	-	-	1	-	1	217	218
TOTAL GROWTH CAPEX	**1,338**	**366**	**943**	**1,071**	**161**	**396**	**4,274**

In millions of euros	France	Rest of Europe	Latin America	USA & Canada	Middle East, Asia & Africa	Others	Dec. 31, 2020 (1)
Renewables	152	63	635	122	(453)	1,010	1,529
Networks	822	40	659	-	1	57	1,579
Energy Solutions	208	38	4	247	22	72	591
Thermal	-	13	122	-	(111)	3	28
Supply	60	49	-	-	8	27	144
Nuclear	-	-	-	-	-	-	-
Others	-	-	3	9	1	(10)	2
TOTAL GROWTH CAPEX	**1,241**	**204**	**1,423**	**378**	**(532)**	**1,159**	**3,873**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as discontinued operations in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Net investments for the period amounted to €6.1 billion and include:

- growth capital expenditure for €4.3 billion (see above);
- gross maintenance capital expenditure amounting to €2.4 billion;
- the €1.3 billion net increase in Synatom investments;
- new right-of-use assets recognized over the period (€0.4 billion);
- changes in the scope of consolidation for the period relating to acquisitions and disposals of subsidiaries for €0.3 billion; and
- proceeds from disposals representing an inflow of €2.0 billion.

6.1.1.3.3 Dividends and movements in equity

Dividends and movements in treasury stock during the period amounted to €1.9 billion and include ENGIE's dividend payment in May for the 2020 fiscal year for €1.4 billion, dividends paid by various subsidiaries to their non-controlling interests in an amount of €0.4 billion, and the payment of interest on hybrid debt for €0.1 billion.

6.1.1.3.4 Net financial debt at December 31, 2021

Excluding amortized cost but including the impact of foreign currency derivatives, at December 31, 2021 a total of 83% of net financial debt was denominated in euros, 11% in US dollars and 10% in Brazilian real.

Including the impact of financial instruments, 91% of net debt was at fixed rates.

The average maturity of the Group's net financial debt is 11.8 years.

At December 31, 2021, the Group had total undrawn confirmed credit lines of €12.0 billion.

6.1.1.3.5 Rating

On January 17, 2022, Moody's reaffirmed its Baa1/P-2 senior unsecured rating, with a stable outlook.

On October 15, 2021, Fitch affirmed its long-term issuer rating to A-, which was downgraded on March 24, 2021, and its short-term rating of F1, with a stable outlook.

On June 7, 2021, S&P affirmed its BBB+ long-term issuer rating and short-term issuer rating at A-2, with a stable outlook.

6.1.1.4 Other items in the statement of financial position

In millions of euros	Dec. 31, 2021	Dec. 31, 2020	Net change
Non-current assets	**117,418**	**93,095**	**24,323**
Of which goodwill	*12,799*	*15,943*	*(3,144)*
Of which property, plant and equipment and intangible assets, net	*57,863*	*57,085*	*778*
Of which financial instruments derivatives	*25,616*	*2,996*	*22,620*
Of which investments in equity method entities	*8,498*	*6,760*	*1,738*
Current assets	**107,915**	**60,087**	**47,828**
Of which trade and other payables	*32,556*	*14,295*	*18,260*
Of which financial instruments derivatives	*19,373*	*8,069*	*11,304*
Of which assets classified as held for sale	*11,881*	*1,292*	*10,589*
Total equity	**41,980**	**33,856**	**8,124**
Provisions	25,459	27,073	(1,613)
Borrowings	41,048	37,939	3,109
Financial instruments derivatives	46,931	13,125	33,806
Other liabilities	69,916	41,191	28,725
Of which liabilities directly associated with assets classified as held for sale	*7,415*	*488*	*6,927*

The carrying amount of **property, plant and equipment and intangible assets** was €57.9 billion, up €0.8 billion compared with December 31, 2020. This increase was primarily the result of acquisitions and development capital expenditure during the period (€7.2 billion positive impact) and foreign exchange effects (€1 billion positive impact mostly relating to the appreciation of the US dollar and the pound sterling), and was partially offset by depreciation and amortization charges (€4.6 billion negative impact), the classification of the EQUANS activities under "Discontinued operations" (€1.5 billion negative impact) and impairment losses (€1.0 billion negative impact).

Goodwill decreased by €3.1 billion to €12.8 billion, mainly due to EQUANS activities being classified under "Assets classified as held for sale".

Investments in equity method entities increased by €1.7 billion, primarily due to the disposal of a 10% stake in GTT which is now accounted for using the equity method.

Total equity amounted to €42 billion, up €8.1 billion on December 31, 2020. The increase stemmed mainly from other comprehensive income (€5.7 billion positive impact, including a positive €4 billion of cash flow hedges on commodities, a positive €1.7 billion of actuarial gains and losses, and a positive €0.9 billion of translation adjustments) and from net income for the period (€3.8 billion positive impact), partially offset by dividends paid (€1.7 billion negative impact).

Provisions amounted to €25.5 billion, a decrease of €1.6 billion compared with December 31, 2020. This decrease stemmed mainly from actuarial gains on provisions for post-employment benefits and other long-term benefits (which deducted €2.0 billion from the provision amount) owing to the sharp rise in discount rates over the period *(see Note 20)*.

The increase in **derivative financial instruments** and **trade and other receivables** compared to December 31, 2020 is mainly due to the change in commodity prices over the period.

At December 31, 2021, assets and liabilities classified under **"Assets classified as held for sale"** and **"Liabilities directly associated with assets classified as held for sale"** mainly comprised EQUANS activities.

6.1.1.5 Parent company financial statements

The figures provided below relate to the financial statements of ENGIE SA, prepared in accordance with French GAAP and applicable regulations.

Revenues for ENGIE SA in 2021 totaled €36,224 million, an increase compared to 2020 (€19,272 million), both on the gas and electricity markets.

The net operating loss amounted to €846 million loss in 2021, an improvement of €794 million compared with a loss of €1,640 million in 2020. The energy margin decreased by €1,009 million.

Net financial income amounted to €381 million, a decrease of €1,058 million compared to 2020 due to lower dividends received.

Non-recurring items represented an income of €1,771 million, mainly comprising changes in the value of equity interests (including Electrabel) and capital gains on the disposal of shares (including GRTgaz).

The income tax benefit amounted to €474 million, *versus* an income tax benefit of €532 million in 2020, including a tax consolidation benefit of €408 million.

The net income for the year came out at €1,780 million.

Shareholders' equity amounted to €31,211 million at end-2021 compared with €30,702 million at end-2020. The €509 million increase was mainly due to the 2021 net income of €1,780 million, and to the 2020 dividend payment for an amount of -€1,305 million.

At December 31, 2021, borrowings and debt stood at €39,361 million, and cash and cash equivalents totaled €11,232 million (of which €7,533 million relating to subsidiaries' current accounts).

Information relating to payment terms

Pursuant to Article D.441-4 of the French Commercial Code, companies whose annual financial statements are subject to a statutory audit must publish information regarding supplier and customer payment terms. The purpose is to demonstrate that there is no significant failure to comply with such terms.

Information relating to supplier and customer payment terms mentioned in Article D.441-4 of the French Commercial Code

	Article D.441 I.- 1°: Invoices received, unpaid and overdue at the reporting date						Article D.441 I.- 2°: Invoices issued, unpaid and overdue at the reporting date					
In millions of euros	0 days (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day or more)	0 days (indicative)	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day or more)
(A) By aging category												
Number of invoices	-					40,767	-					5,928,591
Aggregate invoice amount (incl. VAT)	-	12.9	369.6	1.1	141.4	524.9	-	1,921.5	50.9	34.1	5,587.3	2,593.8
Percentage of total amount of purchases (incl. VAT) for the period	-	0.03%	0.83%	0.00%	0.32%	1.19%						
Percentage of total revenues (incl. VAT) for the period							-	4.50%	0.12%	0.08%	1.37%	6.07%
(B) Invoices excluded from (A) relating to disputed or unrecognized receivables and payables												
Number of excluded invoices						177						503
Aggregate amount of excluded invoices						(2.8)						0.9
(C) Standard payment terms used (contractual or legal terms – Article L. 441-6 or Article L. 443-1 of the French Commercial Code)												
Payment terms used to calculate late payments	Legal payment terms: 30 days						Contractual payment terms: 14 days Legal payment terms: 30 days					

6.1.2 Capital resources

6.1.2.1 Borrowing conditions and financial structure applicable to the issuer

6.1.2.1.1 Debt structure

Gross debt, excluding bank overdrafts, amortized cost and financial derivative instruments amounted to €37.9 billion at the end of 2021, up from year-end 2020, and was primarily composed of €26.2 billion in bond issues and €5.8 billion in bank loans. Other loans and drawdowns on credit lines accounted for a total of €0.9 billion. Short-term loans (short-term marketable securities) accounted for 13% of total gross debt at the end of 2021.

82% of the gross debt was issued on financial markets (bond issues and short-term marketable securities). Net debt, excluding amortized costs, the effect of financial derivative instruments and cash collateral, came to €23.9 billion at the end of 2021. At the end of 2021, net debt was 83% denominated in euros, 11% in US dollars and 10% in Brazilian reals, excluding amortized cost and after the foreign exchange impact of derivatives.

After the impact of derivatives, 91% of the net debt was at a fixed rate. The average cost of gross debt was 2.63%. The average maturity of net debt was 11.8 years at the end of 2021.

The principal contracts are carried by ENGIE SA and are described in Section 6.4 “Parent company financial statements” Note 11.

6.1.2.1.2 Main transactions in 2021

The principal transactions performed in 2021 affecting financial debt are described in Note 17.3.3. of Section 6.2.2 "Notes to consolidated financial statements".

In December 2021, the Group entered into a syndicated credit line of €4 billion for an initial term of five years, with two extension options of one year each. This line replaced the syndicated credit line of €5.5 billion, maturing in November 2022, which was terminated when the new line was set up.

6.1.2.1.3 Ratings

ENGIE has solicited ratings by Standard & Poor’s, Moody’s and Fitch.

In June 2021, S&P confirmed ENGIE SA’s issuer rating at BBB+/A-2, with a stable outlook.

In January 2022, Moody’s confirmed the rating of ENGIE SA’s senior debt at Baa1/P-2, with a stable outlook.

In April 2021, Fitch lowered ENGIE SA’s long-term issuer rating from A to A- and kept the short-term issuer rating at F1, with a stable outlook. In October 2021, Fitch confirmed ENGIE SA’s issuer rating at A-/F1, with a stable outlook.

6.1.2.2 Restrictions on the use of capital

At December 31, 2021, the Group had total undrawn confirmed credit lines of €12.0 billion. These lines are usable, among other things, as back-up lines for the short-term marketable securities programs. Over 90% of these lines are centrally managed and their availability is not subject to any financial covenant or linked to a credit risk rating. The counterparties of these lines are well diversified, with no single counterparty holding more than 5% of the total of these centralized lines. No centralized credit facility was in use as at the end of 2021.

Furthermore, the Group has set up credit lines in some subsidiaries, for which the documentation includes ratios related to their financial standing. These lines of credit are not guaranteed by ENGIE SA or GIE ENGIE Alliance. The definition, as well as the level of these ratios, also known as “financial covenants,” are determined by agreement with the lenders and may be reviewed during the life of the loan.

The most frequent ratios are:

- Debt Service Cover Ratio = Free Cash Flow (Principal + interest expense) or for servicing interest (Interest Cover Ratio = EBITDA/interest expense);
- Loan Life Cover Ratio (adjustment of the average cost of the future Free Cash Flows debt divided by the borrowed amount still owed);
- Debt/Equity ratio or maintenance of a minimum amount of equity.

At December 31, 2021, all Group companies whose debt is consolidated were compliant with the covenants and representations contained in their financial documentation, with the exception of a few non-significant entities for which appropriate actions to achieve compliance are being implemented.

6.1.2.3 Expected sources of financing to honor commitments relating to investment decisions

The Group believes that its funding needs will be covered by available cash and the possible use of its existing credit facilities. However, it may call upon the capital markets on an ad hoc basis.

If necessary, dedicated financing could be established for very specific projects.

The Group has a total of €4.3 billion in financing that matures in 2022 (excluding the maturity of €5 billion in short-term marketable securities). In addition, at December 31, 2021, it had €14 billion in cash (net of bank overdrafts) and a total of €12 billion in available lines, including €1 billion expiring in 2022. The amount of these available lines is not net of the amount of short-term marketable securities.

6.2 Consolidated financial statements

6.2.1 Consolidated financial statements

Income statement

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 [(1)]
Revenues	**7.2 & 8**	**57,866**	**44,306**
Purchases and operating derivatives	9.1	(38,861)	(28,088)
Personnel costs	9.2	(7,692)	(7,503)
Depreciation, amortization and provisions	9.3	(4,840)	(4,477)
Taxes		(1,479)	(1,207)
Other operating income		1,122	971
Current operating income including operating MtM		**6,116**	**4,001**
Share in net income of equity method entities	7.2	800	553
Current operating income including operating MtM and share in net income of equity method entities	**0**	**6,916**	**4,554**
Impairment losses	10.1	(1,028)	(3,502)
Restructuring costs	10.2	(204)	(257)
Changes in scope of consolidation	10.3	1,107	1,641
Other non-recurring items	10.4	(69)	(879)
Result from operating activities	**10**	**6,722**	**1,558**
Financial expenses		(2,061)	(2,168)
Financial income		711	533
Net financial income/(loss)	**11**	**(1,350)**	**(1,634)**
Income tax benefit/(expense)	12	(1,695)	(666)
Net income/(loss) relating to continuing operations		**3,678**	**(742)**
Net income/(loss) relating to discontinued operations		**80**	**(151)**
NET INCOME/(LOSS)		**3,758**	**(893)**
Net income/(loss) Group share		**3,661**	**(1,536)**
Of which Net income/(loss) relating to continuing operations, Group share		*3,582*	*(1,384)*
Of which Net income/(loss) relating to discontinued operations, Group share		*79*	*(153)*
Non-controlling interests		**97**	**644**
Of which Non-controlling interests relating to continuing operations		*96*	*642*
Of which Non-controlling interests relating to discontinued operations		*1*	*2*
Basic earnings/(loss) per share *(euros)*	**13**	**1.46**	**(0.71)**
Of which Basic earnings/(loss) relating to continuing operations per share		*1.43*	*(0.65)*
Of which Basic earnings/(loss) relating to discontinued operations per share		*0.03*	*(0.06)*
Diluted earnings/(loss) per share *(euros)*	**13**	**1.46**	**(0.71)**
Of which Diluted earnings/(loss) relating to continuing operations per share		*1.42*	*(0.65)*
Of which Diluted earnings/(loss) relating to discontinued operations per share		*0.03*	*(0.07)*

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as “Discontinued operations” in application of IFRS 5 (see Note 2 “Restatement of 2020 comparative data”)

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

Statement of comprehensive income

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 [1]
NET INCOME/(LOSS)		**3,758**	**(893)**
Debt instruments	17.1	(21)	(46)
Net investment hedges	18	(215)	128
Cash flow hedges (excl. commodity instruments)	18	511	(250)
Commodity cash flow hedges	18	3,980	872
Deferred tax on items above		(1,333)	(136)
Share of equity method entities in recyclable items, net of tax		270	(387)
Translation adjustments		909	(1,938)
Recyclable items relating to discontinued operations, net of tax		114	(159)
Total recyclable items		**4,215**	**(1,916)**
Equity instruments	17.1	159	45
Actuarial gains and losses		1,742	(1,587)
Deferred tax on items above		(451)	378
Share of equity method entities in actuarial gains and losses, net of tax		-	75
Non-recyclable items relating to discontinued operations, net of tax		48	16
Total non-recyclable items		**1,499**	**(1,073)**
Total recyclable items and non-recyclable items		**5,712**	**(2,990)**
TOTAL COMPREHENSIVE INCOME/(LOSS)		**9,471**	**(3,882)**
Of which owners of the parent		*9,415*	*(4,046)*
Of which non-controlling interests		*56*	*163*

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

Statement of financial position

Assets

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020
Non-current assets			
Goodwill	14	12,799	15,943
Intangible assets, net	15	6,784	7,196
Property, plant and equipment, net	16	51,079	49,889
Other financial assets	17	10,949	9,009
Derivative instruments	17	25,616	2,996
Assets from contracts with customers	8	34	26
Investments in equity method entities	4	8,498	6,760
Other non-current assets	25	478	396
Deferred tax assets	12	1,181	880
Total non-current assets		**117,418**	**93,095**
Current assets			
Other financial assets	17	2,495	2,583
Derivative instruments	17	19,373	8,069
Trade and other receivables, net	8	32,555	14,295
Assets from contracts with customers	8	8,344	7,738
Inventories	25	6,175	4,140
Other current assets	25	13,202	8,990
Cash and cash equivalents	17	13,890	12,980
Assets classified as held for sale	5.2	11,881	1,292
Total current assets		**107,915**	**60,087**
TOTAL ASSETS		**225,333**	**153,182**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

Liabilities

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020
Shareholders' equity		36,994	28,945
Non-controlling interests	3	4,986	4,911
Total equity	**19**	**41,980**	**33,856**
Non-current liabilities			
Provisions	20	23,394	24,876
Long-term borrowings	17	30,458	30,092
Derivative instruments	17	24,228	3,789
Other financial liabilities	17	108	77
Liabilities from contracts with customers	8	68	39
Other non-current liabilities	25	2,341	2,004
Deferred tax liabilities	12	7,738	4,416
Total non-current liabilities		**88,335**	**65,293**
Current liabilities			
Provisions	20	2,066	2,197
Short-term borrowings	17	10,590	7,846
Derivative instruments	17	22,702	9,336
Trade and other payables	17	32,822	17,307
Liabilities from contracts with customers	8	2,671	4,315
Other current liabilities	25	16,752	12,545
Liabilities directly associated with assets classified as held for sale	5.2	7,415	488
Total current liabilities		**95,019**	**54,034**
TOTAL EQUITY AND LIABILITIES		**225,333**	**153,182**

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

Statement of changes in equity

In millions of euros	Share capital	Additionnal paid-in capital	Consoli-dated reserves	Deeply-subor-dinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Share-holders ' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2019	**2,435**	**31,470**	**(1,369)**	**3,913**	**(1,961)**	**(1,098)**	**(303)**	**33,087**	**4,950**	**38,037**
Net income/(loss)			(1,536)					(1,536)	644	(893)
Other comprehensive income/(loss)			(999)		242	(1,752)		(2,509)	(480)	(2,990)
Total comprehensive income/(loss)			**(2,535)**		**242**	**(1,752)**		**(4,046)**	**163**	**(3,882)**
Share-based payment	-	-	52					52	2	54
Dividends paid in cash [(1)]		-	-					-	(425)	(425)
Purchase/disposal of treasury stock			(52)				52	-	-	-
Operations on deeply-subordinated perpetual notes [(2)]			(193)					(193)		(193)
Transactions between owners			25					25	35	59
Transactions with impact on non controlling interests			-					-	7	7
Share capital increases and decreases								-	178	178
Other changes		(178)	199		-			21	1	21
EQUITY AT DECEMBER 31, 2020	**2,435**	**31,291**	**(3,874)**	**3,913**	**(1,719)**	**(2,850)**	**(251)**	**28,945**	**4,911**	**33,856**

(1) The Shareholders' Meeting of May 14, 2020 approved the resolution relating to the cancellation of the dividend payment in respect of 2019 proposed by the Group in the context of the Covid-19 crisis (see Note 17.3 "Liquidity risk" to the consolidated financial statements for the year ended December 31, 2020)

(2) Transactions of the period are listed in Note 18 "Equity" to the consolidated financial statements for the year ended December 31, 2020

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

In millions of euros	Share capital	Additional paid-in capital	Consoli-dated reserves	Deeply-subor-dinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Share-holders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2020	**2,435**	**31,291**	**(3,874)**	**3,913**	**(1,719)**	**(2,850)**	**(251)**	**28,945**	**4,910**	**33,856**
Net income/(loss)			3,661					3,661	97	3,758
Other comprehensive income/(loss)			1,490		3,431	833		5,753	(40)	5,713
Total comprehensive income/(loss)			**5,151**	**-**	**3,431**	**833**	**-**	**9,415**	**56**	**9,471**
Share-based payment	-	-	48					48	1	49
Dividends paid in cash [(1)]		(1,296)	-					(1,296)	(410)	(1,706)
Purchase/disposal of treasury stock			(52)				52	-	-	-
Operations on deeply-subordinated perpetual notes [(1)]			(129)	(146)				(275)	-	(275)
Transactions between owners [(1) (2)]			324					324	740	1,064
Transactions with impact on non controlling interests [(1) (3)]			-					-	(312)	(312)
Share capital increases and decreases								-	(1)	(1)
Normative change			43					43	1	44
Other changes [(1) (4)]		(3,937)	3,726	-	-			(211)	1	(209)
EQUITY AT DECEMBER 31, 2021	**2,435**	**26,058**	**5,238**	**3,767**	**1,711**	**(2,017)**	**(199)**	**36,994**	**4,986**	**41,979**

(1) Transactions of the period are listed in Note 19 "Equity"
(2) Mainly relates to the disposal of 11.5% of GRTgaz
(3) Mainly relates to the partial disposal of Gaztransport & Technigaz SA (GTT)
(4) Mainly concerns the dispute with the French tax authorities on the assignment without recourse of the withholding tax claim made in 2005 by SUEZ. This dispute is presented in Note 26.7.1 "Legal and anti-trust proceedings"

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

Statement of cash flows

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 [1]
NET INCOME/(LOSS)		**3,758**	**(893)**
- Net income/(loss) relating to discontinued operations		80	(151)
Net income/(loss) relating to continuing operations		**3,678**	**(742)**
- Share in net income of equity method entities		(800)	(553)
+ Dividends received from equity method entities		662	739
- Net depreciation, amortization, impairment and provisions		5,484	8,432
- Impact of changes in scope of consolidation and other non-recurring items		(1,039)	(1,580)
- Mark-to-market on commodity contracts other than trading instruments		(721)	(198)
- Other items with no cash impact		(501)	109
- Income tax expense	12	1,695	666
- Net financial income/(loss)	11	1,350	1,634
Cash generated from operations before income tax and working capital requirements		**9,806**	**8,506**
+ Tax paid		(603)	(494)
Change in working capital requirements	**25.1**	**(2,377)**	**(902)**
Cash flow from operating activities relating to continuing operations		**6,826**	**7,110**
Cash flow from operating activities relating to discontinued operations		**486**	**479**
CASH FLOW FROM OPERATING ACTIVITIES		**7,312**	**7,589**
Acquisitions of property, plant and equipment and intangible assets	15 & 16	(5,990)	(4,964)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	5 & 17	(392)	(405)
Acquisitions of investments in equity method entities and joint operations	5 & 17	(369)	(1,067)
Acquisitions of equity and debt instruments	17	(1,548)	(1,618)
Disposals of property, plant and equipment, and intangible assets	15 & 16	88	131
Loss of controlling interests in entities, net of cash and cash equivalents sold	5 & 17	(173)	462
Disposals of investments in equity method entities and joint operations	5 & 17	62	3,841
Disposals of equity and debt instruments	17	73	18
Interest received on financial assets		32	33
Dividends received on equity instruments		57	56
Change in loans and receivables originated by the Group and other	6.6	121	(359)
Cash flow from (used in) investing activities relating to continuing operations		**(8,039)**	**(3,872)**
Cash flow from (used in) investing activities relating to discontinued operations		**(3,003)**	**(175)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES		**(11,042)**	**(4,046)**
Dividends paid [2]		(1,859)	(621)
Recovery from the French State of the 3% tax on dividends		-	-
Repayment of borrowings and debt		(5,054)	(6,031)
Change in financial assets held for investment and financing purposes		464	(608)
Interest paid		(719)	(648)
Interest received on cash and cash equivalents		52	52
Cash flow on derivatives qualifying as net investment hedges and compensation payments on derivatives and on early buyback of borrowings		(219)	25
Increase in borrowings		8,352	7,337
Increase/decrease in capital		226	181
Changes in ownership interests in controlled entities	6.6	1,085	23
Cash flow from (used in) financing activities relating to continuing operations		**2,328**	**(290)**
Cash flow from (used in) financing activities relating to discontinued operations		**2,519**	**(272)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES		**4,848**	**(561)**
Effects of changes in exchange rates and other relating to continuing operations [2]		223	(518)
Effects of changes in exchange rates and other relating to discontinued operations		10	(11)
Effects of changes in exchange rates and other		233	(528)
TOTAL CASH FLOW FOR THE PERIOD		**1,350**	**2,453**
Reclassification of cash and cash equivalents relating to discontinued operations		(440)	9
Cash and cash equivalents at beginning of period		**12,980**	**10,519**
Cash and cash equivalents at end of period		**13,890**	**12,980**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

(2) The line "Dividends paid" includes the coupons paid to owners of deeply-subordinated perpetual notes (see Note 19 "Equity")

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals

6.2.2 Notes to the consolidated financial statements

ENGIE SA, the parent company of the Group, is a French *Société Anonyme* with a Board of Directors that is subject to the provisions of Book II of the French Commercial Code (*Code de commerce*), as well as to all other provisions of French law applicable to French commercial companies. It was incorporated on November 20, 2004 for a period of 99 years.

It is governed by current and future laws and by regulations applicable to *Sociétés Anonymes* and its bylaws.

The Group is headquartered at 1, place Samuel de Champlain, 92400 Courbevoie (France).

ENGIE shares are listed on the Paris, Brussels and Luxembourg stock exchanges.

On February 14, 2022, the Group's Board of Directors approved and authorized for issue the consolidated financial statements of the Group for the year ended December 31, 2021.

NOTE 1 Accounting framework and basis for preparing the consolidated financial statements

1.1 Accounting standards

Pursuant to European Regulation (EU) 2019/980 dated March 14, 2019, financial information concerning the assets, liabilities, financial position, and profit and loss of ENGIE has been provided for the last two reporting periods (ended December 31, 2020 and 2021). This information was prepared in accordance with European Regulation (EC) 1606/2002 "on the application of international accounting standards" dated July 19, 2002. The Group's consolidated financial statements for the year ended December 31, 2021 have been prepared in accordance with IFRS Standards as published by the International Accounting Standards Board and endorsed by the European Union [1].

The accounting standards applied in the consolidated financial statements for the year ended December 31, 2021 are consistent with the policies used to prepare the consolidated financial statements for the year ended December 31, 2020, except for those described below.

1.1.1 IFRS Standards, amendments or IFRIC Interpretations applicable in 2021

- Amendments to IFRS 9 – *Financial Instruments*; IAS 39 – *Financial Instruments: Recognition and Measurement*; IFRS 7 – *Financial Instruments: Disclosures*; IFRS 4 – *Insurance Contracts* and IFRS 16 – *Leases*: Interest Rate Benchmark Reform (phase 2).

  The Group elected to early adopt these amendments, as indicated in Note 17.1.5.2 to the consolidated financial statements for the year ended December 31, 2020.
- Amendments to IFRS 16 – *Leases*: Covid-19-related rent concessions beyond June 30, 2021.

  These amendments have no significant impact on the Group's consolidated financial statements.

1.1.2 Other texts

- In its April 2021 agenda decision, the IFRS Interpretations Committee (IFRIC) clarified to which service period an entity should attribute certain employee benefits under defined benefit plans (IAS 19 – *Employee Benefits*). The impact of this decision for the Group is not significant and was recognized in equity at January 1, 2021.
- In its March 2021 agenda decision, the IFRS Interpretations Committee (IFRIC) clarified the accounting treatment of configuration and customization costs for software in a SaaS (Software as a Service) arrangement. According to the IFRIC, some of these costs should be recognized as an expense (and not as an intangible asset). The Group has identified the main projects related to the implementation of software in an SaaS arrangement for which costs have been recognized as intangible assets. Given the practical difficulty of identifying the configuration and customization costs included in the amounts recognized as intangible assets for these projects, this decision has not been applied in the consolidated financial statements for the year ended December 31, 2021. At this stage of the analysis, this decision is not considered to have a significant impact on the Group's consolidated financial statements.

1.1.3 IFRS Standards, amendments or IFRIC Interpretations effective in 2022 and that the Group has elected to early adopt

- Amendments to IAS 16 – *Property, Plant and Equipment*: Proceeds before Intended Use.

  These amendments have no significant impact on the Group's consolidated financial statements.

1.1.4 IFRS Standards, amendments or IFRIC Interpretations effective in 2022 and that the Group has elected not to early adopt

- Amendments to IAS 1 – *Presentation of Financial Statements*: Classification of Liabilities as Current or Non-Current [2].
- Amendments to IAS 37 – *Provisions, Contingent Liabilities and Contingent Assets*: Onerous Contracts – Cost of Fulfilling a Contract.
- Annual improvements to IFRSs – 2018-2020 cycle.
- IFRS 17 – *Insurance Contracts* (including amendments).
- Amendments to IAS 1 – *Presentation of Financial Statements* and the Materiality Practice Statement: Disclosure of Accounting Policies [1].
- Amendments to IAS 8 – *Accounting Policies, Changes in Accounting Estimates and Errors*: Definition of Accounting Estimates [1].
- Amendments to IAS 12 – *Income taxes*: Deferred Tax related to Assets and Liabilities arising from a Single Transaction [1].

The impact of these standards, amendments and improvements, is currently being assessed.

(1) *Available on the European Commission's website: http://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX:02002R1606-20080410*
(2) *These standards and amendments have not yet been adopted by the European Union*

1.2 Measurement and presentation basis

1.2.1 Historical cost convention

The Group's consolidated financial statements are presented in euros and have been prepared using the historical cost convention, except for financial instruments that are accounted for under the financial instrument categories defined by IFRS 9.

1.2.2 Chosen options

1.2.2.1 Reminder of IFRS 1 transition options

The Group used some of the options available under IFRS 1 for its transition to IFRS in 2005. The options that continue to have an impact on the consolidated financial statements are:

- translation adjustments: the Group elected to reclassify cumulative translation adjustments within consolidated equity at January 1, 2004;
- business combinations: the Group elected not to restate business combinations that took place prior to January 1, 2004 in accordance with IFRS 3.

1.2.2.2 Business combinations

Business combinations carried out prior to January 1, 2010 were accounted for in accordance with IFRS 3 prior to the revision. In accordance with IFRS 3 revised, these business combinations have not been restated.

Since January 1, 2010, the Group applies the purchase method as defined in IFRS 3 revised, which consists in recognizing the identifiable assets acquired and liabilities assumed at their fair values at the acquisition date, as well as any non controlling interests in the acquiree. Non-controlling interests are measured either at fair value or at the entity's proportionate interest in the net identifiable assets of the acquiree. The Group determines on a case-by-case basis which measurement option to be used to recognize non–controlling interests.

1.2.2.3 Consolidated statement of cash flows

The consolidated statement of cash flows is prepared using the indirect method starting from net income.

"Interest received on non-current financial assets" is classified within investing activities because it represents a return on investments. "Interest received on cash and cash equivalents" is shown as a component of financing activities because the interest can be used to reduce borrowing costs. This classification is consistent with the Group's internal organization, where debt and cash are managed centrally by the Group treasury department.

As impairment losses on current assets are considered to be definitive losses, changes in current assets are presented net of impairment.

Cash flows relating to the payment of income tax are presented on a separate line.

1.2.3 Foreign currency transactions

1.2.3.1 Translation of foreign currency transactions

Foreign currency transactions are recorded in the functional currency at the exchange rate prevailing on the date of the transaction.

Functional currency is the currency of the primary economic environment in which an entity operates, which in most cases corresponds to local currency. However, certain entities may have a functional currency different from the local currency when that other currency is used for an entity's main transactions and better reflects its economic environment.

At each reporting date:

- monetary assets and liabilities denominated in foreign currencies are translated at year-end exchange rates. The resulting translation gains and losses are recorded in the consolidated income statement for the year to which they relate;
- non-monetary assets and liabilities denominated in foreign currencies are recognized at the historical cost applicable at the date of the transaction.

1.2.3.2 Translation of the financial statements of subsidiaries with a functional currency other than the euro (the presentation currency)

The statements of financial position of these subsidiaries are translated into euros at the official year-end exchange rates. Income statement and cash flow statement items are translated using the average exchange rate for the year. Any differences arising from the translation of the financial statements of these subsidiaries are recorded under "Translation adjustments" as other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of foreign entities are classified as assets and liabilities of those foreign entities and are therefore denominated in the functional currencies of the entities and translated at the year-end exchange rate.

1.3 Use of estimates and judgments

1.3.1 Estimates

The preparation of consolidated financial statements requires the use of estimates and assumptions to determine the value of assets and liabilities and contingent assets and liabilities at the reporting date, as well as income and expenses reported during the period.

Developments in the economic and financial environment, particularly relating to highly volatile commodities markets, have prompted the Group to step up its risk oversight procedures, mainly in measuring financial instruments, and assessing counterparty and liquidity risk. The estimates used by the Group, among other things, to test for impairment and to measure provisions, also take into account this environment and the sharp market volatility.

Accounting estimates are made in a context that remains sensitive to energy market developments, therefore making it difficult to apprehend medium- and short-term economic prospects. Particular attention has been paid to the consequences of changes in gas and electricity prices, which increased significantly in the second half of 2021.

Due to uncertainties inherent in the estimation process, the Group regularly revises its estimates in light of currently available information. Final outcomes could differ from those estimates.

The key estimates used in preparing the Group's consolidated financial statements relate mainly to:

- measurement of the recoverable amount of goodwill *(see Note 14)*, other intangible assets *(see Note 15)* and property, plant and equipment *(see Note 16)*;
- fair value measurement of financial assets and liabilities *(see Notes 17 and 18)*;
- assessment of expected credit losses, mainly in order to update probabilities of default and other inputs in an uncertain context *(see Note 18)*;
- measurement of provisions, particularly for the back-end of the nuclear fuel cycle, dismantling obligations, disputes, and pensions and other employee benefits *(see Notes 20 and 21)*;
- measurement of the fair value of assets acquired and liabilities assumed in a business combination *(see Note 5)*;
- measurement of un-metered revenues (energy in the meter), for which the valuation techniques have been impacted by changes in certain customers' consumption habits in a context of sharp fluctuations in commodity prices *(see Note 8)*;
- measurement of recognized tax loss carry-forwards, taking into account, where applicable, taxable income revisions and projections *(see Note 12)*.

1.3.2 Judgment

As well as relying on estimates, Group management also makes judgments to define the appropriate accounting policies to apply to certain activities and transactions, particularly when the IFRS Standards and IFRIC Interpretations in force do not specifically deal with the related accounting issues.

In particular, the Group exercised its judgment in:

- assessing the type of control *(see Notes 3 and 4)*;
- identifying the performance obligations of sales contracts *(see Note 8)*;
- determining how revenues are recognized for distribution or transmission services invoiced to customers *(see Note 8)*;
- recognizing support measures granted by certain governments, notably the tariff shield in France aimed at protecting both consumers and suppliers of gas and electricity against sharp fluctuations in commodity prices *(see Note 8)*;
- identifying "own use contracts" as defined by IFRS 9 within non-financial purchase and sale contracts (electricity, gas, etc.) *(see Note 17)*;
- identifying offsetting arrangements that meet the criteria set out in IAS 32 Financial Instruments: Presentation *(see Note 17)*;
- determining whether arrangements are or contain a lease (*see Note 16*);
- determining operating and reportable segments following the Group's reorganization (*see Note 7*).

Entities for which judgment on the type of control has been exercised are listed in Note 3 "Main subsidiaries at December 31, 2021" and Note 4 "Investments in equity method entities".

1.3.3 Consideration of climate issues in the preparation of the Group's financial statements

The Group has also exercised its judgment in assessing climate risks and challenges and their impact on the consolidated financial statements. As a reminder, the management of climate and environmental risks and their challenges for the Group are presented in Chapter 2 "Risk factors and control" and Chapter 3 "Non-financial Performance and CSR Information" of the Universal Registration Document.

- The commitments made by France, Europe and various countries at international level, in particular with regard to long term carbon neutrality, are taken into account (i) in assessing the value of the Group's assets, in particular through the long-term price scenarios used in impairment tests (*see Note 14*), and (ii) in assessing dismantling provisions, in particular by assessing the useful life of the gas infrastructures in France based on the expected change in the energy mix (*see Note 20*).
- The commitments specifically made by ENGIE are reflected in the assessment of the value of the Group's assets (*see Note 14*), in particular (i) the complete withdrawal from coal by 2027, which primarily concerns South America, depending on each asset's specific prospects (closure, conversion or disposal), and (ii) the gradual decarbonization of the Group's power generation activities to net zero by 2045 and, more broadly, the Group's investment strategy in favor of the energy transition by expanding its renewable energy fleet, substituting natural gas with renewable gas, and developing its offering of low–carbon services.

NOTE 2 Restatement of 2020 comparative data

The previously published financial statements presented hereafter have been restated to take into account the presentation in the financial statements at December 31, 2020 (the income statement, statement of comprehensive income and statement of cash flows) of EQUANS activities held for sale (*see Note 5 "Main changes in Group structure"*) as discontinued operations insofar as they represent a separate major line of business within the meaning of IFRS 5 – *Non-current assets held for sale and discontinued operations.*

2.1 Statement of financial income at December 31, 2020

In millions of euros	Dec. 31, 2020 published	IFRS 5	Dec. 31, 2020 restated
Revenues	**55,751**	**(11,445)**	**44,306**
Purchases and operating derivatives	(34,967)	6,879	(28,088)
Personnel costs	(11,759)	4,256	(7,503)
Depreciation, amortization and provisions	(4,778)	301	(4,477)
Taxes	(1,265)	58	(1,207)
Other operating income	1,105	(134)	971
Current operating income including operating MtM	**4,087**	**(86)**	**4,001**
Share in net income of equity method entities	552	-	553
Current operating income including operating MtM and share in net income of equity method entities	**4,640**	**(86)**	**4,554**
Impairment losses	(3,551)	49	(3,502)
Restructuring costs	(343)	86	(257)
Changes in scope of consolidation	1,640	1	1,641
Other non-recurring items	(886)	7	(879)
Result from operating activities	**1,501**	**56**	**1,558**
Financial expenses	(2,232)	64	(2,168)
Financial income	553	(20)	533
Net financial income/(loss)	**(1,678)**	**45**	**(1,634)**
Income tax benefit/(expense)	(715)	50	(666)
Net income/(loss) relating to continuing operations	**(893)**	**151**	**(742)**
Net income/(loss) relating to discontinued operations	**-**	**(151)**	**(151)**
NET INCOME/(LOSS)	**(893)**	**-**	**(893)**
Net income/(loss) Group share	**(1,536)**	**-**	**(1,536)**
Of which Net income/(loss) relating to continuing operations, Group share	*(1,536)*	*153*	*(1,384)*
Of which Net income/(loss) relating to discontinued operations, Group share	*-*	*(153)*	*(153)*
Non-controlling interests	**644**	**-**	**644**
Of which Non-controlling interests relating to continuing operations	*644*	*(2)*	*642*
Of which Non-controlling interests relating to discontinued operations	*-*	*2*	*2*
Basic earnings/(loss) per share (euros)	**(0.71)**	**-**	**(0.71)**
Of which Basic earnings/(loss) relating to continuing operations per share	*(0.71)*	*0.06*	*(0.65)*
Of which Basic earnings/(loss) relating to discontinued operations per share	*0.00*	*(0.06)*	*(0.06)*
Diluted earnings/(loss) per share (euros)	**(0.71)**	**-**	**(0.71)**
Of which Diluted earnings/(loss) relating to continuing operations per share	*(0.71)*	*0.06*	*(0.65)*
Of which Diluted earnings/(loss) relating to discontinued operations per share	*0.00*	*(0.07)*	*(0.07)*

2.2 Statement of comprehensive income at December 31, 2020

In millions of euros	Dec. 31, 2020 published	IFRS 5	Dec. 31, 2020 restated
NET INCOME/(LOSS)	**(893)**	**-**	**(893)**
Debt instruments	(46)	-	(46)
Net investment hedges	128	-	128
Cash flow hedges (excl. commodity instruments)	(249)	(1)	(250)
Commodity cash flow hedges	872	-	872
Deferred tax on items above	(137)	-	(136)
Share of equity method entities in recyclable items, net of tax	(387)	-	(387)
Translation adjustments	(2,098)	160	(1,938)
Recyclable items relating to discontinued operations, net of tax	-	(159)	(159)
Total recyclable items	**(1,916)**	**-**	**(1,916)**
Equity instruments	43	2	45
Actuarial gains and losses	(1,569)	(18)	(1,587)
Deferred tax on items above	377	-	378
Share of equity method entities in actuarial gains and losses, net of tax	75	-	75
Non-recyclable items relating to discontinued operations, net of tax	-	16	16
Total non-recyclable items	**(1,073)**	**-**	**(1,073)**
Total recyclable items and non-recyclable items	(2,990)	-	(2,990)
TOTAL COMPREHENSIVE INCOME/(LOSS)	**(3,882)**	**-**	**(3,882)**
Of which owners of the parent	*(4,046)*	-	*(4,046)*
Of which non-controlling interests	*163*	-	*163*

2.3 Statement of cash flows at December 31, 2020

In millions of euros	Dec. 31, 2020 published	IFRS 5	Dec. 31, 2020 restated
NET INCOME/(LOSS)	**(893)**	**-**	**(893)**
- Net income/(loss) relating to discontinued operations	-	(151)	(151)
Net income/(loss) relating to continuing operations	**(893)**	**151**	**(742)**
- Share in net income of equity method entities	(552)	-	(553)
+ Dividends received from equity method entities	740	(1)	739
- Net depreciation, amortization, impairment and provisions	8,760	(329)	8,432
- Impact of changes in scope of consolidation and other non-recurring items	(1,573)	(7)	(1,580)
- Mark-to-market on commodity contracts other than trading instruments	(199)	1	(198)
- Other items with no cash impact	111	(2)	109
- Income tax expense	715	(50)	666
- Net financial income/(loss)	1,678	(45)	1,634
Cash generated from operations before income tax and working capital requirements	**8,788**	**(282)**	**8,506**
+ Tax paid	(599)	104	(494)
Change in working capital requirements	**(600)**	**(302)**	**(902)**
Cash flow from operating activities relating to continuing operations	**7,589**	**(479)**	**7,110**
Cash flow from operating activities relating to discontinued operations	**-**	**479**	**479**
CASH FLOW FROM OPERATING ACTIVITIES	**7,589**	**-**	**7,589**
Acquisitions of property, plant and equipment and intangible assets	(5,115)	151	(4,964)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	(417)	12	(405)
Acquisitions of investments in equity method entities and joint operations	(1,067)	-	(1,067)
Acquisitions of equity and debt instruments	(1,622)	4	(1,618)
Disposals of property, plant and equipment, and intangible assets	154	(22)	131
Loss of controlling interests in entities, net of cash and cash equivalents sold	456	5	462
Disposals of investments in equity method entities and joint operations	3,841	-	3,841
Disposals of equity and debt instruments	21	(2)	18
Interest received on financial assets	21	12	33
Dividends received on equity instruments	57	(1)	56
Change in loans and receivables originated by the Group and other	(374)	15	(359)
Cash flow from (used in) investing activities relating to continuing operations	**(4,046)**	**175**	**(3,872)**
Cash flow from (used in) investing activities relating to discontinued operations	**-**	**(175)**	**(175)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES	**(4,046)**	**-**	**(4,046)**
Dividends paid [(1) (2)]	(622)	1	(621)
Recovery from the French State of the 3% tax on dividends	-	-	-
Repayment of borrowings and debt	(6,179)	148	(6,031)
Change in financial assets held for investment and financing purposes	(608)	-	(608)
Interest paid	(665)	18	(648)
Interest received on cash and cash equivalents	53	-	52
Cash flow on derivatives qualifying as net investment hedges and compensation payments on derivatives and on early buyback of borrowings	25	-	25
Increase in borrowings	7,231	106	7,337
Increase/decrease in capital	181	-	181
Changes in ownership interests in controlled entities	23	-	23
Cash flow from (used in) financing activities relating to continuing operations	**(561)**	**272**	**(290)**
Cash flow from (used in) financing activities relating to discontinued operations	**-**	**(272)**	**(272)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES	**(561)**	**-**	**(561)**
Effects of changes in exchange rates and other relating to continuing operations	(520)	2	(518)
Effects of changes in exchange rates and other relating to discontinued operations	-	(11)	(11)
Effects of changes in exchange rates and other	(520)	(9)	(528)
TOTAL CASH FLOW FOR THE PERIOD	**2,461**	**(9)**	**2,453**
Reclassification of cash and cash equivalents relating to discontinued operations	-	9	9
Cash and cash equivalents at beginning of period	**10,519**	**-**	**10,519**
Cash and cash equivalents at end of period	**12,980**	**-**	**12,980**

2.4 Impacts on key indicators

In millions of euros	Dec. 31, 2020 published	IFRS 5	Dec. 31, 2020 restated
EBITDA	**9,276**	**(368)**	**8,908**
EBIT	**4,578**	**(85)**	**4,493**
NET RECURRING INCOME/(LOSS)	**2,355**	**-**	**2,355**
Net recurring income/(loss) relating to continuing operations	2,355	20	2,375
Net recurring income/(loss) relating to discontinued operations	-	(20)	(20)
NET RECURRING INCOME/(LOSS), GROUP SHARE	**1,703**	**-**	**1,703**
Net recurring income/(loss) relating to continuing operations, Group share	1,703	22	1,725
Net recurring income/(loss) relating to discontinued operations, Group share	-	(22)	(22)
NET RECURRING INCOME/(LOSS) ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	**652**	**-**	**652**
Net recurring income/(loss) relating to continuing operations attributable to non-controlling interests	652	(2)	650
Net recurring income/(loss) relating to discontinued operations attributable to non-controlling interests	-	2	2
CASH FLOW FROM OPERATIONS (CFFO)	**7,054**	**(439)**	**6,616**

NOTE 3 Main subsidiaries at December 31, 2021

Accounting standards

Controlled entities (subsidiaries) are fully consolidated in accordance with IFRS 10 – *Consolidated Financial Statements*. An investor (the Group) controls an entity and therefore must consolidate it if all of the following three criteria are met:

- it has the ability to direct the relevant activities of the entity;
- it has the rights and is exposed to variable returns from its involvement with the entity;
- it has the ability to use its power over the entity to affect the investor's return.

3.1 List of main subsidiaries at December 31, 2021

The following lists are made available by the Group to third parties, pursuant to Regulation No. 2016-09 of the French accounting standards authority (ANC) issued on December 2, 2016:

- list of companies included in consolidation;
- list of companies excluded from consolidation because their individual and cumulative incidence on the Group's consolidated financial statements is not material. They correspond to entities deemed not significant as regards the Group's main key figures (revenues, total equity, etc), shell companies or entities that have ceased all activities and are undergoing liquidation/closure proceedings;
- list of main non-consolidated interests.

This information is available on the Group's website (www.engie.com, Investors/Regulated information section).

Non-consolidated companies are classified under non-current financial assets (*see Note 17.1.1.1)* under "Equity instruments at fair value".

The list of the main subsidiaries consolidated under the full consolidation method presented below was determined, as regards operating entities, based on their contribution to Group revenues, EBITDA, net income and net debt. The main equity-accounted investments (associates and joint ventures) are presented in Note 4 "Investments in equity method entities".

Some entities such as ENGIE SA, ENGIE Energie Services SA or Electrabel SA comprise both operating activities and headquarters functions which report to management teams of different reportable segments. In the following tables, these operating activities and headquarters functions are shown within their respective reportable segments under their initial company name followed by a (*) sign.

Renewables

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Compagnie Nationale du Rhône	Electricity distribution and generation	France	50.0	50.0
ENGIE Energía Perú	Electricity distribution and generation	Peru	61.8	61.8
ENGIE Green	Electricity distribution and generation	France	100.0	100.0
ENGIE Infinity Renewables	Electricity distribution and generation	United States	100.0	100.0
ENGIE Resources Inc.	Energy sales	United States	100.0	100.0
ENGIE Romania	Natural gas distribution, Energy sales	Romania	51.0	51.0
ENGIE Solar	Solar EPC	France	100.0	100.0
ENGIE Brazil Energia Group	Electricity distribution and generation	Brazil	68.7	68.7
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	60.0	60.0
Jupiter Projects	Electricity distribution and generation	United States	51.0	51.0

Networks

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Elengy	Natural gas, LNG	France	60.9	61.3
ENGIE Romania	Natural gas distribution, Energy sales	Romania	51.0	51.0
Fosmax LNG	Natural gas, LNG	France	60.9	61.3
GRDF	Natural gas distribution	France	100.0	100.0
ENGIE Brazil Energia Group	Electricity distribution and generation	Brazil	68.7	68.7
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	60.0	60.0
GRTgaz Group (excluding Elengy)	Natural gas transportation	France, Germany	60.9	74.6
Storengy Deutschland GmbH	Underground natural gas storage	Germany	100.0	100.0
Storengy France	Underground natural gas storage	France	100.0	100.0

Energy Solutions

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Cofely Besix	Systems, facilities and maintenance services	UAE	100.0	100.0
CPCU	Urban heating networks	France	66.5	66.5
ENGIE Deutschland GmbH	Energy services	Germany	100.0	100.0
ENGIE Energie Services SA*	Energy services, Networks	France	100.0	100.0
ENGIE Servizi S.p.A	Energy services	Italy	100.0	100.0
Endel Group	Systems, facilities and maintenance services	France	100.0	100.0
Tractebel Engineering	Engineering	Belgium	100.0	100.0

Thermal

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Electrabel SA*	Electricity generation, Energy sales	Belgium	100.0	100.0
ENGIE Cartagena	Electricity generation	Spain	100.0	100.0
ENGIE Deutschland AG*	Electricity generation	Germany	100.0	100.0
ENGIE Energía Perú	Electricity distribution and generation	Peru	61.8	61.8
ENGIE Energie Nederland N.V.	Electricity generation, Energy sales	Netherlands	100.0	100.0
ENGIE Italia S.p.A*	Energy sales	Italy	100.0	100.0
ENGIE SA*	Energy sales	France	100.0	100.0
ENGIE Thermique France	Electricity generation	France	100.0	100.0
First Hydro Holdings Company	Electricity generation	United Kingdom	75.0	75.0
ENGIE Brazil Energia Group	Electricity distribution and generation	Brazil	68.7	68.7
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	60.0	60.0
Pelican Point Power Limited	Electricity generation	Australia	72.0	72.0
UCH Power Limited	Electricity generation	Pakistan	100.0	100.0

Supply

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Electrabel SA*	Electricity generation, Energy sales	Belgium	100.0	100.0
ENGIE Italia S.p.A*	Energy sales	Italy	100.0	100.0
ENGIE Romania	Natural gas distribution, Energy sales	Romania	51.0	51.0
ENGIE SA*	Energy sales	France	100.0	100.0
ENGIE Supply Holding UK Limited	Energy sales	United Kingdom	100.0	100.0
Simply Energy	Energy sales	Australia	72.0	72.0

Nuclear

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Electrabel SA*	Electricity generation, Energy sales	Belgium	100.0	100.0
Synatom	Managing provisions relating to power plants and nuclear fuel	Belgium	100.0	100.0

Others

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Electrabel SA*	Electricity generation, Energy sales	Belgium	100.0	100.0
ENGIE CC	Financial subsidiaries, Central functions	Belgium	100.0	100.0
ENGIE Deutschland AG*	Holding, Energy management trading	Germany	100.0	100.0
ENGIE Energie Nederland Holding B.V.	Holding, Energy management trading	Netherlands	100.0	100.0
ENGIE Energie Nederland N.V.	Electricity generation, Energy sales	Netherlands	100.0	100.0
ENGIE Energie Services SA*	Energy services, Networks	France	100.0	100.0
ENGIE Energy Management*	Energy management trading	France, Belgium, Italy, United Kingdom	100.0	100.0
ENGIE Energy Management Holding Switzerland AG	Holding	Switzerland	100.0	100.0
ENGIE FINANCE SA	Financial subsidiaries	France	100.0	100.0
ENGIE Global Markets	Energy management trading	France, Belgium, Singapore	100.0	100.0
ENGIE Holding Inc.	Holding – parent company	United States	100.0	100.0
ENGIE Italia S.p.A*	Holding, Energy management trading	Italy	100.0	100.0
ENGIE North America	Electricity distribution and generation, Gaz naturel, GNL, Energy services	United States	100.0	100.0
ENGIE Romania	Natural gas distribution, Energy sales	Romania	51.0	51.0
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	60.0	60.0
ENGIE SA*	Holding – parent company, Energy management trading, energy sales	France	100.0	100.0
Gaztransport & Technigaz (GTT) (1)	Engineering	France	-	40.4
International Power Limited	Holding	United Kingdom	100.0	100.0

(1) *Gaztransport & Technigaz is consolidated under the equity method at December 31, 2021 (see Note 5 "Main changes in Group structure")*

EQUANS [(1)]

Company name	Activity	Country	% interest Dec. 31, 2021	% interest Dec. 31, 2020
Axima Concept	Systems, facilities and maintenance services	France	100.0	100.0
Cofely Fabricom SA	Systems, facilities and maintenance services	Belgium	100.0	100.0
Conti Service LLC	Energy services	United States	100.0	100.0
ENGIE Regeneration	Energy services	United Kingdom	100.0	100.0
ENGIE Services Nederland N.V.	Energy services	Netherlands	100.0	100.0
ENGIE Services Holding UK Ltd	Energy services	United Kingdom	100.0	100.0
ENGIE Services Limited	Energy services	United Kingdom	100.0	100.0
INEO Group	Systems, facilities and maintenance services	France	100.0	100.0

(1) Activities held for sale and classified as "Discontinued operations" at December 31, 2021 (see Note 5 "Main changes in Group structure")

3.2 Significant judgments exercised when assessing control

The Group primarily considers the following information and criteria when determining whether it has control over an entity:

- governance arrangements: voting rights and whether the Group is represented in the governing bodies, majority rules and veto rights;
- the nature of substantive or protective rights granted to shareholders, relating to the entity's relevant activities;
- deadlock resolution mechanisms;
- whether the Group is exposed, or has rights, to variable returns from its involvement with the entity.

The Group exercised its judgment regarding the entities and sub-groups described below.

Entities in which the Group has the majority of the voting rights

GRTgaz (France Infrastructures): 60.9%

The analysis of the shareholders' agreement concluded with Société d'Infrastructures Gazières, a subsidiary of *Caisse des Dépôts et Consignations* (CDC), which now holds 38.6% of the share capital of GRTgaz, was completed by an assessment of the rights granted to the French Energy Regulatory Commission (*Commission de Régulation de l'Énergie* – CRE). As a regulated activity, GRTgaz has a dominant position on the gas transportation market in France. Accordingly, since the transposition of the Third European Directive of July 13, 2009 into French law (*Code de l'énergie* – Energy Code) on May 9, 2011, GRTgaz has been subject to independence rules as concerns its directors and senior management team. The French Energy Code confers certain powers on the CRE in the context of its duties to control the proper functioning of the gas markets in France, including verifying the independence of the members of the Board of Directors and senior management and assessing the choice of investments. The Group considers that it will continue to exercise control over GRTgaz and its subsidiaries (including Elengy) following the additional disposal by ENGIE, on December 22, 2021, of 11.50% of GRTgaz to Société d'Infrastructures Gazières. This analysis is based on the Group's current ability to appoint the majority of the members of the Board of Directors and take decisions about the relevant activities, especially in terms of the level of investment and planned financing.

Entities in which the Group does not have the majority of the voting rights

In the entities in which the Group does not have a majority of the voting rights, judgment is exercised with regard to the following items, in order to assess whether there is a situation of *de facto* control:

- dispersion of the shareholding structure: number of voting rights held by the Group relative to the number of rights held respectively by the other vote holders and their dispersion;
- voting patterns at shareholders' meetings: the percentages of voting rights exercised by the Group at shareholders' meetings in recent years;
- governance arrangements: representation in the governing body with strategic and operational decision-making power over the relevant activities;
- rules for appointing key management personnel;
- contractual relationships and material transactions.

The main fully consolidated entities in which the Group does not have the majority of the voting rights at December 31, 2021 are Compagnie Nationale du Rhône (49.98%).

Compagnie Nationale du Rhône ("CNR" – France excluding Infrastructures): 49.98%

The Group holds 49.98% of the share capital of CNR, with CDC holding 33.2%, and the balance of 16.82% being dispersed among around 200 local authorities. In view of the current provisions of the French "Murcef" law, under which a majority of CNR's share capital must remain under public ownership, the Group is unable to hold more than 50% of the share capital. However, the Group considers that it exercises *de facto* control as it holds the majority of the voting rights exercised at shareholders' meetings due to the widely dispersed shareholding structure and the absence of evidence of the minority shareholders acting in concert.

3.3 Main subsidiaries with non-controlling interests

The following table shows the non-controlling interests in Group entities that are deemed to be material, the respective contributions to equity and to net income at December 31, 2021 and December 31, 2020, as well as the dividends paid to non-controlling interests:

In millions of euros		Percentage interest of non-controlling interests		Net income/(loss) of non-controlling interests		Equity of non-controlling interests		Dividends paid	
Corporate name	**Activity**	**Dec. 31, 2021**	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**
GRTgaz Group (France Infrastructures, France)	Regulated gas transportation activities and management of LNG terminals	39.1	25.4	106	95	1,554	1,029	105	80
ENGIE Energía Chile Group (Latin America, Chile) [(1)]	Electricity distribution and generation – thermal power plants	40.0	40.0	17	67	781	716	31	24
ENGIE Romania Group (Rest of Europe, Romania)	Distribution of natural gas, Energy sales	49.0	49.0	34	49	592	563	15	10
ENGIE Brasil Energia Group (Latin America, Brazil) [(1)]	Electricity distribution and generation	31.3	31.3	45	144	294	411	38	87
ENGIE Energía Perú (Latin America, Peru) [(1)]	Electricity distribution and generation – thermal and hydroelectric power plants	38.2	38.2	22	29	393	368	20	20
ENGIE Jupiter Group (North America, United States)	Electricity distribution and generation	49.0	49.0	(323)	51	345	394	-	-
Gaztransport & Technigaz (Other, France) [(1) (2)]	Naval engineering, cryogenic membrane containment systems for LNG transportation	-	59.6	-	93	-	343	-	94
Other subsidiaries with non-controlling interests				195	115	1,027	1,087	201	109
TOTAL				**97**	**644**	**4,986**	**4,911**	**410**	**425**

(1) ENGIE Energia Chile, ENGIE Brasil Energia, Gaztransport & Technigaz and ENGIE Energia Perú are listed in their respective countries

(2) Gaztransport & Technigaz is consolidated using the equity method at December 31, 2021 (see Note 5 "Main changes in Group structure")

3.3.1 Condensed financial information on main subsidiaries with non-controlling interests

The condensed financial information concerning these subsidiaries presented in the table below is based on a 100% interest and is shown before intragroup eliminations.

	GRTgaz Group		ENGIE Energía Chile Group		ENGIE Romania Group	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Income statement						
Revenues	2,209	2,275	1,187	1,107	1,473	1,545
Net income/(loss)	388	343	42	142	69	100
Net income/(loss) Group share	282	247	25	75	35	51
Other comprehensive income/(loss) – Owners of the parent	130	(91)	107	(88)	9	(10)
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**412**	**157**	**132**	**(14)**	**45**	**41**
Statement of financial position						
Current assets	1,089	826	635	498	729	520
Non-current assets	10,098	10,167	3,150	2,677	903	843
Current liabilities	(1,272)	(1,044)	(345)	(252)	(357)	(156)
Non-current liabilities	(5,946)	(6,113)	(1,498)	(1,146)	(79)	(67)
TOTAL EQUITY	**3,969**	**3,836**	**1,941**	**1,776**	**1,196**	**1,140**
TOTAL NON-CONTROLLING INTERESTS	**1,554**	**1,029**	**781**	**716**	**592**	**563**
Statement of cash flows						
Cash flow from operating activities	1,149	1,082	186	308	102	181
Cash flow from (used in) investing activities	(464)	(410)	(234)	(230)	(131)	(88)
Cash flow from (used in) financing activities	(650)	(673)	29	(81)	39	(59)
TOTAL CASH FLOW FOR THE PERIOD (1)	**35**	**(1)**	**(19)**	**(2)**	**9**	**34**

(1) Excluding effects of changes in exchange rates and other

In millions of euros	ENGIE Brasil Energia Group		ENGIE Energía Perú		Gaztransport & Technigaz [(1)]		ENGIE Jupiter Group (North America, United States)	
	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Income statement								
Revenues	2,118	2,065	445	424	-	395	213	20
Net income/(loss)	144	550	57	76	-	156	(661)	(51)
Net income/(loss) Group share	99	405	35	47	-	63	(338)	(101)
Other comprehensive income/(loss) – Owners of the parent	10	(687)	37	(53)	-	-	21	(74)
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**109**	**(282)**	**72**	**(6)**	**-**	**63**	**(317)**	**(175)**
Statement of financial position								
Current assets	1,390	1,262	360	267	-	326	302	314
Non-current assets	4,236	4,627	1,687	1,550	-	428	2,843	2,663
Current liabilities	(900)	(859)	(302)	(149)	-	(140)	(531)	(287)
Non-current liabilities	(3,912)	(3,434)	(716)	(703)	-	(39)	(1,912)	(1,358)
TOTAL EQUITY	**813**	**1,596**	**1,029**	**965**	**-**	**575**	**703**	**1,332**
TOTAL NON-CONTROLLING INTERESTS	**294**	**411**	**393**	**368**	**-**	**343**	**345**	**394**
Statement of cash flows								
Cash flow from operating activities	941	869	185	197	-	152	(20)	186
Cash flow from (used in) investing activities	(629)	(758)	(92)	(17)	-	(21)	(13)	(151)
Cash flow from (used in) financing activities	(126)	2	(14)	(171)	-	(158)	(3)	49
TOTAL CASH FLOW FOR THE PERIOD [(2)]	**185**	**113**	**80**	**9**	**-**	**(27)**	**(36)**	**83**

(1) Gaztransport & Technigaz is consolidated under the equity method at December 31, 2021 (see Note 5 "Main changes in Group structure")

(2) Excluding effects of changes in exchange rates and other

NOTE 4 Investments in equity method entities

Accounting standards

The Group accounts for its investments in associates (entities over which the Group has significant influence) and joint ventures using the equity method. Under IFRS 11 – *Joint Arrangements*, a joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

The respective contributions of associates and joint ventures in the statement of financial position, the income statement and the statement of comprehensive income at December 31, 2021 and December 31, 2020 are as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
Statement of financial position		
Investments in associates	4,007	3,017
Investments in joint ventures	4,492	3,743
INVESTMENTS IN EQUITY METHOD ENTITIES	**8,498**	**6,760**
Income statement		
Share in net income/(loss) of associates	306	184
Share in net income/(loss) of joint ventures	495	369
SHARE IN NET INCOME/(LOSS) OF EQUITY METHOD ENTITIES	**800**	**553**
Statement of comprehensive income		
Share of associates in "Other comprehensive income/(loss)"	208	(28)
Share of joint ventures in "Other comprehensive income/(loss)"	62	(284)
SHARE OF EQUITY METHOD ENTITIES IN "OTHER COMPREHENSIVE INCOME/(LOSS)"	**270**	**(312)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as “Discontinued operations” in application of IFRS 5 (see Note 2 “Restatement of 2020 comparative data”)

Significant judgments

The Group primarily considers the following information and criteria in determining whether it has joint control or significant influence over an entity:

- governance arrangements: whether the Group is represented in the governing bodies, majority rules and veto rights;
- the nature of substantive or protective rights granted to shareholders, relating to the entity’s relevant activities.

  This can be difficult to determine in the case of “project management” or “one-asset” entities, as certain decisions concerning the relevant activities are made upon the creation of the joint arrangement and remain valid throughout the project. Accordingly, the analysis of rights relates to the relevant residual activities of the entity (those that significantly affect the variable returns of the entity);
- deadlock resolution mechanisms;
- whether the Group is exposed, or has rights, to variable returns from its involvement with the entity.

  This can also involve analyzing the Group’s contractual relations with the entity, in particular the conditions in which these contracts are entered into, their duration as well as the management of conflicts of interest that may arise when the entity’s governing body casts votes.

The Group exercised its judgment regarding the following entities and sub-groups:

Project management entities in the Middle East

The significant judgments made in determining the consolidation method to be applied to these project management entities related to the risks and rewards relating to contracts between ENGIE and the entity concerned, as well as an analysis of the residual relevant activities over which the entity retains control after its creation. The Group considers that it exercises significant influence or joint control over these entities, since the decisions taken throughout the term of the project about the relevant activities such as refinancing, or the renewal or amendment of significant contracts (sales, purchases, operating and maintenance services) require, depending on the case, the unanimous consent of two or more parties sharing control.

Joint ventures in which the Group holds an interest of more than 50%

Tihama (60%)

ENGIE holds a 60% stake in the Tihama cogeneration plant in Saudi Arabia and its partner Saudi Oger holds 40%. The Group considers that it has joint control over Tihama since the decisions about its relevant activities, including for example the preparation of the budget and amendments to major contracts, etc., require the unanimous consent of the parties sharing control.

Transportadora Associada de Gás S.A. (“TAG” – Latin America): 65.0% holding interest (directly and indirectly) representing a net interest in TAG of 54.8%

The Group exercises joint control over TAG since the decisions about its relevant activities, including, for example, the preparation of the budget and medium-term plan, investments, operations and maintenance, etc., are taken according to a majority vote requiring the agreement of ENGIE and *Caisse de dépôt et de placement du Québec* (CDPQ). The Group holds potential voting rights but they are not yet exercisable. Consequently, this investment is accounted for using the equity method.

Joint control – difference between joint ventures and joint operations

Classifying a joint arrangement requires the Group to use its judgment to determine whether the entity in question is a joint venture or a joint operation. IFRS 11 requires an analysis of "other facts and circumstances" when determining the classification of jointly controlled entities.

The IFRS Interpretations Committee (IFRS IC) (November 2014) decided that for an entity to be classified as a joint operation, other facts and circumstances must give rise to direct enforceable rights to the assets, and obligations for the liabilities, of the joint arrangement.

In view of this position and its application to our analyses, the Group has no material joint operations at December 31, 2021.

4.1 Investments in associates

4.1.1 Contribution of material associates and of associates that do not have material impact on the Group's financial statements taken individually

The table hereafter shows the contribution of each material associate along with the aggregate contribution of associates deemed not material taken individually, in the consolidated statement of financial position, income statement, statement of comprehensive income, and the "Dividends received from equity method entities" line of the statement of cash flows.

The Group used qualitative and quantitative criteria to determine material associates. These criteria include the contribution to the consolidated line items "Share in net income/(loss) of associates" and "Investments in associates", the total assets of associates in Group share, and associates carrying major projects in the study or construction phase for which the related investment commitments are material.

			Consolidation percentage of investments in associates		Carrying amount of investments in associates		Share in net income/(loss) of associates		Other comprehensive income/(loss) of associates		Dividends received from associates	
In millions of euros **Corporate name**	**Activity**	**Capacity**	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Project management entities in the Middle East (Middle East, Asia & Africa, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Oman, Kuwait) (1)	Gas-fired power plants and seawater desalination facilities		-		940	803	139	184	102	(60)	107	107
Gaztransport & Technigaz (GTT)	Engineering company in containment systems for transport and storage of LNG		30.43	-	757	-	1	-	-	-	35	-
Hydroelectric portfolio in Portugal	Hydro power plant	1,688 MW	40.00	40.00	493	516	1	(6)	(23)	(11)	-	-
Energia Sustentável do Brasil (Brazil)	Hydro power plant	3,750 MW	40.00	40.00	501	475	21	(17)	-	-	-	-
GASAG (Germany)	Gas and heat networks		31.57	31.57	333	239	29	12	75	15	11	16
Other investments in associates that are not material taken individually					982	984	114	9	54	27	81	145
INVESTMENTS IN ASSOCIATES					**4,007**	**3,017**	**306**	**184**	**208**	**(28)**	**234**	**268**

(1) Investments in associates operating gas-fired power plants and seawater desalination facilities in the Arabian Peninsula have been grouped together under "Project management entities in the Middle East". This includes around 40 associates operating thermal power plants with a total installed capacity of 26,977 MW (at 100%)

These associates have fairly similar business models and joint arrangements: the project management entities selected as a result of a competitive bidding process develop, build and operate power generation plants and seawater desalination facilities. The entire output of these facilities is sold to government-owned companies under power and water purchase agreements, over periods generally spanning 20 to 30 years

In accordance with their contractual arrangements, the corresponding plants are recognized as property, plant and equipment or as financial receivables whenever substantially all of the risks and rewards associated with the assets are transferred to the buyer of the output. This treatment complies with IFRS 16. The shareholding structure of these entities systematically includes a government-owned company based in the same country as the project management entity. The Group's percentage interest and percentage voting rights in each of these entities varies between 20% and 50%

The share in net income/(loss) of associates includes net non-recurring income for a total amount of €6 million in 2021 (compared to a net non-recurring loss of €131 million in 2020), mainly including changes in the fair value of derivative instruments and disposal gains and losses, net of tax *(see Note 6.3 "Net recurring income Group share (NriGs)")*.

4.1.2 Financial information regarding material associates

The tables below provide condensed financial information for the Group's main associates. The amounts shown have been determined in accordance with IFRS, before the elimination of intragroup items and after (i) adjustments made in line with Group accounting policies and (ii) fair value measurements of the assets and liabilities of the associate performed at the acquisition date at the level of ENGIE, as required by IAS 28. All amounts are presented based on a 100% interest with the exception of "Total equity attributable to ENGIE".

In millions of euros	Revenues	Net income /(loss)	Other comprehensive income	Total comprehensive income/ (loss)	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Total equity	Consolidation % of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2021											
Project management entities in the Middle East	4,442	576	425	1,001	3,067	19,513	4,310	14,693	3,578	-	940
Gaztransport & Technigaz (GTT)	169	3	-	2	330	2,299	144	(2)	2,488	30.43	757
Energia Sustentável do Brasil	496	54	-	54	110	2,941	1,800	(3)	1,253	40.00	501
Hydroelectric portfolio in Portugal	276	2	(58)	(57)	198	2,189	226	929	1,232	40.00	493
GASAG	1,368	93	237	331	1,199	2,078	1,927	297	1,054	31.57	333
AT DECEMBER 31, 2020											
Project management entities in the Middle East	4,082	769	(255)	514	2,885	18,321	3,925	14,338	2,944	-	803
Energia Sustentável do Brasil	454	(41)	-	(41)	153	2,897	1,863	(2)	1,189	40.00	475
Hydroelectric portfolio in Portugal	-	(14)	(26)	(41)	37	2,202	16	934	1,289	40.00	516
GASAG	1,205	40	47	87	921	1,944	1,872	234	758	31.57	239

4.1.3 Transactions between the Group and its associates

The data below set out the impact of transactions with associates on the Group's 2021 consolidated financial statements.

In millions of euros	Purchases of goods and services	Sales of goods and services	Net financial income (excluding dividends)	Trade and other receivables	Loans and receivables at amortized cost	Trade and other payables	Borrowings and debt
Project management entities in the Middle East	-	190	-	52	190	-	-
Contassur (1)	-	-	-	228	2	-	-
Energia Sustentável do Brasil	95	-	-	-	-	-	-
Hydroelectric portfolio in Portugal	-	22	7	51	120	-	-
Other	69	31	13	32	177	13	28
AT DECEMBER 31, 2021	**164**	**243**	**20**	**363**	**490**	**13**	**28**

(1) Contassur is a life insurance company accounted for using the equity method. Contassur offers insurance contracts, chiefly with pension funds that cover post-employment benefit obligations for Group employees and also employees of other companies mainly engaged in regulated activities in the electricity and gas sector in Belgium. Insurance contracts entered into by Contassur represent reimbursement rights recorded within "Other assets" in the statement of financial position. These reimbursement rights totaled €228 million at December 31, 2021 (€187 million at December 31, 2020).

4.2 Investments in joint ventures

4.2.1 Contribution of joint ventures to the Group

The table below shows the contribution of each material joint venture along with the aggregate contribution of joint ventures deemed not material taken individually to the consolidated statement of financial position, income statement, statement of comprehensive income, and the "Dividends received from equity method entities" line of the statement of cash flows.

The Group used qualitative and quantitative criteria to determine material joint ventures. These criteria include the contribution to the line items "Share in net income/(loss) of joint ventures" and "Investments in joint ventures", the Group's share in the total assets of joint ventures, and joint ventures conducting major projects in the study or construction phase for which the related investment commitments are material.

			Consolidation percentage of investments in joint ventures		Carrying amount of investments in joint ventures		Share in net income/(loss) of joint ventures		Other comprehensive income		Dividends received from joint ventures	
In millions of euros Corporate name	Activity	Capacity	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Transportadora Associada de Gás S.A. (TAG) (Brazil) (1)	Gas transmission network		65.00	65.00	792	803	189	177	7	(233)	222	231
National Central Cooling Company "Tabreed" (Middle-East, Asia & Africa, Abu Dhabi)	District cooling networks		40.00	40.00	787	702	45	52	-	-	14	27
EcoÉlectrica (Puerto Rico)	Combined-cycle gasfired power plant and LNG terminal	530 MW	50.00	50.00	310	329	46	35	-	-	63	70
Portfolio of power generation assets in Portugal	Electricity generation	2,342 MW	50.00	50.00	253	278	3	34	8	-	35	69
WSW Energie und Wasser AG (Germany)	Electricity distribution and generation		33.10	33.10	240	206	41	6	-	-	7	7
Iowa University partnership (Canada)	Services		33.10	33.10	208	190	3	2	1	(1)	2	-
Georgetown University partnership (United States)	Services		50.00	-	184	-	2	-	-	-	-	-
Tihama Power Generation Co (Saudi Arabia)	Electricity generation	1,546 MW	60.00	60.00	91	93	13	19	4	(4)	27	21
Ohio State Energy Partners (USA)	Services		50.00	50.00	78	76	3	6	6	(24)	9	12
Megal GmbH (Germany)	Gas transmission network		49.00	49.00	67	71	5	2	-	-	9	10
Transmisora Eléctrica del Norte (Chile) (2)	Electricity transmission line		50.00	50.00	96	67	(1)	5	25	(13)	-	-
Other investments in joint ventures that are not material taken individually					1,385	929	145	32	12	(9)	40	15
INVESTMENTS IN JOINT VENTURES					**4,492**	**3,743**	**495**	**369**	**62**	**(284)**	**428**	**461**

(1) The Group's interest in Transportadora Associada de Gás S.A. (TAG) is 54,83%
(2) The Group's interest inTransmisora Eléctrica del Norte is 30%

The share in net income/(loss) of joint ventures includes non-recurring gain of €44 million in 2021 (non-recurring loss of €6 million in 2020), resulting chiefly from changes in the fair value of derivatives, impairment losses and disposal gains and losses, net of tax *(see Note 6.3 "Net recurring income Group share (NriGs)").*

4.2.2 Financial information regarding material joint ventures

The amounts shown have been determined in accordance with IFRS before the elimination of intragroup items and after (i) adjustments made in line with Group accounting policies and (ii) fair value measurements of the assets and liabilities of the joint venture performed at the date of acquisition at the level of ENGIE, as required by IAS 28. All amounts are presented based on a 100% interest with the exception of "Total equity attributable to ENGIE" in the statement of financial position.

Information on the income statement and statement of comprehensive income

In millions of euros	Revenues	Depreciation and amortization of intangible assets and property, plant and equipment	Net financial income/ (loss)	Income tax expense	Net income/ (loss)	Other comprehensive income	Total comprehensive income/(loss)
AT DECEMBER 31, 2021							
Transportadora Associada de Gás S.A.	1,109	(248)	(254)	(150)	290	11	301
National Central Cooling Company "Tabreed"	170	(40)	(35)	-	113	-	113
EcoÉlectrica	174	(38)	-	(5)	104	-	104
Portfolio of power generation assets in Portugal	369	(54)	(27)	(19)	3	26	29
WSW Energie und Wasser AG	781	(14)	(1)	(62)	126	-	126
Iowa University partnership	65	-	(19)	-	9	3	12
Georgetown University partnership	19	-	(9)	-	5	-	5
Tihama Power Generation Co	107	(5)	(11)	(6)	22	6	28
Ohio State Energy Partners	193	(1)	(48)	-	6	12	18
Megal GmbH	122	(64)	(3)	1	10	-	10
Transmisora Eléctrica del Norte	41	-	(22)	-	(1)	49	48
AT DECEMBER 31, 2020							
Transportadora Associada de Gás S.A.	1,018	(260)	(245)	(99)	272	(346)	(74)
National Central Cooling Company "Tabreed"	417	(46)	(38)	-	130	-	130
EcoÉlectrica	274	(42)	-	(2)	70	-	70
Portfolio of power generation assets in Portugal	307	(65)	(25)	(30)	79	(1)	78
WSW Energie und Wasser AG	703	(13)	(2)	(14)	18	1	19
Iowa University partnership	24	-	(17)	-	5	(3)	3
Tihama Power Generation Co	113	(5)	(16)	(6)	31	(6)	25
Ohio State Energy Partners	165	-	(43)	-	12	(49)	(37)
Megal GmbH	123	(69)	(4)	2	3	-	3
Transmisora Eléctrica del Norte	65	-	(26)	(4)	10	(27)	(18)

Information on the statement of financial position

In millions of euros	Cash and cash equivalents	Other current assets	Non-current assets	Short-term borrowings	Other current liabilities	Long-term borrowings	Other non-current liabilities	Total equity	Consolidation % of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2021										
Transportadora Associada de Gás S.A.	70	251	5,721	540	75	3,174	1,036	1,218	65.00	792
National Central Cooling Company "Tabreed"	294	141	2,469	-	182	755	-	1,967	40.00	787
EcoÉlectrica	14	77	572	3	22	-	18	620	50.00	310
Portfolio of power generation assets in Portugal	294	495	793	159	208	558	72	583	50.00	253
WSW Energie und Wasser AG	17	268	852	156	36	93	142	711	33.10	240
Iowa University partnership	-	7	1,070	9	4	527	3	534	39.10	209
Georgetown University partnership	9	-	868	-	-	509	1	367	50.00	184
Tihama Power Generation Co	53	135	286	73	49	191	10	151	60.00	91
Ohio State Energy Partners	31	70	1,274	-	63	1,126	30	156	50.00	78
Megal GmbH	9	13	729	-	50	511	52	138	49.00	67
Transmisora Eléctrica del Norte	45	9	730	30	3	559	-	193	50.00	96
AT DECEMBER 31, 2020										
Transportadora Associada de Gás S.A.	69	277	5,737	514	88	3,524	720	1,235	65.00	803
National Central Cooling Company "Tabreed"	87	131	2,408	-	169	702	-	1,754	40.00	702
EcoÉlectrica	26	60	598	(6)	17	-	16	657	50.00	329
Portfolio of power generation assets in Portugal	203	601	891	174	160	635	76	650	50.00	278
WSW Energie und Wasser AG	14	51	812	40	55	87	90	606	33.10	206
Iowa University partnership	5	7	960	1	4	492	3	473	39.10	185
Tihama Power Generation Co	61	129	333	67	45	246	10	155	60.00	93
Ohio State Energy Partners	8	56	1,074	341	20	575	49	153	50.00	76
Megal GmbH	1	5	730	230	43	262	56	145	49.00	71
Transmisora Eléctrica del Norte	42	28	698	28	4	602	-	133	50.00	67

4.2.3 Transactions between the Group and its joint ventures

The data below set out the impact of transactions with joint ventures on the Group's 2021 consolidated financial statements.

In millions of euros	Purchases of goods and services	Sales of goods and services	Net financial income (excluding dividends)	Trade and other receivables	Loans and receivables at amortized cost	Trade and other payables	Borrowings and debt
EcoÉlectrica	-	-	-	-	-	-	52
WSW Energie und Wasser AG	1	22	-	4	-	1	-
Megal GmbH	65	-	-	-	-	6	-
Futures Energies Investissements Holding	10	22	4	6	181	2	-
Ocean Winds	-	-	6	1	180	-	-
Other	41	59	12	43	233	3	(7)
AT DECEMBER 31, 2021	**114**	**104**	**23**	**55**	**594**	**13**	**45**

4.3 Other information on investments accounted for using the equity method

4.3.1 Unrecognized share of losses of associates and joint ventures

Cumulative unrecognized losses of associates (corresponding to the cumulative amount of losses exceeding the carrying amount of investments in the associates concerned) including other comprehensive income/(loss), amounted to €49 million in 2021 (€114 million in 2020).

These unrecognized losses correspond to the negative fair value of derivative instruments designated as interest rate and commodity hedges ("Other comprehensive income/(loss)") contracted by associates in the Middle-East, Africa and Asia reportable segment in connection with the financing of construction projects for power generation plants.

4.3.2 Commitments and guarantees given by the Group in respect of equity method entities

At December 31, 2021, the main commitments and guarantees given by the Group in respect of equity method entities concern:

- Energia Sustentável do Brasil ("Jirau"), for an aggregate amount of BRL 4,114 million (€651 million).

  At December 31, 2021, the amount of loans granted by Banco Nacional de Desenvolvimento Econômico e Social, the Brazilian Development Bank, to Energia Sustentável do Brasil amounted to BRL 10,285 million (€1,627 million). Each partner stands as guarantor for this debt to the extent of its ownership interest in the consortium;
- TAG for bank guarantees for an amount of €254 million;
- the project management entities in the Middle East and Africa, for an aggregate amount of €667 million.

Commitments and guarantees given by the Group in respect of these project management entities chiefly correspond to:

- letters of credit to guarantee debt service reserve accounts for an aggregate amount of €131 million. The project financing set up in certain entities can require those entities to maintain a certain level of cash within the company (usually enough to service its debt for six months). This is particularly the case when the financing is without recourse. However, this level of cash may be replaced by letters of credit,
- collateral given to lenders in the form of pledged shares in the project management entities, for an aggregate amount of €264 million,
- performance bonds and other guarantees for an amount of €272 million.

NOTE 5 Main changes in group structure

Accounting standards

In accordance with IFRS 5 – *Non-Current Assets Held for Sale and Discontinued Operations*, assets or groups of assets held for sale are presented separately on the face of the statement of financial position and are measured and accounted for at the lower of their carrying amount and fair value less costs to sell.

An asset is classified as “held for sale” when its sale is highly probable within twelve months from the date of classification, when it is available for immediate sale under its present condition and when management is committed to a plan to sell the asset and an active program to locate a buyer and complete the plan has been initiated. To assess whether a sale is highly probable, the Group takes into consideration among other things indications of interest and offers received from potential buyers as well as specific execution risks attached to certain transactions.

Furthermore, assets or group of assets are presented as discontinued operations in the Group’s consolidated financial statements when they are classified as “held for sale” and represent a separate major line of business under IFRS 5.

5.1 Disposals carried out in 2021

5.1.1 Impact of the main disposals and sale agreements during the period

As part of the presentation of its new strategy, on May 18, 2021, the Group confirmed a significant increase to its asset portfolio rotation program which, in the medium term, could represent a budget of around €9 billion to €10 billion.

The table below shows the impact of the main disposals and sale agreements of 2021 on the Group’s net debt, excluding partial disposals with respect to DBSO[1] activities:

In millions of euros	Disposal price	Reduction in net debt
Disposal of a share of ENGIE's interest in GRTgaz – France	1,121	1,121
Disposal of a share of ENGIE's interest in GTT – France	247	52
Disposal of a share of ENGIE's interest in Georgetown Energy Partners Holding – United States	170	170
Disposal of ENGIE's interest in ENGIE EPS – France	127	150
Other disposals that are not material taken individually	364	352
Effects of classification as "assets held for sale"	-	475
TOTAL	**2,029**	**2,320**

Disposals in the process of completion at December 31, 2021 are described in Note 5.2 “Assets held for sale”.

5.1.2 Disposal of a portion of ENGIE’s interest in French company GRTgaz

ENGIE and Société d'Infrastructures Gazières (SIG), an investment vehicle owned by CNP Assurances and Caisse des Dépôts, have finalized the acquisition by SIG of an 11.5% stake in GRTgaz from ENGIE for €1.1 billion.

At the end of this transaction, SIG, shareholder of GRTgaz since 2011 with a 24.8% stake, now owns 38.6% of the company, with ENGIE retaining 60.9%. For SIG, this transaction includes the sale of 17.8% of Elengy's share capital in exchange for new GRTgaz shares. This has simplified GRTgaz's shareholding structure, as it holds 100% of Elengy following the transaction.

5.1.3 Disposal of a portion of ENGIE's interest in French company Gaztransport & Technigaz SA (“GTT”)

On November 13, 2020, ENGIE announced that it was beginning a strategic review of its interest in GTT, in which the Group held a 40.4% interest and which was fully consolidated.

On May 26, 2021, the Group announced that it had completed the sale of a portion of its interest in GTT representing 10% of GTT’s share capital at a price of €67 per share and the simultaneous issuance of a €290 million zero coupon bond exchangeable for GTT shares with a maturity of three years and an exchange price of €78.25, representing a 20% premium above the placing price of the concurrent sale of GTT shares.

Prior to this disposal of a portion of its interest, the Group exercised de facto control over GTT since it held the majority of seats on the Board of Directors and owing to the widely dispersed shareholding structure and the absence of evidence of shareholders acting in concert. As a result, it held the relative majority of the voting rights exercised at shareholders’ meetings (*see Note 3.2 “Significant judgments exercised when assessing control” to the consolidated financial statements for the year ended December 31, 2020*).

The transaction, which was accompanied by the immediate resignation of two directors whose appointment had been proposed by ENGIE, has resulted in the loss of ENGIE’s majority of seats on the Board of Directors and a dilution in the percentage of the voting rights of the Group, which no longer exercises de facto control. Consequently, following the disposal, ENGIE considers that it now exercises only significant influence and therefore accounts for its residual 30.4% interest in GTT using the equity method.

The effects of the transaction have reduced the Group’s net financial debt by €52 million (after deduction of the net cash held by GTT). The disposal gain before tax, including the revaluation gain on the remaining interest, amounted to €628 million in 2021.

(1) Develop, Build, Share and Operate, a model used in renewable energies based on continuous rotation of capital employed

5.1.4 Disposal of a portion of ENGIE's interest in American company Georgetown Energy Partners Holding, LLC

On March 31, 2021, ENGIE North America entered into a 50-year concession agreement with Georgetown University (Washington D.C., USA) to manage its entire energy and water treatment infrastructure.

On July 1, 2021, the Group sold 50% of its interest in Georgetown Energy Partners Holding, LLC to Axium Hoya. The Group has retained joint control over the project company which is accounted for using the equity method. The effects of the transaction have reduced the Group's net financial debt by €170 million. The disposal gain before tax amounted to €44 million in 2021.

5.1.5 Disposal of ENGIE's stake in French company ENGIE EPS SA

On July 20, 2021, the Group finalized the sale of its stake in ENGIE EPS SA to Taiwan Cement Corporation.

The effects of the transaction have reduced the Group's net financial debt by €150 million. The disposal gain before tax amounted to €83 million in 2021.

5.1.6 Earn-out from the disposal of a portion of ENGIE's interest in French company SUEZ SA

On October 6, 2020, the Group sold 29.9% of its stake in SUEZ SA to the VEOLIA Group. This sale was subject to an earn-out mechanism if the VEOLIA Group carried out other capital transactions on SUEZ at a price higher than that of the 29.9% block sold by ENGIE.

In 2021, the VEOLIA Group launched a takeover bid for SUEZ at a price of €20.50 per share (cum dividend) which closed successfully on January 7, 2022. At the end of 2021, the ENGIE group considered that all the conditions had been met to recognize the €347 million in income related to the earn-out mechanism negotiated with the VEOLIA Group.

ENGIE cashed in this earn-out on January 19, 2022, once the takeover bid had been closed

5.2 Assets held for sale

Total "Assets classified as held for sale" and total "Liabilities directly associated with assets classified as held for sale" amounted to €11,881 million and €7,415 million, respectively, at December 31, 2021.

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Property, plant and equipment, net and intangible assets	4,235	992
Other assets	7,645	299
TOTAL ASSETS CLASSIFIED AS HELD FOR SALE	**11,881**	**1,292**
of which Assets relating to discontinued operations	*11,186*	-
Borrowings and debt	368	297
Other liabilities	7,047	190
TOTAL LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE	**7,415**	**488**
of which Liabilities directly associated with assets relating to discontinued operations	*6,952*	-

The assets related to renewable energy in India recorded as "Assets classified as held for sale" at December 31, 2020 were sold in 2021. However, the Group's stake in EV Charged BV (EVBox), for which the planned disposal of the majority of the shares was announced in December 2020, is no longer classified under IFRS 5 following the parties' decision to put to an end the planned transaction.

"Assets held for sale" at December 31, 2021 corresponds to the EQUANS entities, Endel and its main subsidiaries, and certain renewable energy assets in Mexico (the sale of which is highly probable but remains subject to various approvals being obtained). These transactions are expected to be completed in 2022.

The activities of the EQUANS entities held for sale have been classified in the Group's consolidated financial statements as discontinued operations since Asset-Light Client Solutions represent a separate major line of business pursuant to IFRS 5 – *Non-current Assets Held for Sale and Discontinued Operations*. Consequently, the net income or loss generated by these activities is presented on a separate line after income from continuing operations. The comparative income statement data for the previous period have been restated on the same basis.

5.2.1 Planned sale of the EQUANS operations

On November 5, 2021, the Group entered into exclusive negotiations with Bouygues for the sale of 100% of EQUANS, based on a unilateral firm and binding offer.

EQUANS encompasses the Group's multi-technical services for companies worldwide, mainly in France and Europe: design, engineering, works, operation, installation, maintenance, facility management, etc. The scope of these activities constituted a reportable segment (*see Note 4 "Segment information" to the condensed consolidated interim financial statements at June 30, 2021*).

EQUANS was classified under "Assets held for sale" and "Discontinued operations" on November 5, 2021. This assumption was based on the firm and binding sale option signed on November 5, 2021, and on the nature of the conditions precedent to be met at the date of receipt of the offer. The impact of this classification on the Group's consolidated financial statements was as follows:

- assets held for sale and the associated liabilities are identified separately from other assets and liabilities in the statement of financial position at December 31, 2021, but the statement of financial position at December 31, 2020 has not been restated;
- from the date of classification as "Assets held for sale", these assets are no longer depreciated;
- net income generated in 2021 is presented on a single line of the income statement entitled "Net income/(loss) from discontinued operations". The comparative income statement data for 2020 has been restated in accordance with IFRS 5 *(see Note 2 "Restatement of comparative data")*;
- recyclable and non-recyclable items relating to discontinued operations are presented separately in the statement of comprehensive income for 2021. The comparative comprehensive income data for 2020 have also been restated in accordance with IFRS 5 *(see Note 2 "Restatement of comparative data")*;
- net cash flows from operating, investing and financial activities attributable to discontinued operations are presented on separate lines of the Group's statement of cash flows for 2021. The comparative cash flow data for 2020 have been restated in accordance with IFRS 5 (*see Note 2 "Restatement of comparative data"*).

Given the expected capital gain from the disposal, no value adjustment has been recorded.

The transaction is expected to close in the second half of 2022 and should reduce the Group's net financial debt by around €6.8 billion.

5.2.2 Financial information on discontinued operations

Net income/(loss) from discontinued operations

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Revenues	**12,860**	**11,445**
Purchases and operating derivatives	(7,942)	(6,879)
Personnel costs	(4,420)	(4,256)
Depreciation, amortization and provisions	(239)	(301)
Taxes	(59)	(58)
Other operating income	166	134
Current operating income including operating MtM	**366**	**86**
Share in net income of equity method entities	-	-
Current operating income including operating MtM and share in net income of equity method entities	**367**	**86**
Impairment losses	2	(49)
Restructuring costs	(100)	(86)
Changes in scope of consolidation	(53)	(1)
Other non-recurring items	(30)	(7)
Result from operating activities	**185**	**(56)**
Financial expenses	(74)	(65)
Financial income	25	20
Net financial income/(loss)	**(49)**	**(45)**
Income tax benefit/(expense)	(55)	(50)
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**80**	**(151)**
Of which Net income/(loss) relating to discontinued operations, Group share	**79**	**(153)**
Of which Non-controlling interests relating to discontinued operations	**1**	**2**
Financial indicators used in financial communication		
EBITDA	622	368
EBIT (1)	368	85
Net recurring income/(loss) Group Share (1)	231	(22)

(1) Includes the effect of the cessation of depreciation, on the date of classification as Assets held for sale, for a positive amount of €51 million for EBIT and for positive amount of €37 million for Net recurring income/(loss) Group Share, as of December 31, 2021

Statement of financial position of discontinued operations

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Non-current assets		
Goodwill	3,056	2,934
Intangible assets, net	409	403
Property, plant and equipment, net	1,150	1,031
Other financial assets	124	113
Assets from contracts with customers	7	7
Investments in equity method entities	3	5
Other non-current assets	165	19
Deferred tax assets	267	205
Total non-current assets	**5,181**	**4,718**
Current assets		
Other financial assets	21	31
Trade and other receivables, net	2,246	2,258
Assets from contracts with customers	2,302	2,308
Inventories	190	179
Other current assets	817	825
Cash and cash equivalents	429	428
Total current assets	**6,004**	**6,028**
TOTAL ASSETS RELATING TO DISCONTINUED OPERATIONS	**11,185**	**10,747**

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Non-current liabilities		
Provisions	355	281
Long-term borrowings	390	364
Derivative instruments	1	2
Other financial liabilities	1	1
Liabilities from contracts with customers	12	13
Other non-current liabilities	3	1
Deferred tax liabilities	218	114
Total non-current liabilities	**979**	**775**
Current liabilities		
Provisions	311	338
Short-term borrowings	198	206
Derivative instruments	-	1
Trade and other payables	1,977	1,857
Liabilities from contracts with customers	1,910	1,972
Other current liabilities	1,577	1,599
Total current liabilities	**5,973**	**5,972**
TOTAL LIABILITIES DIRECTLY ASSOCIATED WITH DISCONTINUED OPERATIONS	**6,952**	**6,748**

Cash flows from discontinued operations

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
NET INCOME/(LOSS)	**80**	**(151)**
Cash generated from operations before income tax and working capital requirements	**462**	**282**
+ Tax paid	(71)	(104)
Change in working capital requirements	**96**	**302**
CASH FLOW FROM OPERATING ACTIVITIES	**486**	**479**
Acquisitions of property, plant and equipment and intangible assets	(208)	(151)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	(14)	(12)
Loss of controlling interests in entities, net of cash and cash equivalent sold	6	22
Interest received on financial assets	(12)	(12)
Change in loans and receivables originated by the Group and other [(1)]	(2,782)	(15)
Other	7	(6)
Cash flow from (used in) investing activities	**(3,003)**	**(175)**
Dividends paid	-	(1)
Repayment of borrowings and debt	(155)	(148)
Interest paid	(33)	(18)
Interest received on cash and cash equivalents	(1)	-
Increase in borrowings	7	25
Cash flow from (used in) financing activities excluding intercompany transactions	**(181)**	**(141)**
Intercompany transactions with ENGIE [(2)]	2,700	(131)
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES	**2,518**	**(272)**
Effects of changes in exchange rates and other	(11)	(27)
TOTAL CASH FLOW FOR THE PERIOD	**(9)**	**5**
Cash and cash equivalents at beginning of period	**428**	**422**
Cash and cash equivalents at end of period	**429**	**428**

(1) *The line "Change in loans and receivables originated by the Group and other" includes acquisitions, by EQUANS, of shares of "Asset-Light Client Solutions Activities", held by ENGIE for a negative amount of €3,343 million and disposals, by EQUANS, of shares not constituting of "Asset-Light Client Solutions Activities", to ENGIE for an amount of €519 million*

(2) *The line "Intercompany transactions with ENGIE" includes capital increases of EQUANS, for an amount of €3,615 million, subscribed by ENGIE to finance the above acquisitions*

5.3 Acquisitions carried out in 2021

In total, acquisitions carried out in 2021 had an impact of €1 billion on net financial debt. These acquisitions relate mainly to concession contracts in Brazil for €0.4 billion and a 50-year concession agreement with the US company Georgetown Energy Partners Holding, LLC for €0.2 billion.

5.4 Other transactions

On November 11, 2021, ENGIE and Crédit Agricole Assurances announced that they had reached an agreement to acquire 97.33% of Eolia Renovables, one of Spain's largest renewable energy producers, from Canadian institutional investment manager Alberta Investment Management Corporation. The transaction covers the ownership and operation of 899 MW of operating assets (821 MW of onshore wind and 78 MW photovoltaic) and a 1.2 GW pipeline of renewable projects.

The operating assets will be 40% owned by ENGIE and 60% by Crédit Agricole Assurances while ENGIE will develop and build the pipeline of projects. ENGIE will provide a complete range of services (O&M, Asset Management, Energy Management and Development services) for the full asset scope.

The acquired assets benefit from a regulated scheme ensuring predictability of returns for the next ten years. The deal will have a €0.4 billion net financial debt impact for ENGIE. The interest in the company holding the operating assets will be accounted for using the equity method. The company responsible for developing and building the pipeline of projects will be fully consolidated by ENGIE.

Completion of the transaction is expected by Q1 2022, subject to the fulfillment of certain conditions including merger control clearance from the relevant competition authorities.

NOTE 6 Financial indicators used in financial communication

The purpose of this note is to present the main non-GAAP financial indicators used by the Group as well as their reconciliation with the indicators of the IFRS consolidated financial statements.

6.1 EBITDA

The reconciliation between EBITDA and current operating income including operating MtM and share in net income of equity method entities is as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Current operating income including operating MtM and share in net income of equity method entities	**6,916**	**4,554**
Mark-to-market on commodity contracts other than trading instruments	(721)	(198)
Net depreciation and amortization/Other	4,370	4,368
Share-based payments (IFRS 2)	48	47
Non-recurring share in net income of equity method entities	(50)	137
EBITDA	**10,563**	**8,908**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

6.2 EBIT

The Group's main performance indicator, formerly "Current operating income (COI)", has been renamed "EBIT" to bring it in line with market practice. There is no change in its definition or calculation.

The reconciliation between EBIT and current operating income including operating MtM and share in net income of equity method entities is as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Current operating income including operating MtM and share in net income of equity method entities	**6,916**	**4,554**
Mark-to-market on commodity contracts other than trading instruments	(721)	(198)
Non-recurring share in net income of equity method entities	(50)	137
EBIT	**6,145**	**4,493**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

6.3 Net recurring income Group share (NriGs)

Net recurring income Group share is a financial indicator used by the Group in its financial reporting to present net income Group share adjusted for unusual or non-recurring items.

The reconciliation of net income/(loss) with net recurring income Group share is as follows:

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 (1)
NET INCOME/(LOSS) GROUP SHARE		**3,661**	**(1,536)**
Net income/(loss) relating to discontinued operations, group share		79	(153)
Net income/(loss) relating to continuing operations, group share		**3,582**	**(1,384)**
Net income attributable to non-controlling interests relating to discontinued operation		96	642
Net income/(loss) relating to continuing operations		**3,678**	**(742)**
Reconciliation items between "Current operating income including operating MtM and share in net income of equity method entities" and result from operating activities		**194**	**2,996**
Impairment losses	*10.1*	*1,028*	*3,502*
Restructuring costs	*10.2*	*204*	*257*
Changes in scope of consolidation	*10.3*	*(1,107)*	*(1,641)*
Other non-recurring items	*10.4*	*69*	*879*
Other adjusted items		**(363)**	**121**
Mark-to-market on commodity contracts other than trading instruments	*9.1*	*(721)*	*(198)*
Ineffective portion of derivatives qualified as fair value hedges	*11*	*2*	*-*
Gains/(losses) on debt restructuring and early unwinding of derivative financial instruments	*11*	*-*	*29*
Change in fair value of derivatives not qualified as hedges and ineffective portion of derivatives qualified as cash flow hedges	*11*	*153*	*158*
Non-recurring income/(loss) from debt instruments and equity instruments	*11*	*(298)*	*69*
Other adjusted tax impacts		*552*	*(75)*
Non-recurring income/(loss) included in share in net income of equity method entities		*(50)*	*137*
Net recurring income relating to continuing operations		**3,509**	**2,375**
Net recurring income attributable to non-controlling interests		581	650
NET RECURRING INCOME RELATING TO CONTINUING OPERATIONS, GROUP SHARE		**2,927**	**1,725**
Net recurring income/(loss) relating to discontinued operations, Group share		231	(22)
NET RECURRING INCOME GROUP SHARE		**3,158**	**1,703**

(1) *Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")*

6.4 Industrial capital employed

The reconciliation of industrial capital employed with items in the statement of financial position is as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [(1)]
(+) Property, plant and equipment and intangible assets, net	57,863	57,085
(+) Goodwill	12,799	15,943
(-) Goodwill Gaz de France – SUEZ and International Power [(1)]	*(7,213)*	*(7,472)*
(+) IFRIC 4, IFRS 16 and IFRIC 12 receivables	2,456	1,827
(+) Investments in equity method entities	8,498	6,760
(-) Goodwill arising on the International Power combination [(1)]	*(38)*	*(141)*
(+) Trade and other receivables, net	32,555	14,295
(-) Margin calls [(1) (2)]	*(13,856)*	*(1,585)*
(+) Inventories	6,175	4,140
(+) Assets from contracts with customers	8,377	7,764
(+) Other current and non-current assets	13,681	9,386
(+) Deferred tax	(6,557)	(3,536)
(+) Cancellation of deferred tax on other recyclable items [(1) (2)]	*841*	*(543)*
(-) Provisions	(25,459)	(27,073)
(+) Actuarial gains and losses in shareholders' equity (net of deferred tax) [(1)]	*3,162*	*4,553*
(-) Trade and other payables	(32,822)	(17,307)
(+) Margin calls [(1) (2)]	*7,835*	*982*
(-) Liabilities from contracts with customers	(2,739)	(4,354)
(-) Other current and non-current liabilities	(19,175)	(14,579)
INDUSTRIAL CAPITAL EMPLOYED	**46,382**	**46,146**

(1) For the purpose of calculating industrial capital employed, the amounts recorded in respect of these items have been adjusted from those appearing in the statement of financial position

(2) Margin calls included in “Trade and other receivables, net” and “Trade and other payables” correspond to advances received or paid as part of collateralization agreements set up by the Group to manage counterparty risk on commodity transactions

6.5 Cash flow from operations (CFFO)

The reconciliation of cash flow from operations (CFFO) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [(1)]
Cash generated from operations before income tax and working capital requirements	9,806	8,506
Tax paid	(603)	(494)
Change in working capital requirements	(2,377)	(902)
Interest received on financial assets	32	33
Dividends received on equity investments	57	56
Interest paid	(719)	(648)
Interest received on cash and cash equivalents	52	52
Change in financial assets at fair value through income	464	(608)
(+) Change in financial assets at fair value through income recorded in the statement of financial position and other	(448)	621
CASH FLOW FROM OPERATIONS (CFFO)	**6,263**	**6,616**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as “Discontinued operations” in application of IFRS 5 (see Note 2 “Restatement of 2020 comparative data”)

6.6 Capital expenditure (CAPEX) and growth CAPEX

The reconciliation of capital expenditure (CAPEX) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
Acquisitions of property, plant and equipment and intangible assets	5,990	4,960
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	392	405
(+) Cash and cash equivalents acquired	*6*	*50*
Acquisitions of investments in equity method entities and joint operations	369	1,067
Acquisitions of equity and debt instruments	1,548	1,618
Change in loans and receivables originated by the Group and other	(121)	359
(+) Other	*3*	*2*
Change in ownership interests in controlled entities	35	312
(-) Disposal impacts relating to DBSO [2] activities	(270)	(1,276)
TOTAL CAPITAL EXPENDITURE (CAPEX)	**7,954**	**7,497**
(-) Maintenance CAPEX	(2,418)	(2,284)
(-) Synatom investments	(1,261)	(1,339)
TOTAL GROWTH CAPEX	**4,274**	**3,873**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

(2) Develop, Build, Share & Operate; including Tax equity financing received (see Note 25 "Working capital requirements, inventories, other assets and other liabilities")

6.7 Net financial debt

The reconciliation of net financial debt with items in the statement of financial position is as follows:

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020
(+) Long-term borrowings	17.2 & 17.3	30,458	30,092
(+) Short-term borrowings	17.2 & 17.3	10,590	7,846
(+) Derivative instruments – carried in liabilities	17.4	46,931	13,115
(-) Derivative instruments hedging commodities and other items		*(46,617)*	*(12,762)*
(-) Other financial assets	17.1	(13,444)	(11,599)
(+) Loans and receivables at amortized cost not included in net financial debt		*5,143*	*4,710*
(+) Equity instruments at fair value		*2,827*	*1,668*
(+) Debt instruments at fair value not included in net financial debt		*3,853*	*3,134*
(-) Cash and cash equivalents	17.1	(13,890)	(12,980)
(-) Derivative instruments – carried in assets	17.4	(44,989)	(11,065)
(+) Derivative instruments hedging commodities and other items		*44,489*	*10,299*
NET FINANCIAL DEBT		**25,350**	**22,458**

6.8 Economic net debt

Economic net debt is as follows:

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020
NET FINANCIAL DEBT	**17**	**25,350**	**22,458**
Provisions for back-end of the nuclear fuel cycle	20	8,030	7,948
Provisions for dismantling of plant and equipment	20	8,015	7,604
Provisions for site rehabilitation	20	246	238
Post-employment benefit – Pension	20	1,779	3,174
(-) Infrastructures regulated companies		*(16)*	*(351)*
Post-employment benefit – Reimbursement rights	20	(228)	(187)
Post-employment benefit – Other benefits	20	5,149	5,732
(-) Infrastructures regulated companies		*(3,289)*	*(3,602)*
Deferred tax assets for pension and related obligations	12	(1,501)	(2,061)
(-) Infrastructures regulated companies		*780*	*947*
Plan assets relating to nuclear provisions, inventories of uranium, related derivative financial instruments and a receivable of Electrabel towards EDF Belgium	20 & 25	(6,014)	(4,479)
ECONOMIC NET DEBT		**38,300**	**37,420**

NOTE 7 Segment information

7.1 Reorganization of ENGIE and modification of segment information

A new Executive Committee was appointed on February 1, 2021, whose responsibilities are aligned with the strategic priorities presented by the Group in July 2020 and reflect ENGIE's decision to organize the Group around its four strategic activities: Renewables, Networks, Thermal & Supply and Energy Solutions. Following discussions with the employee representative bodies in the first half of the year, the operational implementation of a reorganization into Global Business Units (GBU) in line with these activities began. Within Energy Solutions operations, asset-light activities, which are intended to become independent of ENGIE in the long term, are grouped together under the "EQUANS" sub-group (*see Note 5.2.1 "Planned sale of the EQUANS operations"*), while the other retained activities make up the "Energy Solutions" GBU.

Since taking office, the Group Executive Committee, which is the chief operating decision maker within the meaning of IFRS 8 – *Operating Segment*, has steered operational and financial performance and allocated resources within the Group by activity underlying the GBU. As a result, these activities now correspond to "operating segments" and "reportable segments" within the meaning of IFRS 8.

This change has led to a shift in the Group's segment reporting towards the activities' key focuses. However, as 2021 is considered to be a transitional year, the former operational organization by geographical Business Units will remain in place for the time being and will constitute a secondary focus of the Group's segment reporting.

The relationship between the old and new segments is as follows (after the reclassification of EQUANS activities as discontinued operations):

		New organization						
		GBU and Segment	GBU and Segment	GBU and Segment	GBU		Segment	Segment
					Segment	Segment		
		Renewables	Networks	Energy Solutions	Thermal	Supply	Nuclear	Others
Former organization	France excluding Infrastructures	X		X		X		
	France Infrastructures		X					
	Rest of Europe	X	X	X	X	X	X	
	Latin America	X	X		X	X		
	USA & Canada	X		X	X	X		
	Middle East, Asia & Africa	X		X	X	X		
	Others			X				X

7.2 Information by reportable segment

7.2.1 Definition of reportable segments

The reportable segments are identical to the operating segments, and correspond to the activities underlying the organization into GBU:

- **Renewables**: comprises all centralized renewable energy generation activities, including financing, construction, operation and maintenance of renewable energy facilities, using various energy sources such as hydroelectric, onshore wind, photovoltaic solar, biomass, offshore wind, and geothermal. The energy produced is fed into the grid and sold either on the open or regulated market or to third parties through electricity sale agreements.
- **Networks**: comprises the Group's electricity and gas infrastructure activities and projects. These activities include the management and development of (i) gas and electricity transportation networks and natural gas distribution networks in and outside of Europe, (ii) natural gas underground storage in Europe, and (iii) regasification infrastructure in France and Chile. Apart from the historical infrastructure management activities, its asset portfolio also contributes to the challenges of energy decarbonization and network greening (gradual integration of green gas, hydrogen-based projects, etc.).
- **Energy Solutions**: encompasses the construction and management of decentralized energy networks to produce low-carbon energy (heating and cooling networks, distributed power generation plants, distributed solar power parks, low-carbon mobility, low-carbon cities and public lighting, etc.) and related services (energy efficiency, technical maintenance, sustainable development consulting).
- **Thermal**: encompasses all the Group's centralized power generation activities using thermal assets, whether contracted or not. It includes the operation of power plants fueled mainly by gas or coal, as well as pump-operated storage plants. The energy produced is fed into the grid and sold either on the open or regulated market or to third parties through electricity sale agreements. It also includes the financing, construction and operation of desalination plants, whether or not connected to power plants as well as the development of hydrogen production capacities.
- **Supply**: encompasses all the Group's activities relating to the sale of gas and electricity to end customers, whether professional or individual. It also includes all the Group's activities in services for residential clients.
- **Nuclear**: encompasses all of the Group's nuclear power generation activities, with seven reactors in Belgium (four in Doel and three in Tihange) and drawing rights in France.

Others encompasses energy management and optimization activities, the B2B supply activities in France, GTT, corporate and holding activities.

7.2.2 Key indicators by reportable segment

The data by activity according to the new segmentation correspond to the data by Business Line under the previous secondary segmentation. Some minor reallocations were made during the reorganization, marginally impacting 2020 data compared to previous publications.

Revenues

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Renewables	3,661	2,971
Networks	6,700	6,718
Energy Solutions	9,940	8,840
Thermal	4,089	3,281
Supply	13,237	10,792
Nuclear (2)	56	39
Others (3)	20,183	11,664
TOTAL REVENUES	**57,866**	**44,306**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")
(2) Revenues after elimination of intra-group transactions of €1,705 million at December 31, 2021 compared to €1,129 million at December, 31 2020
(3) Of which €10 billion of price effect compared to 2020

EBITDA

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Renewables	1,700	1,576
Networks	4,121	3,848
Energy Solutions	799	738
Thermal	1,628	1,708
Supply	445	433
Nuclear	1,413	415
Others	457	189
TOTAL EBITDA	**10,563**	**8,908**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

EBIT

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Renewables	1,185	1,093
Networks	2,314	2,060
Energy Solutions	366	305
Thermal	1,183	1,259
Supply	174	184
Nuclear	970	(111)
Others	(46)	(297)
TOTAL EBIT	**6,145**	**4,493**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Share in net income/loss) of equity method entities

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [(1)]
Renewables	95	39
Networks	233	193
Energy Solutions	153	(62)
Thermal	301	389
Supply	-	-
Nuclear	-	-
Others	18	(7)
TOTAL SHARE IN NET INCOME/(LOSS) OF EQUITY METHOD ENTITIES	**800**	**553**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Associates and joint ventures accounted for €306 million and €494 million respectively of share in net income of equity method entities at December 31, 2021, compared to €183 million and €370 million at December 31, 2020.

Industrial capital employed

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Renewables	12,535	10,281
Networks	24,166	23,324
Clients Solutions	6,634	10,083
Energy Solutions	6,634	6,280
EQUANS	-	3,804
Thermal	7,852	8,210
Supply	1,362	1,234
Nuclear [(1)]	(12,728)	(11,826)
Others	6,561	4,839
TOTAL INDUSTRIAL CAPITAL EMPLOYED	**46,382**	**46,146**

(1) Including €15,119 million of nuclear provisions. Capital employed does not include assets dedicated to covering provisions for €5,501 million

Capital expenditure

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [(1)]
Renewables	2,007	1,631
Networks	2,525	2,591
Energy Solutions	901	767
Thermal	268	189
Supply	299	278
Nuclear	1,462	1,740
Others	492	301
TOTAL CAPITAL EXPENDITURE (CAPEX)	**7,954**	**7,497**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Growth capex

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Renewables	1,887	1,529
Networks	1,320	1,579
Energy Solutions	712	591
Thermal	(17)	28
Supply	155	144
Nuclear	-	-
Others	218	2
TOTAL GROWTH CAPEX	**4,274**	**3,873**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

7.3 Key indicators by geographical segment

The geographic areas below come from the combination of the Group's Business Units, as described in Note 6 "Segment information" to the consolidated financial statements for the year ended December 31, 2020.

Revenues

	Dec. 31, 2021			Dec. 31, 2020 (1)		
In millions of euros	External revenues	Intra-Group Revenues	Total	External revenues	Intra-Group Revenues	Total
France excluding Infrastructures	13,038	299	13,337	10,386	296	10,682
France Infrastructures	5,629	878	6,506	5,439	920	6,359
Total France	*18,667*	*1,176*	*19,844*	*15,825*	*1,216*	*17,041*
Rest of Europe	11,088	3,364	14,452	9,047	1,915	10,961
Latin America	4,306	37	4,343	4,287	32	4,319
USA & Canada	661	3	664	476	3	479
Middle East, Asia & Africa	2,038	31	2,069	2,045	45	2,090
Others	21,107	16,063	37,169	12,626	4,802	17,428
Elimination of internal transactions	-	(20,674)	(20,674)	-	(8,013)	(8,013)
TOTAL REVENUES	**57,866**	**-**	**57,866**	**44,306**	**-**	**44,306**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

EBITDA

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
France excluding Infrastructures	1,410	1,180
France Infrastructures	3,521	3,290
Total France	*4,931*	*4,470*
Rest of Europe	2,717	1,680
Latin America	1,928	1,992
USA & Canada	208	168
Middle East, Asia & Africa	565	617
Others	215	(19)
TOTAL EBITDA	**10,563**	**8,908**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Depreciation and amortization

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
France excluding Infrastructures	(625)	(660)
France Infrastructures	(1,694)	(1,681)
Total France	*(2,319)*	*(2,341)*
Rest of Europe	(891)	(951)
Latin America	(474)	(461)
USA & Canada	(117)	(58)
Middle East, Asia & Africa	(69)	(75)
Others	(500)	(482)
TOTAL DEPRECIATION AND AMORTIZATION	**(4,370)**	**(4,368)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

EBIT

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
France excluding Infrastructures	782	518
France Infrastructures	1,827	1,609
Total France	*2,609*	*2,127*
Rest of Europe	1,823	724
Latin America	1,453	1,530
USA & Canada	91	110
Middle East, Asia & Africa	495	542
Others	(325)	(540)
TOTAL EBIT	**6,145**	**4,493**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Industrial capital employed

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
France excluding Infrastructures	6,545	7,326
France Infrastructures	19,972	19,891
Total France	*26,518*	*27,218*
Rest of Europe	(4,934)	(1,596)
Latin America	10,409	9,476
USA & Canada	3,945	3,168
Middle East, Asia & Africa	2,916	2,663
Others	7,528	5,218
TOTAL INDUSTRIAL CAPITAL EMPLOYED	**46,382**	**46,146**

Capital expenditure (capex)

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
France excluding Infrastructures	828	666
France Infrastructures	1,922	1,763
Total France	*2,750*	*2,429*
Rest of Europe	2,171	2,201
Latin America	1,076	1,506
USA & Canada	1,081	395
Middle East, Asia & Africa	188	(499)
Others	687	1,465
TOTAL CAPITAL EXPENDITURE (CAPEX)	**7,954**	**7,497**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

7.4 Key indicators by geographic area

The amounts set out below are analyzed by:

- destination of products and services sold for revenues;
- geographic location of consolidated companies for industrial capital employed.

	Revenues		Industrial capital employed	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020[1]	Dec. 31, 2021	Dec. 31, 2020[1]
France	24,341	18,666	30,241	30,560
Belgium	4,372	3,756	(10,775)	(9,833)
Other EU countries	12,501	7,999	6,938	6,234
Other European countries	3,110	1,830	1,447	2,704
North America	4,752	4,264	5,342	4,460
Asia, Middle East & Oceania	4,441	3,458	2,709	2,495
South America	4,053	4,030	9,521	8,721
Africa	297	304	960	805
TOTAL	**57,866**	**44,306**	**46,382**	**46,146**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Due to the variety of its businesses and their geographical location, the Group serves a very diverse range of situations and customer types (industry, local authorities and individual customers). Accordingly, no external customer represents individually 10% or more of the Group's consolidated revenues.

NOTE 8 Revenues

8.1 Revenues

Accounting standards

Revenues from contracts with customers concern revenues from contracts that fall within the scope of IFRS 15. Revenues are recognized when the customer obtains control of goods or services promised in the contract, for the amount of consideration to which an entity expects to be entitled in exchange for said promised goods or services.

A contractual analysis of the Group's sale contracts has led to the application of the following revenue recognition principles:

- **Gas, electricity and other energies**

  Revenues from sales of gas, electricity and other energies are recognized upon delivery of the power to the retail, business or industrial customer.

  Power deliveries are monitored in real time or on a deferred basis for those customers whose energy consumption is metered during the accounting period, in which case the portion of not yet metered revenues "in the meter" is estimated on the closing date.

- **Gas, electrical and other energy infrastructures**

  Revenues derived by gas and electricity infrastructure operators upon providing transportation or distribution or storage capacities, are recognized on a straight-line basis over the contract term.

  In the countries where the Group acts as an energy provider (supplier) without being in charge of its distribution or transportation, mainly in France and Belgium, an analysis of the energy sales contracts and of the related regulatory framework is carried out to determine whether the distribution or transportation services invoiced to the customers have to be excluded from the revenues recognized under IFRS 15.

  Judgment may be exercised by the Group for this analysis in order to determine whether the energy provider acts as an agent or a principal for the gas or electricity distribution or transportation services re-invoiced to the customers. The main criteria used by the Group to exercise its judgment and conclude, in certain countries, that the energy provider acts as an agent of the infrastructure operator are as follows: who is primarily responsible for fulfillment of the distribution or transportation services? Does the energy provider have the ability to commit to capacity reservation contracts towards the infrastructure operator? To what extent does the energy provider have discretion in establishing the price for the distribution or transportation services?

- **Constructions, installations, Operations and Maintenance (O&M), facility management (FM) and other services**

  Construction and installation contracts mainly concern assets built on the premises of customers such as cogeneration units, heaters or other energy-efficiency assets. The related revenues are usually recognized according to the percentage of completion on the basis of the costs incurred where the contracts fall within the scope of IFRS 15.

  O&M contracts generally require the Group to perform services ensuring the availability of power generating facilities. These services are performed over time and the related revenues are recognized according to the percentage of completion on the basis of the costs incurred.

  FM generally involves managing and integrating a large number of different services, outsourced by customers. The consideration due to FM suppliers can either be fixed or variable depending on the number of hours or based on another indicator, irrespective of the nature of the services provided. Hence, the related revenues are recognized according to the percentage of completion on the basis of the costs incurred or of the number of hours performed.

If it is not possible to conclude from the contractual analysis that the contract falls within the scope of IFRS 15, the revenues are accounted for as non-IFRS 15 revenues.

Revenues from other contracts, corresponding to revenues from operations that do not fall within the scope of IFRS 15, presented in the "Others" column include lease or concession income, as well as any financial component of operating services.

The table below shows a breakdown of revenues by type:

In millions of euros	Sales of gas	Sales of electricity and other energies	Sales of services linked to infrastructures	Constructions, installations, O&M, FM and other services	Others	Dec. 31, 2021
Renewables	-	3,335	85	149	91	3,661
Networks	205	1	5,715	606	173	6,700
Energy Solutions	157	3,368	102	6,262	51	9,939
Thermal	66	3,165	345	451	62	4,089
Supply	6,384	5,518	77	992	265	13,238
Nuclear	-	4	11	22	19	56
Others	9,166	9,470	228	323	994	20,183
TOTAL REVENUES	**15,978**	**24,861**	**6,565**	**8,806**	**1,656**	**57,866**

The significant change in natural gas prices has led the French government to temporarily freeze regulated natural gas sales tariffs from November 1, 2021. The 2022 Finance Act for (No. 2021-1900 of December 30, 2021) introduced the "tariff shield" mechanism aimed at capping, until June 30, 2022, the regulated gas sales tariffs at the level of October 1, 2021. The loss of revenue borne by ENGIE as of November 1, 2021 constitutes expenses attributable to public service obligations and is subject to guaranteed compensation by the State. This mechanism will be followed by a catch-up on tariffs starting in July 2022. The subsidy receivable for the compensation of public service charges amounts to about €248 million at December 31, 2021 and is recorded under "Supply" in the "Others" column ("non-IFRS 15 Revenues").

In millions of euros	Sales of gas	Sales of electricity and other energies	Sales of services linked to infrastructures	Constructions, installations, O&M, FM and other services	Others	Dec. 31, 2020 (1)
Renewables	-	2,686	39	190	56	2,971
Networks	441	65	5,501	622	89	6,718
Energy Solutions	142	2,689	104	5,851	55	8,840
Thermal	15	2,526	251	385	105	3,281
Supply	5,888	3,926	140	804	34	10,792
Nuclear	-	5	15	19	-	39
Others	2,683	7,884	58	441	598	11,664
TOTAL REVENUES	**9,168**	**19,782**	**6,108**	**8,311**	**936**	**44,306**

(1) *Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")*

8.2 Trade and other receivables, assets and liabilities from contracts with customers

Accounting standards

On initial recognition, trade and other receivables are recorded at their transaction price as defined in IFRS 15.

A contract asset is an entity's right to consideration in exchange for goods or services that have been transferred to a customer but for which payment is not yet due or is contingent on the satisfaction of a specific condition stipulated in the contract. When an amount becomes due, it is transferred to receivables.

A receivable is recorded when the entity has an unconditional right to consideration. A right to consideration is unconditional if only the passage of time is required before payment of that consideration.

A contract liability is an entity's obligation to transfer goods or services to a customer for which the entity has already received consideration from the customer. The liability is derecognized upon recognition of the corresponding revenue.

Trade and other receivables and assets from contracts with customers are tested for impairment in accordance with the provisions of IFRS 9 on expected credit losses.

The impairment model for financial assets is based on the expected credit loss model. To calculate expected losses, the Group uses a matrix approach for trade receivables and assets from contracts with customers, for which the change in credit risk is monitored on a portfolio basis. An individual approach is used for large customers and other large counterparties, for which the change in credit risk is monitored on an individual basis.

See Note 18 "Risks arising from financial instruments" for the Group's assessment of counterparty risk.

8.2.1 Trade and other receivables and assets from contracts with customers

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Trade and other receivables, net (1)	32,555	14,295
Of which IFRS 15	*6,453*	*6,897*
Of which non-IFRS15	*26,103*	*7,398*
Assets from contracts with customers	8,377	7,764
Accrued income and unbilled revenues	*6,817*	*6,754*
Energy in the meter (2)	*1,560*	*1,010*

(1) *The increase in trade and other receivables is mainly due to changes in commodities prices over the period*
(2) *Net of advance payments*

In 2021, the most significant assets from contracts mainly concerned Others (mainly Energy Management and BtoB Supply (€3,102 million), Energy Solutions (€2,220 million) and BtoC Supply (€1,950 million).

In millions of euros	Dec. 31, 2021 Gross	Dec. 31, 2021 Allowances and expected credit losses	Dec. 31, 2021 Net	Dec. 31, 2020 Gross	Dec. 31, 2020 Allowances and expected credit losses	Dec. 31, 2020 Net
Trade and other receivables, net	33,920	(1,365)	32,555	15,568	(1,273)	14,295
Assets from contracts with customers	8,393	(16)	8,377	7,784	(20)	7,764
TOTAL	**42,314**	**(1,381)**	**40,932**	**23,351**	**(1,292)**	**22,059**

Gas and electricity in the meter

For customers whose energy consumption is metered during the accounting period, the gas supplied but not yet metered at the reporting date is estimated based on historical data, consumption statistics and estimated selling prices.

For sales on networks used by a large number of grid operators, the Group is allocated a certain volume of energy transiting through the networks by the grid managers. As the final allocations are sometimes only known several months down the line, revenue figures cannot be determined with absolute certainty. However, the Group has developed measuring and modeling tools allowing it to estimate revenues with a reasonable degree of accuracy and subsequently ensure that risks of error associated with estimating quantities sold and the related revenues can be considered as immaterial.

In France and Belgium, un-metered revenues ("gas in the meter") are calculated using a direct method taking into account customers' estimated consumption based on the last invoice or metering not yet billed. These estimates are in line with the volume of energy allocated by the grid managers over the same period. The average price is used to measure "gas in the meter" and takes account of the category of customer and the age of the delivered unbilled "gas in the meter". The portion of unbilled revenues at the reporting date varies according to the assumptions about volume and average price.

"Electricity in the meter" is also determined using a direct allocation method similar to that used for gas, but taking into account specific factors related to electricity consumption. It is also measured on a customer-by-customer basis or by customer type.

Realized but not yet metered revenues ("un-metered revenues") mainly related to France and Belgium for an amount of €4,638 million at December 31, 2021 (€3,079 million at December 31, 2020).

8.2.2 Liabilities from contracts with customers

In millions of euros	Dec. 31, 2021 Non-current	Dec. 31, 2021 Current	Dec. 31, 2021 Total	Dec. 31, 2020 Non-current	Dec. 31, 2020 Current	Dec. 31, 2020 Total
Liabilities from contracts with customers	68	2,671	2,739	39	4,315	4,354
Advances and downpayments received	*-*	*1,955*	*1,955*	*15*	*2,123*	*2,138*
Deferred revenues	*68*	*716*	*784*	*25*	*2,192*	*2,217*

In 2021, the Global Business Units reporting the greatest amounts of revenues recognized over time due to the time lag between the payments and the performance of the services, are Energy Solutions (€1,330 million), BtoC Energy Supply (€713 million) and Others (mainly energy management and BtoB supply activities (€458 million)).

8.3 Revenues relating to performance obligations not yet satisfied

Revenues relating to performance obligations only partially satisfied at December 31, 2021 amounted to €2,846 million.

They mainly concern Energy Solutions (€2,017 million) and Supply (€731 million) which handle a large number of construction, installation, maintenance and facility management contracts under which revenues are recognized over time.

NOTE 9 Operating expenses

Accounting standards

Operating expenses include:

- purchases and operating derivatives including:
  - the purchase of commodities and associated costs (infrastructure, transport, storage, etc.),
  - the realized impact, as well as the change in fair value (MtM), of commodity transactions, with or without physical delivery, that fall within the scope of IFRS 9 – *Financial Instruments* and that do not qualify as trading or hedging. These contracts are set up as part of economic hedges of operating transactions in the energy sector;
- purchases of services and other items such as subcontracting and interim expenses, lease expenses (short-term lease contracts or leases with a low underlying asset value), concession expenses, etc.;
- personnel costs;
- depreciation, amortization, and provisions; and
- taxes.

9.1 Purchases and operating derivatives

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Purchases and other income and expenses on operating derivatives other than trading (2)	(32,135)	(21,404)
Service and other purchases (3)	(6,726)	(6,684)
PURCHASES AND OPERATING DERIVATIVES	**(38,861)**	**(28,088)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

(2) Of which net income of €721 million in 2021 relating to MtM on commodities other than trading (compared to a net income of €198 million in 2020), notably on certain residual economic gas hedging positions not documented as cash flow hedges (with electricity and other underlying exposures offsetting each other overall)

(3) Of which €51 million in lease expenses, relating to short-term lease contracts and leases with a low underlying asset value in 2021 (compared to €36 million in lease expenses in 2020)

The increase in purchases and operating derivatives is mainly due to changes in commodity prices over the period.

9.2 Personnel costs

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 (1)
Short-term benefits		(7,018)	(6,858)
Share-based payments	22	(48)	(47)
Costs related to defined benefit plans	21.3.3	(479)	(350)
Costs related to defined contribution plans	21.4	(147)	(248)
PERSONNEL COSTS		**(7,692)**	**(7,503)**

(1) Comparative data at December 31,2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations", in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

9.3 Depreciation, amortization and provisions

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 (1)
Depreciation and amortization	15 & 16	(4,370)	(4,368)
Net change in write-downs of inventories, trade receivables and other assets		(310)	(217)
Net change in provisions	20	(159)	108
DEPRECIATION, AMORTIZATION AND PROVISIONS		**(4,840)**	**(4,477)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

At December 31, 2021, depreciation and amortization mainly break down as €1,004 million for intangible assets and €3,366 million for property, plant and equipment.

NOTE 10 Other items of result from operating activities

Accounting standards

Other items of Result from operating activities include:

- "Impairment losses": this line include impairment losses on goodwill, other intangible assets, property, plant and equipment and investments in entities consolidated using the equity method of accounting;
- "Restructuring costs": this line concern costs corresponding to a restructuring program planned and controlled by management that materially changes either the scope of a business undertaken by the entity, or the manner in which that business is conducted, based on the criteria set out in IAS 37;
- "Changes in the scope of consolidation". This line includes:
  - direct costs related to acquisitions of controlling interests,
  - in a business combination achieved in stages, remeasurement at fair value at the acquisition date of the previously held interest,
  - subsequent changes in the fair value of contingent consideration,
  - gains or losses from disposals of investments which result in a change of consolidation method, as well as any impact from the remeasurement of retained interests with the exception of gains and losses arising from transactions realized in the framework of "Develop, Build, Share & Operate" (DBSO) or "Develop, Share, Build & Operate" (DSBO) business models. These transactions on renewable activities are recognized in current operating income as they are part of the recurring rotation of the Group's capital employed;
- "Other non-recurring items": this line includes other elements of an inhabited, abnormal or infrequent nature.

10.1 Impairment losses

In millions of euros	Notes	Dec. 31, 2021	Dec. 31, 2020 (1)
Impairment losses:			
Goodwill	14.1	(107)	(2,145)
Property, plant and equipment and other intangible assets	15 & 16	(969)	(1,203)
Investments in equity method entities and related provisions		(17)	(237)
Total impairment losses		**(1,093)**	**(3,585)**
Reversal of impairment losses:			
Property, plant and equipment and other intangible assets		64	84
Investments in equity method entities and related provisions		-	-
Total reversals of impairment losses		**64**	**84**
TOTAL		**(1,028)**	**(3,502)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

Net impairment losses amounted to €1,028 million in 2021, relating mainly to property, plant and equipment, intangible assets and goodwill. After taking into account the deferred tax effects and the share of impairment losses attributable to non-controlling interests, the impact of these impairment losses on net income Group share for 2021 amounted to €773 million.

Impairment tests are performed in accordance with the conditions described in Note 14.4.

10.1.1 Impairment losses recognized in 2021

Net impairment losses recognized as of December 31, 2021 amounted to € 1,028 million and relate mainly to:

- assets affected by the Group's announced exit from coal, in 2021, for thermal power generation assets in Brazil (€228 million);
- assets affected by the strategic review of Client Solutions, announced by the Group in 2020, in France (€90 million), Africa (€73 million) and Asia (€33 million);
- assets that have been subject to revisions to their medium- and long-term prospects, or that have encountered operational difficulties, in particular renewable energy production assets in Latin America (€221 million) and thermal power generation assets in Asia (€90 million);
- other production or support assets for less significant amounts taken individually.

10.1.2 Impairment losses recognized in 2020

Net impairment losses amounted to €3,502 million in 2020 and mainly concerned:

- **Goodwill for the Nuclear CGU (€2,145 million) and Belgian nuclear reactors (€715 million)**

  Following the announcements made by the Belgian government in Autumn 2020 and the talks held since then, the Group considered that it could no longer justify the assumption that the operating life of half of its second-generation reactors could be extended for 20 years beyond 2025.

  The impairment losses over the year take into consideration this major assumption change, the level of forward prices observed in the second half of 2020 and the update of the Group's long-term pricing scenario in light of the latest forecasts for demand, the price of CO_2 and the change in the energy mix.

- **Other impairment losses**

  Other impairment losses recognized by the Group mainly concerned:

  - an investment in a gas production asset in Algeria (€123 million);
  - thermal power generation assets in the Middle East (€115 million);
  - other thermal and renewable power generation assets in Mexico (€70 million), North America (€69 million) and Brazil (€64 million).

10.2 Restructuring costs

In 2021, restructuring costs totaled €204 million (versus €257 million in 2020). Restructuring costs in both years mainly included costs related to staff reduction plans and measures to adapt to economic situations in 2021 and 2020, as well as the shutdown or sale of operations, the closure or restructuring of certain facilities and other miscellaneous restructuring costs.

10.3 Changes in scope of consolidation

At December 31, 2021, the impact of changes in the scope of consolidation was a positive €1,107 million and mainly comprised:

- a positive impact of €628 million related to the disposal of 10% of the shares held in GTT for €151 million and the revaluation of the remaining 30% for €478 million;
- the positive impact of the earn-out to be received on the disposal of 29.9% stake in SUEZ for €347 million;
- a positive €113 million change in the fair value of the earn-out from the disposal of LNG activities to TOTAL in 2018;
- a positive impact €56 million relating to various disposals including EPS for € 83 million, the Group's interests in Georgetown ENA in the United States for €44 million, and in a thermal power generation asset in Greece for a negative €28 million; and
- a negative €48 million impact related to the change in the fair value of the embedded derivative of the GTT shares exchangeable bond.

At December 31, 2020, the impact of changes in the scope of consolidation was a positive €1,641 million and mainly comprised:

- the positive impact of the disposal of the majority of ENGIE's interest in SUEZ for €1,735 million;
- the positive impact of the disposal of the Group's interests in Astoria 1 and 2 in the United States for €95 million, partially offset by :
  - a negative impact of €62 million relating to the disposal of MultiTech in Canada, and
  - a negative €51 million change in the fair value of the earn-out from the disposal of LNG activities to TOTAL in 2018.

10.4 Other non-recurring items

Other non-recurring items at December 31, 2021 totaled a negative €69 million and mainly included asset scrapping, and disposals of property, plant and equipment.

At December 31, 2020, other non-recurring items totaled a negative €879 million and mainly included, in addition to the impacts of the adjustment to provisions for the dismantling and rehabilitation of industrial sites, the effects of extending the trading management method launched by the GEM BU in 2017 to the rest of the Group's gas positions in Europe for a negative amount of €726 million.

NOTE 11 Net financial income/(loss)

In millions of euros	Expense	Income	Dec. 31, 2021	Expense	Income	Dec. 31, 2020 (1)
Interest expense on gross debt and hedges	(943)	-	(943)	(876)	-	(876)
Cost of lease liabilities	(35)	-	(35)	(40)	-	(40)
Foreign exchange gains/losses on borrowings and hedges	(6)	-	(6)	(21)	-	(21)
Ineffective portion of derivatives qualified as fair value hedges	(2)	-	(2)	-	-	-
Gains and losses on cash and cash equivalents and liquid debt instruments held for cash investment purposes	-	63	63	-	46	46
Capitalized borrowing costs	70	-	70	103	-	103
Cost of net debt	**(916)**	**63**	**(852)**	**(834)**	**46**	**(788)**
Cash payments made on the unwinding of swaps	(73)	-	(73)	(44)	-	(44)
Reversal of the negative fair value of these early unwound derivative financial instruments	-	73	73	-	31	31
Gains/(losses) on debt restructuring transactions	-	-	-	(16)	-	(16)
Gains/(losses) on debt restructuring and early unwinding of derivative financial instruments	**(73)**	**73**	**-**	**(60)**	**31**	**(29)**
Net interest expense on post-employment benefits and other long-term benefits	(63)	-	(63)	(87)	-	(87)
Unwinding of discounting adjustments to other long-term provisions	(630)	-	(630)	(614)	-	(614)
Change in fair value of derivatives not qualified as hedges and ineffective portion of derivatives qualified as cash flow hedges	(152)	-	(152)	(158)	-	(158)
Income/(loss) from debt instruments and equity instruments	(16)	329	313	(96)	70	(26)
Interest income on loans and receivables at amortized cost	-	125	125	-	176	176
Other	(213)	121	(92)	(318)	209	(108)
Other financial income and expenses	**(1,073)**	**575**	**(498)**	**(1,273)**	**456**	**(818)**
NET FINANCIAL INCOME/(LOSS)	**(2,061)**	**711**	**(1,350)**	**(2,168)**	**533**	**(1,634)**

(1) Comparative data at December 31,2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

The cost of net debt is higher compared to December 31, 2020 mainly due to the increase in interest rates in Brazil.

Gains from debt and equity instruments amounted to €313 million. This amount includes the positive change in fair value of money market funds held by Synatom for €291 million *(see Note 20.2.4 "Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material")* and the change in fair value of the residual interest in SUEZ for €42 million *(see Note 17.1.1.1 "Equity instruments at fair value").*

At December 31, 2021, the average cost of debt after hedging came out at 2.63% compared with 2.38% at December 31, 2020.

NOTE 12 Income tax expense

Accounting standards

The Group calculates taxes in accordance with prevailing tax legislation in the countries where income is taxable.

In accordance with IAS 12, deferred taxes are recognized according to the liability method on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and their tax bases, using tax rates that have been enacted or substantively enacted by the reporting date. However, under the provisions of IAS 12, no deferred tax is recognized for temporary differences arising from goodwill for which impairment losses are not deductible for tax purposes, or from the initial recognition of an asset or liability in a transaction which (i) is not a business combination and (ii) at the time of the transaction, affects neither accounting income nor taxable income. In addition, deferred tax assets are only recognized to the extent that it is probable that taxable income will be available against which the deductible temporary differences can be utilized.

A deferred tax liability is recognized for all taxable temporary differences associated with investments in subsidiaries, associates, joint ventures and branches, except if the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Net balances of deferred taxes are calculated based on the tax position of each company or on the total income of companies included within the relevant consolidated tax group, and are presented in assets or liabilities for their net amount per tax entity.

Deferred taxes are reviewed at each reporting date to take into account factors including the impact of changes in tax laws and the prospects of recovering deferred tax assets arising from deductible temporary differences.

Deferred tax assets and liabilities are not discounted.

Tax effects relating to coupon payments on deeply-subordinated perpetual notes are recognized in profit or loss.

12.1 Actual income tax expense recognized in the income statement

12.1.1 Breakdown of actual income tax expense recognized in the income statement

The tax expense recognized in the income statement for 2021 amounted to €1,695 million (€666 million income tax expense in 2020). It breaks down as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Current income taxes	(740)	(765)
Deferred taxes	(955)	99
TOTAL INCOME TAX BENEFIT/(EXPENSE) RECOGNIZED IN INCOME	**(1,695)**	**(666)**

(1) *Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")*

12.1.2 Reconciliation of theoretical income tax expense with actual income tax expense

A reconciliation of theoretical income tax expense with the Group's actual income tax expense is presented below:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
Net income/(loss)	**3,758**	**(893)**
Share in net income of equity method entities	784	316
Net income/(loss) from discontinued operations	80	(151)
Income tax expense	(1,695)	(666)
Income/(loss) before income tax of consolidated companies (A)	**4,588**	**(392)**
Of which French companies	*5,604*	*1,538*
Of which companies outside France	*(1,016)*	*(1,930)*
Statutory income tax rate of the parent company (B)	28.4%	32.0%
Theoretical income tax expense (C) = (A) X (B)	**(1,303)**	**125**
Reconciling items between theoretical and actual income tax expense		
Difference between statutory tax rate applicable to the parent and statutory tax rate in force in jurisdictions in France and abroad	38	(124)
Permanent differences [2]	(30)	(580)
Income taxed at a reduced rate or tax-exempt [3]	300	573
Additional tax expense [4]	(230)	(388)
Effect of unrecognized deferred tax assets on tax loss carry-forwards and other tax-deductible temporary differences [5]	(958)	(596)
Recognition or utilization of tax income on previously unrecognized tax loss carry-forwards and other tax-deductible temporary differences [6]	510	263
Impact of changes in tax rates [7]	(17)	(103)
Tax credits and other tax reductions [8]	185	108
Other [9]	(189)	56
Income tax benefit/(expense) recognized in income	**(1,695)**	**(666)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

(2) Mainly includes disallowable impairment losses on goodwill, disallowable operating expenses and the deduction of interest expenses arising from hybrid debt

(3) Mainly includes capital gains on disposals of securities exempt from tax or taxed at a reduced rate in some tax jurisdictions, the impact of the specific tax regimes used by some entities, disallowable impairment losses and capital losses on securities, and the impact of untaxed income from remeasuring previously-held (or retained) equity interests in connection with acquisitions and changes in consolidation methods

(4) Mainly includes tax on dividends resulting from the parent company tax regime, withholding tax on dividends and interest levied in several tax jurisdictions, allocations to provisions for income tax, and regional and flat-rate corporate taxes

(5) Includes (i) the cancellation of the net deferred tax asset position for some tax entities in the absence of sufficient profit being forecast and (ii) the impact of disallowable impairment losses on fixed asset

(6) Includes the impact of the recognition of net deferred tax asset positions for some tax entities

(7) Mainly includes the impact of tax rate changes on deferred tax balances in the United Kingdom, in France and in Argentina for 2021 and in France and the United Kingdom for 2020

(8) Mainly includes reversals of provisions for tax litigation, tax credits in France and other tax reductions

(9) Mainly includes the correction of previous tax charges

12.1.3 Analysis of the deferred tax income/(expense) recognized in the income statement, by type of temporary difference

In millions of euros	Impact in the income statement Dec. 31, 2021	Dec. 31, 2020 [1]
Deferred tax assets:		
Tax loss carry-forwards and tax credits	(178)	(203)
Pension and related obligations	(218)	(78)
Non-deductible provisions	(56)	222
Difference between the carrying amount of PP&E and intangible assets and their tax bases	174	276
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	6,542	488
Other	222	(40)
Total	**6,485**	**666**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(498)	2
Measurement of assets and liabilities at fair value (IAS 32/IFRS 9)	(7,148)	(437)
Other	183	(146)
Total	**(7,463)**	**(581)**
DEFERRED TAX INCOME/(EXPENSE)	**(977)**	**85**
Of which continuing activities	*(955)*	*99*

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations", in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

12.2 Deferred tax income/(expense) recognized in "Other comprehensive income"

Net deferred tax income/(expense) recognized in "Other comprehensive income" is broken down by component as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020 [1]
Equity and debt instruments	1	(10)
Actuarial gains and losses	(447)	400
Net investment hedges	55	(27)
Cash flow hedges on other items	(1,370)	(127)
Cash flow hedges on net debt	(19)	17
Total excluding share of equity method entities	**(1,779)**	**254**
Share of equity method entities	(50)	116
Discontinued operations	(13)	(1)
TOTAL	**(1,843)**	**369**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations", in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

12.3 Deferred taxes presented in the statement of financial position

12.3.1 Change in deferred taxes

Changes in deferred taxes recognized in the statement of financial position, after netting deferred tax assets and liabilities by tax entity, break down as follows:

In millions of euros	Assets	Liabilities	Net position
At December 31, 2020	**880**	**(4,416)**	**(3,536)**
Impact on net income for the year	6,484	(7,463)	(979)
Impact on other comprehensive income items	(286)	(1,511)	(1,797)
Impact of changes in scope of consolidation	(8)	42	34
Impact of translation adjustments	59	(125)	(66)
Transfers to assets and liabilities classified as held for sale	(250)	219	(30)
Other	309	(491)	(183)
Impact of netting by tax entity	(6,007)	6,007	-
AT DECEMBER 31, 2021	**1,181**	**(7,738)**	**(6,557)**

12.3.2 Analysis of the net deferred tax position recognized in the statement of financial position (before netting deferred tax assets and liabilities by tax entity), by type of temporary difference

Accounting standards

Measurement of recognized tax loss carry-forwards

Deferred tax assets are recognized on tax loss carry-forwards when it is probable that taxable profit will be available against which the tax loss carry-forwards can be utilized. The probability that taxable profit will be available against which the unused tax losses can be utilized, is based on taxable temporary differences relating to the same taxation authority and the same taxable entity and estimates of future taxable profits. These estimates and utilizations of tax loss carry-forwards were prepared on the basis of profit and loss forecasts over a six-year tax projection period as included in the medium-term business plan validated by Management, subject to exceptions justified by a particular context and, if necessary, on the basis of additional forecasts.

	Statement of financial position at	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Deferred tax assets:		
Tax loss carry-forwards and tax credits	1,299	1,769
Pension obligations	1,501	2,061
Non-deductible provisions	388	435
Difference between the carrying amount of PP&E and intangible assets and their tax bases	1,440	955
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	8,968	2,148
Other	523	442
TOTAL	**14,119**	**7,810**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(9,345)	(8,528)
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	(10,643)	(2,067)
Other	(687)	(752)
TOTAL	**(20,675)**	**(11,346)**
NET DEFERRED TAX ASSETS/(LIABILITIES)	**(6,557)**	**(3,536)**

12.4 Unrecognized deferred taxes

At December 31, 2021, the tax effect of tax losses and tax credits eligible for carry-forward but not utilized and not recognized in the statement of financial position amounted to €4,642 million (€4,061 million at December 31, 2020). Most of these unrecognized tax losses relate to companies based in countries which allow losses to be carried forward indefinitely (mainly Belgium, Luxembourg and the Netherlands). These tax loss carry-forwards did not give fully or partially rise to the recognition of deferred tax due to the absence of sufficient profit forecasts in the medium term.

The tax effect of other tax-deductible temporary differences not recorded in the statement of financial position was €1,097 million at end-December 2021 *versus* €823 million at end-December 2020.

NOTE 13 Earnings per share

Accounting standards

Basic earnings per share is calculated by dividing net income Group share for the year by the weighted average number of ordinary shares outstanding during the year. The average number of ordinary shares outstanding during the year is the number of ordinary shares outstanding at the beginning of the year, adjusted by the number of ordinary shares bought back or issued during the year.

For the diluted earnings per share calculation, the weighted average number of shares and basic earnings per share are adjusted to take into account the impact of the conversion or exercise of any dilutive potential ordinary shares (options, warrants and convertible bonds, etc.).

In compliance with IAS 33 – *Earnings per Share*, earnings per share and diluted earnings per share are based on net income/(loss) Group share after deduction of payments to bearers of deeply-subordinated perpetual notes *(see Note 19.2.1 "Issuance of deeply-subordinated perpetual notes")*.

The Group's dilutive instruments included in the calculation of diluted earnings per share include bonus shares and performance shares granted in the form of ENGIE securities.

	Dec. 31, 2021	Dec. 31, 2020 [1]
Numerator *(in millions of euros)*		
Net income/(loss) Group share	**3,661**	**(1,536)**
Of which Net income/(loss) relating to continuing operations, Group share	*3,582*	*(1,384)*
Interest from deeply-subordinated perpetual notes	(121)	(187)
Net income/(loss)used to calculate earnings per share	**3,540**	**(1,723)**
Of which Net income/(loss) relating to continuing operations, Group share, used to calculate earnings per share	*3,461*	*(1,571)*
Impact of dilutive instruments	-	-
Diluted net income/(loss) Group share	**3,540**	**(1,723)**
Net recurring income/(loss) Group share	**3,158**	**1,703**
Of which Net recurring income/(loss) relating to continuing operations, Group share	*2,927*	*1,725*
Interest from deeply-subordinated perpetual notes	(121)	(187)
Net recurring income/(loss)used to calculate earnings per share	**3,037**	**1,516**
Of which Net recurring income/(loss) relating to continuing operations, Group share, used to calculate earnings per share	*2,806*	*1,538*
Impact of dilutive instruments	-	-
Diluted net recurring income/(loss) Group share	**3,037**	**1,516**
Denominator *(in millions of shares)*		
Average number of outstanding shares	**2,419**	**2,416**
Impact of dilutive instruments:		
Bonus share plans reserved for employees	12	11
Diluted average number of outstanding shares	**2,431**	**2,427**
Earnings per share *(in euros)*		
Basic earnings/(loss) per share	**1.46**	**(0.71)**
Of which Basic earnings/(loss) Group share relating to continuing operations per share	*1.43*	*(0.65)*
Diluted earnings/(loss) per share	**1.46**	**(0.71)**
Of which Diluted earnings/(loss) Group share relating to continuing operations per share	*1.42*	*(0.65)*
Basic recurring earnings/(loss) per share	**1.26**	**0.63**
Of which Basic recurring earnings/(loss) Group share relating to continuing operations per share	*1.16*	*0.64*
Diluted recurring earnings/(loss) per share	**1.25**	**0.62**
Of which Diluted recurring earnings/(loss) Group share relating to continuing operations per share	*1.15*	*0.63*

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations", in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

NOTE 14 Goodwill

Accounting standards

Upon a business combination, goodwill is measured as the difference between:

- on the one hand the sum of:
  - the consideration transferred,
  - the amount of non-controlling interests in the acquiree, and
  - in a business combination achieved in stages, the acquisition-date fair value of the previously held equity interest in the acquiree;
- on the other hand the net fair value of the identifiable assets acquired and liabilities assumed. The key assumptions and estimates used to determine the fair value of assets acquired and liabilities assumed include the market outlook for the measurement of future cash flows as well as applicable discount rates. These assumptions reflect management's best estimates at the acquisition date.

The amount of goodwill recognized at the acquisition date cannot be adjusted after the end of the 12 month measurement period.

Goodwill relating to interests in associates is recorded under "Investments in equity method entities".

Risk of impairment

Goodwill is not amortized but is tested for impairment each year in accordance with IAS 36, or more frequently where an indication of impairment is identified. Impairment tests are carried out at the level of cash-generating units (CGUs) or groups of CGUs, which constitute groups of assets which generate cash flows that are largely independent from cash flows generated by other CGUs.

Goodwill is impaired if the net carrying amount of the CGU (or group of CGUs) to which the goodwill is allocated is greater than the recoverable amount of that CGU. The methods used to carry out these impairment tests are described in Note 14.4.

Impairment losses in relation to goodwill cannot be reversed and are shown as "Impairment losses" in the income statement.

Indicators of goodwill impairment

The main indicators of impairment used by the Group are:

- using external sources of information
  - a decline in an asset's value over the period that is significantly more than would be expected from the passage of time or normal use,
  - significant adverse changes that have taken place over the period, or will take place in the near future, in the technological market, economic or legal environment in which the entity operates or in the market to which an asset is dedicated,
  - an increase over the period in market interest rates or other market rates of return on investments if such increase is likely to affect the discount rate used in calculating an asset's value in use and decrease its recoverable amount materially,
  - the carrying amount of the net assets of the entity exceeds its market capitalization;
- using internal sources of information
  - evidence of obsolescence or physical damage to an asset,
  - significant changes in the extent to which, or manner in which, an asset is used or is expected to be used, that have taken place in the period or soon thereafter and that will adversely affect it. These changes include the asset becoming idle, plans to dispose of an asset sooner than expected, reassessing its useful life as finite rather than indefinite or plans to restructure the operations to which the asset belongs,
  - internal reports that indicate that the economic performance of an asset is, or will be, worse than expected.

14.1 Changes in organizational structure

As of February 1, 2021, the Group is structured around four major strategic activities, or Global Business Units (GBU): Renewables, Networks, Thermal & Supply and Energy Solutions *(see Note 7.1 "Reorganization of ENGIE and modification of segment information")*.

As part of this reorganization, the Group has modified its segment information within the meaning of IFRS 8 – *Operating segments* and consequently reallocated the goodwill from the previous geographical Business Units (BU) to the new operating segments in accordance with IAS 36 – *Impairment of Assets*.

Of the 25 BU that made up the operating segments under the previous organization:

- 13 BU had a single activity: their goodwill, which totaled €9.2 billion at January 1, 2021 (approximately 60% of the Group's goodwill), was allocated directly to the new segments corresponding to the businesses in question;
- 12 BU had multiple activities: their goodwill, representing €6.7 billion, was reallocated to the relevant segments.

The reallocation of goodwill at segment level as of January 1, 2021 was as follows:

In billions of euros	Renewables	Networks	Clients Solutions – Energy Solutions	Clients Solutions – EQUANS	Thermal	Supply	Nuclear	Other	Goodwill January 1, 2021
France excluding Networks									
France Renewables									1.2
ENGIE Solutions France									1.5
France BtoC									1.0
Networks France									
GRDF									4.0
GRTgaz									0.6
Other									0.4
Rest of Europe									
Benelux									1.3
Generation Europe									0.5
Nuclear									0.8
United Kingdom									1.0
North/South/East Europe									0.9
Latin America									**0.7**
United States & Canada									**0.7**
Middle East, Asia & Africa									**0.7**
Other									**0.7**
Of which GTT									*0.2*
GOODWILL JANUARY 1. 2021	**2.1**	**5.3**	**1.4**	**2.9**	**1.1**	**1.8**	**0.8**	**0.5**	**15.9**
						Total single business			9.2
						Total multi business			6.7

Given the existing value headroom, this reallocation of goodwill did not entail any day-one impairment.

14.2 Movements in the carrying amount of goodwill

In millions of euros	Net amount
At December 31, 2020	**15,943**
Impairment losses	(107)
Changes in scope of consolidation and Other	(3,249)
Translation adjustments	214
AT DECEMBER 31, 2021	**12,799**

Changes during the period mainly result from the classification under "Assets held for sale" of the activities of the EQUANS entities, Endel and its main subsidiaries, and the impairment losses recognized on non-strategic geographies or activities in South America and Africa, offset by various acquisitions during the year *(see Note 5 "Main changes in Group structure"*).

14.3 Breakdown of goodwill

For the purposes of impairment testing, goodwill is allocated to the operating segments, which are the lowest level at which it is monitored for internal management purposes.

The table below shows goodwill at December 31, 2021:

In millions of euros	Dec. 31, 2021
Networks	5,288
Renewables	2,132
Supply	1,818
Energy Solutions	1,302
Thermal	1,139
Nuclear	797
Other	324
TOTAL	**12,799**

14.4 Impairment testing of goodwill

All goodwill is tested for impairment based on data as of end-June, plus a review of events arisen in the second half of the year. In most cases, the recoverable amount of goodwill is determined by reference to a value in use that is calculated using cash flow projections drawn up on the basis of the 2022 budget and the 2023-2024 mediumterm business plan, as approved by the Executive Committee and the Board of Directors, and of extrapolated cash flows beyond that time frame.

Cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates), and price forecasts resulting from the Group's reference scenario for 2025-2040 as approved by the Executive Committee in November 2021. The forecasts and projections included in the reference scenario were determined on the basis of the following inputs:

- forward market prices over the liquidity period for fuel (coal, oil and gas), CO_2 and electricity on each market against a backdrop of highly volatile energy prices;
- beyond this period, medium- and long-term energy prices were determined by the Group based on macroeconomic assumptions and fundamental supply and demand equilibrium models, the results of which are regularly compared against forecasts prepared by external energy sector specialists. Long-term projections for CO_2 are in line with the 2030 emissions reduction target of 55% and the 2050 climate neutrality objectives set by the European Commission as part of the "European Green Deal" presented in December 2019 and July 2021. More specifically, medium- and long-term electricity prices were determined by the Group using electricity demand forecasting models, medium- and long-term forecasts of fuel and CO_2 prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

14.4.1 Renewables

The goodwill allocated to the Renewables segment amounted to €2,132 million at December 31, 2021. Renewables comprises all centralized renewable energy generation activities, including financing, construction, operation and maintenance of renewable energy facilities, using various energy sources such as hydroelectric, onshore wind, photovoltaic solar, biomass, offshore wind, and geothermal. The energy produced is fed into the grid and sold either on the open or regulated market or to third parties through electricity sale agreements.

For the hydraulics business, the terminal value was determined to calculate the value in use by extrapolating the cash flows beyond the medium-term business plan based on the reference scenario adopted by the Group.

The main assumptions and key estimates relate primarily to discount rates, assumptions on the renewal of the hydropower concession agreements and changes in electricity prices beyond the liquidity period.

Value in use of the Compagnie Nationale du Rhône and SHEM was calculated based on assumptions including the extension or renewal of a tender process for the concession agreements, as well as on the conditions of a potential extension.

The cash flows for the periods covered by the renewal of the concession agreements are based on a number of assumptions relating to the economic and regulatory conditions for operating these assets (royalty rates, required level of investment, etc.) during this period.

In 2021, the discount rates applied to these activities ranged between 4.5% and 10%.

Results of the impairment test

At December 31, 2021, the recoverable amount was higher than the carrying amount.

Sensitivity analyses

A decrease of €10/MWh in electricity prices for hydropower generation would have a negative €0.5 billion impact on the recoverable amount. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of €10/MWh in electricity prices would have a positive €0.5 billion impact on the recoverable amount.

An increase of 50 basis points in the discount rates used for hydropower generation in France would have a negative €0.2 billion impact on the recoverable amount. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive €0.2 billion impact on the recoverable amount.

14.4.2 Networks

Networks comprises the Group's electricity and gas infrastructure activities and projects. These activities include the management and development of (i) gas and electricity transportation networks and natural gas distribution networks in and outside of Europe, (ii) natural gas underground storage in Europe, and (iii) regasification infrastructure in France and Chile.

Apart from the historical infrastructure management activities, its asset portfolio also contributes to the challenges of the energy transition and network greening (biomethane, hydrogen, etc.).

The goodwill allocated to the Networks segment amounted to €5,288 million at December 31, 2021.

The valuation of activities in France is mainly based on cash flow projections determined on the basis of tariffs negotiated with the French energy regulator (CRE) and terminal values corresponding to the expected value of the Regulated Asset Base (RAB). The RAB is the value assigned by the CRE to the assets operated by distributors. It is the sum of the future pre-tax cash flows, discounted at the pre-tax rate of return guaranteed by the regulator.

In respect of the valuation of activities in France, the energy mix scenario for 2050, adopted by the Group and detailed in Note 20.3.1 "Dismantling obligations arising on non-nuclear plant and equipment", will not lead to any significant change in RAB. Given the vital role of gas, a reliable energy source able to supplement renewable energy sources that are intermittent by nature, non-controllable and difficult to store, the Group is planning to maintain or convert its gas network infrastructures to allow for the transport of green gases (biomethane, hydrogen, etc.).

The Group plans to do this by maintaining the current level of investment and including hydrogen in its regulated activities, a scenario supported by the various measures presented by the European Commission.

In 2021, the discount rates applied to all these activities ranged between 4.5% and 8.5%.

Results of the impairment test

At December 31, 2021, the recoverable amount was higher than the carrying amount.

Sensitivity analyses

Given the regulated nature of the Networks business in France, a reasonable change in any of the valuation inputs would not result in impairment losses.

14.4.3 Energy Solutions

The goodwill allocated to the Energy Solutions segment amounted to €1,302 million at December 31, 2021. Energy Solutions encompasses the construction and management of decentralized energy networks to produce low-carbon energy (heating and cooling networks, distributed power generation plants, distributed solar power parks, low-carbon mobility, low-carbon cities and public lighting, etc.) and related services (energy efficiency, technical maintenance, sustainable development consulting).

The terminal value used to calculate the value in use of the services and energy sales businesses in France was determined by extrapolating the cash flows beyond the medium-term business plan period using a long-term growth rate of 2% per year.

The main assumptions and key estimates relate primarily to discount rates and changes in price beyond the liquidity period.

In 2021, the discount rates applied to these activities ranged between 4.5% and 8.6%.

Results of the impairment test

At December 31, 2021, the recoverable amount was higher than the carrying amount.

Sensitivity analyses

Given the capital-light nature of Energy Solutions activities, a reasonable change in any of the valuation inputs would not result in impairment losses.

14.4.4 Thermal

The goodwill allocated to the Thermal segment amounted to €1,139 million at December 31, 2021. Thermal encompasses all the Group's centralized power generation activities using thermal assets, whether contracted or not. It includes the operation of power plants fueled mainly by gas or coal, as well as pump-operated storage plants. The energy produced is fed into the grid and sold either on the open or regulated market or to third parties through electricity sale agreements. It also includes the financing, construction and operation of desalination plants, whether or not connected to power plants.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2022 budget and the 2023-2024 medium-term business plan. Beyond this three-year period, cash flows were projected over the useful lives of the assets based on the reference scenario adopted by the Group.

The main assumptions and key estimates relate primarily to discount rates, estimated demand for electricity and changes in the price of CO_2, fuel and electricity beyond the liquidity period.

In 2021, the discount rates applied to these activities ranged between 6% and 10%.

Results of the impairment test

At December 31, 2021, the recoverable amount was higher than the carrying amount.

Sensitivity analyses

An increase of 50 basis points in the discount rates used would have a negative 8% impact on the excess of the recoverable amount of thermal power plants in France, Belgium, the Netherlands and Spain over their carrying amount. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 8% impact on the calculation.

A 10% decrease in the margin captured by thermal power plants in France, Belgium, the Netherlands and Spain would have a negative impact of 29% on the excess of the recoverable amount over the carrying amount. An increase of 10% in the margin captured would have a positive 29% impact on this calculation.

14.4.5 Supply

The goodwill allocated to the Supply segment amounted to €1,818 million at December 31, 2021. Supply encompasses all the Group's activities relating to the sale of gas and electricity to end customers. It also includes all the Group's activities in services for residential clients.

The terminal value used to calculate the value in use of the main services and energy sales businesses in Europe was determined by extrapolating cash flows beyond the medium–term business plan period using a long-term growth rate of between 1.8% and 1.9% per year.

In 2021, the discount rates applied to these activities ranged between 7% and 9%.

Results of the impairment test

At December 31, 2021, the recoverable amount was higher than the carrying amount.

Sensitivity analyses

Given the capital-light nature of Supply activities, a reasonable change in any of the valuation inputs would not result in impairment losses.

14.4.6 Nuclear

Nuclear encompasses the power generation activities from the Group's nuclear power plants in Belgium and drawing rights on the Chooz B and Tricastin power plants in France.

The goodwill allocated to the Nuclear segment amounted to €797 million at December 31, 2021.

Key assumptions used for the impairment test

The cash flow projections for these activities are based on a large number of key assumptions, such as prices of fuel and CO_2, expected trends in electricity demand and prices, availability of power plants, the market outlook, and changes in the regulatory environment (especially concerning nuclear capacities in Belgium and the extension of drawing rights agreements for French nuclear plants). Lastly, the key assumptions also include the discount rate used to calculate the value in use of these activities, which amounted to 7% for 2021, unchanged from 2020.

Cash flow projections for the period beyond the medium-term business plan were determined as described below:

Activities	Assumptions applied beyond the term of the business plan
Nuclear power generation in Belgium	For Doel 1, Doel 2 and Tihange 1, cash flow projection over the residual useful life of 50 years. For the second generation reactors Doel 3, Doel 4, Tihange 2 and Tihange 3, cash flow projection over the residual useful life of 40 years without any assumption of an extension.
Drawing rights on Chooz B and Tricastin power plants	Cash flow projection over the remaining term of existing contract plus the assumption that drawing rights will be extended for a further 10 years.

As regards second-generation reactors, the principle of a gradual phase-out of nuclear power and the schedule for this phase-out, with the shutdown of Doel 3 in 2022, Tihange 2 in 2023 and Tihange 3 and Doel 4 in 2025, after 40 years of operation, were first set out in the law of January 31, 2003 on the gradual phase-out of nuclear power for industrial electrical generation, and were reaffirmed in the French government's general policy memorandum of November 4, 2020. However, this principle remains subject to analysis mechanisms enabling this decision to be reassessed based on its impacts on the security of supply, the climate, energy prices and the security of power plants subject to a monitoring process. If this monitoring process reveals a potential supply security problem, the 2020 governmental agreement provides for the option of adjusting the phase-out schedule for capacity of up to 2 GW.

Since the end of 2020, the Group has considered that, in particular, the operating conditions for carrying out pre-extension work are no longer met and therefore no longer justify the assumption that the life of certain second generator reactors may be extended beyond 2025. There were still no conclusions drawn in 2021 as a result of the above monitoring, and the assumption of a gradual phase-out of all units by 2025 has not changed for the purposes of the impairment test.

In France, the Nuclear Safety Authority authorized the start-up of Tricastin 1 on December 20, 2019 after its shutdown for its fourth 10-yearly inspection and, on December 3, 2020, published a draft decision setting out the conditions for the 900 MW reactors to continue operating beyond 40 years. Confirmation of a 10-year extension of the operating life of the 900 MW series reactors is therefore expected to be formalized in the next few years, once the conditions for continued operation have been determined by the Nuclear Safety Authority and a public inquiry has been held. The Group therefore included an assumption that the operating lives of the Tricastin and Chooz B nuclear plants, which expire (d) in 2021 and 2039, respectively, would be extended for 10 years after their fourth 10-yearly inspection, as would the Group's drawing rights. The assumption of an extension was already taken into account in previous years.

Results of the impairment test

Given the information provided above, the forward prices observed in 2021 and the Group's long-term pricing scenario updated based on the latest forecasts for demand, CO_2 prices and developments in the energy mix, the Group did not recognize an impairment loss for the year.

Sensitivity analyses

A decrease of €10/MWh in electricity prices for nuclear power generation beyond the forward period would lead to an impairment loss of around €0.2 billion.

An increase of 50 basis points in the discount rates used would not lead to an impairment loss.

A 5% decrease in availability of all Belgian nuclear power plants would lead to an impairment loss of around €0.1 billion.

14.4.7 Other

The goodwill allocated to the Other segment amounted to €324 million at December 31, 2021. Other encompasses energy management and optimization activities, the BtoB supply activities in France of Entreprises & Collectivités (E&C), and the corporate and holding activities.

In the Other segment, there is a considerable difference between the recoverable amount and the carrying amount at December 31, 2021 for operating activities to which goodwill is allocated.

NOTE 15 Intangible assets

Accounting standards

Initial measurement

Intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses.

Amortization

Intangible assets are amortized on the basis of the expected pattern of consumption of the estimated future economic benefits embodied in the asset. Amortization is calculated mainly on a straight-line basis over the following useful lives:

	Useful life	
Main depreciation periods *(years)*	**Minimum**	**Maximum**
Concession rights	10	30
Customer portfolio	3	20
Other intangible assets	1	50

Intangible assets with an indefinite useful life are not amortized but are tested for impairment annually.

Risk of impairment

In accordance with IAS 36, impairment tests are carried out on items of property, plant and equipment and intangible assets where there is an indication that the assets may be impaired. Such indications may be based on events or changes in the market environment, or on internal sources of information. Intangible assets that are not amortized are tested for impairment annually.

Impairment indicators

Property, plant and equipment and intangible assets with finite useful lives are only tested for impairment when there is an indication that they may be impaired. This is generally the result of significant changes in the environment in which the assets are operated or when economic performance is lower than expected.

The main impairment indicators used by the Group are described in Note 14 “Goodwill”.

Impairment

Items of property, plant and equipment and intangible assets are tested for impairment at the level of the individual asset or cash-generating unit (CGU), as appropriate and determined in accordance with IAS 36. If the recoverable amount of an asset is lower than its carrying amount, the carrying amount is written down to the recoverable amount by recording an impairment loss. Upon recognition of an impairment loss, the depreciable amount and possibly the useful life of the asset concerned is revised.

Impairment losses recorded in relation to property, plant and equipment or intangible assets may be subsequently reversed if the recoverable amount of the asset increases to exceed the carrying amount. The increased carrying amount of an item of property, plant or equipment following the reversal of an impairment loss may not exceed the carrying amount that would have been determined (net of depreciation/amortization) had no impairment loss been recognized in prior periods.

Measurement of recoverable amount

In order to review the recoverable amount of property, plant and equipment and intangible assets, the assets are grouped, where appropriate, into CGUs and the carrying amount of each CGU is compared with its recoverable amount.

For operating entities which the Group intends to hold on a long-term and going concern basis, the recoverable amount of a CGU corresponds to the higher of its fair value less costs to sell and its value in use. Value in use is primarily determined based on the present value of future operating cash flows including a terminal value. Standard valuation techniques are used based on the following main economic assumptions:

- market perspectives and developments in the regulatory framework;
- discount rates based on the specific characteristics of the operating entities concerned;
- terminal values in line with available market data specific to the operating segments concerned and growth rates associated with these terminal values, not exceeding the inflation rate.

Discount rates are determined on a post-tax basis and applied to post-tax cash flows. The recoverable amounts calculated on the basis of these discount rates are the same as the amounts obtained by applying the pre-tax discount rates to cash flows estimated on a pre-tax basis, as required by IAS 36.

For operating entities which the Group has decided to sell, the related recoverable amount of the assets concerned is based on market value less disposal costs. Where negotiations are ongoing, this value is determined based on the best estimate of their outcome as of the reporting date.

In the event of a decline in value, the impairment loss is recorded in the consolidated income statement under “Impairment losses”.

Intangible rights arising on concession contracts

IFRIC 12 – *Service Concession Arrangements* deals with the treatment to be applied by the concession operator in respect of certain concession arrangements.

For a concession arrangement to fall within the scope of IFRIC 12, usage of the infrastructure must be controlled by the concession grantor. This requirement is satisfied when the following two conditions are met:

- the grantor controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them, and at what price; and
- the grantor controls any residual interest in the infrastructure at the end of the term of the arrangement, for example it retains the right to take back the infrastructure at the end of the concession.

The intangible asset model according to paragraph 17 of IFRIC 12 applies if the operator receives a right (a license) to charge the users, or the grantor, depending on the use made of the public service. There is no unconditional right to receive cash as the amounts depend on the extent to which the public uses the service.

Concession infrastructures that do not meet the requirements of IFRIC 12 are presented as property, plant and equipment. This is the case of gas distribution infrastructures in France. The related assets are recognized in accordance with IAS 16, given that GRDF operates its network under long-term concession arrangements, most of which are mandatorily renewed upon expiration pursuant to French law No. 46-628 of April 8, 1946.

Research and development costs

Research costs are expensed as incurred.

Development costs are capitalized when the asset recognition criteria set out in IAS 38 are met. Capitalized development costs are amortized over the useful life of the intangible asset.

15.1 Movements in intangible assets

In millions of euros	Intangible rights arising on concession contracts	Capacity entitlements	Others	Total
Gross amount				
At December 31, 2020	**3,907**	**2,908**	**12,886**	**19,701**
Acquisitions (1)	197	-	1,032	1,228
Disposals	(3)	(125)	(115)	(242)
Translation adjustments	(7)	-	127	120
Changes in scope of consolidation	(38)	-	(631)	(669)
Transfer to "Assets classified as held for sale and discontinued operations"	(195)	-	(578)	(773)
Other	57	61	214	331
AT DECEMBER 31, 2021	**3,917**	**2,845**	**12,936**	**19,697**
Accumulated amortization and impairment				
At December 31, 2020	**(1,781)**	**(2,193)**	**(8,532)**	**(12,505)**
Amortization (2)	(129)	(65)	(860)	(1,053)
Impairment	(20)	-	(100)	(120)
Disposals	2	125	101	228
Translation adjustments	1	-	(69)	(67)
Changes in scope of consolidation	7	-	257	264
Transfer to "Assets classified as held for sale and discontinued operations"	24	-	379	403
Other	(26)	-	(35)	(62)
AT DECEMBER 31, 2021	**(1,921)**	**(2,133)**	**(8,860)**	**(12,913)**
Carrying amount				
At December 31, 2020	**2,126**	**716**	**4,354**	**7,196**
AT DECEMBER 31, 2021	**1,996**	**712**	**4,076**	**6,784**

(1) *Including €49 million related to intangible assets of EQUANS classified as in "Discontinued operations" (see Note 5 "Main changes in Group structure")*

(2) *Including €49 million in amortization charges recognized in "Net income/(loss) from discontinued operations" in the income statement in respect of EQUANS on December 31, 2021*

In 2021, the net decrease in "Intangible assets" was mainly attributable to:

- amortizations (negative €1,053 million);
- the transfer to the financial investment account "Assets classified as held for sale" (a negative €369 million) with primarily the classification of EQUANS activities as discontinued operations in application of IFRS 5;
- changes in scope of consolidation (negative €406 million) relating mainly to the partial disposal of 10% and consequent loss of control in the GTT "Groupe de Gaztransport & Technigaz" (a negative €357 million), which operates in the sector of liquified gas transportation and storage in France;
- impairment losses (negative €120 million);

partially offset by:

- the investments during the period (positive €1,228 million) relating mainly to intangible assets in progress in the business of Networks business in France;
- a positive foreign exchange impact of €53 million primarily due to the appreciation of the US dollar (positive €47 million).

15.1.1 Impairment

At December 31, 2021, the impairment losses of €120 million were recognized mainly on software of ENGIE SA and intangible assets of affiliates of Energy Solutions and Renewables businesses.

15.1.2 Capacity entitlements

The Group has acquired capacity entitlements from power stations operated by third parties. These power station capacity rights were acquired in connection with transactions or within the scope of the Group's involvement in financing the construction of certain power stations. In consideration, the Group received the right to purchase a share of the production over the useful life of the underlying assets. These rights are amortized over the useful life of the underlying assets, not exceeding 50 years. The Group currently holds entitlements in the Chooz B and Tricastin power plants in France and in the virtual power plant (VPP) in Italy.

15.1.3 Other

At December 31, 2021, this caption mainly relates to software and licenses for €1,470 million, as well as intangible assets in progress €628 million and intangible assets (client portfolio) acquired as a result of business combinations and capitalized acquisition costs for customer contracts for €1,721 million.

15.2 Information regarding research and development costs

Research and development activities primarily relate to various studies regarding technological innovation, improvements in plant efficiency, safety, environmental protection, service quality, and the use of energy resources.

Research and development costs, excluding technical assistance costs, totaled €159 million in 2021, of which €25 million in expenses related to in-house projects in the development phase that meet the criteria for recognition as an intangible asset as defined in IAS 38.

NOTE 16 Property, plant and equipment

Accounting standards

Initial recognition and subsequent measurement

Items of property, plant and equipment are recognized at historical cost less any accumulated depreciation and any accumulated impairment losses.

The carrying amount of these items is not revalued as the Group has elected not to apply the allowed alternative method, which consists of regularly revaluing one or more categories of property, plant and equipment.

Investment subsidies are deducted from the gross value of the assets concerned.

In accordance with IAS 16, the initial cost of the item of property, plant and equipment includes an initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, when the entity has a present, legal or constructive obligation to dismantle the item or restore the site. A corresponding provision for this obligation is recorded for the amount of the asset component.

Borrowing costs that are directly attributable to the construction of the qualifying asset are capitalized as part of the cost of that asset.

Leases

In accordance with IFRS 16, the Group recognizes a right-of-use asset and a corresponding lease liability with respect to contracts considered as a lease in which the Group acts as lessee, except for leases with a term of 12 months or less ("short-term leases"), and leases for which the underlying asset is of a low value ("low-value asset"). Payments associated with these leases are recognized on a straight-line basis as expenses in profit and loss. The lease contracts in the Group mainly concern real estate, vehicles and other equipment.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The lease liability is initially measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate. This rate is calculated based on the Group's incremental borrowing rate adjusted in accordance with IFRS 16, taking into account (i) the economic environment of the subsidiaries, and in particular their credit risk, (ii) the currency in which the contract is concluded and (iii) the duration of the contract at inception (or the remaining duration for contracts existing upon the initial application of IFRS 16). The methodology applied to determine the incremental borrowing rate reflects the profile of the lease payments (duration method).

The lease term is assessed, including whether a renewal option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised, on a case-by-case basis. The lease term is reassessed if a significant event or a significant change in circumstances that is within the control of the lessee occurs and may affect the assessment made. In determining the enforceable period of a lease, the Group applies a broad interpretation of the term penalty and takes into consideration not only contractual penalties arising from termination, but also ancillary costs that could arise in case of an early termination of the lease.

Cushion gas

"Cushion" gas injected into underground storage facilities is essential for ensuring that reservoirs can be operated effectively, and is therefore inseparable from these reservoirs. Unlike "working" gas which is included in inventories (*see Note 25.2 "Inventories"*), cushion gas is reported in other property, plant and equipment.

Depreciation

In accordance with the components approach, each significant component of an item of property, plant and equipment with a different useful life from that of the main asset to which it relates is depreciated separately over its own useful life.

Property, plant and equipment is depreciated mainly using the straight-line method over the following useful lives:

	Useful life	
Main depreciation periods *(years)*	**Minimum**	**Maximum**
Plant and equipment		
• Storage – Production – Transport – Distribution	5	60*
• Installation – Maintenance	3	10
• Hydraulic plant and equipment	20	65
Other property, plant and equipment	2	33

* *Excluding cushion gas*

The range of useful lives is due to the diversity of the assets in each category. The minimum periods relate to smaller equipment and furniture, while the maximum periods concern network infrastructures and storage facilities. In accordance with the law of January 31, 2003 adopted by the Belgian Chamber of Representatives with respect to the gradual phase-out of nuclear energy for the industrial production of electricity, the useful lives of nuclear power stations were reviewed and adjusted prospectively to 40 years as from 2003, except for Tihange 1, Doel 1 and Doel 2 for which the operating lives have been extended by 10 years.

Fixtures and fittings relating to hydro plants operated by the Group are depreciated over the shorter of the contract term and the useful life of the assets, taking into account the renewal of the concession period if such renewal is considered to be reasonably certain.

The right-of-use asset related to leases is depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term. In that case the right-of-use asset is depreciated over the useful life of the underlying asset, which is determined on the same basis as that used for property, plant and equipment mentioned above.

Risk of impairment

See Note 15 “Intangible assets”.

Impairment indicators

See Note 14 “Goodwill”.

16.1 Movements in property, plant and equipment

In millions of euros	Land	Buildings	Plant and equipment	Vehicles	Dismantling costs	Assets in progress	Right of use	Other	Total
Gross amount									
At December 31, 2020	**633**	**5,447**	**81,958**	**488**	**3,593**	**4,616**	**4,151**	**1,442**	**102,327**
Acquisitions/Increases (1)	6	408	(6)	49	-	4,816	666	64	6,003
Disposals	(16)	(89)	(885)	(33)	(5)	(29)	(163)	(65)	(1,284)
Translation adjustments	8	70	866	3	18	178	133	38	1,313
Changes in scope of consolidation	70	1,102	1,258	(1)	3	(53)	(12)	(14)	2,353
Transfer to "Assets classified as held for sale and discontinued operations"	(41)	(433)	(925)	(207)	(26)	100	(768)	(190)	(2,489)
Other	(10)	(3,192)	8,265	4	86	(4,914)	(140)	33	133
AT DECEMBER 31, 2021	**650**	**3,312**	**90,530**	**304**	**3,669**	**4,715**	**3,867**	**1,308**	**108,355**
Accumulated depreciation and impairment									
At December 31, 2020	**(99)**	**(3,090)**	**(43,444)**	**(341)**	**(2,973)**	**(309)**	**(1,256)**	**(928)**	**(52,439)**
Depreciation (2)	(5)	(152)	(2,621)	(51)	(106)	-	(523)	(111)	(3,569)
Impairment	-	(14)	(537)	-	(37)	(205)	(57)	(6)	(857)
Disposals	12	82	853	30	5	24	160	58	1,223
Translation adjustments	-	(16)	(307)	(2)	(9)	(9)	(30)	(15)	(388)
Changes in scope of consolidation	(74)	(1,111)	(1,411)	-	(3)	7	4	10	(2,577)
Transfer to "Assets classified as held for sale and discontinued operations"	5	302	603	140	25	(3)	337	154	1,562
Other	16	2,150	(2,560)	4	(16)	107	80	(12)	(232)
AT DECEMBER 31, 2021	**(146)**	**(1,849)**	**(49,426)**	**(219)**	**(3,115)**	**(387)**	**(1,284)**	**(850)**	**(57,277)**
Carrying amount									
At December 31, 2020	**535**	**2,356**	**38,514**	**147**	**619**	**4,308**	**2,895**	**514**	**49,889**
AT DECEMBER 31, 2021	**503**	**1,463**	**41,105**	**85**	**554**	**4,328**	**2,583**	**458**	**51,079**

(1) Including €342 million related to property, plant and equipment of EQUANS activities recognized in “Discontinued operations” (see Note 5 “Main changes in Group structure”)

(2) Including €203 million in amortization recognized in “Net income/(loss) from discontinued operations” in the income statement in respect of EQUANS

In 2021, the net increase in "Property, plant and equipment" essentially takes into account :

- maintenance and development investments for a total amount of €5,337 million mainly related to the construction and the development of wind and solar farms (€2,260 million) primarily in France, the United States, Latin America and India, as well as to the extension of the transportation and distribution networks in the France Infrastructure segment (€1,747 million);
- and positive foreign exchange effects of €925 million, mainly resulting from the appreciation of the US dollar (positive impact of €720 million) and fluctuations in the pound sterling (positive impact of €118 million);

largly offset by:

- depreciation for a total amount of €3,569 million;
- the classification under "Assets held for sale" for a negative €927 million, relating mainly to EQUANS activities;
- impairment losses on property, plant and equipment amounting to €857 million mainly relating to:
  - solar and wind farms in Latin America, in China and in France (a negative €267 million),
  - thermal power plants in Brazil (a negative €235 million),
  - thermal assets in Australia, in France, in the United States and in Oman (a negative €234 million),
  - assets of Cofely Endel affiliates, operating in the industrial maintenance and energy services in France (€38 million);
- changes in the scope of consolidation amounting to a negative €224 million, primarily relating to disposals in the renewable energies sector in France, the United States, India and the Netherlands for a negative amount of €114 million, the disposal of a thermal power plant in Brazil for a negative €35 million, the partial disposal of GTT for a negative €30 million and to the disposal of a thermal power plant in Turkey for a negative €12 million.

Reclassifications were made between Buildings and Plant and equipment to better align the assets' classification with their underlying nature.

16.2 Pledged and mortgaged assets

Items of property, plant and equipment pledged by the Group to guarantee borrowings and debt amounted to €1,373 million at December 31, 2021 compared to €1,749 million at December 31, 2020.

The net decrease mainly relates to the entity FHH (Guernsey) Ltd. in the United Kingdom for a negative €593 million due to the redemption of Guaranteed Secured Bonds on their maturity date for which all of First Hydro's assets were pledged.

16.3 Contractual commitments to purchase property, plant and equipment

In the ordinary course of their operations, some Group companies have entered into commitments to purchase, and the related third parties to deliver, property, plant and equipment. These commitments relate mainly to orders for equipment and material related to the construction of energy production units and to service agreements.

Investment commitments made by the Group to purchase property, plant and equipment totaled €2,360 million at December 31, 2021 compared to €2,212 million at December 31, 2020.

The net increase primarily relates to the construction of renewable assets in Brazil for €438 million, partially offset by the decrease in contractual commitments related to the construction of solar farms in India for a negative €310 million.

16.4 Other information

Borrowing costs for 2021 included in the cost of property, plant and equipment amounted to €70 million at December 31, 2021 compared to €103 million at December 31, 2020.

NOTE 17 Financial instruments

17.1 Financial assets

Accounting standards

In accordance with the principles of IFRS 9 – *Financial Instruments*, financial assets are recognized and measured either at amortized cost, at fair value through equity or at fair value through profit or loss based on the following two criteria:

- a first criterion relating to the contractual cash flow characteristics of the financial asset. The analysis of contractual cash flow characteristics makes it possible to determine whether these cash flows are "only payments of principal and interest on the outstanding amounts" (known as the "SPPI" test or Solely Payments of Principal and Interest);
- a second criterion relating to the business model used by the Group to manage its financial assets. IFRS 9 defines three different business models: a first business model whose objective is to hold assets in order to collect contractual cash flows (hold to collect), a second model whose objective is achieved by both collecting contractual cash flows and selling financial assets (hold to collect and sell), and other business models.

The identification of the business model and the analysis of the contractual cash flow characteristics require judgment to ensure that the financial assets are classified in the appropriate category.

Where the financial asset is an investment in an equity instrument and is not held for trading, the Group may irrevocably elect to present the gains and losses on that investment in other comprehensive income.

Except for trade receivables, which are measured at their transaction price in accordance with IFRS 15, financial assets are measured, on initial recognition, at fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to their acquisition.

At the end of each reporting period, financial assets measured using the amortized cost method or at fair value through other comprehensive income (with a recycling mechanism) are subject to an impairment test based on the expected credit losses method.

Financial assets also include derivatives that are measured at fair value in accordance with IFRS 9.

In accordance with IAS 1, the Group presents current and non-current assets and current and non-current liabilities separately in the statement of financial position. In view of the majority of the Group's activities, it was considered that the criterion to be used to classify assets is the expected time to realize the asset or settle the liability: the asset is classified as current if this period is less than 12 months and as non-current if it is more than 12 months after the reporting period.

The following table presents the Group's different categories of financial assets, broken down into current and non-current items:

		Dec. 31, 2021			Dec. 31, 2020		
In millions of euros	Notes	Non-current	Current	Total	Non-current	Current	Total
Other financial assets	17.1	10,949	2,495	13,444	9,009	2,583	11,592
Equity instruments at fair value through other comprehensive income		*2,344*	*-*	*2,344*	*1,197*	*-*	*1,197*
Equity instruments at fair value through income		*483*	*-*	*483*	*471*	*-*	*471*
Debt instruments at fair value through other comprehensive income		*2,157*	*104*	*2,261*	*1,795*	*111*	*1,906*
Debt instruments at fair value through income		*1,794*	*395*	*2,189*	*1,404*	*432*	*1,836*
Loans and receivables at amortized cost		*4,171*	*1,996*	*6,167*	*4,141*	*2,041*	*6,182*
Trade and other receivables	8.2	-	32,556	32,556	-	14,295	14,295
Assets from contracts with customers	8.2	34	8,344	8,377	26	7,738	7,764
Cash and cash equivalents		-	13,890	13,890	-	12,980	12,980
Derivative instruments	17.4	25,616	19,373	44,989	2,996	8,069	11,065
TOTAL		**36,599**	**76,657**	**113,256**	**12,031**	**45,665**	**57,696**

17.1.1 Other financial assets

17.1.1.1 Equity instruments at fair value

Accounting standards

Equity instruments at fair value through other comprehensive income (OCI)

Under IFRS 9 an irrevocable election can be made to present subsequent changes in the fair value of an investment in an equity instrument that is not held for trading in other comprehensive income. This choice is made on an instrument by instrument basis. Amounts presented in other comprehensive income should not be transferred to profit or loss including proceeds of disposals. However, IFRS 9 authorizes the transfer of the accumulated profits and losses to another component of equity. Dividends from such investments are recognized in profit or loss unless the dividend clearly represents the recovery of a portion of the cost of the investment.

The equity instruments recognized under this line item mainly concern investments in companies that are not controlled by the Group and for which OCI measurement has been selected given their strategic and long-term nature.

Upon initial recognition, these equity instruments are recognized at fair value, which is generally their acquisition cost, plus transaction costs.

At each reporting date, for listed securities, fair value is determined based on the quoted market price at the reporting date. For unlisted securities, fair value is measured using valuation models based primarily on the latest market transactions, the discounting of dividends or cash flows and the net asset value.

Equity instruments at fair value through profit or loss

Equity instruments that are held for trading or for which the Group has not elected for measurement at fair value through other comprehensive income are measured at fair value through profit or loss.

This category mainly includes investments in companies not controlled by the Group.

Upon initial recognition, these equity instruments are recognized at fair value, which is generally their acquisition cost.

At each reporting date, for listed and unlisted securities, the same measurement method as described above should be applied.

In millions of euros	Equity instruments at fair value through other comprehensive income	Equity instruments at fair value through income	Total
At December 31, 2020	**1,197**	**471**	**1,668**
Increase	1,261	88	1,348
Decrease	(264)	(32)	(296)
Changes in fair value	140	(19)	121
Changes in scope of consolidation, translation adjustments and other	11	(26)	(15)
AT DECEMBER 31, 2021	**2,344**	**483**	**2,827**
Dividends	34	14	49

Equity instruments break down as €1,750 million of listed equity instruments and €1,077 million of unlisted equity instruments. This amount mainly includes shares held by the Group as a minority interest in Nord Stream AG for an amount of €564 million, as well as the Group's residual interest in SUEZ for €227 million, and shares tendered to the public takeover bid in January 2022 (*see Note 27 "Subsequent events"*).

17.1.1.2 Debt instruments at fair value

Accounting standards

Debt instruments at fair value through other comprehensive income

Financial assets that are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and for which the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the outstanding amount (SPPI), are measured at fair value through OCI (with a recycling mechanism). This involves a measurement through profit or loss for interest (at amortized cost using the effective interest method), impairment and foreign exchange gains and losses, and through OCI (with a recycling mechanism) for other gains or losses.

This category mainly includes bonds.

Fair value gains and losses on these instruments are recognized in other comprehensive income, except for the following items which are recognized in profit or loss:

- interest income using the effective interest method;
- expected credit losses and reversals;
- foreign exchange gains and losses.

When the financial asset is derecognized, the cumulative gain or loss that was previously recognized in other comprehensive income is reclassified from equity to profit or loss.

Debt instruments at fair value through profit or loss

Financial assets whose contractual cash flows do not consist solely of payments of principal and interest on the amount outstanding (SPPI) or that are held in view of an “other” business model are measured at fair value through profit or loss.

The Group's investments in UCITS are accounted for in this caption. They are considered as debt instruments, according to IAS 32 – *Financial Instruments*: *Presentation*, given the existence of an obligation for the issuer to redeem units, at the request of the holder. They are measured at fair value through profit or loss because the contractual cash flow characteristics do not meet the SPPI test.

In millions of euros	Debt instruments at fair value through other comprehensive income	Liquid debt instruments held for cash investment purposes at fair value through other comprehensive income	Debt instruments at fair value through income	Liquid debt instruments held for cash investment purposes at fair value through income	Total
At December 31, 2020	**1,895**	**11**	**1,238**	**598**	**3,742**
Increase	1,260	(10)	2,559	55	3,864
Decrease	(909)	6	(2,450)	(60)	(3,413)
Changes in fair value	14	-	243	3	260
Changes in scope of consolidation, translation adjustments and other	-	(7)	3	-	(4)
AT DECEMBER 31, 2021	**2,260**	**1**	**1,593**	**595**	**4,449**

Debt instruments at fair value at December 31, 2021 primarily include bonds and money market funds held by Synatom for €3,806 million (*see Note 20.2.4 Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material*) and liquid instruments deducted from net financial debt for €596 million (respectively €3,086 million and €608 million at December 31, 2020).

17.1.1.3 Loans and receivables at amortized cost

Accounting standards

Loans and receivables held by the Group under a business model consisting in holding the instrument in order to collect the contractual cash flows, and whose contractual cash flows consist solely of payments of principal and interest on the principal amount outstanding (SPPI test) are measured at amortized cost. Interest is calculated using the effective interest method.

The following items are recognized in profit or loss:

- interest income using the effective interest method;
- expected credit losses and reversals;
- foreign exchange gains and losses.

The Group enters into services or take-or-pay contracts that are, or contain, a lease and under which the Group acts as lessor and its customers as lessees. Leases are analyzed in accordance with IFRS 16 in order to determine whether they constitute an operating lease or a finance lease. Whenever the terms of the lease transfer substantially all the risk and rewards of ownership of the related asset, the contract is classified as a finance lease and a finance receivable is recognized to reflect the financing deemed to be granted by the Group to the customer.

Leasing security deposits are presented in this caption and recognized at their nominal value.

Please refer to Note 18 “Risks arising from financial instruments” regarding the assessment of counterparty risk.

	Dec. 31, 2021			Dec. 31, 2020		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Loans granted to affiliated companies	2,267	195	2,462	2,527	148	2,675
Other receivables at amortized cost	240	1,537	1,777	205	1,740	1,944
Amounts receivable under concession contracts	1,200	123	1,324	853	51	904
Amounts receivable under finance leases	463	141	604	557	101	658
TOTAL	**4,171**	**1,996**	**6,167**	**4,141**	**2,041**	**6,182**

Loans and receivables at amortized cost include the loan relating to the financing of the Nord Stream 2 pipeline project for a total amount of €987 million, including capitalized interest.

Amounts receivable under concession contracts amounted to €1,324 million at December 31, 2021. They are related to the Novo Estado and Gralha Azul electric power transmission networks in Brazil, which are currently under construction.

Impairment and expected credit losses against loans and receivables at amortized cost stood at €228 million at December 31, 2021 (*versus* €204 million at December 31, 2020).

Net gains and losses recognized in the income statement relating to loans and receivables at amortized cost break down as follows:

		Post-acquisition measurement	
In millions of euros	Interest income	Foreign currency translation	Expected credit loss
At December 31, 2021	223	(15)	(7)
At December 31, 2020 (1)	283	(48)	1

(1) *Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as discontinued operations in application of IFRS 5 (see Note 2 “Restatement of 2020 comparative data”)*

No material expected credit losses were recognized against loans and receivables at amortized cost at December 31, 2021 and December 31, 2020.

Amounts receivable under finance leases

These contracts refer to lease contracts in which ENGIE acts as lessor, classified as finance leases in accordance with IFRS 16. They concern (i) energy purchase and sale contracts where the contract conveys an exclusive right to use a production asset; and (ii) certain contracts with industrial customers relating to assets held by the Group.

The Group has recognized finance lease receivables, notably for cogeneration plants for Wapda and NTDC (Uch – Pakistan).

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Undiscounted future minimum lease payments	713	760
Unguaranteed residual value accruing to the lessor	11	11
Total gross investment in the lease	**724**	**771**
Unearned financial income	**56**	**62**
NET INVESTMENT IN THE LEASE (STATEMENT OF FINANCIAL POSITION)	**668**	**709**
Of which present value of future minimum lease payments	*660*	*700*
Of which present value of unguaranteed residual value	*9*	*9*

Undiscounted minimum lease payments receivable under finance leases can be analyzed as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Year 1	122	130
Years 2 to 5 inclusive	351	379
Beyond year 5	240	251
TOTAL	**713**	**760**

17.1.2 Trade and other receivables, assets from contracts with customers

Information on trade and other receivables and assets from contracts with customers are provided in Note 8.2."Trade and other receivables, assets and liabilities from contracts with customers".

17.1.3 Cash and cash equivalents

Accounting standards

This item includes cash equivalents as well as short-term investments that are considered to be readily convertible into a known amount of cash and where the risk of a change in their value is deemed to be negligible based on the criteria set out in IAS 7.

Bank overdrafts are not included in the calculation of cash and cash equivalents and are recorded under "Short-term borrowings".

Cash and cash equivalent items are subject to impairment tests in accordance with the expected credit losses model of IFRS 9.

"Cash and cash equivalents" totaled €13,890 million at December 31, 2021 (€12,980 million at December 31, 2020). This item comprises standard money market funds with daily liquidity (45%), term deposits with a maturity of less than one month (37%), and deposits with a maturity of less than three months and other products (18%).

This amount included funds related to the green bond issues, which remain unallocated to the funding of eligible projects (*see Section 5.3 "Green Bonds"*).

At December 31, 2021, this amount also included €172 million in cash and cash equivalents subject to restrictions (€68 million at December 31, 2020), including €62 million of cash equivalents set aside to cover the repayment of borrowings and debt as part of project financing arrangements in certain subsidiaries.

Gains recognized in respect of "Cash and cash equivalents" amounted to €54 million at December 31, 2021 compared to €44 million at December 31, 2020.

17.1.4 Transfer of financial assets

At December 31, 2021, the outstanding amount of transferred financial assets (as well as the risks to which the Group remains exposed following the transfer of those financial assets) as part of transactions leading to either (i) all or part of those assets being retained in the statement of financial position, or (ii) their full deconsolidation while retaining a continuing involvement in these financial assets, was not material in terms of the Group's indicators.

The Group carried out disposals without recourse to financial assets as part of transactions leading to full derecognition, for an outstanding amount of €2,204 million at December 31, 2021.

17.1.5 Financial assets and equity instruments pledged as collateral for borrowings and debt

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Financial assets and equity instruments pledged as collateral	3,915	3,716

This item mainly includes the carrying amount of equity instruments pledged as collateral for borrowings and debt.

17.2 Financial liabilities

Accounting standards

Borrowings and other financial liabilities are measured at amortized cost using the effective interest rate method.

On initial recognition, any issue or redemption premiums and discounts and issuing costs are added to/deducted from the nominal value of the borrowings concerned. These items are taken into account when calculating the effective interest rate and are therefore recorded in the consolidated income statement over the life of the borrowings using the amortized cost method.

As regards structured debt instruments that do not have an equity component, the Group may be required to separate an "embedded" derivative instrument from its host contract. When an embedded derivative is separated from its host contract, the initial carrying amount of the structured instrument is broken down into an embedded derivative component, corresponding to the fair value of the embedded derivative, and a financial liability component, corresponding to the difference between the amount of the issue and the fair value of the embedded derivative. The separation of components upon initial recognition does not give rise to any gains or losses.

The debt is subsequently recorded at amortized cost using the effective interest method while the derivative is measured at fair value, with changes in fair value recognized in profit or loss.

Financial liabilities are recognized either:

- as "Amortized cost liabilities" for borrowings, trade payables and other creditors, and other financial liabilities;
- as "Liabilities measured at fair value through profit or loss" for derivative financial instruments and for financial liabilities designated as such.

The following table presents the Group's different financial liabilities at December 31, 2021, broken down into current and non-current items:

		Dec. 31, 2021			Dec. 31, 2020		
In millions of euros	Notes	Non-current	Current	Total	Non-current	Current	Total
Borrowings and debt	17.3	30,458	10,590	41,048	30,092	7,846	37,939
Trade and other payables	17.2	-	32,822	32,822	-	17,307	17,307
Liabilities from contracts with customers	8.2	68	2,671	2,739	39	4,315	4,354
Derivative instruments	17.4	24,228	22,702	46,931	3,789	9,336	13,125
Other financial liabilities		108	-	108	77	-	77
TOTAL		**54,863**	**68,785**	**123,648**	**33,997**	**38,805**	**72,802**

17.2.1 Trade and other payables

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Trade payables	32,197	16,890
Payable on fixed assets	625	417
TOTAL	**32,822**	**17,307**

The carrying amount of these financial liabilities represents a reasonable estimate of their fair value.

The increase in trade payables is mainly due to the rise in commodity prices.

17.2.2 Liabilities from contracts with customers

Information on liabilities from contracts with customers are provided in Note 8.2. "Trade and other receivables, assets and liabilities from contracts with customers".

17.3 Net financial debt

17.3.1 Net financial debt by type

In millions of euros		Dec. 31, 2021 Non-current	Dec. 31, 2021 Current	Dec. 31, 2021 Total	Dec. 31, 2020 Non-current	Dec. 31, 2020 Current	Dec. 31, 2020 Total
Borrowings and debt	Bond issues	24,035	2,205	26,240	24,724	1,446	26,170
	Bank borrowings	3,829	1,977	5,806	3,136	986	4,123
	Negotiable commercial paper	-	4,962	4,962	-	4,024	4,024
	Lease liabilities	1,709	334	2,043	1,892	494	2,386
	Other borrowings (1)	885	613	1,498	340	594	935
	Bank overdrafts and current account	-	499	499	-	301	301
	Borrowings and debt	**30,458**	**10,590**	**41,048**	**30,092**	**7,846**	**37,939**
Other financial assets	Other financial assets deducted from net financial debt (2)	(251)	(1,369)	(1,621)	(210)	(1,878)	(2,088)
Cash and cash equivalents	Cash and cash equivalents	-	(13,890)	(13,890)	-	(12,980)	(12,980)
Derivative instruments	Derivatives hedging borrowings (3)	(147)	(41)	(187)	(306)	(107)	(413)
NET FINANCIAL DEBT		**30,060**	**(4,710)**	**25,350**	**29,577**	**(7,119)**	**22,458**

(1) This item corresponds to the revaluation of the interest rate component of debt in a qualified fair value hedging relationship for €227 million, margin calls on debt hedging derivatives carried in liabilities for €269 million and the impact of amortized cost for €99 million (compared to, respectively, €396 million, €262 million and €117 million at December 31, 2020).

(2) This item notably corresponds to assets related to financing for €47 million, liquid debt instruments held for cash investment purposes for €596 million and margin calls on derivatives hedging borrowings carried in assets for €977 million (compared to, respectively, €55 million, €609 million and €1,424 million at December 31, 2020).

(3) This item represents the interest rate component of the fair value of derivatives hedging borrowings in a designated fair value hedging relationship. It also represents the exchange rate and outstanding accrued interest rate components of the fair value of all debt-related derivatives irrespective of whether or not they qualify as hedges

The fair value of gross borrowings and debt (excluding lease liabilities) amounted to €41,131 million at December 31, 2021, compared with a carrying amount of €39,000 million.

Financial income and expenses related to borrowings and debt are presented in Note 11 “Net financial income/(loss)”.

17.3.2 Reconciliation between net financial debt and cash flow from (used in) financing activities

In millions of euros		Dec. 31, 2020	Cash flow from financing activities	Cash flow from operating and investing activities and change in cash and cash equivalents	Change in fair value	Translation adjustments	Change in scope of consolidation and others	Dec. 31, 2021
Borrowings and debt	Bond issues	26,170	(679)	-	-	284	465	26,240
	Bank borrowings	4,123	1,558	-	-	128	(3)	5,806
	Negotiable commercial paper	4,024	852	-	-	87	-	4,962
	Lease liabilities [(1)]	2,386	(560)	-	-	25	191	2,043
	Other borrowings	935	834	-	8	(2)	(277)	1,498
	Bank overdrafts and current account	301	289	-	-	(3)	(88)	499
	Borrowings and debt	**37,939**	**2,293**	**-**	**8**	**520**	**288**	**41,048**
Other financial assets	Other financial assets deducted from net financial debt	(2,088)	464	-	3	-	-	(1,621)
Cash and cash equivalents	Cash and cash equivalents	(12,980)	-	(1,304)	-	(217)	610	(13,890)
Derivative instruments	Derivatives hedging borrowings	(413)	(75)	-	279	21	1	(187)
NET FINANCIAL DEBT		**22,458**	**2,683**	**(1,304)**	**289**	**324**	**899**	**25,350**

(1) *Lease liabilities: the negative amount of €560 million included in the "Cash flow from financing activities" column corresponds to lease payments, excluding interest (total cash outflow for leases amounted to €594 million, of which €34 million relating to interest)*

17.3.3 Main events of the period

17.3.3.1 Impact of changes in the scope of consolidation and in exchange rates on net financial debt

In 2021, changes in exchange rates resulted in a €324 million increase in net financial debt, including a €292 million increase in relation to the US dollar.

Changes in the scope of consolidation (including the cash impact of acquisitions and disposals) led to a €1,320 million decrease in net financial debt, reflecting:

- disposals of assets over the period, which reduced net financial debt by €1,845 million, including notably the disposal of a 10% interest in GTT, the disposal of part of the Group's interest in Georgetown energy Partners Holding LLC in the United States, the disposal of part of the Group's interest in GRTgaz, as well as the disposal of the Group's interest in ENGIE EPS SA (*see Note 5.1 "Disposals carried out in 2021"*);
- the classification of the entities in the EQUANS reportable segment and of Endel and its main affiliates under "Assets held for sale", which reduced net financial debt by €475 million (*see Note 5.2 "Assets held for sale"*);
- acquisitions carried out in 2021 which increased net financial debt by nearly €1 billion (*see Note 5.3 "Acquisitions carried out in 2021"*).

17.3.3.2 Financing and refinancing transactions

The Group carried out the following main transactions in 2021:

ENGIE SA

- on January 18, 2021 ENGIE SA redeemed at maturity €900 million worth of bonds with a 6.38% coupon;
- on February 11, 2021 ENGIE SA redeemed at maturity GBP 226 million (€252 million) worth of bonds with a 6.13% coupon;
- on June 2, 2021 ENGIE SA issued a €290 million zero coupon bond redeemable for GTT shares, maturing on June 2, 2024;
- on June 10, 2021, ENGIE SA notified the exercise of the annual redemption option and recognized as financial debt the €363 million tranche of deeply-subordinated perpetual notes (*i.e.* a total amount of €379 million including accrued interest), previously recorded in equity, with a coupon of 4.75%. The debt was redeemed on July 10, 2021 (*see Note 19.2.1 "Issuance of deeply-subordinated perpetual notes"*);
- on September 1, 2021, ENGIE SA redeemed at maturity a €400 million bank loan with a floating EURIBOR 12M coupon and a 0.47% mark up;
- on October 26, 2021 ENGIE SA issued €1.5 billion worth of green bonds:
  - a €750 million tranche, maturing in October 2029, with a 0.375% coupon,
  - a €750 million tranche, maturing in October 2036, with a 1% coupon;
- on November 23, 2021, ENGIE SA redeemed at maturity a €100 million bank loan with a floating EURIBOR 6M coupon plus a 0.61% mark up;
- on December 13, 2021 ENGIE SA redeemed in advance a €750 million worth of bonds with a 0.5% coupon;
- on December 23, 2021 ENGIE SA drew down a €253 million bank loan maturing in December 2031, with a 0.42% coupon;

Other entities of the Group

- in 2021 ENGIE Brasil Energia drew down several bank loans for a total amount of BRL 1,007 million (€153 million) maturing in March 2044;
- in 2021 ENGIE Brasil Energia drew down several bank loans for a total amount of BRL 1,770 million (€293 million) maturing in May 2044;
- on June 1, 2021, ENGIE Energia Perù SA took out three bank loans for a total amount of USD 150 million (€127 million) maturing in June 2022;
- on October 5, 2021 Compagnie Nationale du Rhône took out a €50 million bank loan, maturing in April 2024;
- on October 5, 2021 Compagnie Nationale du Rhône took out a €300 million bank loan, maturing in October 2022;
- on December 22, 2021, Compagnie Nationale du Rhône took out a €300 million bank loan, maturing in June 2022;
- on December 6, 10, 15 and 17, 2021 Compagnie Nationale du Rhône drew down four bank loans for a total amount of €625 million, and maturing in January 2022.

17.4 Derivative instruments

Accounting standards

Derivative financial instruments are measured at fair value. This fair value is determined on the basis of market data, available from external contributors. In the absence of an external benchmark, a valuation based on internal models recognized by market participants and favoring data directly derived from observable data such as OTC quotations is used.

The change in fair value of derivative financial instruments is recorded in the income statement except when they are designated as hedging instruments in a cash flow hedge or net investment hedge. In this case, changes in the value of the hedging instruments are recognized directly in equity, excluding the ineffective portion of the hedges.

The Group uses derivative financial instruments to manage and reduce its exposure to market risks arising from fluctuations in interest rates, foreign currency exchange rates and commodity prices, mainly for gas and electricity. The use of derivative instruments is governed by a Group policy for managing interest rate, currency and commodity risks (*see Note 18 – Risks arising from financial instruments*).

Derivative financial instruments are contracts (i) whose value changes in response to the change in one or more observable variables, (ii) that do not require any material initial net investment, and (iii) that are settled at a future date.

Derivative instruments include swaps, options, futures and swaptions, as well as forward commitments to purchase or sell listed and unlisted securities, and firm commitments or options to purchase or sell non-financial assets that involve physical delivery of the underlying.

For purchases and sales of electricity and natural gas, the Group systematically analyzes whether the contract was entered into in the "normal" course of operations and therefore falls outside the scope of IFRS 9. This analysis consists firstly in demonstrating that the contract is entered into and continues to be held for the purpose of physical delivery or receipt of the commodity in accordance with the Group's expected purchase, sale or usage requirements.

The second step is to demonstrate that the Group has no practice of settling similar contracts on a net basis and that these contracts are not equivalent to written options. In particular, in the case of electricity and gas sales allowing the buyer a certain degree of flexibility concerning the volumes delivered, the Group distinguishes between contracts that are equivalent to capacity sales considered as transactions falling within the scope of ordinary operations and those that are equivalent to written financial options, which are accounted for as derivative financial instruments.

Only contracts that meet all of the above conditions are considered as falling outside the scope of IFRS 9. Adequate specific documentation is compiled to support this analysis.

Embedded derivatives

The main Group contracts that may contain embedded derivatives are contracts with clauses or options potentially affecting the contract price, volume or maturity. This is the case primarily with contracts for the purchase or sale of non-financial assets, whose price is revised based on an index, the exchange rate of a foreign currency or the price of an asset other than the contract's underlying.

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract – with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

If a hybrid contract contains a host that is an asset within the scope of IFRS 9, the Group applies the presentation and measurements requirements described in Note 18.1 to the entire hybrid contract.

Conversely, when a hybrid contract contains a host that is not an asset within the scope of IFRS 9, an embedded derivative shall be separated from the host and accounted for as a derivative if, and only if:

- the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host;
- a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
- the hybrid contract is not measured at fair value with changes in fair value recognized in profit or loss (*i.e.*, a derivative that is embedded in a financial liability at fair value through profit or loss is not separated).

Where an embedded derivative is separate from the host contract, it is measured at fair value and fair value changes are recognized in profit or loss (except if the embedded derivative is documented in a hedge relationship).

Hedging instruments: recognition and presentation

Derivative instruments qualifying as hedging instruments are recognized in the consolidated statement of financial position and measured at fair value. However, their accounting treatment varies according to whether they are classified as (i) a fair value hedge of an asset or liability; (ii) a cash flow hedge, or (iii) a hedge of a net investment in a foreign operation.

Fair value hedges

A fair value hedge is defined as a hedge of the exposure to changes in fair value of a recognized asset or liability such as a fixed-rate loan or borrowing, or of assets, liabilities or an unrecognized firm commitment denominated in a foreign currency.

The gain or loss from remeasuring the hedging instrument at fair value is recognized in income. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is also recognized in income even if the hedged item is in a category in respect of which changes in fair value are recognized through other comprehensive income. These two adjustments are presented net in the consolidated income statement, with the net effect corresponding to the ineffective portion of the hedge.

Cash flow hedges

A cash flow hedge is a hedge of the exposure to variability in cash flows that could affect the Group’s income. The hedged cash flows may be attributable to a particular risk associated with a recognized financial or non-financial asset or a highly probable forecast transaction.

The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized directly in other comprehensive income, net of tax, while the ineffective portion is recognized in income. The gains or losses accumulated in equity are reclassified to the consolidated income statement under the same caption as the loss or gain on the hedged item – *i.e.*, current operating income for operating cash flows and financial income or expenses for other cash flows – in the same periods in which the hedged cash flows affect income.

If the hedging relationship is discontinued, in particular because the hedge is no longer considered effective, the cumulative gain or loss on the hedging instrument remains recognized in equity until the forecast transaction occurs. However, if a forecast transaction is no longer expected to occur, the cumulative gain or loss on the hedging instrument is immediately recognized in income.

Hedge of a net investment in a foreign operation

In the same way as for a cash flow hedge, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge of the currency risk is recognized directly in other comprehensive income, net of tax, while the ineffective portion is recognized in income. The gains or losses accumulated in other comprehensive income are transferred to the consolidated income statement when the investment is liquidated or sold.

Hedging instruments: identification and documentation of hedging relationships

The hedging instruments and hedged items are designated at the inception of the hedging relationship. The hedging relationship is formally documented in each case, specifying the hedging strategy, the hedged risk and the method used to assess hedge effectiveness. Only derivative contracts entered into with external counterparties are considered as being eligible for hedge accounting

Hedge effectiveness is assessed and documented at the inception of the hedging relationship and on an ongoing basis throughout the periods for which the hedge was designated.

Hedge effectiveness is demonstrated both prospectively and retrospectively using various methods, based mainly on a comparison between changes in fair value or cash flows between the hedging instrument and the hedged item. Methods based on an analysis of statistical correlations between historical price data are also used.

Derivative instruments not qualifying for hedge accounting: recognition and presentation

These items mainly concern derivative financial instruments used in economic hedges that have not been – or are no longer – documented as hedging relationships for accounting purposes.

When a derivative financial instrument does not qualify or no longer qualifies for hedge accounting, changes in fair value are recognized directly in income under (i) current operating income for derivative instruments with non-financial assets as the underlying, and (ii) financial income or expenses for currency, interest rate and equity derivatives.

Derivative instruments not qualifying for hedge accounting used by the Group in connection with proprietary commodity trading activities and other derivatives expiring in less than 12 months are recognized in the consolidated statement of financial position in current assets and liabilities, while derivatives expiring after this period are classified as non-current items.

Fair value measurement

The fair value of instruments listed on an active market is determined by reference to the market price. In this case, these instruments are presented in level 1 of the fair value hierarchy.

The fair value of unlisted financial instruments for which there is no active market and for which observable market data exist is determined based on valuation techniques such as option pricing models or the discounted cash flow method.

The models used to evaluate these instruments take into account assumptions based on market inputs:

- the fair value of interest rate swaps is calculated based on the present value of future cash flows;
- the fair value of forward foreign exchange contracts and currency swaps is calculated by reference to current prices for contracts with similar maturities by discounting the future cash flow spread (difference between the forward exchange rate under the contract and the forward exchange rate recalculated in line with the new market conditions applicable to the nominal amount);
- the fair value of currency and interest rate options is calculated using option pricing models;
- commodity derivatives are valued by reference to listed market prices based on the present value of future cash flows (commodity swaps or commodity forwards) and option pricing models (options), for which market price volatility may be a factor. Contracts with maturities exceeding the depth of transactions for which prices are observable, or which are particularly complex, may be valued based on internal assumptions;
- exceptionally, for complex contracts negotiated with independent financial institutions, the Group uses the values established by its counterparties.

These instruments are presented in level 2 of the fair value hierarchy except when the evaluation is based mainly on data that are not observable, in which case they are presented in level 3 of the fair value hierarchy. Most often, this is the case for derivatives with a maturity that falls outside the observability period for market data relating to the underlying or when certain inputs such as the volatility of the underlying are not observable.

Except in case of enforceable master netting arrangements or similar agreements, counterparty risk is included in the fair value of financial derivative instrument assets and liabilities. It is calculated according to the “expected loss” method and takes into account the exposure at default, the probability of default and the loss given default. The probability of default is determined on the basis of credit ratings assigned to each counterparty (“historical probability of default” approach).

Offsetting of financial assets and liabilities in the statement of financial position

Financial assets and liabilities are presented net in the statement of financial position when the offsetting criteria of IAS 32 are met. Offsetting relates to instruments entered into with counterparties for which the contractual terms provide for a net settlement of transactions and a collateralization agreement (margin calls). In particular, commodity derivative assets and liabilities are offset for transactions with the same counterparty, in the same currency, by type of commodity and delivery point and with identical maturities.

Derivative instruments recognized in assets and liabilities are measured at fair value and broken down as follows:

	Dec. 31, 2021						Dec. 31, 2020					
	Assets			Liabilities			Assets			Liabilities		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total	Non-current	Current	Total	Non-current	Current	Total
Derivatives hedging borrowings	370	130	501	224	89	313	619	147	766	313	39	353
Derivatives hedging commodities	24,474	19,190	43,664	22,335	22,507	44,842	1,163	7,879	9,042	945	9,252	10,197
Derivatives hedging other items [(1)]	772	52	824	1,670	106	1,775	1,214	43	1,257	2,530	45	2,575
TOTAL	**25,616**	**19,373**	**44,989**	**24,228**	**22,702**	**46,931**	**2,996**	**8,069**	**11,065**	**3,789**	**9,336**	**13,125**

(1) *Derivatives hedging other items mainly include the interest rate component of interest rate derivatives (not qualifying as hedges or qualifying as cash flow hedges) that are excluded from net financial debt, as well as net investment hedge derivatives*

At December 31, 2021, derivatives hedging other items carried in liabilities include the fair value of the option embedded in the bond redeemable for GTT shares for €55 million.

The increase in the balance of derivatives hedging commodities is due to the extreme volatility of commodity prices in 2021. Most of these derivatives mature in 2022 and 2023.

17.4.1 Offsetting of derivative instrument assets and liabilities

The net amount of derivative instruments after taking into account enforceable master netting arrangements or similar agreements, whether or not they are offset in accordance with paragraph 42 of IAS 32, are presented in the table below:

		Dec. 31, 2021				Dec. 31, 2020			
In millions of euros		Gross amount	Net amount recognized in the statement of financial position [1]	Other offsetting agreements [2]	Total net amount	Gross amount	Net amount recognized in the statement of financial position [1]	Other offsetting agreements [2]	Total net amount
Assets	Derivatives hedging commodities	75,043	43,664	(9,282)	34,383	9,466	9,042	(5,198)	3,844
	Derivatives hedging borrowings and other items	1,325	1,325	(269)	1,056	2,023	2,023	(200)	1,822
Liabilities	Derivatives hedging commodities	(76,220)	(44,842)	4,987	(39,855)	(10,621)	(10,197)	6,307	(3,890)
	Derivatives hedging borrowings and other items	(2,089)	(2,089)	977	(1,111)	(2,928)	(2,928)	1,362	(1,566)

(1) Net amount recognized in the statement of financial position after taking into account offsetting agreements that meet the criteria set out in paragraph 42 of IAS 32. Due to the extreme volatility of commodity prices, this offsetting had a significant impact on the statement of financial position at December 31, 2021 and mainly concerns OTC derivatives concluded with counterparties for which the contractual terms provide for a net settlement of the transactions as well as a collateralization agreement (margin calls)

(2) Other offsetting agreements include collateral and other guarantee instruments, as well as offsetting agreements that do not meet the criteria set out in paragraph 42 of IAS 32

17.5 Fair value of financial instruments by level in the fair value hierarchy

17.5.1 Financial assets

The table below shows the allocation of financial instruments carried in assets to the different levels in the fair value hierarchy:

	Dec. 31, 2021				Dec. 31, 2020			
In millions of euros	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Other financial assets (excluding loans and receivables at amortized cost)	7,276	5,556	-	1,720	5,410	3,693	-	1,718
Equity instruments at fair value through other comprehensive income	*2,344*	*1,524*	*-*	*820*	*1,197*	*421*	*-*	*775*
Equity instruments at fair value through income	*483*	*227*	*-*	*256*	*471*	*185*	*-*	*286*
Debt instruments at fair value through other comprehensive income	*2,261*	*2,254*	*-*	*7*	*1,906*	*1,895*	*-*	*11*
Debt instruments at fair value through income	*2,189*	*1,552*	*-*	*637*	*1,836*	*1,191*	*-*	*645*
Derivative instruments	44,989	177	41,606	3,206	11,065	4	10,216	844
Derivatives hedging borrowings	*501*	*-*	*501*	*-*	*766*	*-*	*766*	*-*
Derivatives hedging commodities – relating to portfolio management activities [1]	*35,381*	*-*	*35,306*	*75*	*1,967*	*-*	*1,717*	*250*
Derivatives hedging commodities – relating to trading activities [1]	*8,284*	*177*	*4,975*	*3,131*	*7,075*	*4*	*6,477*	*594*
Derivatives hedging other items	*824*	*-*	*824*	*-*	*1,257*	*-*	*1,257*	*-*
TOTAL	**52,266**	**5,734**	**41,606**	**4,926**	**16,475**	**3,697**	**10,216**	**2,562**

(1) Derivative financial instruments relating to commodities classified in level 3 mainly include long-term gas supply contracts and a power contract that are measured at fair value and relate to trading activities

A definition of these three levels is presented in Note 17.4 "Derivative instruments".

Other financial assets (excluding loans and receivables at amortized cost)

Changes in level 3 equity and debt instruments at fair value can be analyzed as follows:

In millions of euros	Equity instruments at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	Equity instruments at fair value through income	Debt instruments at fair value through income	Other financial assets (excluding loans and receivables at amortized cost)
At December 31, 2020	**775**	**11**	**286**	**645**	**1,718**
Acquisitions	44	(4)	88	60	189
Disposals	(26)	6	(32)	(76)	(127)
Changes in fair value	15	-	(60)	5	(40)
Changes in scope of consolidation, foreign currency translation and other changes	12	(7)	(26)	3	(18)
AT DECEMBER 31, 2021	**821**	**7**	**256**	**637**	**1,721**
Gains/(losses) recorded in income relating to instruments held at the end of the period					17

Derivative instruments

Changes in level 3 commodities derivatives can be analyzed as follows:

In millions of euros	Net Asset/(Liability)
At December 31, 2020	**(836)**
Changes in fair value recorded in income	534
Settlements	(85)
Transfer from level 3 to levels 1 and 2	141
Net fair value recorded in income	**(247)**
Deferred Day-One gains/(losses)	37
AT DECEMBER 31, 2021	**(210)**

17.5.2 Financial liabilities

The table below shows the allocation of financial instruments carried in liabilities to the different levels in the fair value hierarchy:

	Dec. 31, 2021				Dec. 31, 2020			
In millions of euros	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Borrowings used in designated fair value hedges	4,255	-	4,255	-	4,812	-	4,812	-
Borrowings not used in designated fair value hedges	36,875	24,262	12,613	-	34,223	25,039	9,184	-
Derivative instruments	46,931	-	43,515	3,415	13,125	89	11,355	1,681
Derivatives hedging borrowings	*313*	-	*313*	-	*353*	-	*353*	-
Derivatives hedging commodities – relating to portfolio management activities (1)	*35,458*	-	*34,374*	*1,084*	*1,694*	*4*	*1,428*	*261*
Derivatives hedging commodities – relating to trading activities (1)	*9,384*	-	*7,053*	*2,331*	*8,503*	*85*	*6,999*	*1,419*
Derivatives hedging other items	*1,775*	-	*1,775*	-	*2,575*	-	*2,575*	-
TOTAL	**88,061**	**24,262**	**60,383**	**3,415**	**52,160**	**25,128**	**25,352**	**1,681**

(1) Derivative financial instruments relating to commodities classified in level 3 mainly include long-term gas supply contracts and a power contract that are measured at fair value and relate to trading activities

A definition of these three levels is presented in Note 17.4 “Derivative instruments”.

Borrowings used in designated fair value hedges

This caption includes bonds in a designated fair value hedging relationship, which are presented in level 2 in the above table. Only the interest rate component of the bonds is remeasured, with fair value determined by reference to observable inputs.

Borrowings not used in designated fair value hedges

Listed bond issues are included in level 1.

Other borrowings not used in a designated hedging relationship, are presented in level 2 in the above table. The fair value of these borrowings is determined on the basis of future discounted cash flows and relies on directly or indirectly observable data.

NOTE 18 Risks arising from financial instruments

The Group mainly uses derivative instruments to manage its exposure to market risks. Financial risk management procedures are set out in Chapter 2 "Risk factors and control".

18.1 Market risks

18.1.1 Commodity risk

Commodity risk arises primarily from the following activities:

- portfolio management; and
- trading.

The Group has identified primarily two types of commodity risks: price risk resulting from fluctuations in market prices, and volume risk inherent to the business.

In the ordinary course of its operations, the Group is exposed to commodity risks on natural gas, electricity, coal, oil and oil products, other fuels, CO_2 and other "green" products. The Group is active on these energy markets either for supply purposes, or to optimize and secure its energy production chain and its energy sales. The Group also uses derivatives to offer hedging instruments to its clients and to hedge its own positions.

18.1.1.1 Portfolio management activities

Portfolio management seeks to optimize the market value of assets (power plants, gas and coal supply contracts, energy sales and gas storage and transportation) over various timeframes (short-, medium- and long-term). Market value is optimized by:

- guaranteeing supply and ensuring the balance between physical needs and resources;
- managing market risks (price, volume) to unlock optimum value from portfolios within a specific risk framework.

The risk framework aims to safeguard the Group's financial resources over the budget period and smooth out medium-term earnings (over three or five years, depending on the maturity of each market). It encourages portfolio managers to take out economic hedges on their portfolio.

Sensitivities of the commodity-related derivatives portfolio used as part of the portfolio management activities as at December 31, 2021 are detailed in the table below. They are not representative of future changes in consolidated earnings and equity, insofar as they do not include the sensitivities relating to the purchase and sale contracts for the underlying commodities.

Sensitivity analysis (1)

		Dec. 31, 2021		Dec. 31, 2020	
In millions of euros	Changes in price	Pre-tax impact on income	Pre-tax impact on equity	Pre-tax impact on income	Pre-tax impact on equity
Oil-based products	+USD 10/bbl	19	159	119	266
Natural gas	+€3/MWh	298	624	379	537
Electricity	+€5/MWh	(110)	(49)	(90)	(39)
Coal	+USD 10/ton	-	-	-	1
Greenhouse gas emission rights	+€2/ton	(134)	-	(116)	1
EUR/USD	+10%	16	83	37	-
EUR/GBP	+10%	(49)	(6)	(6)	7

(1) *The sensitivities shown above apply solely to financial commodity derivatives used for hedging purposes as part of the portfolio management activities*

18.1.1.2 Trading activities

The Group's trading activities are primarily conducted within:

- ENGIE Global Markets and ENGIE Energy Management. The purpose of these wholly-owned companies is to (i) assist Group entities in optimizing their asset portfolios; and (ii) create and implement energy price risk management solutions for internal and external customers;
- ENGIE SA for the optimization of part of its long-term gas supply contracts, of a power exchange contract and of part of its gas sales contracts with retail entities in France and Benelux and with power generation facilities in France and Belgium.

Revenues from trading activities totaled €1,011 million at December 31, 2021 (€629 million at December 31, 2020).

The use of Value at Risk (VaR) to quantify market risk arising from trading activities provides a transversal measure of risk, taking all markets and products into account. VaR represents the maximum potential loss on a portfolio over a specified holding period based on a given confidence interval. It is not an indication of expected results but is back-tested on a regular basis.

The Group uses a one-day holding period and a 99% confidence interval to calculate VaR, as well as stress tests, in accordance with banking regulatory requirements.

The VaR shown below corresponds to the global VaR of the Group's trading entities.

Value at Risk

In millions of euros	Dec. 31, 2021	2021 average [(1)]	2021 maximum [(2)]	2021 minimum [(2)]	2020 average [(1)]
Trading activities	22	10	46	4	10

(1) Average daily VaR
(2) Maximum and minimum daily VaR observed in 2021

18.1.2 Hedges of commodity risks

Hedging instruments and sources of hedge ineffectiveness

The Group enters into cash flow hedges, using derivative instruments (firm or option contracts) contracted over the counter or on organized markets, to reduce its commodity risks, which relate mainly to future cash flows from contracted or expected sales and purchases of commodities. These instruments may be settled net or involve physical delivery of the underlying.

Sources of hedge ineffectiveness are mainly related to uncertainty regarding the timing and potential mismatches in settlement dates and indices between the derivative instruments and the associated underlying exposures.

The fair values of commodity derivatives are indicated in the table below:

	Dec. 31, 2021				Dec. 31, 2020			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivative instruments relating to portfolio management activities	24,474	10,906	(22,335)	(13,123)	1,163	804	(945)	(749)
Cash flow hedges	*2,643*	*5,141*	*(1,533)*	*(3,796)*	*225*	*291*	*(250)*	*(205)*
Other derivative instruments	*21,831*	*5,765*	*(20,802)*	*(9,327)*	*938*	*514*	*(695)*	*(544)*
Derivative instruments relating to trading activities	-	8,284	-	(9,384)	-	7,075	-	(8,503)
TOTAL	**24,474**	**19,190**	**(22,335)**	**(22,507)**	**1,163**	**7,879**	**(945)**	**(9,252)**

The fair values shown in the table above reflect the amounts for which assets could be exchanged, or liabilities settled, at the end of the reporting period. They are not representative of expected future cash flows insofar as positions (i) are sensitive to changes in prices; (ii) can be modified by subsequent transactions; and (iii) can be offset by future cash flows arising on the underlying transactions.

18.1.2.1 Cash flow hedges

The fair values of cash flow hedges by type of commodity are as follows:

	Dec. 31, 2021				Dec. 31, 2020			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Natural gas	2,194	4,792	(1,044)	(2,971)	168	236	(178)	(159)
Electricity	195	171	(215)	(439)	1	3	(3)	(5)
Coal	-	-	-	-	-	-	-	-
Oil	246	176	(274)	(386)	54	50	(68)	(41)
Other [(1)]	9	2	-	-	2	2	(1)	-
TOTAL	**2,643**	**5,141**	**(1,533)**	**(3,796)**	**225**	**291**	**(250)**	**(205)**

(1) Mainly includes foreign currency hedges on commodities

Notional amounts (net) [(1)]

Notional amounts and maturities of cash flow hedges are as follows:

	Unit	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021
Natural gas	*GWh*	166,636	65,864	10,944	(9,930)	(10,369)	-	223,145
Electricity	*GWh*	(3,986)	(4,501)	(1,230)	(35)	(15)	(62)	(9,829)
Coal	*Thousands of tons*	23	-	-	-	-	-	23
Oil-based products	*Thousands of barrels*	(11,767)	(11,548)	(11,511)	-	-	-	(34,826)
Forex	*Millions of euros*	14	-	-	-	-	-	15
Greenhouse gas emission rights	*Thousands of tons*	117	83	28	31	-	-	259

(1) Long/(short) position

Effects of hedge accounting on the Group's financial position and performance

	Dec. 31, 2021				Dec. 31, 2020	
	Fair Value			Nominal	Fair value	Nominal
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Cash flow hedges	7,784	(5,329)	2,455	15,590	61	126,189
TOTAL	**7,784**	**(5,329)**	**2,455**	**15,590**	**61**	**126,189**

The fair values represented above are positive for assets and negative for liabilities.

In millions of euros		Nominal amount	Fair Value	Change in fair value used for calculating hedge effectiveness	Change in the value of the hedging instrument recognized in equity [(1)]	Ineffective portion recognized in profit or loss [(1)]	Amount reclassified from the hedge reserve to profit or loss [(1)]	Line item of profit or loss
Cash flow hedges	Hedging instruments	15,590	2,455		4,049	26	(42)	Current operating income
	Hedged items			4,070				

(1) Gains/(losses)

Hedge inefficiency is calculated based on the change in the fair value of the hedging instrument compared to the change in the fair value of the hedged items since inception of the hedge. The fair value of the hedging instruments at December 31, 2021 reflects the cumulative change in the fair value of the hedging instruments since inception of the hedges.

Maturity of commodity derivatives designated as cash flow hedges

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Dec. 31, 2021	Dec. 31, 2020
Fair Value of derivatives by maturity	1,355	858	179	54	10	-	2,455	154

Amounts presented in the statement of changes in equity and the statement of comprehensive income

The following table provides a reconciliation of each component of equity and an analysis of other comprehensive income:

	Cash flow hedge
In millions of euros	Derivatives hedging commodities
At December 31, 2020	**54**
Effective portion recognized in equity	4,133
Amount reclassified from hedge reserve to profit or loss	(93)
Translation differences	-
Changes in scope of consolidation and other	-
AT DECEMBER 31, 2021	**4,094**

18.1.2.2 Other commodity derivatives

Other commodity derivatives include:

- commodity purchase and sale contracts that were not entered into or are no longer held for the purpose of the receipt or delivery of commodities in accordance with the Group's expected purchase, sale or usage requirements;
- embedded derivatives; and
- derivative financial instruments that are not eligible for hedge accounting in accordance with IFRS 9 or for which the Group has elected not to apply hedge accounting.

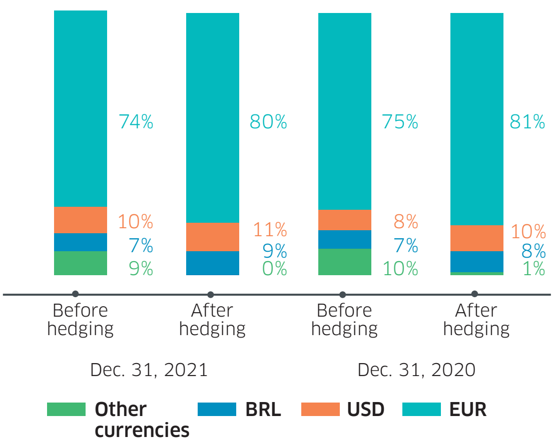
18.1.3 Currency risk

The Group is exposed to currency risk, defined as the impact on its statement of financial position and income statement of fluctuations in exchange rates affecting its operating and financing activities. Currency risk comprises (i) transaction risk arising in the ordinary course of business, (ii) specific transaction risk related to investments, mergers and acquisitions or disposal projects, and (iii) translation risk arising from the conversion into euros of income statement and statement of financial position items from subsidiaries with a functional currency other than the euro. The main translation risk exposures correspond, in order, to assets in US dollars, Brazilian real and pounds sterling.

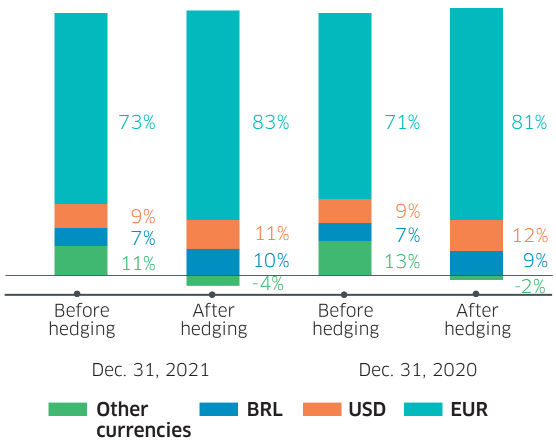
18.1.3.1 Financial instruments by currency

The following tables present a breakdown by currency of outstanding borrowings and debt and net financial debt, before and after hedging:

Outstanding borrowings and debt



Net financial debt



18.1.3.2 Currency risk sensitivity analysis

A sensitivity analysis to currency risk on financial income/(loss) – excluding the income statement translation impact of foreign subsidiaries – was performed based on all financial instruments managed by the treasury department and representing a currency risk (including derivative financial instruments).

A sensitivity analysis to currency risk on equity was performed based on all financial instruments qualified as net investment hedges at the reporting date.

For currency risk, sensitivity corresponds to a 10% rise or fall in exchange rates of foreign currencies against the euro compared to closing rates.

	Dec. 31, 2021			
	Impact on income		Impact on equity	
In millions of euros	+10% (1)	-10% (1)	+10% (1)	-10% (1)
Exposures denominated in a currency other than the functional currency of companies carrying the liabilities on their statements of financial position (2)	38	(38)	NA	NA
Financial instruments (debt and derivatives) qualified as net investment hedges (3)	NA	NA	254	(254)

(1) +(-)10%: depreciation (appreciation) of 10% of all foreign currencies against the euro
(2) Excluding derivatives qualified as net investment hedges
(3) This impact is countered by the offsetting change in the net investment hedged

18.1.4 Interest rate risk

The Group seeks to manage its borrowing costs by limiting the impact of interest rate fluctuations on its income statement. The Group's policy is therefore to arbitrate between fixed rates, floating rates and capped floating rates for its net debt. The interest rate mix may shift within a range defined by Group Management in line with market trends.

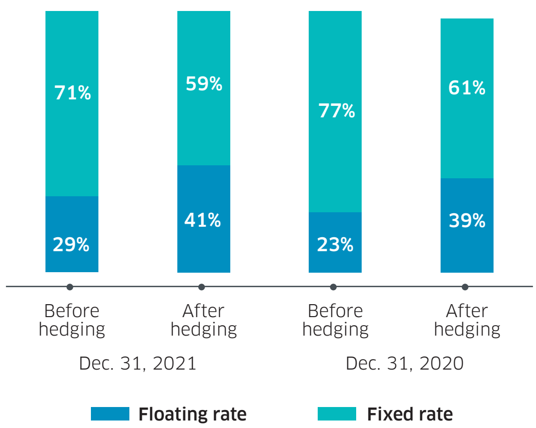
In order to manage the interest rate structure for its net debt, the Group uses hedging instruments, particularly interest rate swaps and options.

The Group has a portfolio of 2023, 2024, 2025, 2027 and 2028 forward interest rate pre-hedges with 10-to-20-year maturities on each of the volumes initiated in 2021 to protect the refinancing interest rate on a portion of its debt.

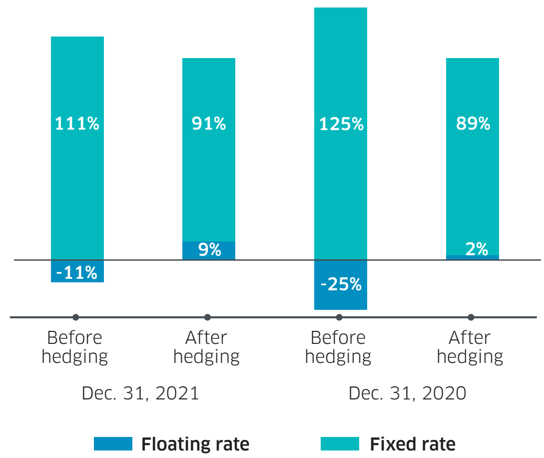
18.1.4.1 Analysis of financial instruments by type of interest rate

The following tables present a breakdown by type of interest rate of outstanding borrowings and debt and net financial debt before and after hedging:

Outstanding borrowings and debt



Net financial debt



18.1.4.2 Interest rate risk sensitivity analysis

Sensitivity was analyzed based on the Group's net debt position (including the impact of interest rate and foreign currency derivatives relating to net debt) at the reporting date.

For interest rate risk, sensitivity corresponds to a 100-basis-point rise or fall in the yield curve compared to year-end interest rates.

	Dec. 31, 2021			
	Impact on income		Impact on equity	
In millions of euros	+100 basis points	-100 basis points	+100 basis points	-100 basis points
Net interest expense on floating-rate net debt (nominal amount) and on floating-rate leg of derivatives	(19)	19	NA	NA
Change in fair value of derivatives not qualifying as hedges	60	(95)	NA	NA
Change in fair value of derivatives qualifying as cash flow hedges	NA	NA	503	(649)

18.1.5 Currency and interest rate hedges

18.1.5.1 Currency risk management

Foreign currency exchange risk (or "FX" risk) is reported and managed based on a Group-wide approach, reflected in a dedicated Group policy that is approved by Group Management. The policy distinguishes between the three following main sources of currency risk:

- **Regular transaction risk**

  Regular transaction risk corresponds to the potential negative financial impact of currency fluctuations on business and financial operations denominated in a currency other than the functional currency.

  The management of regular transaction risk is fully delegated to the subsidiaries for their scope of activities, while the risks related to central activities are managed at corporate level.

FX risks related to operational activities are systematically hedged when the related cash flows are certain, with a hedging horizon that corresponds at least to the medium-term plan horizon. For cash flows that are not certain, in their entirety, the hedge is initially based on a "no regret" volume. Exposures are monitored and managed based on the sum of nominal cash flows in FX, including highly probable amounts and related hedges.

For FX risks related to financial activities, all significant exposures related to cash, financial debt, etc. are systematically hedged. Exposures are monitored based on the net sum of balance sheet items in FX.

- **Project transaction risk**

  Specific project transaction risk corresponds to the potential negative financial impact of FX fluctuations on specific major operations such as investment projects, acquisitions, disposals and restructuring projects, involving multiple currencies.

  The management of these FX risks includes the definition and implementation of hedging transactions, taking into account the likelihood of the risk (including probability of project completion) and its evolution, the availability of hedging instruments and their associated cost. Management's aim is to ensure the viability and the profitability of the transactions.

- **Translation risk**

  Translation risk corresponds to the potential negative financial impact of FX fluctuations concerning consolidated entities with a functional currency other than the euro. It relates to the translation of their income and expenses and their net assets.

  Translation risk is managed centrally, with a focus on securing the net asset value.

  The pertinence of hedging this translation risk is assessed regularly for each currency (as a minimum) or set of assets in the same currency, taking into account notably the value of the assets and the hedging costs.

Hedging instruments and sources of hedge ineffectiveness

The Group principally uses the following risk management levers for mitigating currency risk:

- derivative instruments: these mostly correspond to over-the-counter contracts and include FX forward transactions, FX swaps, currency swaps, cross currency swaps, plain vanilla FX options or combinations (calls, puts or collars);
- monetary items such as debt, cash and loans.

Sources of hedge ineffectiveness are mainly related to uncertainty regarding the timing and in some cases the amount of the future cash flows in foreign currency that are being hedged.

18.1.5.2 Interest rate risk management

The Group is exposed to interest rate risk through its financing and investing activities. Interest rate risk is defined as a financial risk resulting from fluctuations in base interest rates that may increase the cost of debt and affect the viability of investments. Base interest rates are market interest rates, such as EURIBOR, LIBOR, etc., that do not include the borrower's credit spread.

Reform of interbank benchmark rates

As part of the interest rate benchmark reform, the Group has defined since 2020 an organization dedicated to managing the transition by setting up an ad hoc working group bringing together the finance department, the legal department and the information systems administration team. This working group has mapped and prioritized the impacts of the reform on financial documentation, operational management and management systems. In particular, it has prepared a schedule for the implementation of the necessary changes.

The main rates used by the Group and affected by the reform are Eonia, USD Libor, GBP Libor and Euribor.

In 2021, the Group has modified the CSA (Credit Support Annex) remuneration terms on collateralized derivative instruments carried by central vehicles. The Eonia benchmark rate has been replaced by the €STR rate, which has modified the reference curves used for the valuation of the related derivative instruments. These changes have resulted in a financial compensation payment in the second half of 2021 of €8.5 million, recorded against a value adjustment of derivative financial instruments.

As part of the IBOR transition, the Group has chosen to replace the IBOR benchmark rates with a capitalized overnight risk-free rate. The Group has replaced the GBP Libor with Sonia for all financial instruments, requiring the renegotiation of financing contracts and fallback clauses as well as an adaptation of information systems. There is no impact on the change of the benchmark rate on the transition date. The Group also plans to replace the USD Libor with the SOFR before the end of its publication on June 30, 2023.

The two main sources of interest rate risk are as follows:

- **interest rate risk relating to Group net debt**

  Interest rate risk relating to Group net debt designates the financial impact of base rate movements on the debt and cash portfolio from recurring financing activities. This risk is mainly managed centrally.

  Risk management objectives are, by order of importance:

  - to protect the long term viability of assets,
  - to optimize financing costs and ensure competitiveness, and
  - to minimize uncertainty on the cost of debt.

  Interest rate risk is managed actively by monitoring changes in market rates and their impact on the Group's gross and net debt;

- **project interest rate risk**

  Specific project interest rate risk corresponds to the potential negative financial impact of base rate movements on specific major operations such as investment projects, acquisitions, disposals and restructuring projects. Interest rate risk after the closing of an operation is considered as regular (see "Interest rate risk" above).

  Interest rate risk is managed for specific project transactions in order to protect the economic viability of projects, acquisitions, disposals and restructuring initiatives against adverse changes in interest rates. It may include the implementation of hedging transactions, depending on a number of factors including the likelihood of completion, the availability of hedging instruments and their associated cost.

Hedging instruments and sources of hedge ineffectiveness

The Group principally uses the following risk management levers for mitigating interest rate risk:

- derivative instruments: these mostly correspond to over-the-counter contracts that are used to manage base interest rates. Such instruments include:
  - swaps, to change the nature of interest payments on debts, typically from fixed to floating rates or vice versa, and
  - plain vanilla interest rate options;
- caps, floors and collars that allow the impact of interest rate fluctuations to be limited by setting minimum and/or maximum limits on floating interest rates.

Sources of hedge ineffectiveness are mainly related to changes in the credit quality of the counterparties and related charges, as well as potential gaps in settlement dates and in indices between the derivative instruments and the related underlying exposures.

18.1.5.3 Currency and interest rate hedges

The Group has elected to apply hedge accounting whenever possible and suitable for currency risk and interest rate risk management purposes and also manages a portfolio of undesignated derivative instruments, corresponding to economic hedges relating to net debt and foreign currency exposures.

The Group uses the three hedge accounting methods: cash flow hedging, fair value hedging and net investment hedging.

In general, the Group does not frequently reset hedging relationships, designate specific risk components as a hedged item or designate credit exposures as measured at fair value through income.

The Group qualifies interest rate or cross currency swaps transforming fixed-rate debt into floating-rate debt as fair value hedges.

Cash flow hedges are mainly used to hedge future cash flows in foreign currency, floating-rate debt as well as future refinancing requirements.

Net investment hedging instruments are mainly FX swaps and forwards.

The fair values of derivatives (excluding commodity instruments) are indicated in the table below:

	Dec. 31, 2021				Dec. 31, 2020			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivatives hedging borrowings	370	130	(224)	(89)	619	147	(313)	(39)
Fair value hedges	*261*	*97*	*(24)*	*(35)*	*526*	*14*	*(48)*	*(3)*
Cash flow hedges	*36*	*1*	*(121)*	*(4)*	*8*	*7*	*(220)*	*(8)*
Derivative instruments not qualifying for hedge accounting	*73*	*33*	*(79)*	*(51)*	*85*	*126*	*(46)*	*(28)*
Derivatives hedging other items	772	52	(1,670)	(50)	1,214	43	(2,530)	(45)
Cash flow hedges	*110*	*9*	*(264)*	*-*	*30*	*3*	*(768)*	*(11)*
Net investment hedges	*6*	*-*	*(20)*	*-*	*55*	*-*	*(4)*	*-*
Derivative instruments not qualifying for hedge accounting	*656*	*44*	*(1,385)*	*(51)*	*1,130*	*40*	*(1,758)*	*(33)*
TOTAL	**1,142**	**183**	**(1,894)**	**(140)**	**1,833**	**189**	**(2,844)**	**(84)**

The fair values shown in the table above reflect the amounts relating to the price that would be received for the sale of an asset or paid for the transfer of a liability between market participants in the normal course of business. They are not representative of expected future cash flows insofar as the positions (i) are sensitive to changes in prices or to changes in credit ratings, (ii) can be modified by subsequent transactions, and (iii) can be offset by future cash flows arising on the underlying transactions.

Amount, timing and uncertainty of future cash flows

The following tables provide a profile of the timing at December 31, 2021 of the nominal amount of hedging instruments:

In millions of euros

Buy/Sell	Interest rate type	Derivative instrument type	Currency	Total	2022	2023	2024	2025	2026	Beyond 5 years
Buy	Fixed	CCS	EUR	(32)	(1)	(2)	(2)	(3)	(4)	(19)
			USD	(1,079)	(662)	(88)	(110)	(83)	(90)	(44)
			GBP	(1,904)	-	-	-	-	-	(1,904)
			HKD	(260)	-	-	-	-	-	(260)
			JPY	(345)	(77)	(115)	(153)	-	-	-
			PEN	(215)	-	(36)	(17)	-	(55)	(106)
			Other currencies	(348)	-	-	(219)	(74)	-	(54)
Sell	Fixed	CCS	EUR	2,568	-	-	216	75	-	2,277
			USD	263	-	44	21	-	67	130
			Other currencies	35	1	2	3	3	4	22
	Floating	CCS	EUR	953	680	129	144	-	-	-
		CCS	BRL	345	-	82	100	79	84	-

In millions of euros

Buy/Sell	Interest rate type	Derivative instrument type	Currency	Total	2022	2023	2024	2025	2026	Beyond 5 years
Buy	Fixed	CAP	EUR	4	1	1	1	-	-	-
		IRS	EUR	9,055	974	(839)	(440)	383	1,342	7,634
			USD	1,516	(1)	960	3	506	3	44
			Other currencies	72	1	3	3	3	4	58
	Floating	IRS	EUR	16,652	5,574	1,600	500	515	2,050	6,413
			BRL	293	169	124	-	-	-	-

The tables presented above exclude currency derivatives (except for cross currency swaps – CCS). Their maturity dates are aligned with those of the hedged items.

Pursuant to the FX and interest rate risk management policy, FX sensitivity is presented in Note 18.1.3.2 “Currency risk sensitivity analysis” and the average cost of debt is 2.63% as presented in Note 11 “Net financial income/(loss)”.

Effects of hedge accounting on the Group’s financial position and performance

Currency derivatives

	Dec. 31, 2021				Dec. 31, 2020	
	Fair value			Nominal amount	Fair value	Nominal amount
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Cash flow hedges	53	(306)	(253)	3,201	(628)	3,779
Net investment hedges	6	(20)	(14)	2,794	50	1,999
Derivative instruments not qualifying for hedge accounting	37	(77)	(39)	10,166	73	6,907
TOTAL	**96**	**(402)**	**(306)**	**16,161**	**(504)**	**12,686**

Interest rate derivatives

	Dec. 31, 2021				Dec. 31, 2020	
	Fair value			Nominal amount	Fair value	Nominal amount
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Fair value hedges	358	(59)	299	4,203	495	4,622
Cash flow hedges	102	(84)	17	2,110	(331)	2,497
Derivative instruments not qualifying for hedge accounting	763	(1,473)	(710)	18,933	(569)	17,910
TOTAL	**1,222**	**(1,616)**	**(394)**	**25,246**	**(405)**	**25,029**

The fair values presented in the above table are positive for an assets and negative for a liabilities.

In millions of euros		Nominal and outstanding amount	Fair value (1)	Change in fair value used for calculating hedge ineffecti-veness	Change in the value of the hedging instrument recognized in equity (2)	Ineffective portion recognized in profit or loss (2)	Amount reclassified from the hedge reserve to profit or loss (2)	Line item of the income statement
Fair value hedges	Hedging instruments	4,203	299	299	NA	(2)	NA	Cost of net debt
	Hedged items (3) (4)	3,967	227	(557)	NA		NA	
Cash flow hedges	Hedging instruments	5,310	(235)	(168)	(605)	(30)	64	Other financial income and expenses/ Current operating income including operating MtM
	Hedged items			158				
Net investment hedges	Hedging instruments	2,794	(14)	(11)	217	NA	(2)	Other financial income and expenses/ Current operating income including operating MtM
	Hedged items			11				

(1) *The adjustment of the fair value of hedged items is presented as long term and short-term borrowings and debt for an amount of €227 million*
(2) *Gains/(losses)*
(3) *The difference between the fair value used to determine the ineffective portion relating to hedging instruments and that relating to the hedged items corresponds to the amortized cost of borrowings and debt that are part of a fair value hedge relationship*
(4) *Of which €74 million relating to hedging items that are no longer adjusted as a result of disqualification as a fair value hedge*

Hedge inefficiency is calculated based on the change in the fair value of the hedging instrument compared to the change in the fair value of the hedged items since inception of the hedge. The fair value of the hedging instruments at December 31, 2021 reflects the cumulative change in the fair value of the hedging instruments since inception of the hedges. For fair value hedges, the same principle applies to the hedged items.

No significant impact in terms of ineffectiveness or disqualification of certain hedges was recognized at December 31, 2021.

Foreign currency and interest rate derivatives designated as cash flow hedges can be analyzed as follows by maturity

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Fair value of derivatives by maturity date	(13)	(10)	(9)	(2)	(7)	(194)	(235)	(958)

Amounts presented in the statement of changes in equity and the statement of comprehensive income

The following table provides a reconciliation of each component of equity and an analysis of other comprehensive income:

	Cash flow hedge			Net investment hedge
In millions of euros	Derivatives hedging borrowings – currency risk hedging (1) (3)	Derivatives hedging other items – interest rate risk hedging (1) (3)	Derivatives hedging other items – currency risk hedging (2) (3)	Derivatives hedging other items – currency risk hedging (2) (4)
At December 31, 2020	**46**	**(1,203)**	**12**	**(156)**
Effective portion recognized in equity		588	17	(217)
Amount reclassified from the hedge reserve to profit or loss		(64)	-	2
Translation differences	-	-	-	-
Changes in scope of consolidation and other	(1)	(71)	(2)	-
AT DECEMBER 31, 2021	**45**	**(751)**	**27**	**(371)**

(1) Cash flow hedges for given periods
(2) Cash flow hedges for given transactions
(3) Of which a negative €586 million of cash flow hedge reserves for which hedge accounting is no longer applied
(4) All of the reserves relate to continuing hedging relationships

18.2 Counterparty risk

Due to its financial and operational activities, the Group is exposed to the risk of default of its counterparties (customers, suppliers, EPC contractors, partners, intermediaries, and banks). Default could affect payments, goods delivery and/or asset performance.

The principles of counterparty risk management are set out in the Group counterparty risk policy, which:

- assigns roles and responsibilities for managing and controlling counterparty risk at different levels (Corporate, BU or entity), and ensures operational procedures are in place and consistent across the Group;
- characterizes counterparty risk and the mechanisms by which it impacts the economic performance and financial statements of the Group;
- defines indicators, reporting and control mechanisms to ensure visibility and to provide tools for financial performance management; and
- provides guidelines on the use of mitigating mechanisms such as collateral and guarantees, which are widely used by some businesses.

Depending on the nature of the business, the Group is exposed to different types of counterparty risk. As a result some businesses use collateral instruments – particularly the Energy Management business, where the use of margin calls and other types of financial collateral (standardized legal framework) is a market standard. In addition, other businesses may request guarantees from their counterparties in certain cases (parent company guarantees, bank guarantees, etc.).

Under the new standard IFRS 9, the Group has defined and applied a Group-wide methodology including the two different approaches:

- a portfolio approach, whereby the Group determines that:
  - coherent customer portfolios and sub-portfolios have to be considered (i.e., portfolios that have comparable credit risk and/or comparable payment behavior), taking into account different aspects:
    - public or private counterparties,
    - residential or BtoB counterparties,
    - geography,
    - type of activity,
    - size of the counterparty, and
    - any other aspects the Group may consider relevant,
  - impairment rates must be determined based on historical aging balances and, when correlation is proven and documentation possible, historical data must be adjusted by forward-looking elements; and
- an individualized approach for significant counterparties, for which the Group has set rules for defining the stage of the concerned asset for Expected Credit Loss (ECL) calculations:
  - stage 1 covers financial assets that have not deteriorated significantly since initial recognition. The ECL for stage 1 is calculated on a 12-month basis,
  - stage 2 covers financial assets for which the credit risk has significantly increased. The ECL for stage 2 is calculated on a lifetime basis. The decision to move an asset from stage 1 to stage 2 is based on certain criteria such as:
    - a significant downgrade in the creditworthiness of a counterparty and/or its parent company and/or its guarantor (if any),
    - significant adverse change in the regulatory environment,
    - changes in political or country-related risk, and
    - any other aspect the Group may consider relevant.

Regarding financial assets that are more than 30 days past due, the move to stage 2 is not systematically applied as long as the Group has reasonable and supportable information that demonstrates that, even if payments become more than 30 days past due, this does not represent a significant increase in the credit risk since initial recognition.

- stage 3 covers assets for which default has already been observed, such as:
  - when there is evidence of significant and ongoing financial difficulty of the counterparty,
  - when there is evidence of failure in credit support from a parent company to its subsidiary (in this case the subsidiary is the Group's counterparty at risk),
  - when a Group entity has initiated legal proceedings against the counterparty for non-payment.

  Regarding financial assets that are more than 90 days past due, the presumption can be rebutted if the Group has reasonable and supportable information that demonstrates that even if payments become more than 90 days past due, this does not indicate counterparty default.

The ECL formula applicable in stages 1 and 2 is ECL = EAD x PD x LGD, where:

- for 12-month ECL, Exposure At Default (EAD) equals the carrying amount of the financial asset, to which the relevant Probability of Default (PD) and the Loss Given Default (LGD) are applied;
- for lifetime ECL, the calculation method consists in identifying changes in exposure for each year, especially the expected timing and amount of the contractual repayments, and then applying to each repayment the relevant PD and the LGD, and discounting the figures obtained. ECL is then the sum of the discounted figures; and
- probability of default is the likelihood of default over a particular time horizon (in stage 1, this time horizon is 12 months after the reporting period; in stage 2 this time horizon is the entire lifetime of the financial asset). This information is based on external data from a well-known rating agency. The PD depends on the time horizon and of the rating of the counterparty. The Group uses external ratings if they are available; ENGIE's credit risk experts determine an internal rating for major counterparties with no external rating.

LGD levels are notably based on Basel standards:

- 75% for subordinated assets; and
- 45% for standard assets.

For assets considered to be of strategic importance for the counterparty, such as essential public services or goods, LGD is set at 30%.

The Group has decided that write-offs apply in the following situations:

- assets for which a legal recovery procedure is pending: should not be written off as long as the procedure is ongoing; and
- assets for which no legal recovery procedure is pending: should be written off once the trade receivable is 3 years overdue (5 years overdue for public counterparties).

The Group has maintained its monitoring of cash inflows and default risks in BtoB, BtoC and Energy Management activities. Furthermore, the provisioning rate of these entities were adjusted on December 31, 2021 in order to take into account the uncertainty created by the significant increase in commodity prices.

18.2.1 Operating activities

Counterparty risk arising on operating activities is managed *via* standard mechanisms such as third-party guarantees, netting agreements and margin calls, using dedicated hedging instruments or special prepayment and debt recovery procedures, particularly for retail customers.

Under the Group's policy, each business unit is responsible for managing counterparty risk, although the Group continues to manage the biggest counterparty exposures centrally.

The credit rating of large- and mid-sized counterparties with which the Group has exposures above a certain threshold is measured based on a specific rating process, while a simplified credit scoring process is used for commercial customers with which the Group has fairly low exposures. These processes are based on formally documented, consistent methods across the Group. Consolidated exposures are monitored by counterparty and by segment (credit rating, sector, etc.) using standard indicators (payment risk, mark-to-market exposure).

The Group's Energy Market Risk Committee (CRME) consolidates and monitors the Group's exposure to its main energy counterparties on a quarterly basis and ensures that the exposure limits set for these counterparties are respected.

18.2.1.1 Trade and other receivables, assets from contracts with customers

Total outstanding exposures presented in the tables below do not include impacts relating to VAT or to any other item not subject to credit risk, which amounted to €14,438 million at December 31, 2021 (compared to €2,431 million at December 31, 2020).

Individual approach

In millions of euros		Dec. 31, 2021							
		Individual approach	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade [1]	Other	Total by counterparty type
Trade and other receivables, net	Gross	15,997	15,023	830	144	15,997	14,063	1,933	15,997
	Expected credit losses	(377)	(237)	(23)	(116)	(377)	(174)	(203)	(377)
TOTAL		**15,620**	**14,786**	**806**	**28**	**15,620**	**13,890**	**1,730**	**15,620**
Assets from contracts with customers	Gross	3,366	3,327	37	3	3,366	2,434	933	3,366
	Expected credit losses	(12)	(10)	-	(2)	(12)	(8)	(4)	(12)
TOTAL		**3,354**	**3,316**	**37**	**1**	**3,354**	**2,425**	**929**	**3,354**

In millions of euros		Dec. 31, 2020							
		Individual approach	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade [1]	Other	Total by counterparty type
Trade and other receivables, net	Gross	9,530	8,329	893	308	9,530	7,854	1,676	9,530
	Expected credit losses	(391)	(103)	(46)	(242)	(391)	(188)	(203)	(391)
TOTAL		**9,139**	**8,226**	**846**	**66**	**9,139**	**7,666**	**1,473**	**9,139**
Assets from contracts with customers	Gross	3,039	2,714	318	8	3,039	2,076	963	3,039
	Expected credit losses	(19)	(18)	-	-	(19)	(14)	(5)	(19)
TOTAL		**3,021**	**2,696**	**318**	**7**	**3,021**	**2,062**	**959**	**3,021**

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's

Collective approach

In millions of euros		Dec. 31, 2021				
		Collective approach	0 to 6 months	6 to 12 months	Beyond	Total past due assets at Dec. 31, 2021
Trade and other receivables, net	Gross	3,529	544	152	267	964
	Expected credit losses	(971)	(21)	(21)	(221)	(263)
TOTAL		**2,558**	**523**	**132**	**46**	**701**
Assets from contracts with customers	Gross	5,042	584	5	16	604
	Expected credit losses	(4)	-	-	(1)	(1)
TOTAL		**5,038**	**584**	**5**	**15**	**603**

In millions of euros		Dec. 31, 2020				
		Collective approach	0 to 6 months	6 to 12 months	Beyond	Total past due assets at Dec. 31, 2020
Trade and other receivables, net	Gross	3,625	593	235	300	1,128
	Expected credit losses	(865)	(20)	(22)	(211)	(253)
TOTAL		**2,761**	**574**	**213**	**88**	**875**
Assets from contracts with customers	Gross	4,748	487	1	3	491
	Expected credit losses	(1)	-	-	-	-
TOTAL		**4,747**	**487**	**1**	**3**	**491**

18.2.1.2 Commodity derivatives

In the case of commodity derivatives, counterparty risk arises from positive fair value. Counterparty risk is taken into account when calculating the fair value of these derivative instruments.

	Dec. 31, 2021		Dec. 31, 2020	
In millions of euros	Investment Grade [(1)]	Total	Investment Grade [(1)]	Total
Gross exposure [(2)]	35,386	43,660	6,633	9,031
Net exposure [(3)]	15,796	19,089	2,817	3,750
% of credit exposure to "Investment Grade" counterparties	82.7%		75.1%	

(1) Investment Grade corresponds to transactions with counterparties that are rated at least BBB- by Standard & Poor's, Baa3 by Moody's, or equivalent by Dun & Bradstreet. "Investment Grade" is also determined based on an internal rating tool that has been rolled out within the Group, and covers its main counterparties
(2) Corresponds to the maximum exposure, i.e., the value of the derivatives shown under assets (positive fair value)
(3) After taking into account the liability positions with the same counterparties (negative fair value), collateral, netting agreements and other credit enhancement techniques

18.2.2 Financing activities

For its financing activities, the Group has put in place procedures for managing and monitoring risk based on (i) the accreditation of counterparties according to external credit ratings, objective market data (credit default swaps, market capitalization) and financial structure, and (ii) counterparty risk exposure limits.

To reduce its counterparty risk exposure, the Group has drawn increasingly on a structured legal framework based on master agreements (including netting clauses) and collateralization contracts (margin calls).

The oversight procedure for managing counterparty risk arising from financing activities is managed by a Middle Office that operates independently of the Group's Treasury department and reports to the Finance division.

18.2.2.1 Loans and receivables at amortized cost

The total outstanding exposures presented in the tables below do not include impacts relating to VAT or to any other item not subject to credit risk, which amounted to €977 million at December 31, 2021 (compared to €1,424 million at December 31, 2020).

	Dec. 31, 2021						
In millions of euros	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade [(1)]	Other	Total by counterparty type
Gross	4,643	302	26	4,971	1,906	3,065	4,971
Expected credit losses	(76)	(36)	(113)	(226)	(147)	(79)	(226)
TOTAL	**4,567**	**265**	**(87)**	**4,745**	**1,759**	**2,986**	**4,745**

	Dec. 31, 2020						
In millions of euros	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risq level	Investment Grade [(1)]	Other	Total by counterparty type
Gross	4,144	415	67	4,626	2,582	2,045	4,626
Expected credit losses	(57)	(34)	(110)	(201)	(127)	(74)	(201)
TOTAL	**4,087**	**381**	**(43)**	**4,425**	**2,455**	**1,970**	**4,425**

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's

18.2.2.2 Counterparty risk arising from investing activities and the use of derivative financial instruments

The Group is exposed to counterparty risk arising from investments of surplus cash and from the use of derivative financial instruments. In the case of financial instruments at fair value through income, counterparty risk arises on instruments with a positive fair value. Counterparty risk is taken into account when calculating the fair value of these derivative instruments.

	Dec. 31, 2021				Dec. 31, 2020			
In millions of euros	Total	Investment Grade [(1)]	Unrated [(2)]	Non Investment Grade [(2)]	Total	Investment Grade [(1)]	Unrated [(2)]	Non-Investment Grade [(2)]
Exposure	14,194	85.9%	8.2%	5.9%	13,174	84.4%	8.7%	6.9%

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's or Baa3 by Moody'
(2) Most of these two exposures is carried by consolidated companies that include non-controlling interests, or by Group companies that operate in emerging countries, where cash cannot be pooled and is therefore invested locally

Furthermore, at December 31, 2021, Crédit Agricole Corporate and Investment Bank (CACIB) is the main Group counterparty and represents 25% of cash surpluses. This relates mainly to a depositary risk.

18.3 Liquidity risk

In the context of its operating activities, the Group is exposed to a risk of having insufficient liquidity to meet its contractual obligations. As well as the risks inherent in managing working capital requirements (WCR), margin calls are required in certain market activities.

The Group has set up a weekly committee tasked with managing and monitoring liquidity risk throughout the Group, by maintaining a broad range of investments and sources of financing, preparing forecasts of cash investments and divestments. ENGIE has set up a comprehensive framework to monitor and streamline cash movements related to OTC margin calls and margin calls *via* clearing houses, based on the use of Liquidity Swaps with its key counterparties. Stress tests are also performed on the margin calls put in place when commodity, interest rate and currency derivatives are negotiated to assess the Group's resilience in terms of liquidity.

The Group centralizes virtually all the financing needs and cash flow surpluses of the companies it controls, as well as most of their medium- and long-term external financing requirements. Centralization is provided by financing vehicles (long-term and short-term) and by dedicated Group cash pooling vehicles based in France, Belgium and Luxembourg.

Surpluses held by these structures are managed in accordance with a uniform policy. In accordance with this policy, unpooled cash surpluses are invested in instruments selected on a case-by-case basis in light of local financial market imperatives and the financial strength of the counterparties concerned.

The succession of financial crises since 2008 and the ensuing rise in counterparty risk prompted the Group to tighten its investment policy with the aim of keeping an extremely high level of liquidity and protecting invested capital and a daily monitoring of performance and counterparty, allowing the Group to take immediate action where required in response to market developments. Consequently, 72% of the cash pooled at December 31, 2021 was invested in overnight bank deposits and standard money market funds with daily liquidity.

The Group's financing policy is based on:

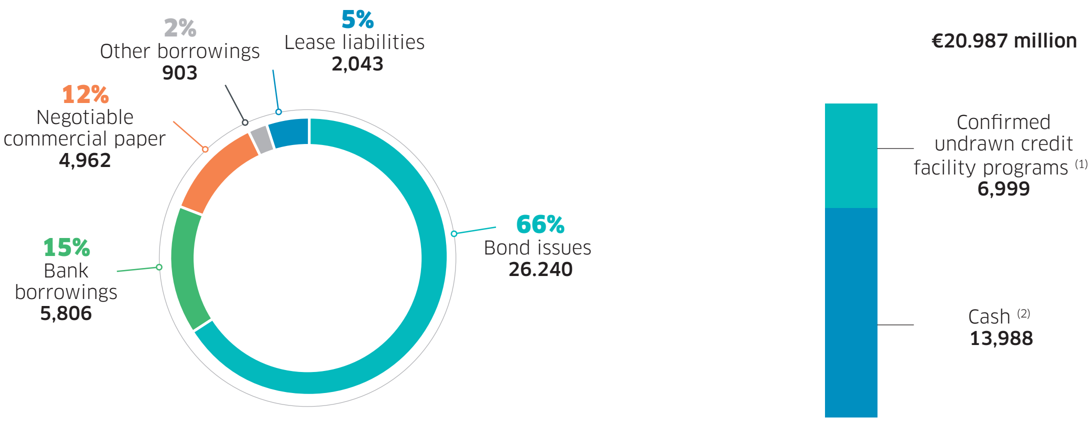
- centralizing external financing;
- diversifying sources of financing between credit institutions and capital markets;
- achieving a balanced debt repayment profile.

The Group seeks to diversify its sources of financing by carrying out public or private bond issues within the scope of its Euro Medium Term Notes program. It also issues negotiable commercial paper in France (Negotiable European Commercial Paper) and in the United States (U.S. Commercial Paper) as well as the issuance of deeply-subordinated perpetual notes. As negotiable commercial paper is relatively inexpensive and highly liquid, it is used by the Group in a cyclical or structural fashion to finance its short-term cash requirements. However, the refinancing of all outstanding negotiable commercial paper remains secured by confirmed bank lines of credit – mainly centralized – allowing the Group to continue to finance its activities if access to this financing source were to dry up. These facilities are appropriate for the scale of its operations and for the timing of contractual debt repayments.

The various actions carried out by the Group ensure a high and reinforced level of liquidity.

Diversifying sources of financing and liquidity [3]

In millions of euros



(1) *Net amount of negotiable commercial paper*

(2) *Cash corresponds to cash and cash equivalents, other financial assets deducted from net financial debt, net of bank overdrafts and current accounts, of which 73% was invested in the Eurozone*

(3) *These sources of financing and liquidity do not include the deeply-subordinated perpetual notes recognized in equity (see Note 19.2.1 "Issuance of deeply-subordinated perpetual notes")*

At December 31, 2021, all the entities of the Group whose debt is consolidated complied with the covenants and declarations included in their financial documentation, except for some non-significant entities for which compliance actions are being implemented. None of the available centralized credit lines contain a default clause linked to financial ratios or rating level.

18.3.1 Undiscounted contractual payments relating to financial activities

Undiscounted contractual payments on outstanding borrowings and debt by maturity

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Bond issues	2,205	2,510	1,147	2,032	2,317	16,029	26,240	26,170
Bank borrowings	1,977	365	316	402	204	2,543	5,806	4,123
Negotiable commercial paper	4,962	-	-	-	-	-	4,962	4,024
Lease liabilities	367	348	263	233	193	995	2,043	2,386
Other borrowings	91	647	19	20	16	110	903	150
Bank overdrafts and current accounts	499	-	-	-	-	-	499	301

Other financial assets and cash and cash equivalents deducted from net financial debt have a liquidity of less than one year.

Undiscounted contractual interest payments on outstanding borrowings and debt by maturity

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Undiscounted contractual interest flows on outstanding borrowings and debt	801	770	671	642	592	7,200	10,676	9,853

Undiscounted contractual payments on outstanding derivatives (excluding commodity instruments) by maturity

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Derivatives (excluding commodity instruments)	(108)	21	(5)	26	52	141	126	317

To better reflect the economic substance of these transactions, the cash flows linked to the derivatives recognized in assets and liabilities shown in the table above relate to net positions.

Undiscounted contractual payments related to leases

At December 31, 2021, the Group, as lessee, is potentially exposed to future cash outflows not reflected in the measurement of lease liabilities for €1,825 million (of which approximately 86% relate to potential cash outflows beyond 2026). These potential future cash outflows mainly relate to leases that are not yet effective and mainly concern lease liabilities relating to the possible extension of a hydropower concession agreement, and to leases relating to real estate and LNG vessels.

Undrawn credit facility programs

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Confirmed undrawn credit facility programs	990	812	685	4,989	3,985	499	11,961	13,695

Of these undrawn programs, an amount of €4,962 million is allocated to covering commercial paper issues.

At December 31, 2021, no single counterparty represented more than 5% of the Group's confirmed undrawn credit lines.

18.3.2 Undiscounted contractual payments relating to operating activities

The table below provides an analysis of undiscounted fair values due and receivable in respect of commodity derivatives recorded in assets and liabilities at the statement of financial position date.

The Group provides an analysis of residual contractual maturities for commodity derivative instruments included in its portfolio management activities. Derivative instruments relating to trading activities are considered to be liquid in less than one year, and are presented under current items in the statement of financial position.

In millions of euros	2022	2023	2024	2025	2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Derivative instruments carried in liabilities								
relating to portfolio management activities	*(13,392)*	*(16,779)*	*(3,343)*	*(1,077)*	*(319)*	*(632)*	*(35,541)*	*(1,699)*
relating to trading activities	*(9,365)*	*-*	*-*	*-*	*-*	*-*	*(9,365)*	*(8,483)*
Derivative instruments carried in assets								
relating to portfolio management activities	*10,835*	*14,655*	*6,642*	*2,569*	*543*	*124*	*35,368*	*1,975*
relating to trading activities	*8,304*	*-*	*-*	*-*	*-*	*-*	*8,304*	*7,059*
TOTAL	**(3,618)**	**(2,123)**	**3,299**	**1,492**	**225**	**(508)**	**(1,234)**	**(1,149)**

18.3.3 Commitments relating to commodity purchase and sale contracts entered into within the ordinary course of business

Some Group operating companies have entered into long-term contracts, some of which include "take-or-pay" clauses. These consist of firm commitments to purchase or sell specified quantities of gas, electricity or steam as well as related services, in exchange for a firm commitment from the other party to deliver or purchase said quantities and services. These contracts were documented as falling outside the scope of IFRS 9. The table below shows the main future commitments arising from contracts entered into by GBU Renewables and GEM (expressed in TWh).

In TWh	2022	2023-2026	Beyond 5 years	Total at Dec. 31, 2021	Total at Dec. 31, 2020
Firm purchases	(385)	(771)	(766)	(1,922)	(1,829)
Firm sales	587	513	321	1,421	1,571

NOTE 19 Equity

19.1 Share capital

	Number of shares			Value *(in millions of euros)*		
	Total	Treasury stock	Outstanding	Share capital	Additional paid-in capital	Treasury stock
At December 31, 2020	**2,435,285,011**	**(18,464,634)**	**2,416,820,377**	**2,435**	**31,291**	**(251)**
Dividend paid in cash	-	-	-	-	(1,296)	-
Dividend on treasury stock					(8)	
Allocation of prior-year income	-	-	-	-	(3,928)	-
Purchase/disposal of treasury stock	-	-	-	-	-	-
Delivery of treasury stock (bonus)	-	3,381,485	3,381,485	-	-	52
Revaluation	-	-	-	-	-	-
AT DECEMBER 31, 2021	**2,435,285,011**	**(15,083,149)**	**2,420,201,862**	**2,435**	**26,058**	**(199)**

Changes in the number of outstanding shares in 2021 result exclusively from the disposal of 3.4 million treasury shares, as part of bonus share plans.

19.1.1 Potential share capital and instruments providing a right to subscribe for new ENGIE SA shares

Since 2017, the Group no longer has any stock purchase or subscription option plans.

Shares to be allocated under the performance share award plans described in Note 22 "Share-based payments" are covered by existing ENGIE SA shares.

19.1.2 Treasury stock

Accounting standards

Treasury shares are recognized at acquisition cost and deducted from equity. Gains and losses on disposals of treasury shares are recorded directly in equity and do not, therefore, impact income for the period.

The Group has a stock repurchase program as a result of the authorization granted to the Board of Directors by the Ordinary and Extraordinary Shareholders' Meeting of May 20, 2021. This program provides for the repurchase of up to 10% of the shares comprising the share capital of ENGIE SA at the date of the said Shareholders' Meeting. The aggregate amount of acquisitions net of expenses under the program may not exceed €7.3 billion, and the purchase price must be less than €30 per share excluding acquisition costs.

At December 31, 2021, the Group held 15.1 million treasury shares. To date, all the shares have been allocated to cover the Group's share commitments to employees and corporate officers.

The liquidity agreement signed with an investment service provider assigns to the latter the role of operating on the market on a daily basis, to buy or sell ENGIE SA shares, in order to ensure liquidity and an active market for the shares on the Paris and Brussels stock exchanges. To date, the resources allocated to the implementation of this agreement amount to €50 million.

19.2 Other disclosures concerning additional paid-in capital, consolidated reserves and issuance of deeply subordinated perpetual notes (Group share)

Total additional paid-in capital, consolidated reserves and issuance of deeply subordinated perpetual notes (including net income for the year), amounted to €35,064 million at December 31, 2021, including €26,058 million in additional paid-in capital. Additional paid-in capital includes the allocation of the net loss of ENGIE SA for 2020 in an amount of €3,928 million, the payment of the cash dividend for 2020 in an amount of €1,296 million as well as the reclassification to consolidated reserves of the dividend not paid on treasury shares in an amount of €8 million.

Consolidated reserves include the cumulative income of the Group, the legal and statutory reserves of ENGIE SA, cumulative actuarial gains and losses, net of tax and the change in fair value of equity instruments at fair value through OCI.

Under French law, 5% of the net income of French companies must be allocated to the legal reserve until the latter reaches 10% of share capital. This reserve can only be distributed to shareholders in the event of liquidation. The ENGIE SA legal reserve amounts to €244 million.

19.2.1 Issuance of deeply subordinated perpetual notes

In July 2021, ENGIE SA carried out an early refinancing of deeply subordinated perpetual notes resulting in:

- an issue of green deeply subordinated perpetual notes in the amount of €750 million bearing a coupon of 1.875% with a redemption option as of July 2031, recorded in equity for a net amount of €742.5 million;
- the redemption at the first option date of the remaining €363.4 million of hybrid debt (4.750% coupon);
- the partial early redemption of two tranches of deeply subordinated perpetual notes for a total amount of €532.6 million:
  - the redemption of €149.1 million (3.875% coupon) out of a residual nominal amount of €542 million. The first redemption option for this deeply subordinated perpetual debt was scheduled for June 2024,
  - the redemption of €383.5 million (1.375% coupon) on a residual nominal amount of €657.7 million. The first redemption option for this deeply subordinated perpetual debt is schedule was for January 2023.

In accordance with IAS 32 – *Financial Instruments – Presentation*, and given their characteristics, these instruments are recognized in equity in the Group's consolidated financial statements.

At December 31, 2021, the outstanding nominal value of deeply-subordinated perpetual notes amounted to €3,767 million.

In 2021, the Group paid €126.6 million to the holders of these notes, including €102.4 million in coupons and €24.2 million in compensation for early redemption. This amount is accounted for as a deduction from equity in the Group's consolidated financial statements; the related tax saving is accounted for in the income statement.

19.2.2 Distributable capacity of ENGIE SA

ENGIE SA's distributable capacity totaled €27,758 million at December 31, 2021 (compared with €27,363 million at December 31, 2020), including €26,058 million of additional paid-in capital.

19.2.3 Dividends

It was proposed, at the Shareholders' Meeting convened to approve the ENGIE group financial statements for the year ended December 31, 2020, to pay a dividend of €0.53 per share, representing a total payout of €1,283 million based on the number of shares outstanding at December 31, 2020. It was increased by 10% for all shares held for at least two years on December 31, 2020 and up to the 2020 dividend payment date. Based on the number of outstanding shares on December 31, 2020, this increase is valued at €13 million.

Proposed dividend in respect of 2021

At the Shareholders' Meeting convened to approve the ENGIE group financial statements for the year ended December 31, 2021, the shareholders will be asked to approve a dividend of €0.85 per share, representing a total payout of €2,057 million based on the number of shares outstanding at December 31, 2021. It will be increased by 10% for all shares held for at least two years at December 31, 2021 and up to the 2021 dividend payment date. Based on the number of outstanding shares at December 31, 2021, this increase is valued at €23 million.

Subject to approval by the Shareholders' Meeting of April 21, 2022, this dividend will be detached on April 25, 2022 and paid on April 27, 2022. It is not recognized as a liability in the financial statements at December 31, 2021, since the financial statements at the end of 2021 were presented before the appropriation of earnings.

19.2.4 Other transactions

On December 22, 2021, ENGIE sold 11.5% of its stake in GRTgaz to SIG (Société d'Infrastructures Gazières), bringing its ownership to 60.81% (38.60% SIG, 0.51% Altos employee funds, 0.08% treasury shares). For the purposes of the transaction, the GRTgaz group's equity was valued at €9.75 billion for an enterprise value of €14.6 billion. The transaction had a €477million impact on the Group's share of equity (gain on the sale) and a €1,025 million impact on consolidated equity (sale price net of corporate tax on the capital gain, success fees and registration fees).

On May 26, 2021, the Group completed the partial sale of 10% of its stake in GTT, reducing its stake from 40.4% and full consolidation to 30.4% and accounted for using the equity method. The change in consolidation method resulted in the removal of equity of non-controlling interests in the amount of €321 million.

As a reminder, on July 2, 2020, the Group signed an agreement to sell a 49% stake in a 2.3 GW renewable energy portfolio (in service or under construction) in the United States to the American group Hannon Armstrong, a leader in investing in environmentally friendly solutions. ENGIE continues to fully to consolidate, operate and manage these assets. Under this agreement, the Group has received an amount of €64 million as of December 31, 2021.

19.3 Gains and losses recognized in equity (Group share)

All items shown in the table below correspond to cumulative gains and losses (Group share) at December 31, 2021 and December 31, 2020, which are recyclable to income in subsequent periods.

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Debt instruments	9	30
Net investment hedges [(1)]	(371)	(156)
Cash flow hedges (excl. commodity instruments) [(1)]	(699)	(1,212)
Commodity cash flow hedges [(1)]	4,383	76
Deferred taxes on the items above	(1,064)	357
Share of equity method entities accounted in recyclable items, net of tax [(2)]	(546)	(813)
Recyclable items relating to discontinued operations, net of tax	118	(1)
TOTAL RECYCLABLE ITEMS BEFORE TRANSLATION ADJUSTMENTS	**1,831**	**(1,719)**
Translation adjustments	(2,136)	(2,856)
Translation adjustments relating to discontinued operations	-	6
TOTAL RECYCLABLE ITEMS	**(306)**	**(4,570)**

(1) *See Note 18 "Risks arising from financial instruments"*

(2) *See Note 4 "Investments in equity method entities"*

19.4 Capital management

ENGIE SA seeks to optimize its financial structure at all times by pursuing an optimal balance between its economic net debt and its EBITDA. The Group's key objective in managing its financial structure is to maximize value for shareholders and reduce the cost of capital, while ensuring that the Group has the financial flexibility required to continue its expansion. The Group manages its financial structure and makes any necessary adjustments in light of prevailing economic conditions. In this context, it may choose to adjust the amount of dividends paid to shareholders, reimburse a portion of capital, carry out share buybacks *(see Note 19.1.2 "Treasury stock")*, issue new shares, launch share-based payment plans, recalibrate its investment budget, or sell assets in order to scale back its net debt.

The Group's policy is to maintain an "strong investment grade" rating from the rating agencies. To achieve this, it manages its financial structure in line with the indicators usually monitored by these agencies, namely the Group's operating profile, financial policy and a series of financial ratios. One of the most commonly used ratios is the ratio where the numerator includes operating cash flows less cost of debt and taxes paid, and the denominator includes adjusted net financial debt. Net financial debt is mainly adjusted for nuclear provisions and provisions for pensions, as well as for 50% of hybrid debt (deeply-subordinated notes). In addition, the Group has issued a guidance targeting an "economic net debt to EBITDA" ratio less than or equal 4x.

The Group's objectives and processes for managing capital have remained unchanged over the past few years.

ENGIE SA is not obliged to comply with any external minimum capital requirements except those provided for by law.

NOTE 20 Provisions

Accounting standards

General principles related to the recognition of a provision

The Group recognizes a provision where it has a present obligation (legal or constructive) towards a third party arising from past events and where it is probable that an outflow of resources will be necessary to settle the obligation with no expected consideration in return.

A provision for restructuring costs is recognized when the general criteria for setting up a provision are met, *i.e.* when the Group has a detailed formal plan relating to the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

Provisions with a maturity of over 12 months are discounted when the effect of discounting is material. The Group's main long-term provisions are provisions for the back-end of the nuclear fuel cycle, provisions for dismantling facilities, provisions for site restoration costs, and provisions for post-employment and other long-term benefits. The discount rates used reflect current market assessments of the time value of money and the risks specific to the liability concerned. Expenses with respect to unwinding the discount on the provision are recognized as other financial income and expenses.

Estimates of provisions

Factors having a significant influence on the amount of provisions, and particularly, but not solely, those relating to the back-end of the nuclear fuel cycle, to the dismantling of nuclear facilities and of gas infrastructures in France, include:

- cost estimates (notably the retained scenario for managing radioactive nuclear fuel consumed) (*see Note 20.2*);
- the timing of expenditure (notably, for nuclear power generation activities, the timetable for reprocessing radioactive nuclear fuel consumed and for dismantling facilities as well as the timetable for the end of gas operations regarding the main gas infrastructure businesses in France) (*see Notes 20.2 and 20.3*); and
- the discount rate applied to cash flows.

These factors are based on information and estimates deemed by the Group to be the most appropriate as of today.

Modifications to certain factors could lead to a significant adjustment in these provisions.

In millions of euros	Post-employment and other long-term benefits	Back-end of the nuclear fuel cycle and dismantling of nuclear facilities	Dismantling of non-nuclear facilities	Other contingencies	Total
At December 31, 2020	**8,941**	**14,677**	**1,112**	**2,342**	**27,073**
Additions [1]	378	223	30	726	1,357
Utilizations [1]	(329)	(202)	(90)	(587)	(1,208)
Reversals [1]	(1)	-	-	(12)	(13)
Changes in scope of consolidation	(6)	-	-	(11)	(18)
Impact of unwinding discount adjustments	64	421	26	16	528
Translation adjustments	2	-	22	5	29
Other [2]	(2,050)	-	71	(310)	(2,289)
AT DECEMBER 31, 2021	**7,000**	**15,119**	**1,172**	**2,169**	**25,459**
Non-current	6,919	14,909	1,172	394	23,394
Current	81	210	-	1,775	2,066

(1) Net additions to provisions relating to EQUANS' activities are recognized in "Net income/(loss) relating to discontinued operations" in the income statement for €23 million at December 31, 2021

(2) Including €666 million in provisions for EQUANS activities, which are classified under "Discontinued operations" (see Note 5 "Main changes in Group structure")

The impact of unwinding discount adjustments in respect of post-employment and other long-term benefits relates to the interest expense on the benefit obligation, net of interest income on plan assets.

The "Other" line mainly comprises actuarial gains and losses arising on post-employment benefit obligations in 2021, which are recorded in "Other comprehensive income" as well as provisions recorded against a dismantling or site rehabilitation asset.

Additions, utilizations, reversals and the impact of unwinding discount adjustments are presented as follows in the consolidated income statement:

In millions of euros	Dec. 31, 2021
Income/	(159)
Other financial income and expenses	(526)
TOTAL	**(686)**

The different types of provisions and the calculation principles applied are described below.

20.1 Post-employment benefits and other long-term benefits

See Note 21 "Post-employment benefits and other long-term benefits".

20.2 Obligations relating to nuclear power generation activities

In the context of its nuclear power generation activities, the Group assumes obligations related to the management of the back-end of the nuclear fuel cycle and the dismantling of nuclear facilities.

20.2.1 Legal framework

The Belgian law of April 11, 2003 granted Group subsidiary Synatom responsibility for managing provisions set aside to cover the costs of dismantling nuclear power plants and managing spent nuclear fuel in those plants. The tasks of the Commission for Nuclear Provisions (CNP) set up pursuant to the above-mentioned law is to oversee the process of computing and managing these provisions.

To enable the CNP to carry out its work in accordance with the above-mentioned law, Synatom is required to submit a report every three years describing the core inputs used to measure these provisions. If any changes are observed from one triennial report to another that could materially impact the financial inputs used, *i.e.*, the industrial scenario, estimated costs and timing, the CNP may revise its opinion, and the Group makes the necessary adjustments, if any, in the income statement.

Synatom submitted its triennial report to the CNP on September 12, 2019 and the CNP issued its opinion on December 12, 2019, which was taken into account in preparing the financial statements for the year ended December 31, 2019. The provisions recognized by the Group were determined taking into account the prevailing contractual and legal framework, which sets the operating life of the Tihange 1 reactor and the Doel 1 and 2 reactors at 50 years, and the other reactors at 40 years. These provisions have not changed significantly since that date, besides the impact of recurring factors such as the passage of time (unwinding) and utilizations of and additions to provisions for fuel spent during the year. They will be reviewed again at the end of 2022, in accordance with the applicable regulations.

The provisions include in their assumptions all existing or planned environmental regulatory requirements on a European, national and regional level. If new legislation were to be introduced in the future, the cost estimates used as a basis for the calculations could vary.

The estimated provision amounts include margins for contingencies and other risks that may arise in connection with dismantling and radioactive spent fuel management procedures. Contingency margins relating to the disposal of waste are determined by ONDRAF and built into its fees. The Group also estimates appropriate margins for each cost category.

The Group believes that the latest assumptions reviewed and approved by the CNP are the most appropriate for establishing these provisions. However, in its opinion issued on December 12, 2019, the CNP pointed out uncertainty over some costs, which in principle are covered by the contingency margins, but for which it set up a further work and analysis program as of 2020, and which may be covered by the review in 2022. The provisions may be subsequently adjusted in line with changes in the inputs set out below.

The breakdown of dismantling provisions between Synatom and Electrabel is shown below:

In millions of euros	Current	Non-current	Dec. 31, 2021
Provisions for dismantling nuclear facilities – Synatom	75	6,270	6,345
Provisions for the back-end of the nuclear fuel cycle – Synatom	134	7,895	8,030
Provisions for dismantling nuclear facilities – Electrabel	-	744	744
TOTAL	**210**	**14,909**	**15,119**

20.2.2 Provisions for the back-end of the nuclear fuel cycle

Accounting standards

Allocations to provisions for the back-end of the nuclear fuel cycle are computed based on the average unit cost of the quantities expected to be used up to the end of the operating life of the plants, applied to quantities used at the closing date. An annual allocation is also recognized with respect to unwinding the discount on the provisions.

When spent nuclear fuel is removed from a reactor and temporarily stored on-site, it requires conditioning, potentially after reprocessing[1], before being consigned to long-term storage.

ONDRAF proposed on February 9, 2018 that geological storage be adopted as the national policy for managing high-level and/or long-lived radioactive waste. The proposal is subject to the approval of the Belgian government after obtaining the opinion of the Federal Agency for Nuclear Control (Agence Fédérale de Contrôle Nucléaire – AFCN).

In addition, ENGIE considers that the "mixed" scenario adopted by the CNP, whereby a portion of the fuel is reprocessed, and the rest is disposed of directly without reprocessing, continues to apply.

(1) *Operation that separates uranium, plutonium and fission products*

The provisions booked by the Group for nuclear fuel processing and storage cover all of the costs linked to the “mixed” scenario, including on-site storage, transportation, reprocessing, conditioning, off-site storage and geological disposal. They are calculated based on the following principles and inputs:

- storage costs primarily comprise the costs of building and operating additional dry storage facilities and operating existing facilities, along with the costs of purchasing containers;
- part of the radioactive spent fuel is transferred for reprocessing. . The reprocessed plutonium and uranium will be sold to a third party for a cost that must be reviewed on a regular basis;
- radioactive spent fuel that has not been reprocessed is to be conditioned, which requires conditioning facilities to be built according to ONDRAF’s approved criteria. ONDRAF's recommendations as regards the cost of these facilities have been fully taken into account;
- the reprocessing residues and conditioned spent fuel are transferred to ONDRAF;
- the cost of burying fuel in deep geological repositories is estimated using the royalty rate established by ONDRAF based on a total disposal facility cost of €10.7 billion$_{2017}$. The estimated cost of implementing the preliminary recommendation of the AFCN concerning an additional well has also been added, based on ONDRAF's recommendations. Other adjustments to the operational safety of the evacuation site are being discussed with ONDRAF and may give rise to a revision of the costs if they exceed the amounts covered by the contingency margins already included in ONDRAF's assessment;
- the long-term obligation is calculated using estimated internal costs and external costs assessed based on offers received from third parties;
- the baseline scenario includes ONDRAF’s latest scenario, with geological storage starting in around 2070 and ending in around 2135;
- the discount rate used is 3.25%. It takes into account (i) an analysis of trends in long-term benchmark rates and their historical and forecast averages, as well as (ii) the long life of the liabilities given the conditioning and evacuation of spent fuel, which has been delayed until 2070.

The costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment. Belgium's current legal framework does not permit reprocessing and has not yet confirmed the adoption of geological storage as the policy for managing medium- and high-level nuclear waste.

As regards the partial reprocessing scenario, following a resolution adopted by the House of Representatives in 1993, reprocessing contracts that had not already begun were suspended and then terminated in 1998. The scenario adopted is based on the assumption that the Belgian government will allow Synatom to reprocess spent fuel and that an agreement will be reached between Belgium and France designating Orano (formerly Areva) as responsible for these reprocessing operations. A scenario assuming the direct disposal of waste without reprocessing would lead to a decrease in the provision compared to the provision resulting from the "mixed" scenario currently used and approved by the CNP.

The Belgian government has not yet taken a decision as to whether the waste should be buried in a deep geological repository or stored over the long term. On November 27, 2019, the European Commission sent a reasoned opinion to Belgium under the breach procedure provided for in Article 258 of the Treaty on the Functioning of the European Union, on the grounds that Belgium had not adopted a national program for managing radioactive waste in compliance with various requirements set out in the directive on spent fuel and radioactive waste (Council Directive 2011/70/Euratom). Therefore, at this stage, there is only one national program for the safe storage of spent fuel pending reprocessing or long-term storage. The scenario adopted by the CNP is based on the assumption that the waste will be buried in a deep geological repository at a site yet to be identified and classified in Belgium.

Sensitivity

Provisions for the back-end of the nuclear fuel cycle remain sensitive to assumptions regarding costs, the timing of operations and expenditure, as well as to discount rates:

- a 10% increase in ONDRAF’s fees above the royalty rate for the removal of high-level and/or long-lived waste would lead to an increase in provisions of approximately €175 million based on unchanged contingency margins;
- a five-year advance in ONDRAF’s expenditure on temporary storage, conditioning and long-term storage for high level and/or long-lived radioactive waste would lead to an increase in provisions of approximately €170 million. A five-year delay in the payment schedule for these various expenses would lead to a decrease of less than that amount;
- a change of 10 basis points in the discount rate used could lead to an adjustment of approximately €260 million in provisions for the back-end of the nuclear fuel cycle. A fall in discount rates would lead to an increase in outstanding provisions, while a rise in discount rates would reduce the provision amount.

These sensitivities are calculated on a purely financial basis and should therefore be interpreted with appropriate caution in view of the variety of other inputs – some of which may be interdependent – included in the evaluation.

20.2.3 Provisions for dismantling nuclear facilities

Accounting standards

A provision is recognized when the Group has a present legal or constructive obligation to dismantle facilities or to restore a site. The present value of the obligation at the time of commissioning represents the initial amount of the provision for dismantling with, as the counterpart, an asset for the same amount, which is included in the carrying amount of the facilities concerned. This asset is depreciated over the operating life of the facilities and is included in the scope of assets subject to impairment tests. Adjustments to the provision due to subsequent changes in (i) the expected outflow of resources, (ii) the timing of dismantling expenses or (iii) the discount rate, are deducted from or subject to specific conditions, added to the cost of the corresponding asset. The impacts of unwinding the discount are recognized in expenses for the period.

A provision is also recorded for nuclear units for which the Group holds a capacity right up to its share of the expected dismantling costs to be borne by the Group.

Nuclear power plants have to be dismantled at the end of their operating life. Provisions are set aside in the Group's financial statements to cover all costs relating to (i) the shutdown phase, which involves removing radioactive spent fuel from the site and (ii) the dismantling phase, which consists of decommissioning and cleaning up the site.

The dismantling strategy is based on the facilities being dismantled (i) immediately after the reactor is shut down, (ii) on a mass basis rather than on a site-by-site basis, and (iii) completely, the land being subsequently returned to greenfield status.

Provisions for dismantling nuclear facilities are calculated based on the following principles and inputs:

- the operating life is 50 years for Tihange 1 and Doel 1 and 2, and 40 years for the other facilities;
- the start of the technical shutdown procedures depends on the facility concerned and on the timing of operations for the nuclear reactor as a whole. The shutdown procedures are immediately followed by dismantling operations;
- the scenario adopted is based on a dismantling program and on timetables that have to be approved by the nuclear safety authorities. A dialogue on the safety conditions for the decommissioning and dismantling phases of the power plants has been initiated with the AFCN. The costs may change depending on the outcome of these discussions and the detailed schedule for the implementation of these phases which is currently being defined;
- costs payable over the long term are calculated by reference to the estimated costs for each nuclear facility, based on a study conducted by independent experts under the assumption that the facilities will be dismantled on a mass basis. The costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment;
- fees for handling Class A – low or medium activity and short-lived – and B – low or medium activity and long-lived dismantling waste are determined using the royalty rate established by ONDRAF and include the margins recommended by ONDRAF for waste reclassification risk given the uncertainty over the definition of the criteria for classification in those classes; the difficulty in obtaining operating permits for class A waste storage has led ONDRAF to redefine a technical solution for storage and set a new assessment for 2022;
- for the different phases, the inclusion of normal contingency margins, reviewed by ONDRAF and the CNP, is taken into account; another study of the uncertainties and contingencies to be covered by these margins is set to be carried out during the next revision;
- an inflation rate of 2.0% is applied until the dismantling obligations expire in order to determine the value of the future obligation;
- a discount rate of 2.5% (including inflation of 2.0%) is applied to determine the present value (NPV) of the obligation. It takes into account (i) an analysis of trends in consistent benchmark rates and their historical and forecast averages, as well as (ii) the duration of the dismantling program scheduled to end by 2040.

Sensitivity

Based on currently applied inputs for estimating costs and the timing of payments, a change of 10 basis points in the discount rate used could lead to an adjustment of approximately €62 million in dismantling provisions. A fall in discount rates would lead to an increase in outstanding provisions.

A 10% increase in decommissioning and dismantling costs could lead to a change in the balance of the dismantling provisions of around €635 million.

This sensitivity is calculated on a purely financial basis and should therefore be interpreted with appropriate caution in view of the variety of other inputs – some of which may be interdependent – included in the evaluation.

20.2.4 Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material

20.2.4.1 Principles, objectives and governance

As indicated above, the Belgian law of April 11, 2003 granted the Group's wholly-owned subsidiary Synatom responsibility for managing and investing funds received from operators of nuclear power plants in Belgium and intended to cover the costs of dismantling nuclear power plants and managing radioactive fissile material. Pursuant to the law, Synatom may lend up to 75% of these funds to nuclear power plant operators provided that certain credit quality criteria are met. The percentage of the provisions not subject to loans to nuclear operators is invested by Synatom either in external financial assets or in loans to legal entities meeting the "credit quality" criteria imposed by law.

Since October 2019, Electrabel has not taken out any further loans in respect of provisions for the back-end of the nuclear fuel cycle and has undertaken to repay all of the loans taken out for that purpose by 2025. In 2021, Synatom therefore invested nearly €1.3 billion in external financial assets to cover the future costs of managing radioactive fissile material.

Synatom's objective in terms of investment in these assets is to offer, in the long term and for an acceptable level of risk, a sufficient return, in order to cover dismantling costs and the management of radioactive fissile material, under the constraints of diversification, risk minimization and availability as defined by the law of April 11, 2003.

The Synatom Board of Directors and its Investment Committee are responsible for defining Synatom's investment policy after consultation with the CNP, in accordance with the law of April 11, 2003. Based on a rigorous risk control policy, the Investment Committee oversees investment decisions, which are managed by a team headed by an investment director.

20.2.4.2 Strategic allocation and composition of financial assets

The strategic allocation of financial assets is determined on the basis of a periodic asset-liability analysis, which consists of determining the asset categories and their respective weighting in order to meet the return objective while respecting the risk framework identified for each type of liability.

This allocation varies according to the type of liability and the different investment horizons and discount rates. Separate risk profiles are considered for:

- assets in relation to provisions for dismantling of nuclear power plants;
- assets in relation to provisions for managing radioactive fissile material.

The target allocation of plan assets based on the two aforementioned risk profiles is as follows:

In %	Management of radioactive fissile material	Dismantling
Shares	40%	30%
Bonds	40%	70%
Unlisted assets	20%	0%
TOTAL	**100%**	**100%**

Listed equities consist of international securities. Listed bonds consist of international sovereign bonds and international corporate bonds. Unlisted assets consist of securities representing funds or real estate, private equity, infrastructure or private debt investment vehicles. Investments are managed by specialized asset management companies.

Synatom believes that the inclusion of Environmental, Social and Governance (ESG) principles in investment decisions allows for better management of non-financial risks in order to generate long-term sustainable returns. The integration of ESG principles implies a broader consideration of the risks and opportunities that can influence financial performance. The selection process for external managers also incorporates ESG principles.

To implement this investment policy, Synatom has a money market fund (*SICAV*) under Luxembourg law, a Nuclear Investment Fund, and a newly created money market fund under Belgian law, the Belgian Nuclear Liabilities Fund ("BNLF").

20.2.4.3 Changes in financial assets in 2021

The value of financial assets dedicated to covering nuclear provisions amounted to €5,501 million at December 31, 2021, and their return was 7.63% for the year. The main drivers of performance were equities, with global stock markets benefiting from a strong economic outlook and better-than-expected corporate earnings. Bonds performed sluggishly, however, amid rising returns at the long-term end of the yield curve

20.2.4.4 Valuation of financial assets in 2021

Loans to entities outside the Group and other cash investments are shown in the table below:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Loans to third parties	**8**	**11**
Loan to Sibelga	8	11
Other loans and receivables at amortized cost	**167**	**332**
Debt instruments – restricted cash	167	332
Total loans and receivables at amortized cost	**174**	**343**
Equity and debt instruments at fair value	1,509	406
Equity instruments at fair value through other comprehensive income	11	-
Equity instruments at fair value through income	**1,520**	**406**
Debt instruments at fair value through other comprehensive income	2,254	1,895
Debt instruments at fair value through income	1,552	1,191
Debt instruments at fair value	**3,806**	**3,086**
Total equity and debt instruments at fair value	**5,326**	**3,492**
Derivative instruments	**4**	**20**
TOTAL (1)	**5,505**	**3,855**

(1) *Not including €414 millions in uranium inventories at December 31,2021 (€540 million at December 31, 2020)*

Loans to legal entities outside the Group and the cash held by money market funds (OPCVM) are presented in the statement of financial position under "Loans and receivables at amortized cost". Money market bonds and associated hedging instruments held by Synatom are presented under equity or debt instruments (*see Note 17.1 "Financial assets"*).

The breakdown in the change in the cumulative fair value of Synatom's assets is presented as follows:

	Cumulative change in the fair value of dedicated financial assets	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Equity instruments at fair value through other comprehensive income	116	17
Equity instruments at fair value through income	-	-
Debt instruments at fair value through other comprehensive income	51	32
Debt instruments at fair value through income	154	45
TOTAL	**321**	**95**

Net income for the period generated by these assets amounted to €228 million in 2021 (negative €31 million in 2020).

	Effects on the result of the return on dedicated financial assets	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Disposal proceeds	50	21
Dividends received	45	34
Interest received	7	6
Change in fair value of derivatives not designated as hedges	(115)	(6)
Change in fair value of dedicated assets through income	241	(87)
TOTAL	**228**	**(31)**

20.3 Dismantling of non-nuclear plant and equipment and site rehabilitation

20.3.1 Dismantling obligations arising on non-nuclear plant and equipment

Certain items of plant and equipment, including conventional power stations, transmission and distribution pipelines, storage facilities and LNG terminals, have to be dismantled at the end of their operational lives or at least safely shut down. These obligations are the result of prevailing environmental regulations in the countries concerned, contractual agreements, or an implicit Group commitment. The most important issue for the Group concerns gas infrastructures in France.

France's political and societal guidelines for the energy transition aim to achieve carbon neutrality by 2050, by reducing greenhouse gas emissions and promoting renewable or so-called "green" energies, particularly biomethane and hydrogen. The various scenarios that make it possible to achieve carbon neutrality, in particular the National Low Carbon Strategy in France or the "Energy Futures" study by the electricity transmission system operator, RTE, all lead to a significant decrease in the quantities of gas consumed. The Group is closely analyzing this prospect, particularly for the purpose of defining its strategy and assessing the useful life of gas infrastructures and evaluating provisions for their dismantling.

In line with the objective of carbon neutrality by 2050, the long-term scenario adopted by the Group, which governs the implementation of its strategy, is one that combines reasonable electrification, i.e. just under 50% of final demand in 2050, with the ambitious development of a diversified range of green gases (biomethane, synthesized e-CH_4, natural gas with the Carbon-Capture and Storage process, and pure hydrogen). Due to the importance of these green gases in the French energy mix scheduled for 2050 and beyond, gas infrastructures will remain largely necessary and will be essential to provide flexibility to the energy system. The adaptation and conversion of these infrastructures to green gas means that they can be used in the very distant future, which means that the present value of provisions for their dismantling is almost zero, except in the specific cases of LNG terminals and non-regulated storage sites. Provisions for dismantling LNG terminals and storage sites totaled €402 million at December 31, 2021, compared to €367 million at December 31, 2020.

Given its time horizon and the many underlying inputs (in particular, better knowledge of the compatibility of gas infrastructures with hydrogen, and changes in French and European public policies), the Group will continue to assess the long-term scenario that will enable it to achieve carbon neutrality by 2050 on a regular basis. These assessments will be accompanied by a review of the valuation of dismantling provisions.

20.3.2 Hazelwood Power Station & Mine (Australia)

The Group and its partner Mitsui announced in November 2016 their decision to close the coal-fired Hazelwood Power Station, and cease coal extraction operations from the adjoining mine from late March 2017. The Group holds a 72% interest in the former 1,600 MW power station and adjoining coal mine, which has been consolidated as a joint operation.

At December 31, 2021, the Group's share (72%) of the provision covering the obligation to dismantle and rehabilitate the mine amounted to €251 million.

Dismantling and site rehabilitation work commenced in 2017 and focused on: managing site contamination; planning site wide environmental clean-up; the demolition and dismantling of all of the site's industrial facilities, including the former power station; and ongoing aquifer pumping and designated earthworks within the mine to ensure mine floor and batter stability with a view to long-term rehabilitation into a pit lake.

Several policies and laws that have a direct or indirect impact on mine rehabilitation and on the agencies that administer them have recently been reformed. Consequently, the ultimate regulatory obligations are likely to be revised during the life of the project and could therefore have an impact on provisions.

The average discount rate used to determine the amount of the provisions is 2.04%.

The amount of the provision recognized is based on the Group's best current estimate of the demolition and rehabilitation costs that Hazelwood is expected to incur. However, the amount of this provision may be adjusted in the future to take into account any changes in the key inputs.

20.4 Other contingencies

This caption essentially includes provisions for commercial litigation, tax claims and disputes (except income tax, pursuant to IFRIC 23) as well as provisions for onerous contracts relating to storage and transport capacity reservation contracts.

NOTE 21 Post-employment benefits and other long-term benefits

Accounting standards

Depending on the laws and practices in force in the countries where the Group operates, Group companies have obligations in terms of pensions, early retirement payments, retirement bonuses and other benefit plans. Such obligations generally apply to all employees within the companies concerned.

The Group's obligations in relation to pensions and other employee benefits are recognized and measured in compliance with IAS 19. Accordingly:

- the cost of defined contribution plans is expensed based on the amount of contributions payable in the period;
- the Group's obligations concerning pensions and other employee benefits payable under defined benefit plans are assessed on an actuarial basis using the projected unit credit method. These calculations are based on assumptions relating to mortality, staff turnover and estimated future salary increases, as well as the economic conditions specific to each country or entity of the Group. Discount rates are determined by reference to the yield, at the measurement date, on investment grade corporate bonds in the related geographical area (or on government bonds in countries where no representative market for such corporate bonds exists).

Pension commitments are measured on the basis of actuarial assumptions. The Group considers that the assumptions used to measure its obligations are relevant and documented. However, any change in these assumptions could have a significant impact on the resulting calculations.

Provisions are recorded when commitments under these plans exceed the fair value of plan assets. Where the value of plan assets (capped where appropriate) is greater than the related commitments, the surplus is recorded as an asset under "Other assets" (current or non-current).

As regards post-employment benefit obligations, actuarial gains and losses are recognized in other comprehensive income. Where appropriate, adjustments resulting from applying the asset ceiling to net assets relating to overfunded plans are treated in a similar way. However, actuarial gains and losses on other long-term benefits such as long-service awards, are recognized immediately in income.

Net interest on the net defined benefit liability (asset) is presented in net financial income/(loss).

21.1 Description of the main pension plans

21.1.1 Companies belonging to the Electricity and Gas Industries sector in France

Since January 1, 2005, the CNIEG (*Caisse Nationale des Industries Électriques et Gazières*) has operated the pension, disability, death, occupational accident and occupational illness benefit plans for electricity and gas industry (hereinafter "EGI") companies in France. The CNIEG is a social security legal entity under private law placed under the joint responsibility of the ministries in charge of social security and the budget.

Employees and retirees of EGI sector companies have been fully affiliated to the CNIEG since January 1, 2005. The main affiliated Group entities are ENGIE SA, GRDF, GRTgaz, Elengy, Storengy, ENGIE Thermique France, CPCU, CNR and SHEM.

Following the funding reform of the special EGI pension plan introduced by Law No. 2004-803 of August 9, 2004 and its implementing decrees, specific benefits (pension benefits on top of the standard benefits payable under ordinary law) already vested at December 31, 2004 ("past specific benefits") were allocated between the various EGI entities. Past specific benefits (benefits vested at December 31, 2004) relating to regulated transmission and distribution businesses ("regulated past specific benefits") are funded by the levy on gas and electricity transmission and distribution services (*Contribution Tarifaire d'Acheminement*) and therefore no longer represent an obligation for the ENGIE group. Unregulated past specific benefits (benefits vested at December 31, 2004) are funded by EGI sector companies to the extent defined by Decree No. 2005-322 of April 5, 2005.

The special EGI pension plan is a legal pension plan available to new entrants.

The specific benefits vested under the plan since January 1, 2005 are wholly financed by EGI sector companies in proportion to their respective weight in terms of payroll costs within the EGI sector.

As this plan represents a defined benefit plan, the Group has set aside a pension provision in respect of specific benefits payable to employees of unregulated activities and specific benefits vested by employees of regulated activities since January 1, 2005. This provision also covers the Group's early retirement obligations. The provision amount may be subject to fluctuations based on the weight of the Group's companies within the EGI sector.

Pension benefit obligations and other "mutualized" obligations are assessed by the CNIEG.

At December 31, 2021, the projected benefit obligation in respect of the special pension plan for EGI sector companies amounted to €3.9 billion.

The duration of the pension benefit obligation of the EGI pension plan is 23 years.

21.1.2 Companies belonging to the electricity and gas sector in Belgium

In Belgium, the rights of employees in electricity and gas sector companies, principally Electrabel, Laborelec and some ENGIE Energy Management Trading and ENGIE CC employee categories, are governed by collective bargaining agreements.

These agreements, applicable to "wage-rated" employees recruited prior to June 1, 2002 and managerial staff recruited prior to May 1, 1999, specify the benefits entitling employees to a supplementary pension equivalent to 75% of their most recent annual income, for a full career and in addition to the statutory pension. These top-up pension payments provided under defined benefit plans are partly reversionary. In practice, the benefits are paid in the form of a lump sum for the majority of plan participants. Most of the obligations resulting from these pension plans are financed through pension funds set up for the electricity and gas sector and by certain insurance companies. Pre-funded pension plans are financed by employer and employee contributions. Employer contributions are calculated annually based on actuarial assessments.

The projected benefit obligation relating to these plans represented around 20% of total pension obligations and related liabilities at December 31, 2021. The average duration is 11 years.

"Wage-rated" employees recruited after June 1, 2002 and managerial staff (i) recruited after May 1, 1999 or (ii) having opted for the transfer through defined contribution plans, are covered under defined contribution plans. Prior to January 1, 2017, the law specified a minimum average annual return (3.75% on wage contributions and 3.25% on employer contributions) when savings are liquidated.

The law on supplementary pensions, approved on December 18, 2016 and enforced on January 1, 2017 henceforth specifies a minimum rate of return, depending on the actual rate of return of Belgian government bonds, within a range of 1.75%-3.25% (the rates are now identical for employee and employer contributions). In 2021, the minimum rate of return stood at 1.75%.

An expense of €38 million was recognized in 2021 in respect of these defined contribution plans (€37 million in 2020).

21.1.3 Multi-employer plans

Employees of some Group companies are affiliated to multi-employer pension plans.

Under multi-employer plans, risks are pooled to the extent that the plan is funded by a single contribution rate determined for all affiliated companies and applicable to all employees.

Multi-employer plans are particularly common in the Netherlands, where employees are normally required to participate in a compulsory industry-wide plan. These plans cover a significant number of employers, thereby limiting the impact of potential default by an affiliated company. In the event of default, the vested rights are maintained in a special compartment and are not transferred to the other members. Refinancing plans may be set up to ensure the funds are balanced.

The ENGIE group accounts for multi-employer plans as defined contribution plans.

The expense recognized in 2021 in respect of multi-employer pension plans was stable as compared to 2020 at €74 million.

21.1.4 Other pension plans

Most other Group companies also grant their employees retirement benefits. In terms of financing, pension plans within the Group are almost equally split between defined benefit and defined contribution plans.

The Group's main pension plans outside France, Belgium and the Netherlands concern:

- the United Kingdom: the large majority of defined benefit pension plans is now closed to new entrants and future benefits no longer vest under these plans. All entities run a defined contribution scheme. The pension obligations of International Power's subsidiaries in the United Kingdom are covered by the special Electricity Supply Pension Scheme (ESPS). The assets of this defined benefit scheme are invested in separate funds. Since June 1, 2008, the scheme has been closed and a defined contribution plan has been set up for new entrants;
- Germany: the Group's German subsidiaries have closed their defined benefit plans to new entrants and now offer defined contribution plans;
- Brazil: ENGIE Brasil Energia operates its own pension scheme. This scheme has been split into two parts, one for the (closed) defined benefit plan, and the other for the defined contribution plan that has been available to new entrants since the beginning of 2005.

21.2 Description of other post-employment benefit obligations and otherlong-term benefits

21.2.1 Other benefits granted to current and former EGI sector employees

Other benefits granted to EGI sector employees are:

- post-employment benefits:
  - reduced energy prices,
  - end-of-career indemnities,
  - bonus leave,
  - death capital benefits;
- long-term benefits:
  - allowances for occupational accidents and illnesses,
  - temporary and permanent disability allowances,
  - long-service awards.

The Group's main obligations are described below.

21.2.1.1 Reduced energy prices

Under Article 28 of the national statute for electricity and gas industry personnel, all employees (current and former employees, provided they meet certain length-of-service conditions) are entitled to benefits in kind, which take the form of reduced energy prices known as "employee rates".

This benefit entitles employees to electricity and gas supplies at a reduced price. For retired employees, this provision represents a post-employment defined benefit. Retired employees are only entitled to the reduced rate if they have completed at least 15 years' service within EGI sector companies.

In accordance with the agreements signed with EDF in 1951, ENGIE provides gas to all current and former employees of ENGIE and EDF, while EDF supplies electricity to these same beneficiaries. ENGIE pays (or benefits from) the balancing contribution payable in respect of its employees as a result of energy exchanges between the two utilities.

The obligation to provide energy at a reduced price to current and former employees is measured as the difference between the energy sale price and the preferential rate granted.

The provision set aside in respect of reduced energy prices stood at €3.8 billion at December 31, 2021. The duration of the obligation is 24 years.

21.2.1.2 End-of-career indemnities

Retiring employees (or their dependents in the event of death during active service) are entitled to end-of-career indemnities, which increase in line with the length of service within the EGI sector.

21.2.1.3 Compensation for occupational accidents and illnesses

EGI sector employees are entitled to compensation for accidents at work and occupational illnesses. These benefits cover all employees or the dependents of employees who die as a result of occupational accidents or illnesses, or injuries suffered on the way to work.

The amount of the obligation corresponds to the likely present value of the benefits to be paid to current beneficiaries, taking into account any reversionary annuities.

21.2.2 Other benefits granted to employees of the gas and electricity sector in Belgium

Electricity and gas sector companies also grant other employee benefits such as the reimbursement of medical expenses, electricity and gas price reductions, as well as length-of-service awards and early retirement schemes.

These benefits are not prefunded, with the exception of the special "*allocation transitoire*" termination indemnity, considered as an end-of-career indemnity.

21.2.3 Other collective agreements

Most other Group companies also grant their staff post-employment benefits (early retirement plans, medical coverage, benefits in kind, etc.) and other long-term benefits such as jubilee and length-of-service awards.

21.3 Defined benefit plans

21.3.1 Amounts presented in the statement of financial position and statement of comprehensive income

In accordance with IAS 19, the information presented in the statement of financial position relating to post-employment benefit obligations and other long-term benefits results from the difference between the gross projected benefit obligation and the fair value of plan assets. A provision is recognized if this difference is positive (net obligation), while a prepaid benefit cost is recorded in the statement of financial position when the difference is negative, provided that the conditions for recognizing the prepaid benefit cost are met.

Changes in provisions for pension plans, post-employment benefits and other long-term benefits, plan assets and reimbursement rights recognized in the statement of financial position are as follows:

In millions of euros	Provisions	Plan assets	Reimbursement rights
At December 31, 2020	**(8,941)**	**36**	**188**
Exchange rate differences	(34)	2	(1)
Changes in scope of consolidation and other	372	(63)	37
Actuarial gains and losses	1,719	84	-
Periodic pension cost	(541)	(5)	1
Asset ceiling	-	-	-
Contributions/benefits paid	426	19	3
AT DECEMBER 31, 2021	**(6,999)**	**72**	**229**

Plan assets and reimbursement rights are presented in the statement of financial position under "Other non-current assets" or "Other current assets".

The cost recognized for the period amounted to €547 million in 2021 (€441 million in 2020). The components of this defined benefit cost in the period are set out in Note 21.3.3 "Components of the net periodic pension cost".

The Eurozone represented 98% of the Group's net obligation at December 31, 2021, (98% at December 31, 2020).

Cumulative actuarial gains and losses recognized in equity amounted to €4,232 million at December 31, 2021, compared to €6,037 million at December 31, 2020.

Net actuarial differences arising in the period and presented on a separate line in the statement of comprehensive income represented a net actuarial gain of €1,803 million in 2021 and a loss of €1,519 million in 2020.

Changes in the scope of consolidation mainly relate to the classification of EQUANS' activities within "Assets classified as held for sale".

21.3.2 Change in benefit obligations and plan assets

The table below shows the amount of the Group's projected benefit obligations and plan assets, changes in these items during the periods presented, and their reconciliation with the amounts reported in the statement of financial position:

		Dec. 31, 2021				Dec. 31, 2020			
In millions of euros		Pension benefit obligations (1)	Other post-employment benefit obligations (2)	Long-term benefit obligations (3)	Total	Pension benefit obligations (1)	Other post-employment benefit obligations (2)	Long-term benefit obligations (3)	Total
A – Change in projected benefit obligation									
Projected benefit obligation at January 1		**(9,186)**	**(5,167)**	**(565)**	**(14,919)**	**(8,570)**	**(4,470)**	**(531)**	**(13,572)**
Service cost		(353)	(88)	(80)	(521)	(303)	(79)	(50)	(432)
Interest expense		(85)	(39)	(3)	(126)	(115)	(57)	(5)	(177)
Contributions paid		(13)	-	-	(13)	(16)	-	-	(16)
Amendments		(2)	-	-	(2)	(19)	4	(1)	(16)
Changes in scope of consolidation		1,108	4	58	1,170	-	-	-	-
Curtailments/ settlements		13	1	-	13	125	1	1	127
Non-recurring items		-	-	-	-	-	-	-	-
Financial actuarial gains and losses		869	533	32	1,434	(789)	(678)	(31)	(1,498)
Demographic actuarial gains and losses		(230)	2	11	(217)	(56)	8	(6)	(55)
Benefits paid		389	107	47	543	405	104	57	566
Other (of which translation adjustments)		(78)	-	(1)	(78)	152	-	2	154
Projected benefit obligation at December 31	**A**	**(7,566)**	**(4,649)**	**(499)**	**(12,715)**	**(9,186)**	**(5,167)**	**(565)**	**(14,919)**
B – Change in fair value of plan assets									
Fair value of plan assets at January 1		**6,034**	**-**	**-**	**6,034**	**6,169**	**-**	**-**	**6,169**
Interest income on plan assets		58	-	-	58	86	-	-	86
Financial actuarial gains and losses		629	-	-	629	(4)	-	-	(4)
Contributions received		198	-	-	198	206	-	-	206
Changes in scope of consolidation		(862)	-	-	(862)	-	-	-	-
Settlements		(11)	-	-	(11)	9	-	-	9
Benefits paid		(283)	-	-	(283)	(308)	-	-	(308)
Other (of which translation adjustments)		81	-	-	81	(124)	-	-	(124)
Fair value of plan assets at December 31	**B**	**5,843**	**-**	**-**	**5,843**	**6,034**	**-**	**-**	**6,034**
C – Funded status	**A+B**	**(1,723)**	**(4,649)**	**(499)**	**(6,872)**	**(3,153)**	**(5,167)**	**(565)**	**(8,885)**
Asset ceiling		(55)	-	-	(55)	(21)	-	-	(21)
Net benefit obligation		**(1,779)**	**(4,649)**	**(499)**	**(6,927)**	**(3,174)**	**(5,167)**	**(565)**	**(8,906)**
ACCRUED BENEFIT LIABILITY		**(1,850)**	**(4,649)**	**(499)**	**(6,999)**	**(3,210)**	**(5,137)**	**(595)**	**(8,941)**
PREPAID BENEFIT COST		**72**	**-**	**-**	**72**	**36**	**-**	**-**	**36**

(1) Pensions and retirement bonuses
(2) Reduced energy prices, healthcare, gratuities and other post-employment benefits
(3) Length-of-service awards and other long-term benefits

21.3.3 Components of the net periodic pension cost

The net periodic cost recognized in respect of defined benefit obligations for the years ended December 31, 2021 and 2020 breaks down as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Current service cost	521	432
Actuarial gains and losses [1]	(43)	37
Plan amendments	-	-
Gains or losses on pension plan curtailments, terminations and settlements	-	(120)
Non-recurring items	-	-
Total accounted for under current operating income including operating MtM and share in net income of equity method entities	**479**	**350**
Net interest expense	68	91
Total accounted for under net financial income/(loss)	**68**	**91**
TOTAL	**547**	**441**

(1) On the long-term benefit obligation

21.3.4 Funding policy and strategy

When defined benefit plans are funded, the related plan assets are invested in pension funds and/or with insurance companies, depending on the investment practices specific to the country concerned. The investment strategies underlying these defined benefit plans are aimed at striking the right balance between return on investment and acceptable levels of risk.

The objectives of these strategies are twofold: to maintain sufficient liquidity to cover pension and other benefit payments; and as part of risk management, to achieve a long-term rate of return higher than the discount rate or, where appropriate, at least equal to future required returns.

When plan assets are invested in pension funds, investment decisions are the responsibility of the fund management concerned. For French companies, where plan assets are invested with an insurance company, the latter manages the investment portfolio for unit-linked policies or euro-denominated policies, in a manner adapted to the risk and long-term profile of the liabilities.

The funding of these obligations for each of the periods presented can be analyzed as follows:

In millions of euros	Projected benefit obligation	Fair value of plan assets	Asset ceiling	Total net obligation
Underfunded plans	(5,891)	4,671	(50)	(1,271)
Overfunded plans	(1,116)	1,172	(5)	51
Unfunded plans	(5,708)	-	-	(5,708)
AT DECEMBER 31, 2021	**(12,715)**	**5,843**	**(55)**	**(6,927)**
Underfunded plans	(7,671)	5,192	(21)	(2,500)
Overfunded plans	(606)	842	-	236
Unfunded plans	(6,641)	-	-	(6,641)
At December 31, 2020	**(14,918)**	**6,034**	**(21)**	**(8,905)**

The allocation of plan assets by principal asset category can be analyzed as follows:

In %	Dec. 31, 2021	Dec. 31, 2020
Equity investments	29	26
Sovereign bond investments	21	23
Corporate bond investments	27	29
Money market securities	3	3
Real estate	2	2
Other assets	18	16
TOTAL	**100**	**100**

All plan assets were quoted on an active market at December 31, 2021.

The actual return on assets of EGI sector companies stood at a positive 13.4% in 2021.

In 2021, the actual return on plan assets of Belgian entities amounted to approximately 10.4% in Group insurance and a positive 6.8% in pension funds.

The allocation of plan asset categories by geographic area of investment can be analyzed as follows:

In %	Europe	North America	Latin America	Asia-Oceania	Rest of the World	Total
Equity investments	55	29	3	8	4	100
Sovereign bond investments	76	1	17	2	4	100
Corporate bond investments	70	19	2	4	4	100
Money market securities	89	-	3	9	-	100
Real estate	94	1	4	1	-	100
Other assets	68	7	3	22	-	100

21.3.5 Actuarial assumptions

Actuarial assumptions are determined individually by country and company in conjunction with independent actuaries. Weighted discount rates for the main actuarial assumptions are presented below:

		Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
		2021	2020	2021	2020	2021	2020	2021	2020
Discount rate	Eurozone	1.2%	0.6%	1.2%	0.6%	1.2%	0.6%	1.2%	0.6%
	UK Zone	1.6%	1.6%	-	-	-	-	-	-
Inflation rate	Eurozone	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
	UK Zone	3.6%	3.2%	-	-	-	-	-	-

21.3.5.1 Discount and inflation rate

The discount rate applied is determined based on the yield, at the date of the calculation, of investment grade corporate bonds with maturities mirroring the term of the plan.

The rates were determined for each monetary area based on data for AA corporate bond yields. For the Eurozone, data (from Bloomberg) are extrapolated on the basis of government bond yields for long maturities.

According to the Group's estimates, a 100-basis-point increase or decrease in the discount rate would result in a change of approximately 27% in the projected benefit obligation.

The inflation rates were determined for each monetary area. A 100-basis-point increase or decrease in the inflation rate (with an unchanged discount rate) would result in a change of approximately 18% in the projected benefit obligation.

21.3.5.2 Other assumptions

The increase in the rate of medical costs (including inflation) was estimated at 1%.

A 100-basis-point change in the assumed increase in medical costs would have the following impacts:

In millions of euros	100 basis point increase	100 basis point decrease
Impact on expenses	-	-
Impact on pension obligations	1	(1)

21.3.6 Estimated employer contributions payable in 2022 under defined benefit plans

The Group expects to pay around €199 million in contributions into its defined benefit plans in 2022, including €121 million for EGI sector companies. Annual contributions in respect of EGI sector companies will be made by reference to rights vested during the year, taking into account the funding level for each entity in order to even out contributions over the medium term.

21.4 Defined contribution plans

In 2021, the Group recorded a €122 million expense in respect of amounts paid into Group defined contribution plans (€248 million in 2020). These contributions are recorded under "Personnel costs" in the consolidated income statement.

NOTE 22 Share-based payments

Accounting standards

Under IFRS 2, share-based payments made in consideration for services provided are recognized as personnel costs. These services are measured at the fair value of the instruments awarded.

The fair value of bonus share plans is estimated by reference to the share price at the grant date, taking into account the fact that no dividend is payable over the vesting period, and based on the estimated turnover rate for the employees concerned and the probability that the Group will meet its performance targets. The fair value measurement also takes into account the non-transferability period associated with these instruments. The cost of shares granted to employees is expensed over the vesting period of the rights and offset against equity.

A Monte Carlo pricing model is used for performance shares granted on a discretionary basis and subject to external performance criteria.

Expenses recognized in respect of share-based payments break down as follows:

	Expense for the year	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020 (1)
Employee share issues (2)	(1)	(1)
Bonus/performance share plans (3) (4)	(47)	(41)
Other Group companies' plans	-	(4)
TOTAL	**(48)**	**(47)**

(1) Comparative data at December 31, 2020 have been restated due to the classification of EQUANS activities held for sale as "Discontinued operations" in application of IFRS 5 (see Note 2 "Restatement of 2020 comparative data")

(2) Including Share Appreciation Rights set up within the scope of employee share issues in certain countries

(3) Of which a reversal of €0.3 million in 2021 for failure to meet the performance conditions (€6 million in 2020)

(4) Of which a reversal of €4 million in 2021 for failure to meet the condition of continuing employment within the Group (€5 million in 2020)

22.1 Performance shares

22.1.1 New awards in 2021

ENGIE Performance Share plan of December 16, 2021

On December 16, 2021, the Board of Directors approved the award of 5 million performance shares to members of the Group's executive and senior management, breaking down into three tranches:

- performance shares vesting on March 14, 2025, subject to a one-year lock-up period;
- performance shares vesting on March 14, 2025, without a lock-up period; and
- performance shares vesting on March 14, 2026, without a lock-up period.

In addition to a condition requiring employees to be employed with the Group at the vesting date, each tranche is made up of instruments subject to four different conditions, excluding the first 150 performance shares granted to beneficiaries (excluding top management), which are exempt from performance conditions. The performance conditions are as follows:

- a market performance condition relating to ENGIE's Total Shareholder Return compared to that of a reference panel of six companies, as assessed between December 2021 and February 2025, which accounts for 25% of the total award;
- an internal performance condition relating to net recurring income Group share compared to that of a reference panel of six companies, as assessed between the second half of 2021 and the first half of 2024, which accounts for 25% of the total award;
- an internal performance condition relating to Return On Capital Emplyed (ROCE) in 2024 which accounts for 30% of the total award;
- an internal performance condition relating to non-financial criterias in terms of targets for greenhouse gas emissions from energy productions, increasing the share of renewable capacities and increasing the percentage of women in management, as assessed between December 2021 and December 2024, which accounts for 20% of the total award.

Under this plan, performance shares without conditions were also awarded to the winners of the Innovation and Incubation programs (15,450 shares awarded).

22.1.2 Fair value of bonus share plans with or without performance conditions

The following assumptions were used to calculate the fair value of the new plans awarded by ENGIE in 2021:

Award date	Vesting date	End of the lock-up period	Price at the award date	Expected dividend	Financing cost for the employee	Non-transferability cost	Market-related performance condition	Fair value per unit
December 16, 2021	March 14, 2025	March 14, 2026	13.0	0.83	3.7%	0.22	yes	8.79
December 16, 2021	March 14, 2025	March 14, 2025	13.0	0.83	3.7%	0.22	yes	9.15
December 16, 2021	March 14, 2025	March 14, 2025	13.0	0.83	3.7%	0.41	no	10.36
December 16, 2021	March 14, 2026	March 14, 2026	13.0	0.83	3.7%	0.22	yes	8.31
Weighted average fair value of the December 16, 2021 plan								**9.28**

22.1.3 Review of internal performance conditions applicable to the plans

In addition to the condition of continuing employment within the Group, eligibility for certain bonus share and performance share plans is subject to an internal performance condition. When this condition is not fully met, the number of bonus shares granted to employees is reduced in accordance with the plans' regulations, leading to a decrease in the total expense recognized in relation to the plans in accordance with IFRS 2. Performance conditions are reviewed at each reporting date.

In 2020, the Group decided to adjust in favor of the employees the effect of the COVID-19 crisis on the achievement of the internal performance conditions for the performance share plans awarded in December 2017 and December 2018 including 2020 as the year of reference. After applying the adjusted achievement rates, the Group recognized income of €6 million.

NOTE 23 Related party transactions

This note describes material transactions between the Group and its related parties.

Compensation payable to key management personnel is disclosed in Note 24 "Executive compensation".

Transactions with joint ventures and associates are described in Note 4 "Investments in equity method entities".

Only material transactions are described below.

23.1 Relations with the French State and with entities owned or partly owned by the French State

23.1.1 Relations with the French State

The French State's interest in the Group at December 31, 2021 was unchanged from the previous year at 23.64%. This entitles it to three seats of the 14 seats on the Board of Directors (one director representing the State appointed by decree, and two directors appointed by the Shareholders' Meeting at the proposal of the State).

The French State holds 33.20% of the theoretical voting rights (33.36% of exercisable voting rights) compared with 33.19% at end-2020.

On May 22, 2019, the PACTE Act ("Action plan for business growth and transformation") was enacted, enabling the French State to dispose of its ENGIE shares without restriction.

In addition, the French State holds a golden share aimed at protecting France's critical interests and ensuring the continuity and safeguarding of supplies in the energy sector. The golden share is granted to the French State indefinitely and entitles it to veto decisions taken by ENGIE if it considers they could harm France's interests.

Public service engagements in the energy sector are defined by the law of January 3, 2003.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, as well as rates for accessing the French LNG terminals and revenues from storage capacities, are all regulated.

The Law on Energy and Climate enacted on November 8, 2019 will put an end to regulated gas tariffs and will restrict regulated electricity tariffs for consumers and small businesses. The final date for the discontinuation of regulated gas tariffs is July 1, 2023.

23.1.2 Relations with EDF

Following the creation on July 1, 2004 of the French gas and electricity distribution network operator (EDF Gaz de France Distribution), Gaz de France SA and EDF entered into an agreement on April 18, 2005 setting out their relationship as regards the distribution business. The December 7, 2006 law on the energy sector reorganized the natural gas and electricity distribution networks. Enedis SA, a subsidiary of EDF SA, and GRDF SA, a subsidiary of ENGIE SA, were created on January 1, 2007 and January 1, 2008, respectively, and act in accordance with the agreement previously signed by the two incumbent operators.

23.2 Relations with the CNIEG (Caisse Nationale des Industries Électriques et Gazières)

The Group's relations with the CNIEG, which manages all old-age, death and disability benefits for active and retired employees of the Group who belong to the special EGI pension plan, employees of EDF and Non-Nationalized Companies (*Entreprises Non Nationalisées* – ENN), are described in Note 21 "Post-employment benefits and other long-term benefits".

NOTE 24 Executive compensation

The executive compensation presented below includes the compensation of the members of the Group's Executive Committee and Board of Directors.

The Executive Committee had 11 members at December 31, 2021 (10 members at December 31, 2020).

Their compensation breaks down as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Short-term benefits	22	29
Post-employment benefits	1	-
Share-based payments	3	2
Termination benefits	7	7
TOTAL	**33**	**38**

Pursuant to the European Directive of April 16, 2014, French ordinance No. 2019-697 relating to supplementary pensions, published on July 4, 2019, terminated the existing L.137-11 pension plan (referred to as "Article 39") and prohibited the accrual of further rights and the entry of any new members as of that date.

Following the closure of the plan and the freezing of the random rights in 2019, in 2020 the Group transformed the random rights of beneficiaries, including the members of the Group's Executive Committee, under a defined contribution plan referred to as "Article 82".

NOTE 25 Working capital requirements, inventories, other assets and other liabilities

Accounting standards

In accordance with IAS 1, the Group's current and non-current assets and liabilities are shown separately in the consolidated statement of financial position. For most of the Group's activities, the breakdown into current and non current items is based on when assets are expected to be realized, or liabilities extinguished. Assets expected to be realized or liabilities extinguished within 12 months of the reporting date are classified as current, while all other items are classified as non-current.

Inventories

Inventories are measured at the lower of cost and net realizable value. Net realizable value corresponds to the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

The cost of inventories is determined based on the first-in, first-out method or the weighted average cost formula.

Nuclear fuel purchased is consumed in the process of producing electricity over a number of years. The consumption of this nuclear fuel inventory is recorded based on estimates of the quantity of electricity produced per unit of fuel.

Gas inventories

Gas injected into underground storage facilities includes working gas, which can be withdrawn without adversely affecting the subsequent operation of the reservoirs, and cushion gas, which is inseparable from the reservoirs and essential for their operation (*see Note 16 "Property, plant and equipment"*).

Working gas is classified in inventories and measured at weighted average purchase cost upon entering the transportation network regardless of its source, including any regasification costs.

Group inventory outflows are valued using the weighted average unit cost method.

Certain inventories are used for trading purposes and are recognized at fair value less selling costs, in accordance with IAS 2. Any changes in said fair value are recognized in the consolidated income statement for the year in which they occur.

Greenhouse gas emission rights, energy saving certificates and green certificates

In the absence of specific IFRS standards or IFRIC interpretations on accounting for greenhouse gas emission allowances, energy saving certificates and green certificates, the Group has decided to recognize certificates in inventories at their acquisition or production cost. At the reporting date, a liability is recognized if the certificates held by the Group are insufficient to meet the obligation to return certificates to the French government. When not covered by the certificates held in inventories, the liability is measured at the market value or based on the price of any future contracts that have been entered into, when applicable.

Tax equity

The ENGIE group finances its renewables projects in the United States through tax equity structures, in which part of the necessary funds is provided by a tax partner. The tax partner obtains, up to a pre-determined level, a preferential right essentially to the project's tax credits, which it can deduct from its own tax base.

The tax partner's investments meet the definition of a liability under IFRS. Since the tax equity liability corresponding to these tax benefits does not give rise to any cash outflow for the project entity, it does not represent a financial debt and is accounted for in "Other liabilities".

Besides the unwinding effect, the liability changes mainly in line with the tax credits allocated to the tax partner and recognized in profit or loss.

25.1 Composition of change in working capital requirements

In millions of euros	Change in working capital requirements at Dec. 31, 2021	Change in working capital requirements at Dec. 31, 2020 [1]
Inventories	(2,349)	(476)
Trade and other receivables, net	(11,043)	(55)
Trade and other payables, net	10,676	(545)
Tax and employee-related receivables/payables	364	(58)
Margin calls and derivative instruments hedging commodities relating to trading activities	(706)	(109)
Other	680	340
TOTAL	**(2,377)**	**(902)**

(1) Comparative data at December 31,2020 have been restated due to the classification of EQUANS activities held for sale as “Discontinued operations” in application of IFRS 5 (see Note 2 “Restatement of 2020 comparative data”)

25.2 Inventories

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Inventories of natural gas, net	3,079	1,146
Inventories of uranium [1]	408	530
CO_2 emissions allowances, green certificates and energy saving certificates, net	1,526	1,070
Inventories of commodities other than gas and other inventories, net	1,161	1,395
TOTAL	**6,175**	**4,140**

(1) Financial hedging instruments are backed by these uranium inventories and represented a negative amount of €9 million at December 31, 2021

25.3 Other assets and other liabilities

	Dec. 31, 2021				Dec. 31, 2020			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Other assets and liabilities	478	13,202	(2,341)	(16,752)	396	8,990	(2,004)	(12,545)
Tax receivables/payables	*-*	*10,628*	*-*	*(11,316)*	*-*	*6,274*	*-*	*(6,960)*
Employee receivables/payables	*300*	*18*	*(2)*	*(2,033)*	*222*	*51*	*(6)*	*(2,667)*
Dividend receivables/payables	*-*	*15*	*-*	*(9)*	*-*	*17*	*-*	*(76)*
Other	178	2,541	(2,339)	(3,395)	174	2,649	(1,998)	(2,841)

At December 31, 2021, other non-current assets also included a receivable towards EDF Belgium in respect of nuclear provisions amounting to €96 million (€94 million at December 31, 2020).

Other liabilities include €1,229 million in investments made by tax partners as part of the financing of renewable projects in the United States by tax equity (€1,123 million at December 31, 2020).

NOTE 26 Legal and anti-trust proceedings

The Group is party to a number of legal and anti-trust proceedings with third parties or with legal and/or administrative authorities (including tax authorities) in the normal course of its business.

The main disputes and investigations presented hereafter are recognized as liabilities or give rise to contingent assets or liabilities.

In the normal course of its business, the Group is involved in a number of disputes and investigations before state courts, arbitral tribunals or regulatory authorities. The disputes and investigations that could have a material impact on the Group are presented below.

26.1 Renewables

26.1.1 Mexico – Renewable energy

In the past few months, the Mexican government and public authorities have taken positions and legislative and regulatory measures that directly affect private players in the energy sector (in particular renewable energy producers) and go against the letter and spirit of the latest energy sector reforms introduced in 2013 and 2014. The constitutionality and legality of some of these measures have been contested in legal proceedings launched by non-government bodies and private investors, in particular by ENGIE subsidiaries that develop or implement renewable energy projects in the country. These proceedings are currently ongoing. The Mexican President has also submitted a draft revision of the Constitution that would substantially change the regulatory framework applicable to the electricity sector. This will be discussed by parliament in the coming weeks.

26.2 Networks

26.2.1 Investigation into the regulation mechanism for natural gas storage in France

On February 29, 2020, the European Commission announced that it had launched an in-depth investigation into the regulation mechanism for the storage of natural gas introduced on January 1, 2018 to secure France's natural gas supply. Storengy and Géométhane provided the Commission with all the necessary information to substantiate their analyses. The European Commission closed its investigation and published a press release on June 28, 2021 announcing that it had concluded that the regulation mechanism for the storage of natural gas complies with EU rules on State aid. This decision will be published at a later date.

26.3 Energy Solutions

26.3.1 Spain – Púnica

In the Púnica case (investigation into the awarding of contracts), 15 Cofely España employees, as well as the company itself, were placed under investigation by the examining judge in charge of the case. The criminal investigation has been closed since July 19, 2021; the investigating judge requested that Cofely España and eight (former) employees be tried in court. Cofely España has appealed this decision.

26.3.2 Italy – Competition procedure

On May 9, 2019, a fine of €38 million was jointly and severally imposed on ENGIE Servizi SpA and ENGIE Energy Services International S.A. by the Italian Competition Authority (the Authority) for certain alleged anti-competitive practices relating to the award of the Consip FM4 2014 contract. An appeal was lodged with the Lazio Regional Administrative Court (Lazio RAC). On July 18, 2019, the Lazio RAC suspended the payment of the fine, and on July 27, 2020, it overturned the Authority's decision as regards both ENGIE Servizi SpA and ENGIE Energy Services International SA. On November 17, 2020, the Authority appealed the Lazio RAC's decision before Italy's highest administrative court. Proceedings before the Italy's highest administrative court are still underway.

26.3.3 Concessions in Buenos Aires and Santa Fe

In 2003, ENGIE and its joint shareholders, water distribution concession operators in Buenos Aires and Santa Fe, initiated two arbitration proceedings against the Argentinean State before the International Center for Settlement of Investment Disputes (ICSID). The purpose of these proceedings was to obtain compensation for the loss in value of investments made since the start of the concession, in accordance with bilateral investment protection treaties.

As a reminder, prior to the stock market listing of SUEZ Environnement Company, ENGIE and SUEZ (formerly SUEZ Environnement) entered into an agreement providing for the economic transfer to SUEZ of the rights and obligations relating to the ownership interests held by ENGIE in Aguas Argentinas and Aguas Provinciales de Santa Fe, including the rights and obligations resulting from the arbitration proceedings.

On April 9, 2015, the ICSID ordered the Argentinean State to pay USD 405 million in respect of the termination of the Buenos Aires water distribution and treatment concession contracts (including USD 367 million to ENGIE and its subsidiaries), and on December 4, 2015, to pay USD 225 million in respect of the termination of the Santa Fe concession contracts.

The Argentinean State sought the annulment of these awards. By decision dated May 5, 2017, the claim for the annulment of the Buenos Aires award was rejected. The claim to annul the award in the Santa Fe case was rejected by a decision dated December 14, 2018. Consequently, the two ICSID awards, which are a step in the settlement of the dispute, are now final.

The Argentinean government and the various shareholders of Aguas Argentinas entered into and implemented a settlement agreement in accordance with the arbitral award of April 9, 2015, handed down in respect of the water distribution and treatment concession contracts in Buenos Aires. In accordance with the above-mentioned agreement concerning the economic transfer to SUEZ of ENGIE's rights and obligations, SUEZ and its subsidiaries received €224.1 million in cash. Furthermore, the December 14, 2018 ruling pertaining to the water distribution and wastewater treatment concessions granted to Aguas Provinciales de Santa Fe has yet to be applied.

The settlement for the Aguas Provinciales de Santa Fe concession will no longer have any financial impact on ENGIE given the sale of its shares in SUEZ.

26.4 Supply

26.4.1 Canvassing

EDF brought an action against ENGIE before the Nanterre Commercial Court on July 20, 2017, seeking €13.5 million in damages for alleged losses due to unfair competitive practices pursued by ENGIE mainly in its door-to-door canvassing campaigns. In its judgment of December 14, 2017, the court ordered ENGIE to pay EDF the sum of €150,000, concluding that ENGIE was guilty of unfair competition but acknowledging that there had been no disparagement of EDF and that ENGIE had set up training and control arrangements for its partners.

ENGIE appealed the judgment and EDF brought a cross-appeal seeking €94.7 million in damages for its alleged loss. The Versailles Court of Appeal delivered its judgment on March 12, 2019, ordering ENGIE to pay EDF €1 million. It also ordered ENGIE to cease and desist from all parasitic business practices and disparagement to the detriment of EDF, subject to a penalty of €10,000 per infringement for a period of one year.

On July 6, 2020, EDF asked the enforcement judge at the Nanterre Court to assess the penalty ordered by the Versailles Court of Appeal, seeking payment from ENGIE of the sum of €106.89 million and a final penalty of €50,000 per infringement for a period of one year. On December 11, 2020, the enforcement judge ordered ENGIE to pay EDF the sum of €230,000and ordered a new provisional penalty of €15,000 per new infringement for a period of one year as of notification of the judgment by EDF.

On December 22, 2020, EDF appealed the enforcement judge's decision before the Versailles Court of Appeal. The Versailles Court of Appeal handed down its decision on July 1, 2021. It reduced ENGIE's fine to €190,000 and, considering that ENGIE had demonstrably implemented measures that were likely to be efficient and that the difficulties encountered stemmed for the most part from the behavior of service providers/partners and door-to-door salespeople, annulled the new provisional penalty and rejected EDF's request to impose a definitive penalty. EDF appealed this decision before the French Court of Cassation on July 29, 2021.

26.4.2 Commissioning

Regarding the customer management services carried out on behalf of the grid manager in the electricity sector (in this case ERDF, now ENEDIS), following proceedings brought by ENGIE, in a decision of July 13, 2016, the *Conseil d'État* ruled that the principle whereby the grid manager pays compensation to the supplier should apply. In the same decision, the *Conseil d'État* denied the CRE the right to set a customer threshold beyond which the compensation would not be payable, which hitherto prevented ENGIE from receiving any compensation. In light of this decision, ENGIE brought an action against ENEDIS with the purpose of obtaining payment for these customer management services. The legislature has adopted a decision that retroactively validates the agreements entered into with ENEDIS and precludes any request for compensation for unpaid customer management services. In a decision handed down on April 19, 2019, the Constitutional Court ruled that this provision was constitutional. The proceedings against ENEDIS are still underway.

26.5 Thermal

26.5.1 Italy – Vado Ligure

On March 11, 2014, the Court of Savona seized and closed down the VL3 and VL4 coal-fired production units at the Vado Ligure thermal power plant belonging to Tirreno Power S.p.A. (TP), a company which is 50%-owned by the ENGIE group. This decision was taken as part of a criminal investigation against the present and former executive managers of TP into environmental infringements and public health risks. The investigation was closed on July 20, 2016. The case was referred to the Savone Court to be tried on the merits. The proceedings before the Court of First Instance began on December 11, 2018 and will continue through 2022.

26.5.2 Claim against sales tax adjustments in Brazil

On December 14, 2018, the Brazilian tax authorities sent ENGIE Brasil Energia S.A. tax deficiency notices for the 2014, 2015 and 2016 fiscal years considering that the company was liable for the PIS and COFINS taxes (federal value added taxes) on the reimbursement of certain fuels used in the production of energy by thermoelectric plants. The adjustments amounted to a total of 528 million Brazilian real, including 229 million Brazilian real in taxes plus fines and interest.

ENGIE Brasil Energia disputes these tax deficiency notices and introduced tax claims in 2019, which the tax authorities have rejected, however. A final claim at administrative level (prior to possible appeals before tax courts at judicial level) was filed by ENGIE Brasil Energia in January 2020.

26.5.3 Claim by the Dutch tax authorities related to power plant impairment losses

The Dutch tax authorities have disallowed the tax deduction of asset impairment losses reported by ENGIE Energie Nederland NV on its 2010-2013 tax returns. The authorities challenged both the period of coverage of the impairment losses and the amount. Accordingly, they added back the full amount of the accumulated asset impairment losses over the abovementioned period, *i.e.*, an amount of €1.9 billion. ENGIE has contested the tax authorities' position as regards both the period and the amount and filed an administrative appeal in November 2018, which was rejected in February 2019. In the second half of 2021, ENGIE and the tax authorities agreed on a sum of €44 million to end this dispute.

26.6 Nuclear

26.6.1 Resumption and extension of operations at the nuclear power plants

Various associations have brought actions before the Constitutional Court, the *Conseil d'État* and the ordinary courts against the laws and administrative decisions authorizing the extension of operations at the Doel 1 and 2 and Tihange 1 reactors. The Brussels Court of Appeal dismissed Greenpeace's claims in a decision dated June 12, 2018. Greenpeace appealed this decision before the Court of Cassation. This appeal was rejected by a ruling of the Court of Cassation dated January 9, 2020, such that the decision by the Brussels Court of Appeal dated June 12, 2018 is now final. As for the action brought before the Constitutional Court, on June 22, 2017 the Court referred the case to the Court of Justice of the European Union (CJEU) for a preliminary ruling. In its judgment of July 29, 2019, the CJEU ruled that the Belgian law extending the operating lives of the Doel 1 and Doel 2 reactors (Law extending Doel 1 and Doel 2) was adopted without the required environmental assessments being carried out first, but that the effects of the law on extension may provisionally be maintained where there is a genuine and serious threat of an interruption to electricity supply, and then only for the length of time that is strictly necessary to eliminate this threat. In its decision of March 5, 2020, the Constitutional Court overturned the Law extending Doel 1 and Doel 2, while maintaining its effects until the legislator adopts a new law after having carried out the required environmental assessments, including a cross-border public consultation process, by December 31, 2022 at the latest. The appeal before the *Conseil d'État* is still ongoing.

In addition, some local authorities and various organizations have challenged the authorization to restart operations at the Tihange 2 reactor. On November 9, 2018, the *Conseil d'État* rejected the action brought by some local German authorities seeking the annulment of this decision. Civil proceedings were also ongoing before the Brussels Court of First Instance. On September 3, 2020, the Court ruled that the case was admissible, but unfounded.

26.7 Other

26.7.1 Withholding tax

In their tax deficiency notice dated December 22, 2008, the French tax authorities questioned the tax treatment of the non recourse sale by SUEZ (now ENGIE) of a withholding tax (*précompte*) receivable in 2005 for an amount of €995 million (receivable relating to the *précompte* paid in respect of the 1999-2003 fiscal years). The Montreuil Administrative Court handed down a judgment in ENGIE's favor in April 2019, which led to the French tax authorities to appeal the decision before the Versailles Court of Appeal, which overturned the prior Court's decision on December 22, 2021. While recognizing the fiscal nature of the receivable sold, the Court did not validate the exemption of the sale price because there was no text or principle to that effect, and because the sale was not authorized by the State.

Regarding the dispute over the *précompte* itself, on February 1, 2016, the *Conseil d'État* dismissed the appeal before the Court of Cassation seeking the repayment of the *précompte* in respect of the 1999, 2000 and 2001 fiscal years. On June 23, 2020, the Versailles Administrative Court of Appeal found in favor of ENGIE as regards the cases seeking repayment of the *précompte* in respect of the 2002 and 2003 fiscal years but rejected the case in respect of the 2004 fiscal year. As the *précompte* receivables for 2002/2003 have been assigned, the relevant amounts will be repaid to the assignee banks. The case has been referred to the *Conseil d'État* by the two parties. Pursuant to an application for a priority preliminary ruling on the issue of constitutionality, on October 23, 2020, the *Conseil d'État* decided to seek a preliminary ruling from the Court of Justice of the European Union to ascertain whether Directive 90/435/EC of 1990 precludes the withholding of the *précompte* upon the redistribution by a parent company of dividends received from subsidiaries established in the European Union.

Furthermore, after ENGIE and several French groups lodged a complaint, on April 28, 2016, the European Commission issued a reasoned opinion to the French State as part of infringement proceedings, setting out its view that the *Conseil d'État* did not comply with European Union law when handing down decisions in disputes regarding the *précompte*, such as those involving ENGIE. On July 10, 2017, the European Commission referred the matter to the Court of Justice of the European Union (CJEU) on the grounds of France's failure to comply. On October 4, 2018, the Court of Justice of the European Union ruled partially in favor of the European Commission. Following this decision, France must revisit its methodology in order to determine the *précompte* repayment amounts in closed and pending court cases.

26.7.2 Luxembourg – State aid investigation

On September 19, 2016, the European Commission announced its decision to open an investigation into whether or not two private rulings granted by the Luxembourg State in 2008 and 2010 covering two similar transactions between several of the Group's Luxembourg subsidiaries constituted State aid. On June 20, 2018, the European Commission adopted a final, unfavorable decision deeming that Luxembourg had provided ENGIE with State aid. On September 4, 2018, ENGIE requested the annulment of the decision before the European Courts, thereby challenging the existence of a selective advantage. As these proceedings do not have a suspensive effect, ENGIE paid a sum of €123 million into an escrow account on October 22, 2018 in respect of one of the two transactions in question, since no aid was actually received for the other. Following the proceedings before the European Courts, this sum will be returned to ENGIE or paid to the Luxembourg State depending on whether or not the Commission's decision is annulled. On May 12, 2021, the Court rejected the appeals of the Luxembourg State and of ENGIE, thereby confirming the European Commission's position on the existence of State aid granted to the Group's Luxembourg subsidiaries. On July 22, 2021, ENGIE referred the matter to the Court of Justice of the European Union seeking the annulment of the Court's decision. The proceedings are currently ongoing.

26.7.3 Poland – Competition procedure

On November 7, 2019, a fine of 172 million Polish zloty (€40 million) was imposed on ENGIE Energy Management Holding Switzerland AG (EEMHS) for failing to respond to a request for disclosure of documents from the Polish Competition Authority (UOKiK) in proceedings initiated by the UOKiK which suspected a potential failure to notify by EEMHS and other financial investors involved in the financing of the Nord Stream 2 pipeline (main proceeding). EEMHS filed an appeal with the Competition Protection Court. The appeal proceedings are pending.

In the context of the main proceedings, on October 6, 2020, the UOKiK ordered EEMHS to pay a fine of 55.5 million Polish zlotys (approximately €12.3 million). The UOKiK also ordered the termination of the financing agreements for the Nord Stream 2 project. On November 5, 2020, EEMHS appealed this decision with the Competition Protection Court. The appeal automatically suspends the execution of all of the penalties ordered by the UOKiK. The appeal proceedings are pending.

26.7.4 Sale of 29.9% of the capital of SUEZ to Veolia

In the context of the sale by ENGIE of 29.9% of the capital of SUEZ to Veolia on October 6, 2020, ENGIE was summonsed to various proceedings, both in summary hearings or hearings on the merits, and both in labor law and commercial law matters. The main proceedings involved Veolia and SUEZ and were initiated by SUEZ, acting alone or jointly with its staff representation bodies. All these proceedings were closed following the agreement between Veolia and SUEZ on May 14, 2021. ENGIE has acted within its rights in all circumstances, has not violated any of its obligations and there is no irregularity in the form or substance of the sale to Veolia, which is now final, that is likely to affect the validity thereof.

26.7.5 Claim by the Dutch tax authorities related to interest deductibility

Based on a disputable interpretation of a statutory modification that came into force in 2007, the Dutch tax authorities refuse the deductibility of a portion (€1.1 billion) of the interest paid on financing contracted for the acquisition of investments made in the Netherlands since 2000. Following the Dutch tax authorities' rejection of the administrative claim against the 2007 tax assessment, action was brought before the Arnhem Court of First Instance in June 2016. On October 4, 2018, the court ruled in favor of the tax authorities. On October 26, 2020, the ruling was confirmed by the Arnhem Court of Appeal. ENGIE Energie Nederland Holding BV considers that the Court committed errors in law and that its decision was not well-founded, either under Dutch or European law. It has therefore appealed the decision before the Court of Cassation. The hearing took place in June 2021 and a decision is expected in the first half of 2022.

26.7.6 Transfer price of gas

The Belgian tax authorities' Special Tax Inspectorate has issued two tax deficiency notices in respect of taxable income for fiscal years 2012 and 2013 for an aggregate amount of €706 million, considering that the price applied for the supply of gas by ENGIE (then GDF SUEZ) to Electrabel S.A. was excessive. ENGIE and Electrabel S.A. are challenging this adjustment and have submitted a request for conciliation proceedings, which was accepted by France and Belgium in May 2018. The proceedings are ongoing between the two States, with no major progress made in 2021.

26.7.7 Italy – Tax dispute relating to excise duties and ENGIE Italia VAT (formerly GDF SUEZ Energie)

In 2017, the Italian tax authorities challenged the excise duty waiver for gas transfers carried out by ENGIE Italia SpA (ENGIE Italia) for industrial customers in Italy on the grounds that it did not have a certificate for these customers. The authorities plan to issue a tax reassessment for a total amount of €126 million (excise duties, VAT, late payment penalties and interest). ENGIE Italia has challenged the legality of this procedure both in light of Italian and European law and in any event deems the sanction to be disproportionate compared to a formal requirement.

In 2018, ENGIE Italia launched an appeal with the Perugia Court of First Instance requesting the cancellation of the tax reassessment notice.

In October 2018, the Court of First Instance dismissed the cancellation request, simply applying an outdated ministerial decree and ignoring ENGIE Italia's legal arguments.

ENGIE Italia appealed the ruling in November 2018 and the Court of Appeal ruled in its favor in November 2019 on the grounds that the documents requested by the Italian tax authorities were not legal and that the authorities needed to take into account the factual situation of the taxpayer to determine its requirement to pay excise duties. In 2020, the tax authorities referred the case to the Court of Cassation. In August 2021, an agreement with the Italian tax authorities was formalized leading to the payment of an amount of €3.2 million relating to excise duties. Discussions are still ongoing to finalize the issues of VAT and local tax on the excise duties.

NOTE 27 Subsequent events

Disposal of ENGIE's remaining stake in SUEZ

On January 18, 2022, the Group contributed its remaining 1.8% stake in SUEZ as part of the public offer initiated by the VEOLIA Group. This transaction will have no impact on the Group's 2022 results, as the interest was measured at fair value at December 31, 2021. It will reduce the Group's net debt by €227 million in 2022.

NOTE 28 Fees paid to the Statutory Auditors and to members of their networks

Pursuant to Article 222-8 of the General Regulations of the French Financial Markets Authority (AMF), the following table presents information on the fees paid by ENGIE SA, its fully consolidated subsidiaries and joint operations to each of the Auditors in charge of auditing the annual and consolidated financial statements of the ENGIE group.

The Shareholders' Meeting of ENGIE SA of May 14, 2020 decided to renew the terms of office of Deloitte and EY as Statutory Auditors for a six-year period from 2020 to 2025.

	Deloitte			EY			
In millions of euros	Deloitte & Associés	Network	Total	EY & others	Network	Total	Total
Statutory audit and review of consolidated and parent company financial statements	**6.8**	**8.5**	**15.4**	**6.7**	**11.7**	**18.4**	**33.8**
• ENGIE SA	2.8	-	2.8	3.5	-	3.5	6.3
• Controlled entities	4.1	8.5	12.6	3.2	11.7	14.9	27.5
Non-audit services	**0.6**	**8.2**	**8.7**	**1.0**	**0.7**	**1.7**	**10.4**
• ENGIE SA	**0.5**	**7.5**	**8.0**	**0.8**	**0.0**	**0.8**	**8.8**
Of which services related to legal and regulatory requirements	*0.3*	-	*0.3*	*0.3*	-	*0.3*	*0.6*
Of which other audit services	*0.2*	-	*0.2*	*0.4*	-	*0.4*	*0.6*
Of which reviews of internal control	-	-	-	-	-	-	-
Of which due diligence services	-	*7.5*	*7.5*	*0.1*	-	*0.1*	*7.6*
Of which tax services	-	-	-	-	*0.0*	*0.0*	*0.0*
• Controlled entities	**0.1**	**0.7**	**0.7**	**0.2**	**0.7**	**0.8**	**1.6**
Of which services related to legal and regulatory requirements	-	*0.3*	*0.3*	*0.1*	*0.2*	*0.3*	*0.6*
Of which other audit services	*0.1*	*0.1*	*0.1*	*0.0*	*0.3*	*0.3*	*0.4*
Of which reviews of internal control	-	*0.1*	*0.1*	-	-	-	*0.1*
Of which due diligence services	-	-	-	-	-	-	-
Of which tax services	-	*0.3*	*0.3*	-	*0.2*	*0.2*	*0.5*
TOTAL	**7.4**	**16.7**	**24.1**	**7.7**	**12.4**	**20.1**	**44.2**

NOTE 29 Information regarding Luxembourg and Dutch companies exempted from the requirements to publish annual financial statements

Some companies in the Rest of Europe and Others reportable segments do not publish annual financial statements pursuant to domestic provisions under Luxembourg law (Article 70 of the Law of December 19, 2002) and Dutch law (Article 403 of the Civil Code) relating to the exemption from the requirement to publish audited annual financial statements.

The companies exempted are notably: ENGIE Energie Nederland NV, ENGIE Energie Nederland Holding BV, ENGIE Nederland Retail BV, ENGIE United Consumers Energie BV, Electrabel Invest Luxembourg, ENGIE Treasury Management SARL and ENGIE Invest International SA.

6.3 Statutory auditors' report on the consolidated financial statements

This is a free translation into English of the statutory auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users.

This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the information concerning the Group presented in the management report.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Year ended December 31, 2021

To the Shareholders' Meeting of ENGIE,

Opinion

In compliance with the engagement entrusted to us by your Shareholder's Meeting, we have audited the accompanying consolidated financial statements of ENGIE for the year ended December 31, 2021.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as of December 31, 2021 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for opinion

Audit framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the "Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements" section of our report.

Independence

We conducted our audit engagement in compliance with the independence rules provided for in the French Commercial Code (*Code de commerce*) and the French Code of Ethics (*Code de déontologie*) for Statutory Auditors, for the period from January 1, 2021 to the date of our report, and, in particular, we did not provide any non-audit services prohibited by Article 5(1) of Regulation (EU) No. 537/2014.

Justification of assessments – Key audit matters

Due to the global crisis related to the COVID-19 pandemic, the financial statements of this period have been prepared and audited under specific conditions. Indeed, this crisis and the exceptional measures taken in the context of the health emergency have had numerous consequences for companies, particularly on their operations and financing, and have led to greater uncertainties as to their future prospects. Some of those measures, such as travel restrictions and remote working, have also had an impact on their internal organization and the performance of audits.

It is in this complex and evolving context that, in accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code relating to the justification of our assessments, we inform you of the key audit matters relating to the risks of material misstatement that, in our professional judgement, were the most significant in our audit of the consolidated financial statements, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Measurement of the recoverable amount of goodwill, intangible assets and property, plant & equipment

[Notes 1.3 Use of estimates and judgment, 10.1 Impairment losses, 14 Goodwill, 15 Intangible Assets and 16 Property, Plant and Equipment]

Key audit matter

As of December 31, 2021, the net carrying amount of goodwill, intangible assets and property, plant & equipment amounted to €70.7 billion (after recognition of impairment losses of €1 billion in 2021), or 31.4% of total assets, and breaks down as follows:

- Goodwill: €12.8 billion;
- Intangible assets: €6.8 billion;
- Property, plant & equipment: €51.1 billion.

Following the set-up of its new organization as of February 1, 2021, your Group considered that the activities underlying the Global Business Units (GBU) correspond to operating segments within the meaning of *IFRS 8 – Operating segments* and therefore represent the smallest level at which goodwill is monitored for internal management purposes. Your Group therefore reallocated the goodwill of the former geographical Business Units to the activities underlying the GBU, in accordance with *IAS 36 – Impairment of assets.*

As of December 31, 2021 goodwill therefore breaks down as follows between the various operating segments:

- Infrastructures: €5.3 billion;
- Renewables: €2.2 billion;
- Supply: €1.8 billion;
- Energy Solutions: €1.3 billion;
- Thermal: €1.1 billion;
- Nuclear: €0.8 billion; and
- Other: €0.3 billion.

For operating entities which your Group intends to hold on a long-term and going concern basis, the recoverable amount corresponds, in most cases, to the value in use, determined based on:

- cash flow projections on the basis of the 2022 budget and 2023-2024 medium-term business plan approved by the Group's Executive Committee and the Board of Directors and,
- beyond this time frame, extrapolated future cash flow projections determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates), fundamental supply and demand equilibrium models, long-term projections for CO_2 which take into account the 2030 emissions reduction target of 55% and the 2050 climate neutrality objectives set by the European Commission as part of the "European Green Deal" presented in December 2019 and July 2021, and price projections featured in the Group's reference scenario for 2025-2040 approved by the Executive Committee.

These recoverable amounts are based on key assumptions, presented in Note 14.4, relating to market outlook and changes in the regulatory environment of which any modification could have a material impact on the amount of impairment losses to be recognized.

For goodwill which had the greatest risk of impairment in our opinion, valuations are primarily based on the following decisive assumptions:

- for the Nuclear activity, the values allocated to the price of fuel and CO_2, electricity demand and price trends, power plant availability, future market prospects as well as the regulatory framework. The Group considered in particular (i) a gradual phase-out, by 2025, of all units in Belgium and (ii) the extension of drawing rights agreements for French nuclear plants beyond the current operating periods;
- for the Renewables activity, the renewal of the hydropower concession agreements and changes in electricity prices beyond the liquidity period.

Our response

As part of our procedures, we reviewed the conditions under which the Cash-Generating Units were defined and the principles and methods of allocating goodwill to the activities underlying the new GBU.

We have assessed the Group's measures aimed at identifying indications or reversals of impairment losses as well as Management's procedures for approving the estimates.

We have examined the data and the key assumptions used to determine the recoverable amount of assets, assessed the sensitivity of the measurements to these assumptions and verified the calculations performed by the Group with the support of our valuation experts.

Our work on values in use mainly covered:

- the assumptions of the Group's long-term reference scenario (trends in electricity and gas prices and demand, price of CO_2, coal and oil, inflation) for which we have assessed the consistency with external studies carried out by international organizations or energy experts;
- the operational and regulatory assumptions used to prepare cash flow forecasts for which we have assessed the consistency of the asset's operating conditions and their intrinsic performance as well as the applicable regulations to date and their expected changes;
- methods for determining cash flow forecasts for which we assessed:
  - consistency of the baseline data with the budget, the medium-term business plan and, beyond, the Group's long-term scenario;
  - consistency with past performances and market outlook;
- the discount rates for which we have examined the determination methods and the consistency with the underlying market assumptions, using internal specialists;
- Management's sensitivity analysis to the key price, operational and regulatory assumptions for which we have assessed the relevance;

- For operating entities which the Group has decided to sell, we estimated the highly probable nature of such sale, the items considered to assess the recoverable amount as well as the classification process in accordance with *IFRS 5 – Non-current assets held for sale and discontinued operations*.

Finally, we assessed the appropriateness of the disclosure given in Notes 1.3, 10.1, 14.4, 15 and 16 to the consolidated financial statements, notably on sensitivity analyses carried out by the Group.

Key audit matter	Our response
• For operating entities which the Group has decided to sell, the related recoverable amount of the assets concerned is based on market value less costs of disposal. We considered the measurement of the recoverable amount of goodwill, intangible assets and property, plant & equipment to be a key audit matter due to their materiality in the Group's financial statements, the sensitivity of assessments to sector and financial macroeconomic assumptions and the resulting judgments and estimates that Management is required to make in a context which remains sensitive to trends in the energy market and whose consequences make the medium-term economic outlook difficult to anticipate.	

Measurement of provisions relating to the back-end of the nuclear fuel cycle and the dismantling of nuclear facilities in Belgium

[Notes 1.3 Use of estimates and judgment, 20 Provisions and 20.2 Obligations relating to nuclear facilities]

Key audit matter	Our response
Your Group has obligations relating to the reprocessing and storage of radioactive nuclear fuel consumed and the dismantling of nuclear facilities operated in Belgium. Pursuant to the Belgian law of April 11, 2003, the management of corresponding provisions is entrusted to the Group's wholly-owned subsidiary Synatom which submits a report every three years to the Commission for Nuclear Provisions (CNP) describing the core inputs used to measure these provisions. The CNP issues its opinion based on the opinion issued by the Belgian agency for radioactive waste and enriched fissile material (ONDRAF) which reviews all of the characteristics and technical parameters of the report. As of December 31, 2021, these medium- and long-term nuclear provisions amounted to €8 billion for the management of spent nuclear fuel and €6.3 billion for the dismantling of nuclear power plants. These provisions are estimated from the current legal and contractual framework and on the basis of the opinion issued by the CNP on December 12, 2019 as part of the three-year review as provided for by law and regulations. Assuming changes that could significantly modify the financial parameters used are observed between the two three-year assessments, the industrial scenario and the cost estimate or timetable, the Commission may review its opinion and this could impact the Group's profit for the period. We considered the measurement of these provisions to be a key audit matter due to their respective material amounts and their sensitivity to industrial scenarios used and estimates of related costs such as, in particular: • concerning provisions relating to the back-end of the nuclear fuel cycle, the decisions will be ultimately made by the Belgian government relating to the management of radioactive spent fuel (reprocessing of a portion of spent fuel or direct removal, without prior reprocessing) and long-term management of fuel (cost of burying fuel in deep geological repositories or long-term on-site storage); • concerning the provisions for the dismantling of nuclear facilities, the dismantling program and the timetables approved, or not, by the nuclear safety authorities. This measurement is also sensitive to the applied macro-economic assumptions (inflation and discount rates).	Following the last three-year review of the provisions in 2019, we (i) examined the conclusions, observations and recommendations set out in the ONDRAF and CPN opinions, (ii) verified the bases used to assess the provisions and (iii) assessed the sensitivity of measurements to the technical assumptions and industrial scenarios, notably for the management of radioactive fuel, as well as assumptions relating to costs, operations timetable and inflation and discount rates applied to cash flows. Given the absence of any three-year review or changes that could significantly modify the financial parameters used by the end of 2021, the industrial scenario and the cost estimate or timetable, and considering the audit procedures already conducted during the last three-year provision review in 2019, our work mainly consisted in assessing: • the consistency of industrial scenarios in light of the decisions made or actions considered by your Group or the authorities and the consistency of forecasts of costs by nature and forecasts of cash outflows; • the consistency of discount rates with underlying market assumptions. Finally, we evaluated the appropriateness of the disclosure given in the notes 1.3, 20 and 20.2 to the consolidated financial statements, notably on the sensitivity of provision measurement to changes in key assumptions.

Main estimates and judgments relating to revenue

[Notes 1.3 Use of estimates and judgment, 8.1 Revenue and 8.2.1 Trade receivables and other debtors, contract assets]

Key audit matter	Our response
Your Group makes estimates and uses judgments notably for the recognition of (i) sales of electricity and gas delivered, not metered and not invoiced (known as "metered energy") and, in the specific case of the financial year ended December 31, 2021, (ii) gas sales made in France under the government's "tariff shield" scheme. **Revenue relating to un-metered and unbilled delivered sales of electricity and gas ("energy in the meter"):** The valuation of revenue relating to sales of electricity and gas for customers which are only metered during the accounting period represents a material estimate at the year-end. Indeed, as the meter readings are sometimes communicated by grid managers several months after the actual delivery date, your Group is required to estimate the energy delivered but not metered at the year-end. As of December 31, 2021, receivables relating to revenue in the meter (delivered gas and electricity that is unbilled and un-metered) totaled €4.6 billion and mainly involved France and Belgium. These receivables are determined on the basis of a method that takes into account an estimate of customers' consumption based on the previous bill, or the last metering not yet billed, in line with the volume of energy allocated by grid managers, using measurement and modeling tools developed by your Group. The volumes are measured at the average energy price, which takes account of the category of customers and the age of the delivered unbilled energy in the meter. **Compensation relating to sales of gas in France under the French government's "tariff shield" system** The high volatility observed on the energy markets and the resulting significant increase in natural gas prices led the French Government to cap, from November 1, 2021 and temporarily until June 30, 2022 through the "tariff shield" introduced by the finance law for 2022 (law no. 2021-1900 of December 30, 2021), the regulated gas sales tariffs at the level of those of October 1, 2021. Losses of revenue incurred by your company at from November 1, 2021 constitute charges attributable to public service obligations and are subject to compensation through an irrevocable guarantee given by the French State. In this context, your Group has exercised its judgment to determine the methods of accounting for the compensation to be received in this respect, the amount of which is estimated at approximately €248 million as of December 31, 2021. Considering the amounts at stakes, the sensitivity of the estimate to the assumptions used for the volumes and average energy prices, and we have considered (i) the estimate of the share of revenue delivered and not recorded as well as (ii) the compensation to be received on the closing date under the price shield scheme as a key audit matter.	**Revenue relating to un-metered and unbilled delivered sales of electricity and gas ("energy in the meter")** The procedures conducted on the estimate of un-metered revenue recognized in France and Belgium mainly consisted in: • considering the internal control procedures implemented by the Group about the billing process, and the process enabling the reliability of the accounting estimates for the energy in the meter; • assessing the models used by your Group and investigate the modality of the computation for the estimated volumes; we include a specialist in algorithm in our audit team. We have also: • compared the information about the volumes delivered and determined by the Group with the metering data provided by the grid operators; • examined that the methods used for the computation of the average price of the un-metered delivered power take account of its age in the meter and the different kinds of customers; • analyzed the consistency of the volumes committed in the employment operations (sales, injections and stocks) and with the energy resources (purchases, withdrawals and stocks) on the networks; • assessed the regular clearance of the metered energy during the period; • assessed the age of the energy in the meter at the year-end. **Compensation relating to sales of gas in France under the French government's "tariff shield" system** Regarding the impacts arising from the implementation of the tariff shield mechanism in France, our procedures mainly consisted in: • examined the government decree of October 23, 2021 and the legislative provisions voted within the 2022 finance law ("Loi de Finance 2022"); • analyzed the financial consequences drawn by your company from the application of the various provisions governing the tariff shield, as well as the valuation of the loss of earnings for the period from November 1, 2021 to December 31, 2021; • assessed the accounting treatment and the methods of presentation of the income to be recognized in the income statement and the related receivable as of December 31, 2021. Finally, we assessed the appropriateness of the disclosure in Notes 1.3, 8.1 and 8.2.1 to the consolidated financial statements.

Specific verifications

As required by French law, we have also verified in accordance with professional standards applicable in France the information concerning the Group presented in the Board of Directors' management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial performance statement provided for in Article L.225-102-1 of the French Commercial Code is included in the disclosures relating to the Group presented in the management report, it being specified that, in accordance with Article L.823-10 of the Code, we have not verified the fairness of the information contained in this statement or its consistency with the consolidated financial statements that must be verified in a report by an independent third party.

Other Legal and Regulatory Verifications or Information

Format of presentation of the consolidated financial statements intended to be included in the annual financial report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by the statutory auditor relating to the annual and consolidated financial statements presented in the European single electronic format, that the presentation of the consolidated financial statements intended to be included in the annual financial report mentioned in Article L.451-1-2, I of the French Monetary and Financial Code (*Code monétaire et financier*), prepared under the responsibility of the Chief Executive Officer, complies with the single electronic format defined in the European Delegated Regulation No 2019/815 of December 17, 2018. As it relates to consolidated financial statements, our work includes verifying that the tagging of these consolidated financial statements complies with the format defined in the above delegated regulation.

Based on the work we have performed, we conclude that the presentation of the consolidated financial statements intended to be included in the annual financial report complies, in all material respects, with the European single electronic format.

We have no responsibility to verify that the annual financial statements that will ultimately be included by your company in the annual financial report filed with the AMF are in agreement with those on which we have performed our work.

Appointment of the Statutory Auditors

We were appointed statutory auditors of ENGIE by your Shareholders' Meeting on May 19, 2008 for Ernst & Young et Autres and on July 16, 2008 for Deloitte & Associés.

As of December 31, 2021, our firms were in their fourteenth year of uninterrupted engagement.

Ernst & Young Audit was previously statutory auditor between 1995 and 2007.

Responsibilities of Management and those charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with International Financial Reporting Standards as adopted by the European Union for implementing internal control it deems necessary for the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements have been approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Objective and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L.823-10-1 of the French Commercial Code, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company. As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;

- Evaluates the overall presentation of the consolidated financial statements and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities of the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements as well as for the audit opinion.

Report to the Audit Committee

We submit a report to the Audit Committee which includes, in particular, a description of the scope of the audit and the relating audit program implemented, as well as the results of our audit procedures. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L.822-10 to L.822-14 of the French Commercial Code and in the French Code of Ethics for statutory auditors. When appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense, March 4, 2022

The Statutory Auditors

French original signed by

DELOITTE & ASSOCIES		ERNST & YOUNG et Autres	
Patrick E. Suissa	Nadia Laadouli	Charles-Emmanuel Chosson	Guillaume Rouger

6.4 Parent company financial statements at December 31, 2021

6.4.1 Parent company financial statements

Balance sheet

Assets

		Dec. 31, 2021			Dec. 31, 2020
In millions of euros	Note	Gross	Depreciation amortization and impairment	Net	Net
Non-current assets					
Intangible assets	3	2,201	1,645	555	587
Property, plant and equipment	3	949	561	388	370
Financial fixed assets	4				
Equity investments		74,679	11,319	63,361	60,324
Other financial fixed assets		180	71	109	356
Total non-current assets	I	**78,009**	**13,596**	**64,413**	**61,637**
Current assets					
Inventories	5				
Gas reserves		1,168	-	1,168	440
Energy savings certificates		435	-	435	280
Other		541	-	541	450
ADVANCES AND DOWNPAYMENTS GIVEN ON ORDERS		**147**	-	**147**	**73**
OPERATING RECEIVABLES	6				
Trade and other receivables		12,260	389	11,871	3,951
Other operating receivables		651	-	651	655
MISCELLANEOUS RECEIVABLES					
Current accounts with subsidiaries		7,533	-	7,533	8,135
Other miscellaneous receivables		7,555	1	7,554	3,125
MARKETABLE SECURITIES	7	**3,509**	**1**	**3,508**	**3,261**
CASH AND CASH EQUIVALENTS		**191**	-	**191**	**219**
Total current assets		33,991	391	33,600	20,590
Accruals	8	**5,673**	-	**5,673**	**1,771**
Unrealized foreign exchange losses	8	**272**	-	**272**	**304**
TOTAL ASSETS (I TO IV)		**117,944**	**13,987**	**103,958**	**84,302**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes

Equity and liabilities

In millions of euros		Note	Dec. 31, 2021	Dec. 31, 2020
Equity				
Shareholders' equity		**9**		
Share capital			2,435	2,435
Additional paid-in capital			26,058	31,291
Revaluation adjustments			39	39
Legal reserve			244	244
Other reserves			8	-
Retained earnings			(90)	-
Net income/(loss)			1,780	(3,928)
Interim dividend			-	-
Tax-driven provisions and investment subsidies		10.2	735	621
Total shareholders' equity	**I**		**31,211**	**30,702**
Other equity	**II**		**1**	**1**
Total equity	**I+II**		**31,212**	**30,703**
Provisions for contingencies and losses	**III**	**10.1**	**2,968**	**3,151**
Liabilities		**11**		
Borrowings and debt		**11**		
Borrowings			33,015	31,924
Amounts payable to equity investments			4,850	4,350
Current accounts with subsidiaries			1,150	1,377
Other borrowings and debt			346	507
Total borrowings and debt	**IV**		**39,361**	**38,158**
Current liabilities				
Advances and down payments received on orders			6	6
Trade and other payables			13,976	6,231
Tax and employee-related liabilities			1,661	1,188
Other liabilities			9,176	2,285
Total current liabilities	**V**		**24,819**	**9,710**
Total liabilities	**IV+V**		**64,180**	**47,868**
Accruals	**VI**	**12**	**5,354**	**2,242**
Unrealized foreign exchange gains	**VII**	**12**	**244**	**339**
TOTAL EQUITY AND LIABILITIES	**(I TO VI)**		**103,958**	**84,302**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes

Income statement

In millions of euros	Note	Dec. 31, 2021	Dec. 31, 2020
Energy sales		32,046	16,015
Other production sold		4,178	3,257
Revenues	**13.1**	**36,224**	**19,272**
Production taken to inventory		-	-
Production for own use		18	15
Total production		**36,242**	**19,287**
Energy purchases and change in reserves		(29,165)	(12,125)
Other purchases and external charges		(7,383)	(7,192)
Value added		**(305)**	**(29)**
Subsidies received		355	87
Taxes and duties		(146)	(102)
Personnel costs	13.2	(507)	(522)
Gross operating income/(loss)		**(603)**	**(567)**
Net additions to depreciation, amortization and impairment		(175)	(257)
Net additions to provisions	13.3	158	(642)
Expense transfers		2	10
Other operating income and expenses		(227)	(185)
Net operating income/(loss)		**(846)**	**(1,640)**
Net financial income/(loss)	**14**	**381**	**1,440**
Net recurring income/(loss)		**(465)**	**(200)**
Net non-recurring income/(loss)	**15**	**1,771**	**(4,260)**
Income tax benefit/(expense)	**16.2**	**474**	**532**
NET INCOME/(LOSS)		**1,780**	**(3,928)**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes

Cash flow statement

In millions of euros		Dec. 31, 2021	Dec. 31, 2020
Cash flow from operations	**1**	**123**	**1,223**
Change in inventories		969	268
Change in trade receivables (net of trade receivables with a credit balance)		7,899	225
Change in trade payables		(7,745)	177
Change in other items		(2,006)	632
Change in working capital requirements	**2**	**(882)**	**1,302**
CASH FLOW FROM/USED IN OPERATING ACTIVITIES	**(1-2) = I**	**1,005**	**(79)**
Property, plant and equipment and intangible assets		250	241
Financial fixed assets		3,199	710
Change in amounts payable on investments		-	-
CASH FLOW USED IN INVESTING ACTIVITIES	**1**	**3,449**	**950**
Third-party contributions		3	5
Net proceeds from asset disposals		1,531	3,545
Decrease in financial fixed assets		738	8
CASH FLOW FROM INVESTING ACTIVITIES	**2**	**2,273**	**3,557**
CASH FLOW FROM/USED IN INVESTING ACTIVITIES	**(1-2) = II**	**1,176**	**(2,607)**
CASH FLOW AFTER OPERATING AND INVESTING ACTIVITIES	**I-II = III**	**(171)**	**2,528**
INCREASE/DECREASE IN CAPITAL	**1**	**-**	**-**
DIVIDENDS AND INTERIM DIVIDENDS PAID TO SHAREHOLDERS	**2**	**(1,296)**	**-**
Bonds		2,541	4,100
Group borrowings		4,001	1,000
Short- and medium-term credit facilities and other borrowings		2,414	1,763
FINANCING RAISED ON CAPITAL MARKETS	**3**	**8,956**	**6,863**
Bonds and short- and medium-term credit facilities		(7,624)	(8,010)
REPAYMENTS AND REDEMPTIONS	**4**	**(7,624)**	**(8,010)**
CASH FLOW FROM/USED IN FINANCING ACTIVITIES	**(1+2+3+4) = IV**	**36**	**(1,147)**
CHANGE IN CASH AND CASH EQUIVALENTS	**(III+IV) = V**	**(135)**	**1,381**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes

6.4.2 Notes to the parent company financial statements

NOTE 1 Summary of significant accounting policies

The 2021 financial statements have been drawn up in euros in compliance with the general principles prescribed by the French chart of accounts, as set out in Regulation No. 2014-03 issued by the French accounting standards-setter (*Autorité des Normes Comptables* – ANC), as updated by all subsequent amending regulations, and with the recommendations published by the ANC:

- recommendations and observations relating to the recognition of the consequences of the Covid-19 event in annual and interim financial statements prepared as of January 1, 2020, version updated in July 2021 *(see Note 6);*
- recommendation 2013-02 on the rules for measuring and accounting for pension and similar employee benefit obligations in the annual financial statements, as amended on November 5, 2021. The amendment introduces the option of using a new methodology for calculating certain obligations. ENGIE SA has elected to apply the new methodology to measure these off-balance sheet commitments *(see Note 18)*.

Financial transactions involving equity investments, securities and the related receivables, especially impairment charges or reversals, are included in items rather than financial items. In accordance with Article 121-3 of the French chart of accounts, ENGIE SA considers that this non benchmark classification gives a more faithful view of the income statement because all items of income and expenses relating to equity investments can be shown together with capital gains or losses on disposals under non-recurring items.

Use of estimates and judgment

The preparation of financial statements requires the use of estimates and assumptions to determine the value of assets and liabilities and contingent assets and liabilities at the reporting date, as well as income and expenses reported during the period.

Developments in the economic and financial environment, particularly relating to highly volatile commodities markets, have prompted the Group to step up its risk oversight procedures, mainly in measuring financial instruments, assessing counterparty risk and liquidity. The estimates used by ENGIE SA, among other things, to test for impairment and to measure provisions, also take into account this environment and the sharp market volatility.

Accounting estimates are made in a context that remains sensitive to energy market developments, therefore making it difficult to apprehend medium- and short-term economic prospects. Particular attention has been paid to the consequences of fluctuations in the price of gas, which increased significantly in the second half of 2021.

Due to uncertainties inherent to the estimation process, ENGIE SA regularly revises its estimates in light of currently available information. Final outcomes could differ from those estimates.

The key estimates used in preparing ENGIE SA's financial statements relate mainly to:

- measurement of equity investments (*see Note 4*):

  The recoverable amount of equity investments is based on estimates and assumptions, regarding in particular the expected market outlook and changes in the regulatory framework, which are used for the measurement of cash flows, whose sensitivity varies depending on the activity, and the determination of the discount rate. Any changes in these assumptions could have a material impact on the measurement of the recoverable amount and could result in the recognition of impairment losses or adjustments to impairment losses already recognized;
- fair value of financial instruments (*see Note 17*):

  To determine the fair value of financial instruments that are not listed on an active market, ENGIE SA uses valuation techniques that are based on certain assumptions. Any change in these assumptions could have a significant impact on the resulting calculations.

  Derivative financial instruments used by ENGIE SA to hedge and manage its currency, interest rate and commodity risk are disclosed in off-balance sheet commitments.

  Changes in the fair value of any such instruments that do not qualify for hedge accounting are recognized in the balance sheet. A provision is booked for unrealized losses, valued based on homogeneous groups of financial instruments with an equivalent underlying asset or liability, whether they are traded over-the-counter or exchange traded.

  In the case of contracts that qualify as hedging instruments, gains or losses are taken to income symmetrically with the gain or loss on the hedged items.

  If the hedged item ceases to exist, the contract is unwound and any gains or losses taken to income.

  ENGIE SA uses internal models representative of market practices to value financial derivative instruments that are not listed on financial markets.

  Option premiums are deferred and recognized in income over the life of the hedge. The premium or discount on forward currency transactions is recognized in income in the initial value of the hedged item;
- energy in the meter (*see Note 6*):

  The amounts receivable in respect of delivered, unmetered and unbilled gas and electricity are calculated using mathematical models including estimated customer consumption and estimated selling prices. The amount of energy in the meter calculated at the closing date varies depending on the assumptions about volume and price (see Section on *Other operating receivables* below);
- measurement of provisions for contingencies and losses (*see Note 10*):

  Provisions for contingencies and losses are estimated on the basis of various assumptions. A change in those assumptions could lead to a significant adjustment to the amount of the provisions;
- measurement of off-balance sheet pension and other employee benefit obligations (*see Note 18*).

  Pension commitments are measured on the basis of actuarial assumptions. Any change in the assumptions used by ENGIE SA could have a significant impact on the valuation of these commitments.

Intangible assets

This caption mainly comprises the purchase cost or production cost of software, amortized over its estimated useful life.

A useful life of between five and seven years is generally used to calculate software amortization.

Other development costs are capitalized provided they meet specific criteria, particularly as regards the pattern in which the intangible asset is expected to generate future economic benefits.

Research costs are expensed in the year in which they are incurred.

Property, plant and equipment

All items of property, plant and equipment are carried at purchase cost or production cost, including ancillary expenses, with the exception of assets acquired prior to December 31, 1976, which are shown at their revalued amount at that date.

Almost all items of property, plant and equipment are depreciated on a straight-line basis.

Assets are depreciated over their useful lives, based on the period over which they are expected to be used. The useful lives for the main asset classes are as follows:

- buildings: 20 to 60 years;
- other: 3 to 15 years.

Borrowing costs incurred in financing an asset are recognized as an expense and amortized over the financing period.

Components

When the components of a given asset cannot be used separately, the overall asset is recognized. If one or more components have different useful lives at the outset, each component is recognized and depreciated separately.

Financial fixed assets

Equity investments

Equity investments represent long-term investments providing ENGIE SA with control or significant influence over the issuer, or helping it to establish business relations with the issuer.

Newly-acquired equity investments are recognized at purchase price plus directly attributable external transaction fees.

Investments which ENGIE SA intends to hold on a long-term basis are written down if their value in use has fallen below their book value. Value in use is assessed by reference to (i) the intrinsic value, which corresponds to net assets plus unrealized gains, or (ii) the yield value, which corresponds to the average of the last 20 stock market prices of the year, or (iii) expected cash flows, using the discounted cash flow (DCF) or dividend discount model (DDM), taking into account any currency hedges.

Investments which ENGIE SA has decided to sell are written down if their estimated sale price is lower than their book value. If sale negotiations are ongoing at the end of the reporting period, the book value of the investments is determined based on a best estimate.

Technical loss

The technical loss arising on a merger is allocated to the underlying assets, which, in this case, are equity investments.

The portion of the loss allocated to an underlying asset is written down if the value of the asset falls below its net book value plus the portion of the loss allocated to it. The write-down is first allocated to the portion of the loss.

In the event of a disposal, the portion of the loss relating to the assets sold is reversed through income.

Amounts receivable from equity investments

This caption consists of loans granted by ENGIE SA to equity investments.

They are recognized at face value. In line with the treatment adopted for equity investments, these amounts are written down if their value in use falls below their face amount.

Provisions for contingencies may be booked if the Company considers that the cost of its commitment exceeds the value of the assets held.

Other financial fixed assets

Investments other than equity investments that ENGIE SA intends to hold on a long-term basis but which do not meet the definition of equity investments are mainly included under this caption.

A write-down may be taken against other financial fixed assets in accordance with the criteria described above for equity investments.

Liquidity agreement and treasury stock

ENGIE SA has signed a liquidity agreement with an investment service provider, whose role is to trade on the market on a daily basis and buy or sell ENGIE SA shares in order to ensure liquidity and an active market for the shares on the Paris and Brussels stock exchanges.

The amounts paid to the investment services provider are included in "Other long-term investments". An impairment loss is recognized against the shares when their average price for the month in which the accounts are closed is lower than their book value.

Inventories

Natural gas reserves

Gas injected into underground reservoirs is included in inventories. It is measured at average purchase cost including domestic and international freight costs upon entering the transportation network regardless of its source, and including any regasification costs. Outflows are measured on a monthly basis using the weighted average unit cost method.

An impairment loss is recognized when the net realizable value of inventories, representing the selling price less costs directly and indirectly attributable to distribution, is lower than weighted average cost.

Energy savings certificates (ESC)

ENGIE SA applies the provisions of the French chart of accounts on the accounting treatment of ESC covered by the "energy savings" model.

Energy sales generate energy savings obligations, which are settled by:

- the purchase of certificates; or
- obtaining certificates by carrying out energy-saving work; or
- payment to the French Treasury (*Trésor Public*) of the fines provided for in Article L. 221-4 of the French Energy Code (*Code de l'énergie*).

Energy savings certificates are accounted for as follows:

- inventory inflows: certificates obtained from the French State in exchange for qualifying energy savings expenditure are recorded at acquisition or production cost. Certificates purchased are valued using the weighted average cost method;
- inventory outflows: certificates are derecognized using the weighted average cost method as and when energy sales generate energy savings obligations or upon disposal, gains or losses on which are recognized in operating income.

At the closing date, the net position is recognized in the financial statement as follows:

- an asset (inventories) is recognized when energy savings obligations are lower than energy savings. Inventories correspond to certificates that have been acquired, obtained or are in the process of being obtained, and that will cover future energy savings obligations. They will subsequently be consumed when energy sales are made, which generate energy savings obligations, or on disposal;
- a liability is recognized when energy savings obligations are higher than energy savings and corresponds to the cost of measures required to settle the obligations related to energy sales made. The liability will subsequently be settled by purchasing certificates or incurring energy savings expenditure that qualify for certificates.

Capacity remuneration mechanism (CRM)

The capacity mechanism introduced by France's "NOME" (*Nouvelle Organisation du Marché de l'Electricité*) law of December 7, 2010 came into effect on January 1, 2017. It aims to secure the supply of electricity in France on a sustainable basis, by ensuring a long-term balance between production and consumption.

For each calendar year:

- electricity suppliers have an obligation to hold capacity guarantees in an amount sufficient to cover their customers' peak-period consumption;
- capacity, production and curtailment operators commit to a certain level of availability during winter peak periods and in exchange receive capacity guarantees;
- capacity guarantees are traded on Epex Spot (auctions) or under over-the-counter contracts.

In accordance with the deliberation of the French energy regulator (*Commission de Régulation de l'Énergie* – CRE) of February 28, 2019, as of delivery year 2020, the capacity difference reference price (PREC) is defined as the last auction price before the beginning of a given delivery year.

The tenth Epex Spot capacity guarantee auction for 2022 took place on December 9, 2021 and the PREC for 2022 is €23,900/MW.

ENGIE SA markets curtailment offers that are inseparable from the supply of electricity to some customers and is also an obligee as an electricity provider.

In the absence of a specific ANC regulation on accounting for capacity certificates, ENGIE SA applies the provisions of the French chart of accounts on operating inventories of energy savings certificates – energy savings model:

- inventory inflows are measured based on the costs incurred during the relevant period to purchase or obtain guarantees, leading to the calculation of a weighted average unit cost of inventories;
- inventory outflows upon derecognition are valued using the weighted average cost method.

Operating receivables

This caption includes all receivables arising on the sale of goods, and other receivables arising in the ordinary course of operations.

Energy delivered but unbilled

Receivables also include unbilled revenues for energy delivered, regardless of whether or not the meters have been read. This caption concerns customers not billed monthly (mainly residential customers) and customers whose billing period is not aligned with the consumption period of a given month.

The amounts receivable in respect of delivered, unmetered and unbilled gas and electricity ("energy in the meter") are calculated using a direct method taking into account estimated customer consumption based on the most recent customer bill or unbilled reading, in line with the allocation of the distribution grid manager over the same period, using measurement and modeling tools developed by the Group. These amounts are measured at the average energy price, which takes account of the category of customer and the age of the delivered unbilled "gas in the meter". The estimated portion of unbilled revenue at the reporting date is sensitive to the average price and volume assumptions used.

Customers (mainly residential customers) can opt to pay on a monthly basis. In this case, the Company recognizes a monthly advance and a bill is issued at the anniversary date of the contract giving rise to the payment (or refund) of any difference between the amount billed and the advance payments already received.

Unbilled revenues in respect of delivered unbilled natural gas are reduced by the amount of advances already collected by the Company from customers billed monthly.

Impairment of trade receivables

Bad debt risk is analyzed on a case-by-case basis for the Company's largest customers.

Receivables from other customers are written down using rates that increase in line with the age of the related receivables.

The potential bad debt risk arising on amounts receivable in respect of delivered unbilled energy is also taken into account.

Other operating receivables

Other operating receivables include the current account with ENGIE Finance, as well as margin calls. Items for which there is a risk of non-collection are written down.

The unprecedented crisis in natural gas wholesale prices led the French government, in its decree of October 23, 2021 and under the conditions provided for in the Energy Code, to freeze regulated natural gas tariffs at levels below the cost to suppliers, starting November 1, 2021 for ENGIE tariffs.

Following a government amendment, the 2022 Finance Act No. 2021-1900 of December 30, 2021 introduced a price cap mechanism:

- Article 181 caps regulated gas tariffs at their October 1, 2021 levels until June 30, 2022;
- the loss of revenue incurred from November 1, 2021 by the natural gas suppliers qualifies as expenses attributable to public service obligations and is eligible for State guaranteed compensation up to an amount sufficient to cover the supply costs actually incurred as approved by the CRE when the pricing formula was established. A catch up mechanism will be introduced in July 2022 to compensate energy suppliers for their losses, and they will then be able to increase their tariffs.

Accordingly, ENGIE SA has recognized a subsidy receivable in respect of the compensation for public service charges arising from the price freeze on sales made at regulated tariffs (see Note 6).

Marketable securities

Marketable securities are shown on the balance sheet at cost.

When the market value of securities at December 31 is lower than their book value, a write-down is recognized for the difference.

For listed securities, market value is determined based on the market price at the end of the reporting period.

Shareholders' equity

Additional paid-in capital

External costs directly attributable to capital increases are deducted from additional paid-in capital. Other costs are expensed as incurred.

Merger premium

External expenses directly attributable to the merger between Gaz de France SA and SUEZ in 2008 are deducted from the merger premium.

Revaluation adjustments

This caption results from the legal revaluation of non-amortizable assets not operated under concessions carried out in 1959 and 1976.

Tax-driven provisions

Accelerated depreciation

Accelerated depreciation is recognized whenever an asset's useful life (which is used in accounting for the depreciation of property, plant and equipment) differs from that used for tax purposes or when a different depreciation method is used.

Provision for price increases

The provision for price increases was introduced by Article 39-1-5 of the French Tax Code (*Code général des impôts*) to allow companies to temporarily deduct a portion of profits used for inventory replenishment from their tax base in the event of sharp price increases.

Provisions for contingencies and losses

A provision is recognized when the Company has a legal or constructive obligation resulting from a past event which is expected to result in an outflow of resources embodying economic benefits that can be measured reliably.

The provision represents the best estimate of the amount required to settle the present obligation at the end of the reporting period.

Provisions for rehabilitating land on which former gas production plants were located

A provision for site rehabilitation and cleanup costs for former gas production plants is set aside whenever the Company has a commitment to a third party, such as a binding agreement to sell such an asset. These provisions are assessed on an asset-by-asset basis and reflect the best estimate of the future costs required to complete the rehabilitation work, based on current technical knowledge and regulatory requirements.

Movements in these provisions are shown under operating items.

Provision for employee bonus share awards

The provision for employee bonus share awards is recognized on a straight-line basis over the vesting period. The provision ultimately covers the disposal loss equal to the book value of treasury stock granted free of consideration to employees. Movements in this provision and any related costs are shown in personnel costs.

Pensions and other employee benefit obligations

Companies belonging to the electricity and gas industries sector

ENGIE SA employees qualify for the disability, pension and death benefits available under the special plan for companies belonging to the electricity and gas industries sector (see Note 18).

Accounting treatment

ENGIE SA recognizes provisions under liabilities for benefits granted to employees whose rights have already begun to vest (annuities for occupational accidents and illnesses, temporary incapacity or disability benefits), or benefits due during the employee's working life (long-service awards and exceptional end-of-career vacation).

As part of the 2008 merger between SUEZ and Gaz de France with retroactive effect from January 1, 2008, provisions for pensions and other employee benefits (pensions, retirement indemnities and healthcare) carried by SUEZ at December 31, 2007 were transferred to ENGIE SA.

No further amounts are set aside to these provisions in respect of newly vested employee rights or the undwinding of discounting adjustments on the provisions transferred within the scope of the merger. These provisions are written back in line with the settlement of the corresponding obligations.

No provisions are set aside in liabilities for other commitments. These are disclosed in Note 17 on off balance sheet commitments.

Basis of measurement and actuarial assumptions

Benefit obligations are measured using the projected unit credit method. The present value of the obligations of ENGIE SA is calculated by allocating vested benefits to periods of service under the plan's benefit formula. When an employee’s service in later years leads to a materially higher level of benefits than in earlier years, the Group allocates the benefits on a straight-line basis.

Future payments in respect of these benefits are calculated based on assumptions as to salary increases, retirement age, mortality and employee turnover.

The rate used to discount future benefit payments is determined by reference to the yield on investment grade corporate bonds based on maturities consistent with the benefit obligation.

Borrowings and debt

Subordinated perpetual notes

Subordinated perpetual notes issued by the Company in euros and in foreign currency are recognized in accordance with Opinion No. 28 issued by the French association of public accountants (*Ordre des Experts-Comptables* – OEC) in July 1994, i.e., taking into account their specific characteristics.

Accordingly, they are classified as debt as their redemption is not perpetual.

Bond redemption premiums and issue costs

Bond issue costs are recognized on a straight-line basis over the life of the instruments. These issue costs mainly consist of advertising expenses (for public issues) and fees due to financial intermediaries.

Bonds carrying a redemption premium are recognized in liabilities for their total amount including redemption premiums. The matching entry for these premiums is recorded in assets under accruals, and amortized over the life of the bonds pro rata to interest.

Derivative instruments

In accordance with the principles reaffirmed by ANC Regulation No. 2015-05 whose application has been mandatory as of January 1, 2017, financial instruments used by ENGIE SA to hedge and manage its currency, interest rate and commodity risk are disclosed in off-balance sheet commitments.

Unrealized gains on transactions that do not qualify for hedge accounting are not recognized. A provision is recognized for unrealized losses on these transactions, however.

In the case of contracts that qualify for hedge accounting, gains or losses are taken to income symmetrically with the gain or loss on the hedged items.

If the hedged item ceases to exist, the contract is unwound and any gains or losses taken to income.

ENGIE SA uses internal models representative of market practices to value financial derivative instruments that are not listed on financial markets.

Foreign currency transactions

Income and expenses denominated in foreign currencies are recorded at their equivalent value in euros at the transaction date.

Foreign currency receivables, payables and cash and cash equivalents are converted at the exchange rate prevailing at the year-end.

Translation differences are taken to income when they arise on cash and cash equivalents, or to the balance sheet under unrealized foreign exchange gains or losses when they arise on receivables and payables. A provision is set aside for unrealized losses after taking account of any associated hedging instruments.

Income tax

Since January 1, 1988, ENGIE SA has been part of the tax consolidation regime introduced by Article 68 of Law No. 87 1060 of December 30, 1987. ENGIE SA is head of a tax consolidation group within the meaning of Articles 223-A et seq. of the French Tax Code.

The contribution of subsidiaries in the tax consolidation group to the Group's income tax expense equals the amount of tax for which they would have been liable if they had not been members of the tax consolidation group.

The impacts of tax consolidation are recorded under the income tax expense of ENGIE SA, as parent company.

ENGIE SA also records a provision for any tax savings generated by subsidiaries' tax losses. These savings initially benefit ENGIE SA as parent company, and are recovered by the subsidiaries once they return to profit (hence the provision booked).

NOTE 2 Significant events during the year and comparability of periods presented

Significant events during the year

Price cap mechanism

The unprecedented crisis in wholesale natural gas prices led the French government to freeze regulated natural gas tariffs at levels below the cost to suppliers, starting November 1, 2021 for ENGIE tariffs.

The price cap mechanism is described in Notes 1, 6 and 13.5.

Comparability of periods presented

The same accounting methods were used in 2021 and 2020.

NOTE 3 Property, plant and equipment and intangible assets

3.1 Gross values

Changes in the gross value of these assets can be analyzed as follows:

In millions of euros	Dec. 31, 2020	Increases	Decreases	Reclassifications	Dec. 31, 2021
Intangible assets	**2,022**	**190**	**(16)**	**5**	**2,201**
Software	1,474	-	(16)	178	1,636
Other	365	-	-	5	370
Intangible assets in progress[1]	183	190	-	(178)	195
Property, plant and equipment	**938**	**59**	**(43)**	**(5)**	**949**
Land	29	-	-	1	30
Dismantling assets	3	-	-	-	3
Buildings	404	-	(12)	5	397
Plant and equipment	259	-	(29)	13	243
General plant and equipment, and miscellaneous fixtures and fittings	121	-	(2)	19	138
Other	25	-	-	2	27
Property, plant and equipment in progress	97	59	-	(45)	111
Advances and down payments	-	-	-	-	-
TOTAL	**2,960**	**249**	**(59)**	**-**	**3,150**

(1) *Intangible assets in progress essentially concern IT projects*

3.2 Depreciation, amortization and impairment

Changes in depreciation and amortization were as follows:

In millions of euros	Dec. 31, 2020	Increases	Decreases	Dec. 31, 2021
Intangible assets	**1,287**	**186**	**(6)**	**1,467**
Software	1,088	165	(6)	1,247
Other	199	21	-	220
Property, plant and equipment	**542**	**38**	**(37)**	**543**
Land	-	-	-	-
Dismantling assets	3	-	-	3
Buildings	299	9	(11)	297
Plant and equipment	145	18	(24)	139
General plant and equipment, and miscellaneous fixtures and fittings	71	11	(2)	80
Other	24	-	-	24
Property, plant and equipment in progress	-	-	-	-
TOTAL	**1,829**	**224**	**(43)**	**2,010**

Changes in impairment were as follows:

In millions of euros	Dec. 31, 2020	Additions	Reversals	Dec. 31, 2021
Intangible assets	148	50	(20)	178
Property, plant and equipment	26	1	(9)	18
TOTAL	**174**	**51**	**(29)**	**196**

Movements in depreciation, amortization and impairment can be broken down as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Depreciation, amortization and impairment	**203**	**188**
Straight-line method	202	186
Declining-balance method	1	2
Depreciation of dismantling assets	-	-
Exceptional amortization	**22**	**20**
Reversals	**-**	**-**

3.3 Net values

The net value of intangible assets and property, plant and equipment breaks down as follows:

In millions of euros	Gross values	Accumulated depreciation and admortization	Impairment	Net value at Dec. 31, 2021	Net value at Dec. 31, 2020
Intangible assets	**2,201**	**(1,467)**	**(178)**	**555**	**587**
Software	1,636	(1,247)	(55)	333	379
Other	370	(220)	(123)	27	26
Intangible assets in progress	195	-	-	195	182
Property, plant and equipment	**949**	**(543)**	**(18)**	**388**	**370**
Land	30	-	-	30	24
Dismantling assets	3	(3)	-	-	-
Buildings	397	(297)	(7)	93	95
Plant and equipment	243	(139)	-	104	113
General plant and equipment, and miscellaneous fixtures and fittings	138	(80)	(11)	47	40
Other	27	(24)	-	3	1
Property, plant and equipment in progress	111	-	-	111	97
Advances and down payments	**-**	**-**	**-**	**-**	**-**
TOTAL	**3,151**	**(2,010)**	**(196)**	**943**	**957**

NOTE 4 Financial fixed assets

4.1 Gross values

Changes in the gross value of these assets can be analyzed as follows:

In millions of euros	Dec. 31, 2020	Increases	Decreases	Other	Dec. 31, 2021
Equity investments	**72,497**	**2,709**	**(527)**	**-**	**74,679**
Consolidated equity investments	71,927	2,561	(379)	(8)	74,101
Consolidated equity investments – technical loss(1)	32	-	-	-	32
Non-consolidated equity investments	538	148	(148)	8	546
Other financial fixed assets	**426**	**517**	**(763)**	**-**	**180**
Other long-term investments	32	-	(1)	-	31
Amounts receivable from equity investments	342	347	(583)	-	106
Loans	13	7	(6)	-	14
Other financial fixed assets	39	163	(173)	-	29
TOTAL	**72,923**	**3,226**	**(1,290)**	**-**	**74,859**

(1) *Technical loss arising on the 2008 merger of SUEZ with Gaz de France, mainly involving Electrabel shares*

Movements in treasury stock are detailed in Note 9.1.

Equity investments and amounts receivable from these investments are detailed in Note 4.4.

The change in amounts receivable from equity investments was due to repayment of the €270 million ENGIE Renouvelables loan and a new €33 million loan granted to Réservoir Sun.

The year-on-year change in equity investments at December 31, 2021 is essentially attributable to the following transactions:

- sale of GRT Gaz shares (-€338 million);
- sale of Ecometering shares (-€38 million);
- subscription to the capital increase carried out by Equans (€2,500 million);
- subscription to the capital increase carried out by COGAC (€25 million);
- subscription to the capital increase carried out by SFIG (€36 million).

At December 31, 2021, "Other financial fixed assets" comprised:

- deposits paid (€19 million);
- shares held under liquidity agreements (€10 million).

4.2 Impairment

In millions of euros	Dec. 31, 2020	Additions	Reversals	Other	Dec. 31, 2021
Consolidated equity investments	11,912	66	(957)	(8)	11,013
Consolidated equity investments – technical loss(1)	31	-	-	-	31
Non-consolidated equity investments	231	37	(1)	8	275
Other long-term investments	9	-	(3)	-	6
Amounts receivable from equity investments	60	4	-	-	64
Loans	-	-	-	-	-
TOTAL	**12,243**	**107**	**(961)**	**-**	**11,389**

(1) *Technical loss arising on the 2008 merger of SUEZ with Gaz de France, mainly involving Electrabel shares*

The change in impairment mainly reflects:

- provisions for impairment against equity investments:
  - ENGIE New Ventures (€27 million),
  - SFIG (€22 million),
  - ENGIE China Investment Company (€10 million),
  - ENGIE Information & Technologies (€4 million);
- reversals of impairment provisions against equity investments:
  - Electrabel (€698 million),
  - COGAC (€205 million),
  - Ecometering (€31 million),
  - GENFINA (€23 million).

The value in use of the equity investments used to calculate impairment is assessed by reference to:

- for private equity firms, the intrinsic value, which corresponds to net assets plus unrealized gains;
- for listed companies (including SUEZ), the yield value, which corresponds to the average of the last twenty stock market prices of the year;
- for other operating subsidiaries, value in use, which corresponds to the cash flows or dividends (DCF or DDM model) expected to be generated by subsidiaries that directly or indirectly hold operating activities.

The projections on which these values are based were drawn from the 2022 budget and from the 2023-2024 medium-term business plan, as approved by the Group's Executive Committee and the Board of Directors, and on extrapolated cash flows beyond that time frame.

Cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price forecasts resulting from the Group's reference scenario for 2025-2040, which were approved by the Group's Executive Committee in November 2021. The forecasts and projections included in the reference scenario were determined on the basis of the following inputs:

- forward market prices over the liquidity period for fuel (coal, oil and gas), CO_2 and electricity on different markets against a backdrop of highly volatile energy prices;
- beyond this period, medium- and long-term energy prices were determined by the Group based on macroeconomic assumptions and fundamental supply and demand equilibrium models, the results of which are regularly compared against forecasts prepared by external energy sector specialists. Long-term projections for CO_2 are in line with the 2030 emissions reduction target of 55% and the 2050 climate neutrality objective set by the European Commission as part of the "European Green Deal" presented in December 2019 and July 2021. More specifically, medium- and long-term electricity prices were determined by the Group using electricity demand forecasting models, medium- and long-term forecasts of fuel and CO_2 prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

In particular, for Electrabel, whose carrying amount accounts for almost half of ENGIE SA's investment portfolio, the key assumptions used to assess its value in use concern changes in:

- the regulatory environment in every country in which Electrabel operates, and in particular the Belgian regulatory framework governing the operating life of existing nuclear reactors and the level of royalties and nuclear contributions paid to the Belgian State;
- gas and electricity demand;
- electricity prices;
- exchange rates; and
- discount rates.

Electrabel owns, either directly or through equity investments in Europe or outside Europe, the following main operating activities:

- power generation and sale:
  - nuclear power plants in Belgium,
  - thermal power plants, mainly in Belgium, the Netherlands, Italy, Spain, Portugal, Australia, Singapore, Brazil, Puerto Rico, Chile, Mexico, Peru and the Middle East,
  - renewable power generation plants, mainly in Belgium, the Netherlands, Italy, Spain, Portugal, Germany, the United Kingdom, Brazil, Chile and Mexico;
- natural gas and power generation in Belgium, the Netherlands, Italy, the United Kingdom, Australia and Singapore;
- management and optimization of portfolios of physical and contractual assets.

4.3 Net values

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2021	Net value at Dec. 31, 2020
Equity investments	**74,679**	**(11,319)**	**63,360**	**60,323**
Consolidated equity investments	74,101	(11,013)	63,088	60,015
Consolidated equity investments – technical loss[1]	32	(31)	1	1
Non-consolidated equity investments	546	(275)	271	307
Other financial fixed assets	**180**	**(71)**	**109**	**357**
Other long-term investments	31	(6)	25	23
Amounts receivable from equity investments	106	(65)	42	282
Loans	14	-	14	13
Other financial fixed assets	29	-	29	39
TOTAL	**74,859**	**(11,390)**	**63,469**	**60,680**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, mainly involving Electrabel shares

4.4 Subsidiaries and investments

Some of the data in the table are unaudited.

In millions of euros	Share capital	Other equity	% capital held	Book value of shares held		Loans and advances granted	Sureties and endorse-ments	Revenues	Net income/ (loss)	Dividends received in 2021	Year-end
				Gross	Provisions						
Name											
A – Detailed information concerning subsidiaries and investments whose gross value exceeds 1% of ENGIE SA capital *(i.e.*, €24,352,850)											
1. Subsidiaries (more than 50%-owned by ENGIE SA)											
Aguas Provinciales de Santa Fe	1	(180)	64.19%	39	(39)	-	-	-	(12)	-	12/2020
Celizan	-	-	100.00%	31	(31)	-	-	-	-	-	12/2021
COGAC	1,002	(201)	100.00%	2,580	(277)	-	-	-	(314)	-	12/2021
Electrabel	5,790	11,107	99.13%	34,148	(8,626)	-	-	13,622	169	-	12/2021
ENGIE Renouvelables	507	6	100.00%	1,641	-	-	-	-	28	-	12/2021
ENGIE Alliance	100	(49)	64.00%	62	-	-	1,000	-	(49)	-	12/2021
ENGIE China Invest Company	43	(24)	100.00%	123	(69)	-	-	-	(7)	-	12/2021
ENGIE Energy Services	699	8	100.00%	2,933	-	-	-	2,259	(132)	-	12/2021
ENGIE Energy Services International	1,571	103	100.00%	3,908	-	-	-	5	(25)	-	12/2021
ENGIE Finance	5,460	282	100.00%	5,567	-	3,345	-	2	171	143	12/2021
ENGIE IT	105	(165)	100.00%	228	(228)	-	-	379	(61)	-	12/2021
ENGIE Management Company	63	(130)	100.00%	115	(115)	-	-	168	(24)	-	12/2021
ENGIE New Business	216	(26)	100.00%	219	-	-	-	-	(25)	-	12/2021
ENGIE New Ventures	69	(45)	100.00%	92	(44)	-	-	-	(38)	-	12/2021
ENGIE Rassembleurs d'Énergies	50	(17)	100.00%	50	(6)	-	-	-	(2)	-	12/2021
EQUANS	625	1,858	100.00%	2,500	-	-	-	-	(17)	-	12/2021
GDF International	3,972	721	100.00%	3,972	-	-	-	10	315	36	12/2021
GENFINA	100	424	100.00%	2,627	(1,354)	-	-	-	9	-	12/2021
GRDF	1,801	1,882	100.00%	8,405	-	-	-	3,559	338	452	12/2021
GRTgaz	640	4,172	60.81%	1,901	-	-		1,849	415	262	12/2021
S.F.I.G	2	9	100.00%	94	(80)	-	-	13	1	-	12/2021
Sopranor	-	3	100.00%	245	(242)	-	-	-	(1)	-	12/2021
Storengy SAS	2,733	123	100.00%	2,733	-	-	-	63	112	107	12/2021
50FIVE	-	6	100.00%	34	(34)	-	-	12	(4)	-	12/2021
2. Equity investments (less than 50%-owned by ENGIE SA)											
Aguas Argentinas	1	(8)	48.20%	145	(145)	-	-	-	-	-	12/2020

In millions of euros	Share capital	Other equity	% capital held	Book value of shares held Gross	Book value of shares held Provisions	Loans and advances granted	Sureties and endorse-ments	Revenues	Net income/ (loss)	Dividends received in 2021	Year-end
B – Information concerning other subsidiaries and investments											
1. Subsidiaries not included in Section A											
French companies	-	-	-	59	(22)	-				1	
Foreign companies (data in local operating currency)	-	-	-	9	-	-				-	
2. Equity investments not included in Section A											
French companies	-	-	-	20	(6)	-				35	
Foreign companies (data in local operating currency)	-	-	-	24	-						
3. Other long-term investments not included in Section A											
French companies	-	-	-	216	(7)	-				8	
Foreign companies (data in local operating currency)	-	-	-	-	-	-	-	-	-	-	
TOTAL				**74,720**	**(11,325)**					**1,044**	

NOTE 5 Inventories

Changes in the gross value of these assets can be analyzed as follows:

In millions of euros	Gross values Dec. 31, 2020	Increases	Decreases	Gross values Dec. 31, 2021
Natural gas (including butane/propane)	440	1,712	(985)	1,167
Energy savings certificates	285	1,193	(1,042)	435
Capacity guarantees	450	159	(70)	539
Guarantees of origin	-	2		2
TOTAL	**1,174**	**3,066**	**(2,098)**	**2,143**

Inventory impairment can be analyzed as follows:

In millions of euros	Dec. 31, 2020	Additions	Reversals	Dec. 31, 2021
Natural gas (including butane/propane)	-	-	-	-
Energy savings certificates	(5)	-	5	-
Capacity guarantees	-	-	-	-
Guarantees of origin	-	-	-	-
TOTAL	**(5)**	**-**	**5**	**-**

The net value of inventories breaks down as follows:

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2021	Net value at Dec. 31, 2020
Natural gas (including butane/propane)	1,167	-	1,167	440
Energy savings certificates	435	-	435	280
Capacity guarantees	539	-	539	450
Guarantees of origin	2	-	2	-
TOTAL	**2,143**	**-**	**2,143**	**1,169**

5.1 Natural gas reserves

Gas reserves at end-December 2021 were €727 million higher than at end-December 2020.

The price effect (+198.18%) led to a sharp increase in the value of the natural gas reserves despite decreasing volumes, particularly in foreign storage facilities (-2.7 TWh).

5.2 Energy savings certificates

Decree No. 2019-1320 of December 9, 2019 extended the fourth period by a year and amended the volume of TWh of cumac* required over the new period.

(*) "cumac" means updated cumulative kilowatt-hours (kWh) annualized over the lifespan of the equipment.

Consequently, the national energy savings target for that fourth period from January 1, 2018 to December 31, 2021 was fixed at 2,133 TWh for all energy suppliers over four years. This includes 533 TWh of cumac to help households affected by fuel poverty pursuant to Article 30 of the Energy Transition for Green Growth act (*Loi relative à la Transition Énergétique pour la Croissance Verte* – LTECV).

Pursuant to Decree No. 2017-690 of May 2, 2017, ENGIE SA's annual "traditional" Energy Savings Certificate (ESC) obligation is determined by applying the following coefficients to its sales: 0.278 kWh cumac/kWh sold for natural gas and 0.463 for electricity.

For the "fuel poverty" ESC obligation (533 TWhc), which serves to calculate the ESC obligation to be used for households living in fuel poverty conditions in addition to the "standard" ESC obligation, the coefficient is set at 0.333.

In respect of the fourth period, which ended on December 31, 2021:

- ENGIE SA fulfilled its commitments as obligee;
- ENGIE SA will send the National Agency for Energy Savings Certificates (PNCEE) a statement of the energy volumes sold during the fourth period certified by the statutory auditors;
- the administrative reconciliation procedure defined in Articles R.221-1 to R.221-13 of the French Energy Code (*Code de l'énergie*) will take place during 2022. Based on the final notice drawn up by the PNCEE, the certificates corresponding to ENGIE SA's obligation will be canceled, starting with the oldest.

Decree No. 2021-712 of June 3, 2021 set out the terms and conditions for the fifth energy savings obligation period, which runs from January 1, 2022 to December 31, 2025. The national energy savings target for this fifth period is now set at 2,500 TWh over four years for all sellers, i.e., 1,770 TWh of cumac for the traditional obligation and 730 TWh of cumac for the "fuel poverty" obligation.

5.3 Capacity remuneration mechanism

Capacity obligations depend on electricity sales volumes.

In 2021, ENGIE SA's electricity sales continued to grow and its CRM inventories therefore increased accordingly to cover its obligations.

NOTE 6 Receivables

6.1 Maturity of receivables

In millions of euros	Gross amount at Dec. 31, 2021	Due		
		End-2022	Between 2023 and 2026	2027 and beyond
Non-current assets	**180**	**5**	**1**	**174**
Amounts receivable from equity investments	106	4	-	101
Loans	14	1	1	13
Liquidity agreements	-	-	-	-
Other financial fixed assets	60	-	-	60
Current assets	**28,146**	**27,704**	**307**	**136**
Trade and other receivables(1)	12,260	12,233	27	-
Current accounts with subsidiaries	7,533	7,533	-	-
Other operating receivables	651	651	-	-
Other receivables(2)	7,555	7,140	280	136
Advances and down payments made on orders	147	147	-	-
TOTAL	**28,326**	**27,709**	**308**	**309**

(1) *Sales of energy in the meter net of advances from customers billed on a monthly basis totaled €753 million including tax at December 31, 2021 (€590 million at December 31, 2020)*

(2) *€248 million in subsidies receivable in respect of compensation for public service charges arising from the price freeze on sales at the regulated tariff during the months of November and December 2021*

6.2 Impairment of receivables

In millions of euros	Dec. 31, 2020	Additions	Reversals	Other	Dec. 31, 2021
Amounts receivable from equity investments	60	4	-	-	65
Loans	-	-	-	-	-
Trade and other receivables(1)	410	225	(245)	-	389
Other miscellaneous receivables	1	-	-	-	1
TOTAL	**471**	**229**	**(245)**	**-**	**455**

(1) *Including €33.2 million of impairment on receivables related to Covid-19*

NOTE 7 Marketable securities

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2021	Net value at Dec. 31, 2020
Treasury shares held to cover bonus share plans	199	-	199	249
Money-market funds	1,831	(1)	1,830	2,430
Term deposits	1,479	-	1,479	582
TOTAL	**3,509**	**(1)**	**3,508**	**3,261**

The gross value of treasury shares at December 31, 2021 was €199 million and no impairment provisions had been recognized. Their aggregate par value was €15 million.

All treasury shares held are allocated to a plan. These shares are measured at their price on the date of the Board of Directors' decision to set up the plan to which they are allocated. They are held at their carrying amount until delivery and impairment provisions are recognized in liabilities (see Note 10.1.2).

NOTE 8 Accruals (assets) and unrealized foreign exchange losses

In millions of euros	Dec. 31, 2020	Increases	Decreases	Dec. 31, 2021
Loan redemption premiums	159	28	(23)	164
Deferred loan issuance costs	47	16	(10)	53
Options contracts	442	1,641	-	2,083
Financial instruments	1,123	2,281	(31)	3,373
ACCRUALS (ASSETS)	**1,771**	**3,966**	**(64)**	**5,673**
UNREALIZED FOREIGN EXCHANGE LOSSES	**304**	**102**	**(134)**	**272**

Accruals

Accruals related to financial instruments comprise:

- premiums and issue costs to be amortized on ENGIE SA bonds;
- premiums on options intended to hedge commodity and/or interest rate and currency risk on debt;
- measurement at fair value of interest rate, currency and commodity derivatives not qualifying as hedges, and the currency portion of derivatives hedging the risk on debt denominated in foreign currencies.

Unrealized foreign exchange losses

Unrealized foreign exchange losses arise upon the translation at the year-end exchange rate of payables and receivables denominated in a currency other than the euro and upon the currency portion of derivatives hedging debt denominated in foreign currencies and/or commodity purchases and sales.

NOTE 9 Shareholders' equity

9.1 Share capital – shares issued and outstanding

The share capital is fully paid up. Each €1 share carries a single voting right.

Share capital	
Shares comprising the share capital at January 1, 2020	2,435,285,011
Total number of shares comprising the share capital	**2,435,285,011**

In 2021, a total of 11,986,865 shares were purchased and 11,986,865 shares were sold under the liquidity agreement, generating a net capital gain of €34,364.29. At December 31, 2021, ENGIE SA no longer held any treasury shares under the liquidity agreement.

At December 31, 2021, ENGIE SA held 15,083,149 shares in connection with bonus share awards (see Note 9.3).

9.2 Change in shareholders' equity

In millions of euros	
Shareholders' equity at December 31, 2020	**30,702**
Dividends and interim dividends paid and other	(1,386)
Revaluation adjustments	
Tax-driven provisions and investment subsidies	115
Income	1,780
Shareholders' equity at December 31, 2021	**31,211**

In 2021, ENGIE SA paid:

- a dividend of €0.53 per share in respect of 2020, representing a total amount of €1,282.7 million, less the treasury shares held at the dividend payment date (€8 million);
- a loyalty dividend of €0.053 per share, representing a total payout of €13.5 million.

9.3 Employee bonus share awards and stock option plans

Bonus share policy and stock option policy

Bonus share awards are intended to involve all employees more closely in the Group's growth and performance. They are awarded to employees upon a decision of the Board of Directors, in accordance with decisions taken by the Shareholders' Meeting, subject to a minimum seniority of two years and a number of performance conditions.

In 2021, ENGIE SA awarded 4,935,570 and delivered 3,336,913 bonus shares to certain employees of the ENGIE group.

Based on all existing share plans, the number of beneficiaries and staff turnover assumptions, at December 31, 2021 ENGIE SA considered that it had an obligation to deliver 19,774,833 shares.

In view of the shares delivered in 2021, the Company holds 15,083,149 shares to cover its bonus share obligations at December 31, 2021, representing a total amount of €199 million net of provisions. The market value was €196 million at December 31, 2021.

Details of bonus share and stock option plans in force	Number of shares awarded	Number of shares delivered	Per share value	Expense *(in millions of euros)* 2021	2020
Bonus shares awarded					
ENGIE Plan of December 14, 2016	119,852	119,852	12.030	(1.37)	(53.62)
ENGIE Plan of December 13, 2017	4,885,797	3,081,508	14.700	(65.44)	22.02
ENGIE Plan of March 7, 2018	62,792	59,991	12.645	(0.74)	(0.47)
Link Abondement Plan of August 2, 2018	279,557	-	13.440	0.75	0.75
ENGIE Plan of December 11, 2018	4,629,656	-	12.260	17.32	17.37
ENGIE Plan of February 27, 2019	176,062	75,562	13.900	(0.72)	1.01
ENGIE Plan of December 17, 2019	4,773,593	-	14.730	21.54	21.60
ENGIE Plan of February 26, 2020	262,203	-	15.640	2.91	
ENGIE Plan of December 17, 2020	4,693,623	-	12.670	17.86	0.66
ENGIE Plan of February 25, 2021	283,065	-	12.605	1.24	
ENGIE Plan of December 16, 2021	4,652,504	-	13.000	0.76	
TOTAL	**24,818,704**	**3,336,913**		**(5.89)**	

NOTE 10 Provisions

10.1 Provisions for contingencies and losses

In millions of euros	Dec. 31, 2020	Additions	Reversals (used provisions)	Reversals (surplus provisions)	Dec. 31, 2021
Provisions for site rehabilitation (Note 10.1.1)	20		(3)		17
Provisions relating to employees (Note 10.1.2)	248	65	(56)	(24)	233
Provisions for taxes (Note 10.1.3)	21				21
Provisions for tax consolidation (Note 10.1.4)	1,060	101	(122)	(4)	1,035
Vendor warranties	-				-
Risks arising on subsidiaries (Note 10.1.5)	64	84	(21)		127
Other provisions for contingencies and losses (Note 10.1.5)	1,737	1,080	(1,283)	-	1,535
TOTAL	**3,151**	**1,330**	**(1,485)**	**(28)**	**2,968**

10.1.1 Provisions for site rehabilitation

Provisions for site rehabilitation totaled €17 million at December 31, 2021 versus €20 million at end-2020, broken down as follows:

In millions of euros	Dec. 31, 2020	Additions	Reversals (used provisions)	Matching entry to dismantling assets	Dec. 31, 2021
Provisions for site rehabilitation (excluding PNC assets)	15	-	(3)	-	12
Provisions for site rehabilitation (PNC assets)	5	-	-	-	5
TOTAL	**20**	**-**	**(3)**	**-**	**17**

The €12 million provision for site rehabilitation (excluding PNC assets, at December 31, 2021,) covers the La Défense and Saint-Denis (Landy) sites. The €3 million provision reversal concerns the Lyon site (Monolythe).

10.1.2 Provisions relating to employees

Provisions for employee benefits

At December 31, 2021, pension obligations amounted to €5 million. Pension obligations are covered by insurance funds.

Other post-employment benefits amounted to €13 million.

Provisions have been set aside for the full amount of disability benefits, allowances for occupational accidents, illnesses of active employees at year-end, long-service awards and asbestos, representing a total amount of €88 million.

These provisions represented a total amount of €106 million at December 31, 2021. Note 18.4 analyzes changes in these provisions in the periods presented.

The full amount of end-of-career indemnities is partially covered by insurance funds; the shortfall amounted to €31 million at December 31, 2021.

Provisions for employee bonus share awards

At December 31, 2021, provisions for employee bonus share awards amounted to €126 million (end-2020: €131 million). The provision for employer contributions related to the bonus share awards amounted to €2 million (no change from end 2020).

In 2021, ENGIE SA set aside a further €63 million to this provision to cover rights vested by employees. It also wrote back €69 million of the provision following the expiration of certain bonus share plans.

In addition to presence in the Group at the vesting date, eligibility for certain bonus share and performance share plans is subject to an internal performance condition. When this condition is not fully met, the number of bonus shares granted to employees is reduced in accordance with the plans' regulations.

10.1.3 Provisions for taxes

ENGIE SA has set aside several tax risk provisions to cover various tax audits performed by the tax authorities.

The provision for income taxes amounted to €21 million at December 31, 2021 (end-2020: €21 million). It is chiefly related to the transfer price of LNG.

10.1.4 Provisions for tax consolidation

ENGIE SA has chosen to file consolidated tax returns. As a result, it sets aside a provision reflecting its obligation to transfer back to subsidiaries any tax losses utilized. In 2021, ENGIE SA recognized a provision charge of €101.3 million and a reversal of €57.6 million, bringing the total provision to €640.8 million at the year-end.

At December 31, 2007, GRDF was part of the tax consolidation group and the capital gain on the disposal of the gas distribution activity therefore had no tax impact. Since 2008, the subsidiary's statutory financial statements show tax savings relating to the amortizable component of the capital gain arising on the disposal of the gas distribution business.

This excess amortization is canceled out at the level of the tax consolidation group. In accordance with the tax consolidation agreements signed with its subsidiaries, ENGIE SA recognized a provision for tax consolidation with respect to GRDF for a definitive amount of €1,938 million, based on the amortizable component. In 2021, the Company wrote back an amount of €69.5 million (€80.7 million in 2020), corresponding to the neutralization of the excess amortization on the amortizable component arising in the year.

Provisions for tax consolidation amounted to €1,034.6 million at end-2021, including €393.7 million relating to the amortizable component of GRDF's intangible assets.

10.1.5 Other provisions for contingencies and losses

Other provisions for contingencies and losses mainly include provisions for contingencies arising on other third parties, provisions for commercial litigation and claims, and provisions for currency and interest rate risk.

Movements in these provisions chiefly impact non-recurring and financial items.

Provisions for other contingencies and losses totaled €1,535 million at December 31, 2021 versus €1,737 million at end-2020, broken down as follows:

- provisions for onerous contracts: €1,243 million:
  - €517 million (including €138 million for a new loss making Téréga capacity contract) for long-term gas supply contracts, transmission and storage capacity contracts and an electricity swap contract that meet the accounting definition of onerous contracts. These contracts are no longer required for the Group's industrial needs and the unavoidable costs of meeting the obligations under the contracts exceed the expected economic benefits to be received under them,
  - €599 million for the CCTG Cartagena tolling contract (Spain) signed in 2011 and valid until 2028, which is considered as structurally and sustainably onerous given conditions in the Spanish electricity market and the terms of the new CRM expected in 2023,
  - €126 million related to two real estate contracts which have also met the criteria for onerous contracts since 2020;
- provisions for other risks: €18 million, mainly comprising the provision for negative fair value adjustments to financial instruments (€12 million);
- provisions for interest-rate risk: €103 million;
- provisions for litigation: €65 million;
- provisions for restructuring: €74 million;
- provisions for foreign exchange losses: €32 million.

The provision for subsidiaries' risk amounted to €127 million at December 31, 2021 (€64 million at December 31, 2020).

10.2 Tax-driven provisions and investment subsidies

In millions of euros	Dec. 31, 2020	Additions	Reversals	Transfer	Dec. 31, 2021
Tax-driven provisions	**598**	**356**	**(244)**	**-**	**710**
Accelerated depreciation and amortization	567	267	(244)	-	590
Provision for price increases	31	89	-	-	120
Provision for investments	-		-		-
Investment subsidies	**23**	**3**	**(1)**	**-**	**25**
TOTAL	**621**	**359**	**(245)**	**-**	**735**

NOTE 11 Borrowings and debt

11.1 Summary of borrowings and debt

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Borrowings	**33,015**	**31,924**
Hybrid bonds	3,767	3,913
Bonds	23,154	23,108
Other loans	6,094	4,903
Amounts payable to equity investments	**4,850**	**4,350**
Current accounts with subsidiaries	**1,150**	**1,377**
Other borrowings and debt	**346**	**507**
Deposits received from customers	25	27
Deposits received on derivatives	-	9
Tax consolidation	-	65
Current portion of interest due	280	353
Bank overdrafts	7	18
Miscellaneous	34	34
TOTAL	**39,361**	**38,158**

The €1,203 million increase in financial liabilities is mainly due to

- a €500 million increase in amounts payable to equity investments, corresponding to the new loan from ENGIE Finance (€4,000 million) largely offset by repayment of the maturing loan (€3,500 million);
- a €778 million increase in Negotiable European Commercial Paper (NEU CP), a €161 million increase in United States Commercial Paper (USCP), a net €249 million decrease in the European Investment Bank loan following various drawdowns and repayments, and €500 million in a new short-term bank loan, resulting in a €1,191 million increase in other borrowings and debt;
- a €227 million decrease in credit balances on current accounts with subsidiaries;
- a €146 million decrease in hybrid bonds (partial redemption of €532 million, exercise of the call for €363 million offset by a new €750 million issue).

11.2 Maturities of borrowings, debt and payables

		Due		
In millions of euros	Dec. 31, 2021	End-2022	Between 2023 and 2026	2027 and beyond
Borrowings and debt	**39,361**	**9,090**	**13,483**	**16,788**
Hybrid bonds	3,767	-	2,167	1,600
Bonds	23,154	2,132	6,154	14,868
Other loans	6,094	5,462	312	320
Amounts payable to equity investments	4,850		4,850	-
Current accounts with subsidiaries	1,150	1,150	-	-
Other borrowings and debt	346	346	-	-
Trade and other payables	**13,976**	**13,976**	**-**	**-**
Tax and employee-related liabilities	**1,661**	**1,661**	**-**	**-**
Other liabilities	**9,176**	**9,176**	**-**	**-**
Advances from customers	691	691	-	-
Other	8,485	8,485	-	-
Advances and down payments received on orders	**6**	**6**	**-**	**-**
TOTAL	**64,180**	**33,909**	**13,483**	**16,788**

11.2.1 Breakdown of hybrid bonds

	Dec. 31, 2021	Issue date	Interest repricing date	Interest	Listing
Public issues					
In millions of euros	393	06/2014	06/2024	3.875%	Paris
In millions of euros	274	01/2018	04/2023	1.375%	Paris
In millions of euros	1,000	01/2019	02/2025	3.250%	Paris
In millions of euros	500	07/2019	07/2025	1.625%	Dublin
In millions of euros	850	11/2020	11/2028	1.500%	Paris
In millions of euros	750	07/2021	07/2031	1.875%	Paris

11.2.2 Breakdown of bonds

	Dec. 31, 2021	Issue date	Maturity date	Interest	Listing
Public issues					
In millions of euros	693	10/2010	10/2022	3.500%	Paris
In millions of euros	300	03/2011	03/2111	5.950%	Paris
In millions of euros	742	06/2012	02/2023	3.000%	Paris
In millions of euros	410	07/2012	07/2022	2.625%	Paris
In millions of euros	1,300	05/2014	05/2026	2.375%	Paris
In millions of euros	750	03/2015	03/2026	1.000%	Paris
In millions of euros	500	03/2015	03/2035	1.500%	Paris
In millions of euros	700	03/2017	03/2024	0.875%	Paris
In millions of euros	800	03/2017	03/2028	1.500%	Paris
In millions of euros	500	09/2017	02/2023	0.375%	Paris
In millions of euros	750	09/2017	02/2029	1.375%	Paris
In millions of euros	750	09/2017	09/2037	2.000%	Paris
In millions of euros	750	06/2018	06/2028	1.375%	Paris
In millions of euros	500	09/2018	09/2025	0.875%	Paris
In millions of euros	500	09/2018	09/2033	1.875%	Paris
In millions of euros	750	06/2019	06/2027	0.375%	Paris
In millions of euros	750	06/2019	06/2039	1.375%	Paris
In millions of euros	750	09/2019	03/2027	0.000%	Paris
In millions of euros	900	10/2019	10/2030	0.500%	Paris
In millions of euros	600	10/2019	10/2041	1.250%	Paris
In millions of euros	1,000	03/2020	03/2025	1.375%	Paris
In millions of euros	750	03/2020	03/2028	1.750%	Paris
In millions of euros	750	03/2020	03/2032	2.125%	Paris
In millions of euros	750	06/2020	06/2027	0.375%	Paris
In millions of euros	750	10/2021	10/2029	0.375%	Paris
In millions of euros	750	10/2021	10/2036	1.000%	Paris
In millions of pounds sterling	500	10/2008	10/2028	7.000%	Luxembourg
In millions of pounds sterling	700	10/2010	10/2060	5.000%	Paris
In millions of pounds sterling	400	10/2011	10/2060	5.000%	Paris
In millions of Swiss francs	175	10/2012	10/2024	1.625%	Zurich
In millions of US dollars	750	10/2012	10/2022	2.875%	None

	Dec. 31, 2021	Issue date	Maturity date	Interest	Listing
Private placements					
In millions of euros	100	10/2011	10/2023	CMS10YR +0.505%	Paris
In millions of euros	100	03/2013	03/2033	3.375%	None
In millions of euros	81	04/2013	04/2038	3.703%	None
In millions of euros	50	10/2015	10/2027	1.764%	Paris
In millions of euros	50	10/2015	10/2027	1.764%	Paris
In millions of euros	100	11/2015	11/2045	2.750%	Paris
In millions of euros	50	11/2015	11/2045	2.750%	Paris
In millions of euros	100	06/2017	06/2032	1.625%	Paris
In millions of euros	100	10/2017	09/2037	2.000%	Paris
In millions of euros	50	07/2018	07/2027	1.157%	Paris
In millions of euros	75	07/2018	07/2038	CMS	Paris
In millions of euros	290	06/2021	06/2024	0.000%	Paris
In millions of Norwegian krone	500	04/2013	04/2024	4.020%	Paris
In millions of yen	15,000	12/2008	10/2023	3.180%	None
In millions of yen	10,000	07/2012	07/2022	1.260%	Paris
In millions of yen	20,000	09/2015	01/2024	0.535%	Paris
In millions of Hong Kong dollars	1,400	09/2017	09/2032	2.650%	Paris
In millions of Hong Kong dollars	900	10/2017	10/2027	2.630%	Paris
In millions of US dollars	50	01/2019	12/2029	3.593%	None
In millions of Australian dollars	115	11/2015	11/2025	4.235%	Paris
In millions of Australian dollars	85	07/2018	07/2033	3.780%	Paris

11.2.3 Other borrowings and amounts payable to equity investments

At December 31, 2021, other borrowings mainly comprised negotiable commercial paper denominated in euros: €4,007 million of NEU CP (including €599 million at floating rate) and €955 million (equivalent to US$1,082 million) of fixed-rate USCP. These borrowings all fall due in less than one year.

ENGIE SA has credit lines on which €628 million was drawn at the year-end and short-term bank loans totaling €500 million at the year-end.

The loan from ENGIE Finance amounted to €4,000 million at the year-end and the previous €3,500 million loan was repaid during the year.

The loan from ENGIE Alliance remained unchanged at €850 million.

11.2.4 Other borrowings and debt

Other borrowings and debt (accrued interest on borrowings and debt, current accounts with a credit balance, deposits received from customers, bank overdrafts, bank facilities, etc.) are chiefly denominated in euros.

11.3 Analysis of borrowings and debt by currency and interest rate

11.3.1 Analysis by interest rate

	After hedging		Before hedging	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Floating rate				
Bonds	5,353	5,942	175	175
Amounts payable to equity investments	4,850	4,350	4,850	4,350
Other loans	4,023	3,249	616	1,010
Current accounts with subsidiaries	1,150	1,377	1,150	1,377
Other borrowings and debt		210	-	145
Fixed rate				
Hybrid bonds	3,767	3,913	3,767	3,913
Bonds	17,801	17,166	22,979	22,933
Amounts payable to equity investments	-	-	-	-
Other loans	2,071	1,655	5,478	3,893
Other borrowings and debt	346	296	346	362
TOTAL	**39,361**	**38,158**	**39,361**	**38,158**

11.3.2 Analysis by currency

	After hedging		Before hedging	
In millions of euros	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
In euros				
Hybrid bonds	3,767	3,913	3,767	3,913
Bonds	23,154	23,108	19,590	19,451
Amounts payable to equity investments	4,850	4,350	4,850	4,350
Other loans	6,094	4,903	5,139	4,109
Current accounts with subsidiaries	172	1,184	172	1,184
Other borrowings and debt	345	506	311	461
In foreign currency				
Hybrid bonds	-	-		-
Bonds	-	-	3,564	3,657
Amounts payable to equity investments	-	-		-
Other loans	-	-	955	794
Current accounts with subsidiaries	978	194	978	194
Other borrowings and debt	1	-	35	45
TOTAL	**39,361**	**38,158**	**39,361**	**38,158**

NOTE 12 Accruals (liabilities) and unrealized foreign exchange gains

In millions of euros	Dec. 31, 2020	Increases	Decreases	Dec. 31, 2021
Options contracts	849	2,316	-	3,165
Financial instruments	1,393	953	(157)	2,189
ACCRUALS (LIABILITIES)	**2,242**	**3,269**	**(157)**	**5,354**
UNREALIZED FOREIGN EXCHANGE GAINS	**339**	**35**	**(130)**	**244**

Accruals

Accruals related to financial instruments comprise:

- premiums on options intended to hedge commodity and/or interest rate and currency risk on debt;
- measurement at fair value of interest rate, currency and commodity derivatives not qualifying as hedges, and the currency portion of derivatives hedging the risk on debt denominated in foreign currencies.

A contingency and loss provision is recognized in respect of unrealized foreign exchange losses on contracts that do not qualify for hedge accounting (see Note 10.1.5).

Unrealized foreign exchange gains

Unrealized foreign exchange gains arise upon the translation at the year-end exchange rate of payables and receivables denominated in a currency other than the euro and upon the currency portion of derivative financial instruments intended to hedge currency risk on debt and/or commodity purchases and sales.

NOTE 13 Net operating income/(loss)

13.1 Breakdown of revenues

Revenues by region

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Energy sales		
• France	15,910	9,887
• International	16,136	6,128
Works, research and services provided	3,273	2,803
Revenues from non-core activities and other	905	453
TOTAL	**36,224**	**19,272**

The sharp increase in revenues was due to growth in sales to other gas operators, driven by a favorable price effect.

Revenues by business activity

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Energy sales		
• Natural gas	24,194	9,484
• Electricity	7,852	6,531
Other production sold		
• Works, research and services provided	3,273	2,803
• Revenues from non-core activities and other	905	453
TOTAL	**36,224**	**19,272**

At December 31, 2021, unbilled, un-metered revenues (energy in the meter) amounted to €2,002 million excluding tax.

13.2 Personnel costs

Change in headcount by category

In number of employees	Dec. 31, 2020	Change	Dec. 31, 2021
Operating staff	195	(21)	174
Senior technicians and supervisory staff	1,615	(114)	1,501
Managerial-grade staff	2,667	(49)	2,618
TOTAL	**4,477**	**(184)**	**4,293**

The average number of employees was 4,293 in 2021 and 4,477 in 2020.

Personnel costs break down as follows:

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Wages and salaries	(277)	(283)
Payroll expenses	(143)	(146)
Profit sharing	(22)	(21)
Other	(64)	(71)
TOTAL	**(507)**	**(522)**

Employee profit sharing

An employee profit-sharing agreement based on performance criteria was set up in compliance with the legal conditions prescribed by Order 86-1134 of October 21, 1986.

These profit-sharing mechanisms are treated as personnel costs.

13.3 Net additions to provisions

In millions of euros	Dec. 31, 2021	Dec. 31, 2020
Provision for capital renewal and replacement liabilities regarding concessions	-	(3)
Provision for site rehabilitation	(3)	-
Other provisions for losses	28	8
Other provisions for contingencies	(182)	636
TOTAL	**(158)**	**642**

Other contingency and loss provisions mainly comprised:

- net reversal of provisions for onerous contracts (€16 million);
- net reversal of provisions for employee disputes (€1 million);
- net reversal of provisions for contingencies (€149 million), mainly negative fair value adjustments to swaps (€151 million);
- net reversal of provisions for commercial litigation (€14 million);
- net reversal of provisions for tax reassessments (€2 million).

13.4 Operating expense transfers

Expense transfers are included in other operating income and amounted to €2 million in 2021 and €10 million in 2020.

13.5 Operating subsidies

Operating subsidies include the compensation for public service charges to be received as a result of the price freeze on regulated tariff sales in November and December 2021.

NOTE 14 Net financial income/(loss)

			Total	
In millions of euros	Expenses	Income	Dec. 31, 2021	Dec. 31, 2020
Other interest income and expenses	(1,018)	498	(520)	(545)
Interest on current accounts and amounts receivable from equity investments	-	8	8	6
Foreign exchange gains/(losses)	(691)	545	(146)	94
Dividends received	-	1,044	1,044	1,957
Movements in provisions for financial items	(37)	33	(4)	(71)
TOTAL	**(1,747)**	**2,128**	**381**	**1,440**

NOTE 15 Net non-recurring income/(loss)

In millions of euros	Expenses	Income	Total Dec. 31, 2021	Total Dec. 31, 2020
Disposals of property, plant and equipment, and intangible assets	(17)	3	(14)	10
Disposals of financial fixed assets	(525)	1,529	1,003	742
Provision for price increases	(89)	-	(89)	-
Accelerated depreciation and amortization	(267)	245	(23)	(32)
Movements in provisions relating to equity investments	(191)	982	791	(4,895)
Other	(88)	191	103	(85)
TOTAL	**(1,178)**	**2,949**	**1,771**	**(4,260)**

"Other" mainly includes various indemnities related to dispute settlements including Equinor, rebilling to subsidiaries of losses on the issuance of bonus shares, and software impairment.

NOTE 16 Tax position

16.1 Tax consolidation

The current option to file consolidated tax returns is automatically renewed every five years.

16.2 Income tax benefit/(expense)

The income tax rate in 2021 was 28.40%, including the 3.3% social contribution.

In millions of euros	2021 Income before tax	2021 Income tax*	2021 Net income/(loss)	2020 Income before tax	2020 Income tax*	2020 Net income/(loss)
Income tax due by ENGIE SA for the period (excluding tax consolidation group)						
• on recurring income	(465)		(465)	(200)		(200)
• on non-recurring income	1,771		1,771	(4,260)		(4,260)
Income tax expense (income tax payable by subsidiaries/provision for transfer of tax savings to entities in the tax consolidation group)	**-**	**474**	**474**	**-**	**532**	**532**
• income tax relating to subsidiaries within the tax consolidation group		408			460	
• net change in provisions for income tax		26			9	
• other (mainly adjustments to research and CICE tax credits held in 2020/2021)		40			63	
TOTAL	**1,306**	**474**	**1,780**	**(4,460)**	**532**	**(3,928)**

* *A positive figure signifies a tax benefit*

In 2021 and 2020, ENGIE SA generated a tax loss on an individual company level. Dividends received from subsidiaries are eligible for "parent/subsidiary" tax treatment and are therefore exempt, subject to adding back a share of expenses equal to 1% or 5%, as applicable.

The income tax benefit amounted to €474.3 million versus an income tax benefit of €532.2 million in 2020, chiefly reflecting:

- savings resulting from tax consolidation (€407.8 million in 2021 versus €466.7 million in 2020), attributable to the difference between:
  - the €406.7 million contribution to Group income tax due in 2021 to ENGIE SA by subsidiaries reporting a profit (€459.9 million in 2020),
  - tax credits relating to the tax consolidation group amounting to €1.1 million in 2021 versus €0.8 million in 2020, and
  - income tax due by the tax consolidation group, which was zero in 2021, as in 2020;

- a net reversal of €25.8 million from the income tax provision in 2021 compared with a reversal of €9 million in 2020, chiefly reflecting:
  - €43.7 million in net additions in respect of the utilization of tax losses by consolidated subsidiaries of ENGIE SA versus €72.6 million in net additions in 2020,
  - no reversals for tax risks versus a reversal of €0.8 million in 2020,
  - €69.5 million in reversals of provisions relating to the excess amortization during the period of the amortizable component of the capital gain generated on the sale of gas distribution activities in 2007;
- other miscellaneous items representing a net tax credit of €40 million in 2021, mainly due to changes in research and CICE tax credits.

16.3 Deferred tax

The deferred tax position shown in the table below results from temporary differences between the treatment of income and expenses for tax and accounting purposes.

This takes into account the impact of the progressive decrease in the corporate income tax rate from 2021 to 2022 introduced in the 2018 Finance Act.

In millions of euros	2021	2020	
	25.82%	28.40%	25.82%
Year of reversal	2022 and beyond	2021	2022 and beyond
Deferred tax liabilities			
• Unrecognized deductible expenses	272	304	-
• Untaxed income recognized	109	27	109
Deferred tax assets			
• Temporary non-deductible expenses recognized	1,448	513	1,100
• Unrecognized taxable income	283	339	39
Net deferred tax base	**1,350**	**520**	**1,030**
• Theoretical impact of deferred tax	349	148	266

NOTE 17 Off-balance sheet commitments (excluding employee benefit obligations)

17.1 Financial commitments

The ENGIE group's Finance Division is responsible for managing all financial risks (interest rate, currency, liquidity and credit risks).

17.1.1 Liquidity risk

The Group's financing policy is based on:

- centralizing external financing;
- diversifying sources of financing between credit institutions and capital markets;
- achieving a balanced debt repayment profile.

The centralization of financing needs and cash flow surpluses for the Group is provided by its financing vehicles (long-term and short-term), as is automated cash centralization via its cash pooling vehicles.

Short-term cash requirements and cash surpluses for Europe are managed by dedicated financial vehicles in France (ENGIE Finance) and Luxembourg (ENGIE Treasury Management). These vehicles centralize virtually all of the cash requirements and surpluses of companies controlled by the Group, ensuring that counterparty risk and the investment strategy are managed consistently.

The Group seeks to diversify its long-term sources of financing by carrying out public or private bond issues within the scope of its Euro Medium Term Notes program. It also issues NEU CP (Negotiable European Commercial Paper) in France as well as USCP (United States Commercial Paper) in the United States.

Long-term capital markets are accessed chiefly by ENGIE SA in connection with the Group's new bond issues, and in connection with commercial paper.

As commercial paper is relatively inexpensive and highly liquid, it is used by the Group in a cyclical or structural fashion to finance its short-term cash requirements. However, all outstanding commercial paper is backed by confirmed bank lines of credit so that the Group could continue to finance its activities if access to this financing source were to dry up.

The Group's liquidity is based on maintaining cash and cash equivalents and access to confirmed credit facilities. ENGIE SA can therefore access facilities readily convertible into cash, enabling it to meet its cash requirements in the ordinary course of business or to serve as a bridge to finance external growth operations:

- ENGIE SA has credit facilities with various banks under which €11,666 million remains undrawn. These facilities include two syndicated credit lines, respectively for €5,000 million and €4,000 million, maturing in December 2025 and December 2026. At December 31, 2021, ENGIE SA had drawn down €627 million on these facilities. These facilities are not subject to any covenants or credit rating requirements;
- ENGIE SA also has access to short-term debt markets through short-term debt issues: USCP for US$4,500 million (of which US$1,082 million (€955 million) had been drawn at end-2021), and NEU CP for €5,000 million (€4,007 million drawn at end-2021).

17.1.2 Counterparty risk

ENGIE SA is exposed to counterparty risk arising on its operating and financing activities.

To manage counterparty risk arising on operating activities, the Group has put in place monitoring procedures adapted to the characteristics of the counterparties concerned (private corporations, individuals, and public authorities). Customers representing a major counterparty for the Company are covered by procedures applicable to the financial activities described below, thereby providing broad-ranging oversight of the corresponding counterparty risk.

For its financing activities, ENGIE SA has put in place procedures for managing and monitoring risk based on:

- accreditation of counterparties according to external credit ratings;
- objective market data (credit default swaps, market capitalization);
- their financial strength; and
- risk exposure limits put in place.

ENGIE SA also draws on a structured legal framework based on master agreements (including netting clauses) and collateralization contracts (margin calls) to reduce its exposure to counterparty risk. The oversight procedure for managing counterparty risk arising from financing activities is managed by a middle office that operates independently of the Group's Treasury Department and reports to the Finance Division.

17.1.3 Interest rate risk

ENGIE SA has adopted a policy for optimizing the cost of its net debt using a combination of financial instruments (interest swaps and options) according to market conditions.

ENGIE SA takes care to ensure that the difference between its floating-rate debt and its cash surpluses invested at a floating rate has a low degree of exposure to adverse changes in short-term interest rates.

Positions are managed centrally and are reviewed each quarter or whenever any new financing is raised. Management must approve in advance any transaction that causes the interest rate mix to change significantly.

	Notional amount at Dec. 31, 2021						
In millions of euros	Due in 1 year or less	Due in 1 to 5 years	Due in 6 to 10 years	Due after 10 years	Total	Fair value including accrued interest	Notional amount at Dec. 31, 2020
Interest rate swap							
Fixed-rate borrower/floating-rate lender	1,150	2,900	1,900	2,703	8,653	(1,228)	6,258
Floating-rate borrower/fixed-rate lender	5,574	4,550	3,738	2,728	16,590	821	14,872
Purchase of CAP							
Fixed-rate borrower/floating-rate lender							1,000
TOTAL EUR	**6,724**	**7,450**	**5,638**	**5,431**	**25,243**	**(407)**	**22,130**
Interest rate swap							
Fixed-rate borrower/floating-rate lender		1,461			1,461	(24)	1,349
Floating-rate borrower/fixed-rate lender					-		
TOTAL USD	**-**	**1,461**	**-**	**-**	**1,461**	**(24)**	**1,349**
TOTAL	**6,724**	**8,911**	**5,638**	**5,431**	**26,704**	**(431)**	**23,479**

In millions of euros	Notional amount at Dec. 31, 2021						
	Due in 1 year or less	Due in 1 to 5 years	Due in 6 to 10 years	Due after 10 years	Total	Fair value including accrued interest	Notional amount at Dec. 31, 2020
Currency swap							
Fixed-rate borrower/fixed-rate lender			638	1,291	1,929	(203)	2,179
Fixed-rate borrower/floating-rate lender					-		-
Total GBP	**-**	**-**	**638**	**1,291**	**1,929**	**(203)**	**2,179**
Currency swap							
Floating-rate borrower/fixed-rate lender	101	128			229	(35)	229
Fixed-rate borrower/fixed-rate lender		149			149		149
Total JPY	**101**	**277**	**-**	**-**	**378**	**(35)**	**378**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	-	-	-	-
Floating-rate borrower/fixed-rate lender		144			144	31	144
Total CHF	**-**	**144**	**-**	**-**	**144**	**31**	**144**
Currency swap							
Fixed-rate borrower/fixed-rate lender			44		44	2	90
Fixed-rate borrower/floating-rate lender					-		
Floating-rate borrower/floating-rate lender					-		-
Floating-rate borrower/fixed-rate lender	580				580	94	580
Total USD	**580**	**-**	**44**	**-**	**624**	**96**	**670**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	67	-	-	67	(18)	67
Total NOK	**-**	**67**	**-**	**-**	**67**	**(18)**	**67**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	75		54	129	1	129
Total AUD	**-**	**75**	**-**	**54**	**129**	**1**	**129**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	98	153	251	7	251
Total HKD	**-**	**-**	**98**	**153**	**251**	**7**	**251**
Currency swap							
Floating-rate borrower/floating-rate lender	-	-	-	-	-	-	
Total MXN	**-**	**-**	**-**	**-**	**-**	**-**	**-**
TOTAL	**681**	**563**	**780**	**1,498**	**3,522**	**(121)**	**3,818**

Interest rate hedges outstanding at December 31, 2021 are described below:

- ENGIE SA entered into short-term swaps (maturing in less than six months) to hedge the interest rate risk on its short-term cash management transactions (NEU CP issues). These are floating-rate borrower (Ester)/fixed-rate lender swaps with a notional amount of €3,408 million;
- in line with the Group's interest rate risk policy and with due reference to market conditions, interest rate risk is managed centrally through the use of interest rate swaps and options within the framework of an annual risk mandate;
- as part of the Group's interest rate risk management policy, since 2009 ENGIE SA has set up interest rate hedges indexed to the dollar rate fixing the interest rate on the Group's USD debt for a nominal amount of US$1,655 million at end-2021 (€1,461 million equivalent value);
- to protect the refinancing rate on part of its debt at Group level, ENGIE SA has a portfolio of interest rate anticipatory hedges beginning in 2023 to 2028 with maturities of 10 to 20 years, for each of the volumes initiated in 2021 and for a nominal amount of €2,900 million at December 31, 2021.

17.1.4 Currency risk

Foreign currency exchange risk (or "FX" risk) is reported and managed based on a Group-wide approach, reflected in a dedicated Group policy that is approved by Group Management. At ENGIE SA level, there are three main sources of currency risk:

- regular transaction risk :

  This risk arises on commercial transactions involving the purchase and sale of natural gas in a currency other than the euro. Gas purchase and sale contracts are often indexed to the price of oil-based products, mostly listed in US dollars.
- financial transaction risk;

  All significant exposures related to cash, financial debt, etc. are systematically hedged;

- translation risk :
  This risk involves consolidated entities that do not have the euro as their functional currency. The main exposures to translation risk correspond to assets in USD, BRL and GBP.

The exposure to currency risk on these transactions is managed and monitored as follows:

- pass-through mechanisms are applied in determining (i) sale prices for eligible customers, and (ii) regulated rates;
- the margin on fixed-price sale contracts or contracts indexed by financial swaps is hedged;
- translation risk is managed centrally, with a focus on securing the net asset value.

There is a time lag between the impact of fluctuations in the US dollar on procurement costs and their repercussion on sales prices, reflecting mainly the effect of rolling averages and the inventory cycle.

To manage its exposure to fluctuations in exchange rates, ENGIE SA mainly uses forward currency purchase or sale contracts and currency swaps to hedge its gas purchases and its financing activities.

To limit the impact of translation risk on certain amounts receivable from equity investments and on future foreign currency purchases, and to hedge the net asset risk arising on consolidation, ENGIE SA has taken new positions or reinforced existing positions in forward currency transactions that allow it to cancel out or minimize translation adjustments on these deposits and loans or other future operations.

At December 31, 2021, commitments corresponding to translation and financial risk were as follows:

In millions of euros	Fixed portion of commitments at Dec. 31, 2021					
	Maturity					
Forward contracts	2022	2023	2024 and beyond	Euro equivalent at Dec. 31, 2021	Exchange rate fluctuations at Dec. 31, 2021	Fixed portion of commitments at Dec. 31, 2020
Long positions						
AUD	48	82	-	130	5	172
CAD	3	1	-	4	-	19
CHF	-	-	-	-	-	33
CNH	16	7	-	23	1	11
GBP	523	4	1	528	2	19
NZD	9	-		9	-	9
USD	1,061	-	-	1,061	16	954
Short positions						
AUD	3	-	-	3	-	5
CAD	3	1		4	-	19
CHF	-	-	-	-	-	234
CNH	16	7	-	23	1	11
GBP	261	4	1	266	3	209
NZD	9	-		9	-	6
USD	1,973	-	-	1,973	20	1,337

17.1.5 Other financial commitments given

In millions of euros	Total at Dec. 31, 2021	Maturity		
		End-2022	Between 2023 and 2026	2027 and beyond
Market-related commitments				
Performance and other guarantees	245	51	180	14
Performance and other guarantees given on behalf of subsidiaries	9,355	869	5,082	3,404
Financing commitments				
Personal sureties given	6	6		
Guarantees and endorsements given to subsidiaries	4,387	368	1,670	2,349
Collateral given	-			
Credit lines	-			
Other commitments given				
Contractual guarantees for sales of businesses	3,726	28	3,531	167
Operating lease commitments	955	68	292	595
Finance lease commitments	-			
Commitments relating to LNG tankers	-			

Market-related commitments totaling €9,600 million at end 2021 comprise performance and other guarantees given by ENGIE SA with respect to operating contracts, both on its own behalf and on behalf of its subsidiaries.

Financing commitments totaling €4,393 million comprise payment guarantees granted by ENGIE SA to third parties on behalf of its subsidiaries (€4,387 million) and to personal sureties (€6 million).

Contractual guarantees for sales of businesses totaling €3,726 million relate mainly to commitments given on the disposals of:

- GRTgaz to Société d'Infrastructures Gazières (SIG). ENGIE SA has given SIG a 20-year warranty against any losses incurred by SIG due to inaccurate representations regarding the non-pollution of the land owned or exploited by GRTgaz and the cost of the resulting clean-up work payable by GRTgaz not covered by the tariffs. The amount of the warranty is €167 million and is proportional to the percentage interest in GRTgaz (25%) acquired by SIG in July 2011;
- ENGIE Exploration & Production (EPI), following the sale of the 30% minority interest to Fullbloom Investment Corporation (FIC), a wholly-owned subsidiary of China Investment Corporation (CIC) in 2011, for an amount of up to €2,781 million expiring in 2026;
- 10% of train 1 of the Atlantic LNG facility in Trinidad and Tobago, for an amount of up to €750 million expiring in 2026;
- six digital platforms and the Smart O&M platform to ENGIE Information & Technologies for a period of 36 months as of the second quarter of 2019, in a total amount of €28 million.

Operating lease commitments totaling €955 million relate to the present value of lease payments outstanding through to maturity of the property leases within the scope of ENGIE SA's operations. Commitments for the Campus and Urban Garden projects remain unchanged at €578 million and €41 million respectively. As certain property lease expenses are rebilled to Group subsidiaries, the corresponding commitments are shown in commitments received.

Other commitments have been given in respect of performance and completion guarantees:

- to the Hong Kong authorities, in respect of contracts awarded to Sita (which became SUEZ Environnement and then SUEZ), which counter-guaranteed ENGIE SA for the same amounts. These contracts relate to:
  - the operation of the Nent landfill in partnership with the Newworld and Guandong groups until 2063,
  - the operation of various landfill sites, including Went and NWNT until 2033 and Pillar Point until 2036, initially in partnership with Swire Pacific Ltd. When Swire Pacific sold its interest in the Swire SITA Waste Services joint venture to its partner SUEZ Environnement in December 2009, these guarantees were reissued by ENGIE SA. However, if a guarantee is called in respect of the period during which the subsidiary was under joint control, the Swire Group has agreed in principle to share the ultimate liability equally between the two groups;
- to two Scottish companies, Ayr Environmental Services and Caledonian Environmental Services, for contracts for the construction of wastewater purification and sludge treatment plants awarded to the Degrémont SA/AMEC Capital Projects Ltd. group of construction companies;
- to the Lord Mayor, Aldermen and Burgesses of Cork, in respect of a contract for the construction and operation until 2024 of the Cork City wastewater purification plant awarded to a consortium comprising two ENGIE SA subsidiaries, Vinci Group subsidiary Dumez GTM, PJ Hegarty & Sons and Electrical & Pump Services. Each consortium member and Vinci agreed to counter-guarantee ENGIE SA;
- in 2008, SUEZ Environnement (which became SUEZ in 2016) undertook to counter-guarantee all of the guarantees given by ENGIE SA for the Environment division entities for which SUEZ was not yet counter-guaranteed;
- as part of the spin-off of water and wastewater activities in 2000, a performance guarantee expiring in 2028 was granted by ENGIE SA in the context of its transfer of local public service franchise contracts to Lyonnaise des Eaux. There were 30 such contracts at end-2021.

Following Veolia's takeover bid for SUEZ, ENGIE SA informed Veolia of the commitments and performance guarantees for certain contracts granted by ENGIE SA to SUEZ and its subsidiaries. As soon as it obtains control of SUEZ, Veolia undertakes to use best efforts to take ENGIE's place in those commitments and guarantees and to counter-guarantee, either directly or through a subsidiary, all of ENGIE's obligations thereunder. Veolia has also undertaken to do its utmost to ensure the full and proper performance by SUEZ or its subsidiaries of the contracts covered by these commitments and guarantees.

17.1.6 Other financial commitments received

In millions of euros	Total at Dec. 31, 2021	Maturity End-2022	Maturity Between 2023 and 2026	Maturity 2027 and beyond
Market-related commitments				
Performance and other guarantees	47	-	47	-
Financing commitments				
Undrawn credit facilities	11,038	585	10,338	115
Personal sureties received	5		5	
Other financing commitments received	-	-	-	-
Other financing commitments received in relation to subsidiaries	-	-	-	-
Other commitments received				
Counter-guarantees for personal sureties	1,030	30	1,000	
Counter-guarantees for trading commitments	-	-	-	-
Operating lease commitments	498	66	255	177
Finance lease commitments	-	-	-	-
Commitments relating to LNG tankers	-	-	-	-

ENGIE SA secured a €5,000 million syndicated credit line in April 2014. It was initially due to mature in 2019 but has been extended to December 2025. A new €4,000 million syndicated credit line was secured in December 2021 maturing December 2026.

Counter-guarantees given on personal sureties concern guarantees received from members of GIE ENGIE Alliance.

Operating lease commitments totaling €498 million correspond to the rebilling of rent for premises occupied by Group subsidiaries.

17.2 Commodity-related commitments

17.2.1 Natural gas and electricity commitments

Gas supplies in Europe are based partly on long-term contracts, including “take-or-pay” contracts. These long-term commitments make it possible to finance costly production and transmission infrastructures. The seller makes a long-term commitment to serve the buyer, subject to a commitment by the latter to buy minimum quantities regardless of whether or not it takes delivery thereof. These commitments are combined with backup measures (*force majeure*) and flexible volume arrangements, making it possible to manage any uncertainties affecting demand, primarily weather conditions, as well as any technical contingencies that may arise.

These types of contracts can run up to 25 years and are used by ENGIE SA to meet the demands of its customers for natural gas in the medium and long term.

The contracts provide for reciprocal commitments regarding specified quantities of gas:

- a commitment by ENGIE SA to purchase quantities of gas above a minimum threshold;
- a commitment by suppliers to provide these quantities at competitive prices.

The appeal of these contracts is provided by indexed price formulas and price adjustment mechanisms.

At December 31, 2021, ENGIE SA had commitments to purchase a minimum of 364 TWh within one year, 1,192 TWh between two and five years, and 965 TWh after five years.

ENGIE SA also entered into forward purchases and sales of natural gas, primarily at maturities of less than one year, as part of its trading activities. These consist of purchases and sales on short-term markets and offers featuring engineered prices for other operators.

At December 31, 2021, commitments given by ENGIE SA totaled 39 TWh under forward purchase contracts and 295 TWh under forward sale contracts.

To meet its commitments to take delivery of specified volumes, ENGIE SA has entered into long-term contracts to reserve land and sea transmission capacities.

At December 31, 2021, commitments given by ENGIE SA totaled 117 TWh under forward electricity purchase contracts and 38 TWh under forward electricity sale contracts.

17.2.2 Commodity derivatives

As part of its energy brokerage activities, ENGIE SA uses energy derivatives to adjust its exposure to fluctuations in prices of natural gas, electricity and oil products.

Commodity derivatives (natural gas, oil and electricity) consist mainly of swaps, futures and options set up to manage price risk within the scope of ENGIE SA's trading activities. These instruments are traded with third parties by the Company's specialized subsidiaries, ENGIE Global Markets and ENGIE Energy Management on organized or over-the counter markets.

These derivatives are contracted to manage risks arising on:

- price engineering transactions designed to meet the growing demand among customers for tight controls on gas and electricity price risk. These products are primarily intended to guarantee a commercial margin regardless of trends in the commodity indexes included in the prices offered to customers, even when they differ from the commodity indexes to which ENGIE SA purchases are pegged. Options (calls and puts) are set up to guarantee maximum and minimum prices;
- measures taken to optimize procurement costs. Energy procurement costs, assets used in electricity production and reservations of available transmission and storage capacity not required to supply customers are systematically valued on the market.

The exposure to commodity price risk on these commercial transactions is managed and monitored as follows:

- pass-through mechanisms are applied in determining (i) sale prices for eligible customers, and (ii) regulated rates;
- the margin on fixed-price sale contracts or contracts indexed by financial swaps is hedged.

Depending on the nature of the hedged items, gains and losses on these transactions are recognized either in revenue or in energy purchase cost.

There is a time lag between the impact of changes in commodity prices on procurement costs and their repercussion on sales prices, reflecting mainly the effect of rolling averages and the inventory stocking/run-down cycle.

17.2.2.1 Instruments not recognized as hedges

	Notional amount at Dec. 31, 2021				Fair value at Dec. 31, 2021	Notional amount at Dec. 31, 2020
	In GWh by maturity					
	x < 1 year	1 year < x < 2 years	x > 2 years	*In millions of euros*	*In millions of euros*	*In GWh*
SWAPS (long position)						
Natural gas	63,431	4,782	5,272	5,447	4,160	230,629
Oil-based products	13,911	9,780	3,821	418	418	42,680
Electricity	624	216	-	15	39	5
CER EUA – CO_2 (1)	-	-	-	-	-	-
SWAPS (short position)						
Natural gas	(58,081)	(4,780)	(7,892)	(3,904)	(3,146)	(203,248)
Oil-based products	(6,465)	(2,971)	(771)	(238)	(238)	(16,557)
Electricity	(565)	(242)	(351)	(25)	(51)	(5,155)
CER EUA – CO_2 (1)	-	-	-	-	-	-
Options (long position)						
Natural gas	619	160	-	-	-	1,490
Oil-based products	-	-	-	4	4	-
Electricity	-	-	-	-	-	-
Options (short position)						
Natural gas	(2,960)	(664)	(128)	-	(33)	-
Oil-based products	-	-	-	(4)	(4)	-
Electricity	-	-	-	-	-	-

(1) *In kg of CO_2 quotas*

17.2.2.2 Instruments recognized as hedges

Hedge accounting is not used in ENGIE SA's parent company financial statements.

17.2.2.3 Physical delivery contracts

	Notional amount at Dec. 31, 2021				Fair value at Dec. 31, 2021	Notional amount at Dec. 31, 2020
	In GWh by maturity					
	x < 1 year	1 year < x < 2 years	x > 2 years	*In millions of euros*	*In millions of euros*	*In GWh*
Forwards (long position)						
Natural gas	945,391	232,741	90,160	47,281	29,152	1,727,928
Oil-based products	-	-	-	-	-	-
Electricity	29,466	11,661	5,598	5,406	4,529	97,420
CER EUA – CO_2[(1)]	-	-	-	-	-	-
Forwards (short position)						
Natural gas	(911,723)	(214,837)	(93,473)	(45,525)	(27,819)	(1,752,096)
Oil-based products	-	-	-	-	-	-
Electricity	(19,658)	(9,113)	(4,315)	(2,866)	(3,452)	(46,974)
CER EUA – CO_2[(1)]	-	-	-	-	-	-
Options (long position)						
Natural gas	-	-	-	1,158	1,223	3,022
Oil-based products	-	-	-	-	-	-
Electricity	3,564	10,831	2,880	305	860	2,224
Options (short position)	-	-	-	-	-	-
Natural gas	(2,978)	-	-	(2,447)	(2,468)	-
Oil-based products	-	-	-	(27)	(27)	-
Electricity	(11,604)	(14,497)	(1,405)	(317)	(1,519)	13,393

(1) In kg of CO_2 quotas

17.3 Insurance of eligible risks

ENGIE SA systematically transfers all material risks based on an identification of risks eligible for insurance – particularly relating to Company assets and damages caused to third parties. Insurance policies offer extensive coverage in order to limit the financial impact of any claims on the Group's accounts.

To ensure a consistent approach, insurance policies are managed at Group level. As a result, new projects developed by subsidiaries can be incorporated within existing policies to enable the parent company to fully assume its role for its majority-owned subsidiaries.

NOTE 18 Pensions and other employee benefit obligations

Overview of obligations

In millions of euros	EGI sector plan		Non-EGI sector plan		Total	
	Dec. 31, 2021[1]	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Pension benefits	**2,175**	**2,480**	**290**	**297**	**2,465**	**2,777**
Pension plan	2,175	2,480	290	297	2,465	2,777
End-of-career and other post employment benefits	**225**	**286**	**24**	**27**	**248**	**313**
Reduced energy and water prices	102	145	4	5	106	150
End-of-career indemnities[2]	48	54	-	-	48	54
Immediate bereavement benefits	60	71	-	-	60	71
Other[3]	15	16	20	22	34	38
Other employee benefits	**87**	**94**	**-**	**-**	**87**	**94**
Disability benefits and other	79	86	-	-	79	86
Long-service awards	8	8	-	-	8	8
TOTAL	**2,487**	**2,861**	**314**	**324**	**2,801**	**3,184**

(1) *Including €105 million covered by a provision in the parent company financial statements (see Note 18.4)*
(2) *Including the €4.5 million impact of the IFRIC interpretation on the recognition of rights under staged vesting plans, pursuant to ANC recommendation 2013-02 as amended on November 5, 2021*
(3) *Indemnities for the partial reimbursement of educational expenses, exceptional end-of-career vacation and the former SUEZ supplementary healthcare plan*

Actuarial assumptions

The actuarial assumptions were determined together with independent actuaries. Weighted discount rates for the main actuarial assumptions are presented below:

	Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
EGI sector plan	2021	2020	2021	2020	2021	2020	2021	2020
Discount rate	1.31%	0.79%	1.31%	0.78%	1.06%	0.52%	1.25%	0.72%
Inflation rate	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%	1.82%
Average remaining working years of participating employees	23 years	21 years	23 years	21 years	23 years	21 years	23 years	21 years

	Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
Non-EGI sector plan Former SUEZ	2021	2020	2021	2020	2021	2020	2021	2020
Discount rate	0.73%	0.55%	-	-	-	-	0.73%	0.55%
Inflation rate	1.80%	1.80%	-	-	-	-	1.80%	1.80%
Average remaining working years of participating employees								

	Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
Non-EGI sector plan Former Cie Financière	2021	2020	2021	2020	2021	2020	2021	2020
Discount rate	0.73%	0.80%	-	-	-	-	0.73%	0.80%
Inflation rate	1.80%	1.80%	-	-	-	-	1.80%	1.80%
Average remaining working years of participating employees								

According to the Group's estimates, a 1% increase or decrease in the discount rate would result in a change of 20% in the projected benefit obligation.

18.1 Pensions

The main defined-benefit plans operated by ENGIE SA comprise:

- pensions falling within the scope of the special plan for companies belonging to the electricity and gas industries sector ("EGI");
- pension plans taken over following the merger of SUEZ into ENGIE SA:
  - the 1953 supplementary pension plan, closed since December 31, 1988,
  - plans operated by the former Compagnie de SUEZ (annuity plans based on endof-career salaries),
  - supplementary pension plans for senior managers operated by all water companies (annuity plans based on end-of-career salaries).

French government order No. 2019-697 on top-up pension plans, which was published on July 4, 2019 pursuant to the European Directive of April 16, 2014, abolished the defined-benefit pension plans governed by Article L.137-11 of the French Social Security Code (known as “Article 39 plans”), froze the rights of existing members and closed the plans to any new members as of that date.

Following the plan’s closure and crystallization of rights accrued in 2019, in 2020 the Group transferred the rights of beneficiaries, including Executive Committee members, to a defined contribution plan (known as an “Article 82” plan).

EGI sector pension plan

Salaried employees and retirees of EGI sector companies have been fully affiliated to the *Caisse Nationale des Industries Électriques et Gazières* (CNIEG) since January 1, 2005. The CNIEG is a private welfare body placed under the joint responsibility of the ministries in charge of social security and the budget. The conditions for calculating benefit entitlements under the EGI plan are set out in the national statute for EGI sector employees (Decree of June 22, 1946) and determined by the government. By law, companies cannot amend any of these conditions.

Unregulated past specific benefits (at December 31, 2004) are funded by EGI sector entities to the extent defined by Decree No. 2005-322 of April 5, 2005. For ENGIE SA, this funding obligation represents 3.25% of the past specific benefit obligations of all EGI sector companies.

The specific benefits vested under the plan since January 1, 2005 are wholly financed by EGI sector companies in proportion to their respective share of the electricity and gas market as measured in terms of total payroll costs.

Calculation of pension obligations

ENGIE SA's pension obligations are calculated using a yield-to-maturity method in line with ANC Recommendation 2013-02 of November 7, 2013. The method used is known as the projected unit credit method and is based on assumptions regarding end-of-career salaries, retirement ages, changes in the population of retired employees and payment of benefits to surviving spouses.

The obligations are calculated as follows:

- based on the rights vested at the measurement date, under both the EGI plan and statutory pension plans;
- for all active and retired employees in the EGI sector, and all employees and eligible beneficiaries for former SUEZ plans;
- actuarial gains and losses are recognized immediately.

18.2 Other employee benefit obligations

Benefits payable to active and retired employees of EGI sector companies (excluding pensions) are described below:

- post-employment benefits:
  - reduced energy prices,
  - end-of-career indemnities,
  - exceptional end-of-career vacation,
  - death in service benefits (*régime des capitaux décès*),
  - assistance with educational expenses;
- long-term benefits:
  - allowances for occupational accidents and illnesses,
  - temporary and permanent disability allowances,
  - long-service awards,
  - asbestos benefit.

Retired employees of former SUEZ are eligible for post-employment benefits consisting of a cash contribution to the costs of their water supply and complementary healthcare insurance.

The obligation is calculated using the projected unit credit method.

The Group's main obligations are described below.

18.2.1 Reduced energy prices

Under Article 28 of the national statute for EGI sector personnel, all current and former employees are entitled to benefits in kind which take the form of energy. This benefit entitles employees to electricity and gas supplies at a reduced price.

The amount of the obligation regarding gas supplied to ENGIE SA and EDF employees corresponds to the likely present value of the power (kWh) supplied to the employees or their dependents during the retirement phase, assessed based on the unit cost of the energy. The amount of the obligation also takes account of the likely value of the price of the energy exchange agreement with EDF.

18.2.2 End-of-career indemnities

As of July 1, 2008, retiring employees (or their dependents in the event of death during active service) are entitled to end of-career indemnities which increase in line with the length-of-service within the EGI sector, capped at 40 years.

18.2.3 Allowances for occupational accidents and illnesses

Like other employees under the standard pension plan, EGI sector employees are entitled to compensation for accidents at work and other occupational illnesses. These benefits cover all employees or the dependents of employees who die as a result of occupational accidents or illnesses, or injuries suffered on the way to work.

The amount of the obligation corresponds to the likely present value of the benefits to be paid to current beneficiaries, taking into account any reversionary annuities.

18.3 Change in present value of benefit obligations

	EGI sector plan						Non-EGI sector plan						Total	
	Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Pension benefits		End-of-career and other post-employment benefits		Long-term benefits			
In millions of euros	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Present value of benefit obligation at January 1	**2,480**	**2,233**	**286**	**283**	**94**	**85**	**297**	**297**	**27**	**26**	**-**	**-**	**3,184**	**2,924**
Impact of mergers and spin-offs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Past service cost: plan amendments	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Current service cost	35	27	10	8	12	12	-	-	-	-	-	-	57	46
Interest cost	17	26	2	4	-	1	1	3	-	-	-	-	21	34
Actuarial gains and losses due to financial assumption changes	(240)	262	(29)	17	(6)	6	(7)	38	(1)	1	-	-	(284)	324
Actuarial gains and losses due to demographic assumption changes	(7)	-	(6)	-	(1)	-	-	-	-	-	-	-	(13)	-
Actuarial gains and losses due to experience adjustments	(32)	16	(28)	(16)	(4)	(2)	14	-	-	-	-	-	(50)	(2)
Benefits paid under all plans (funded and unfunded)[(1)]	(79)	(84)	(6)	(10)	(8)	(8)	(15)	(15)	(2)	(2)	-	-	(110)	(119)
Other[(2)]	-	-	(5)	-	-	-	-	(25)	-	-	-	-	(5)	(25)
Present value of benefit obligation at December 31	**2,174**	**2,480**	**224**	**286**	**87**	**94**	**290**	**297**	**24**	**27**	**-**	**-**	**2,799**	**3,184**

(1) The aggregate impact on income of benefits paid under all plans totaled €110 million in 2021 versus €119 million in 2020

(2) Including the €4.5 million impact of the IFRIC interpretation on the recognition of rights under staged vesting plans, pursuant to ANC recommendation 2013-02 as amended on November 5, 2021

18.4 Provisions

At year-end, ENGIE SA sets aside provisions in respect of allowances for occupational accidents and illnesses, and temporary and permanent disability benefits for active employees, as well as for benefits due during employees' active working lives (long-service awards and exceptional end-of-career vacation). Provisions for pensions and other employee benefit obligations transferred by SUEZ at the time of the 2008 merger are also recognized by ENGIE SA in liabilities. These provisions are written back as and when the corresponding liabilities for which they were set aside at end 2007 are extinguished. No further amounts are set aside to these provisions in respect of rights newly vested or the unwinding of discounting adjustments.

At December 31, 2021, ENGIE SA booked provisions of €105 million compared to €113 million at end-2020, representing an increase of €8 million in employee-related provisions.

Changes in provisions for employee benefit obligations

	EGI sector plan						Non-EGI sector plan							
	Pension benefits(1)		End-of-career and other post-employment benefits(2)		Long-term benefits(3)		Pension benefits(1)		End-of-career and other post-employment benefits(2)		Long-term benefits(3)		Total	
In millions of euros	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Present value of benefit obligation at January 1 (provisioned)	**-**	**-**	**14**	**13**	**94**	**85**	**5**	**5**	**-**	**-**	**-**	**-**	**113**	**103**
Impact of mergers and spin-offs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Current service cost	-	-	1	1	12	12	-	-	-	-	-	-	13	13
Interest cost	-	-	-	-	-	1	-	-	-	-	-	-	1	1
Actuarial gains and losses due to financial assumption changes	-	-	(1)	1	(6)	6	-	-	-	-	-	-	(7)	7
Actuarial gains and losses due to demographic assumption changes	-	-	-	-	(1)	-	-	-	-	-	-	-	(1)	-
Actuarial gains and losses due to experience adjustments	-	-	-	-	(4)	(2)	-	-	-	-	-	-	(4)	(2)
Benefits paid under all plans (funded and unfunded)	-	-	(1)	(2)	(8)	(8)	-	-	-	-	-	-	(9)	(9)
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)
Present value of benefit obligation at December 31 (provisioned)	**-**	**-**	**13**	**14**	**87**	**94**	**5**	**5**	**-**	**-**	**-**	**-**	**105**	**113**

(1) Excluding EGI sector companies in both 2021 and 2020

(2) Exceptional vacation (€13 million), complementary health insurance for retired former SUEZ employees (zero) and water bonus (zero) in 2021

(3) Allowances for occupational accidents and illness (€47 million), temporary and permanent disability allowances (€29 million), asbestos (€3 million) and long-service awards (€8 million)

18.5 Insurance contracts

ENGIE SA has taken out insurance contracts with several insurance firms to cover its obligations in respect of pensions and end-of-career indemnities. An amount of €78 million was paid to these insurance firms in 2021.

The value of these insurance contracts stood at €1,955 million at December 31, 2021 (€1,793 million at December 31, 2020).

18.6 Change in the fair value of plan assets

	EGI sector plan						Non-EGI sector plan							
	Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Total	
In millions of euros	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Fair value of plan assets at January 1	**1,543**	**1,594**	**22**	**23**	**-**	**-**	**228**	**237**	**-**	**-**	**-**	**-**	**1,793**	**1,854**
Impact of mergers and spin-offs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expected return on plan assets	11	19	-	-	-	-	1	2	-	-	-	-	12	22
Premiums net of handling fees	-	-	-	-	-	-	-	10	-	-	-	-	-	10
Actuarial gains and losses on plan assets	211	(6)	2	(1)	-	-	10	(6)	-	-	-	-	223	(12)
Benefits paid out of plan assets	(63)	(64)	-	-	-	-	(14)	(15)	-	-	-	-	(78)	(80)
Other	-	-	-	-	-	-	4	-	-	-	-	-	4	
Fair value of plan assets at December 31	**1,702**	**1,543**	**24**	**22**	**-**	**-**	**229**	**228**	**-**	**-**	**-**	**-**	**1,955**	**1,793**

Return on plan assets

	EGI sector plan						Non-EGI sector plan					
	Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Pension benefits		End-of-career and other post-employment benefits		Long-term benefits	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Actual return on plan assets	**13.4%**	**1.4%**	**13.4%**	**1.4%**	**-**	**-**	**1.8%**	**3.2%**	**-**	**-**	**-**	**-**

The actual return on EGI sector plan assets was 13.36% in 2021.

The actual return on non-EGI sector plan assets was 1.76% in 2021.

The allocation of plan assets by principal asset category can be analyzed as follows:

	EGI sector plan		Non-EGI sector plan	
	2021	2020	2021	2020
Equities	32%	30%	9%	9%
Bonds	49%	63%	83%	82%
Other (including money market securities)	19%	7%	9%	9%
	100%	**100%**	**100%**	**100%**

Collective life insurance policies contracted with insurers to cover employee-related liabilities under the EGI sector plan are unit-linked. These contracts are available to ENGIE SA and to Group subsidiaries belonging to the "Group employee benefits management agreement". A small portion of these contracts may be invested in financial instruments issued by ENGIE SA, mainly equities.

Based on unit-linked contracts attributable to ENGIE SA, the portion of plan assets invested in financial instruments issued by ENGIE SA amounted to €8 million at December 31, 2021, representing less than 1% of the total value of the fund at that date. Plan assets are not invested in properties occupied by ENGIE SA or in other assets used by ENGIE SA.

18.7 Supplementary defined-contribution plan

Employees eligible for the EGI plan also benefit from an additional defined-contribution plan set up in 2009. Employer contributions paid in respect of this scheme totaled €4.9 million in 2021 and €5 million in 2020.

NOTE 19 Legal and anti-trust proceedings

19.1 Concessions in Buenos Aires and Santa Fe

In 2003, ENGIE and its joint shareholders, water distribution concession operators in Buenos Aires and Santa Fe, initiated two arbitration proceedings against the Argentinean State before the International Center for Settlement of Investment Disputes (ICSID). The purpose of these proceedings was to obtain compensation for the loss in value of investments made since the start of the concession, in accordance with bilateral investment protection treaties.

As a reminder, prior to the stock market listing of SUEZ Environnement Company, ENGIE and SUEZ (formerly SUEZ Environnement) entered into an agreement providing for the economic transfer to SUEZ of the rights and obligations relating to the ownership interests held by ENGIE in Aguas Argentinas and Aguas Provinciales de Santa Fe, including the rights and obligations resulting from the arbitration proceedings.

On April 9, 2015, the ICSID ordered the Argentinean State to pay US$405 million in respect of the termination of the Buenos Aires water distribution and treatment concession contracts (including US$367 million to ENGIE and its subsidiaries), and on December 4, 2015, to pay US$225 million in respect of the termination of the Santa Fe concession contracts. The Argentinean State sought the annulment of these awards. By decision dated May 5, 2017, the claim for the annulment of the Buenos Aires award was rejected. The claim to annul the award in the Santa Fe case was rejected by a decision dated December 14, 2018. Consequently, the two ICSID awards, which are a step in the settlement of the dispute, are now final.

The Argentinean government and the various shareholders of Aguas Argentinas entered into and implemented a settlement agreement in accordance with the arbitral award of April 9, 2015, handed down in respect of the water distribution and treatment concession contracts in Buenos Aires. In accordance with the above-mentioned agreement concerning the economic transfer to SUEZ of ENGIE's rights and obligations, SUEZ and its subsidiaries received €224.1 million in cash. Furthermore, the December 14, 2018 ruling pertaining to the water distribution and wastewater treatment concessions granted to Aguas Provinciales de Santa Fe has yet to be applied.

The settlement for the Aguas Provinciales de Santa Fe concession will no longer have any financial impact on ENGIE given the sale of its shares in SUEZ.

19.2 Canvassing

EDF brought an action against ENGIE before the Nanterre Commercial Court on July 20, 2017, seeking €13.5 million in damages for alleged losses due to unfair competitive practices pursued by ENGIE mainly in its door-to-door canvassing campaigns. In its judgment of December 14, 2017, the court ordered ENGIE to pay EDF the sum of €150,000, concluding that ENGIE was guilty of unfair competition but acknowledging that there had been no disparagement of EDF and that ENGIE had set up training and control arrangements for its partners.

ENGIE appealed the judgment and EDF brought a cross-appeal seeking €94.7 million in damages for its alleged loss. The Versailles Court of Appeal delivered its judgment on March 12, 2019, ordering ENGIE to pay EDF €1 million. It also ordered ENGIE to cease and desist from all parasitic business practices and disparagement to the detriment of EDF, subject to a penalty of €10,000 per infringement for a period of one year.

On July 6, 2020, EDF asked the enforcement judge at the Nanterre Court to assess the penalty ordered by the Versailles Court of Appeal, seeking payment from ENGIE of the sum of €106.89 million and a final penalty of €50,000 per infringement for a period of one year. On December 11, 2020, the enforcement judge ordered ENGIE to pay EDF the sum of €230,000 and ordered a new provisional penalty of €15,000 per new infringement for a period of one year as of notification of the judgment by EDF.

On December 22, 2020, EDF appealed the enforcement judge's decision before the Versailles Court of Appeal. The Versailles Court of Appeal handed down its decision on July 1, 2021. It reduced ENGIE's fine to €190,000 and, considering that ENGIE had demonstrably implemented measures that were likely to be efficient and that the difficulties encountered stemmed for the most part from the behavior of service providers/partners and door-to-door salespeople, annulled the new provisional penalty and rejected EDF's request to impose a definitive penalty. EDF appealed this decision before the French Court of Cassation on July 29, 2021.

19.3 Commissioning

Regarding the customer management services carried out on behalf of the grid manager in the electricity sector (in this case ERDF, now ENEDIS), following proceedings brought by ENGIE, in a decision of July 13, 2016, the *Conseil d'État* ruled that the principle whereby the grid manager pays compensation to the supplier should apply. In the same decision, the *Conseil d'État* denied the CRE the right to set a customer threshold beyond which the compensation would not be payable, which hitherto prevented ENGIE from receiving any compensation. In light of this decision, ENGIE brought an action against ENEDIS with the purpose of obtaining payment for these customer management services. The legislature has adopted a decision that retroactively validates the agreements entered into with ENEDIS and precludes any request for compensation for unpaid customer management services. In a decision handed down on April 19, 2019, the Constitutional Court ruled that this provision was constitutional. The proceedings against ENEDIS are still underway.

19.4 Withholding tax

In their tax deficiency notice dated December 22, 2008, the French tax authorities questioned the tax treatment of the nonrecourse sale by SUEZ (now ENGIE) of a withholding tax (*précompte*) receivable in 2005 for an amount of €995 million (receivable relating to the *précompte* paid in respect of the 1999-2003 fiscal years). The Montreuil Administrative Court handed down a judgment in ENGIE's favor in April 2019, which led to the French tax authorities to appeal the decision before the Versailles Court of Appeal, which overturned the prior Court's decision on December 22, 2021. While recognizing the fiscal nature of the receivable sold, the Court did not validate the exemption of the sale price because there was no text or principle to that effect, and because the sale was not authorized by the State.

Regarding the dispute over the *précompte* itself, on February 1, 2016, the *Conseil d'État* dismissed the appeal before the Court of Cassation seeking the repayment of the *précompte* in respect of the 1999, 2000 and 2001 fiscal years. On June 23, 2020, the Versailles Administrative Court of Appeal found in favor of ENGIE as regards the cases seeking repayment of the *précompte* in respect of the 2002 and 2003 fiscal years but rejected the case in respect of the 2004 fiscal year. As the *précompte* receivables for 2002/2003 have been assigned, the relevant amounts will be repaid to the assignee banks. The case has been referred to the *Conseil d'État* by the two parties. Pursuant to an application for a priority preliminary ruling on the issue of constitutionality, on October 23, 2020, the *Conseil d'État* decided to seek a preliminary ruling from the Court of Justice of the European Union to ascertain whether Directive 90/435/EC of 1990 precludes the withholding of the *précompte* upon the redistribution by a parent company of dividends received from subsidiaries established in the European Union.

Furthermore, after ENGIE and several French groups lodged a complaint, on April 28, 2016, the European Commission issued a reasoned opinion to the French State as part of infringement proceedings, setting out its view that the *Conseil d'État* did not comply with European Union law when handing down decisions in disputes regarding the *précompte*, such as those involving ENGIE. On July 10, 2017, the European Commission referred the matter to the Court of Justice of the European Union (CJEU) on the grounds of France's failure to comply. On October 4, 2018, the Court of Justice of the European Union ruled partially in favor of the European Commission. Following this decision, France must revisit its methodology in order to determine the *précompte* repayment amounts in closed and pending court cases.

19.5 Sale of 29.9% of the capital of Suez to Veolia

In the context of the sale by ENGIE of 29.9% of the capital of SUEZ to Veolia on October 6, 2020, ENGIE was summonsed to various proceedings, both in summary hearings or hearings on the merits, and both in labor law and commercial law matters. The main proceedings involved Veolia and SUEZ and were initiated by SUEZ, acting alone or jointly with its staff representation bodies. All these proceedings were closed following the agreement between Veolia and SUEZ on May 14, 2021. ENGIE has acted within its rights in all circumstances, has not violated any of its obligations and there is no irregularity in the form or substance of the sale to Veolia, which is now final, that is likely to affect the validity thereof.

NOTE 20 Information concerning related parties

All material transactions between ENGIE SA and related parties were carried out on an arm's length basis. Accordingly, no disclosures are required pursuant to the amending decree of Article R.123-198-11 of March 9, 2009.

Relations with the French State

The French State's interest in the Group at December 31, 2021 was unchanged from the previous year at 23.64%. This entitles it to three of the 14 seats on the Board of Directors (one Director representing the State appointed by decree, and two Directors appointed by the Shareholders' Meeting at the proposal of the French State).

The French State holds 33.20% of the theoretical voting rights (33.36% of exercisable voting rights) compared with 33.19% at end-2020.

On May 22, 2019, the PACTE act ("Action plan for business growth and transformation") was enacted enabling the French State to dispose of its ENGIE shares without restriction.

In addition, the French State holds a golden share aimed at protecting France's critical interests and ensuring the continuity and safeguarding of supplies in the energy sector.

The golden share is granted to the French State indefinitely and entitles it to veto decisions taken by ENGIE if it considers they could harm France's interests.

Public service engagements in the energy sector are defined by the law of January 3, 2003.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, as well as rates for accessing the French LNG terminals and revenues from storage capacities, are all regulated.

The Law on Energy and Climate enacted on November 8, 2019 will put an end to regulated gas tariffs and will restrict regulated electricity tariffs for consumers and small businesses. The final date for the discontinuation of regulated gas tariffs is July 1, 2023.

Relations with EDF

Following the creation on July 1, 2004 of the French gas and electricity distribution network operator (EDF Gaz de France Distribution), Gaz de France SA and EDF entered into an agreement on April 18, 2005 setting out their relationship as regards the distribution business. The December 7, 2006 law on the energy sector reorganized the natural gas and electricity distribution networks. Enedis SA (previously ERDF SA), a subsidiary of EDF SA, and GRDF SA, a subsidiary of ENGIE SA, were created on January 1, 2007 and January 1, 2008, respectively, and act in accordance with the agreement previously signed by the two incumbent operators.

Relations with the CNIEG (*Caisse Nationale des Industries Électriques et Gazières*)

The Group's relations with the CNIEG, which manages all old age, death and disability benefits for active and retired employees of the Group who belong to the special EGI pension plan, employees of EDF and Non-Nationalized Companies (*Entreprises Non Nationalisées* – ENN), are described in Note 18 "Post-employment benefits and other long-term benefits".

NOTE 21 Compensation due to members of the Board of Directors and Executive Committee

Total compensation (gross salary, bonuses, profit-sharing incentives and benefits in kind, including related employer contributions) paid to the Chief Executive, and members of the Executive Committee came to €28.8 million for 2021.

French government order No. 2019-697 on top-up pension plans, which was published on July 4, 2019 pursuant to the European Directive of April 16, 2014, abolished the defined benefit pension plans governed by Article L.137-11 of the French Social Security Code (known as “Article 39" plans), froze the rights of existing members and closed the plans to any new members as of that date.

Following the plan’s closure and crystallization of rights accrued in 2019, in 2020, the Group transferred the rights of beneficiaries, including Executive Committee members, to a defined contribution plan (known as an “Article 82” plan).

Members of the Board of Directors elected by the Shareholders' Meeting, except for the corporate officers, the Directors from the public sector appointed on the proposal of the French State and the Director representing employees, received €0.8 million in attendance fees for 2021.

NOTE 22 Subsequent events

Earn-out from the disposal of a portion of ENGIE’s interest in French company SUEZ SA

On October 6, 2020, the Group sold 29.9% of its stake in SUEZ SA to the VEOLIA Group. This sale was subject to an earn-out mechanism if the VEOLIA Group carried out other capital transactions on SUEZ at a price higher than that of the 29.9% block sold by ENGIE.

In 2021, the VEOLIA Group launched a takeover bid for SUEZ at a price of €20.50 per share (cum dividend) which closed successfully on January 7, 2022. In 2022, ENGIE SA will recognize €347 million of contingent consideration under this mechanism.

Disposal of ENGIE's remaining stake in SUEZ SA

On January 18, 2022, the Group contributed its remaining 1.8% stake in SUEZ as part of the public offer initiated by the VEOLIA Group in 2021. This transaction will have an impact on ENGIE SA's 2022 earnings and will reduce its debt by €227 million.

6.4.3 Total and partial transfers of assets, subsidiaries, and equity investments requiring statutory disclosure

This Note discloses crossings of thresholds of 10% and 50%, which correspond to the percentage holdings above which an entity becomes, respectively, an equity investment and a subsidiary according to the French Commercial Code (*Code du commerce*).

Total and partial transfers of assets

	% at Dec. 31, 2020	% at Dec. 31, 2021	Reclassification within the Group	Sale outside the Group	Net book value of shares sold *(in euros)*	Business sector
Subsidiaries[(1)]						
Ecometering	99%	0%		X	38,214,000	Services
Equity investments[(2)]						

(1) More than 50%-owned by ENGIE SA
(2) Less than 50%-owned by ENGIE SA

Total and partial purchases of assets

	% at Dec. 31, 2020	% at Dec. 31, 2021	Reclassification within the Group	Acquisition outside the Group	Net book value of shares held *(in euros)*	Business sector
Subsidiaries[(1)]						
ENGIE Investissement 86	-	100%	X		40,000	Other
ENGIE Investissement 87	-	100%	X		40,000	Other
Equity investments[(2)]	-					

(1) More than 50%-owned by ENGIE SA
(2) Less than 50%-owned by ENGIE SA

6.4.4 Five-year financial summary

	2021	2020	2019	2018	2017
Capital at year-end					
Share capital *(in euros)*	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011
Number of ordinary shares issued and outstanding	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011
Maximum number of shares to be issued:					
• by converting bonds	-	-	-	-	-
• by exercising stock options	-	-	-	-	-
Results of operations for the year *(in millions of euros)*					
Revenues, excluding VAT	36,224	19,272	17,282	27,833	20,585
Income before tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	659	1,444	378	2,960	2,431
Income tax (negative figures = benefit)	(474)	(532)	(377)	(549)	(1,001)
Employee profit-sharing and incentive payments for the year	-	-	-	-	-
Income after tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	1,780	(3,928)	(196)	1,102	1,421
Total dividends paid (including on treasury shares)	2,070	1,291	-	2,718	1,700
Earnings per share *(in euros)*					
Earnings per share after tax and employee profit-sharing, but before depreciation, amortization, provisions and transfer of concession termination amortization	0.47	0.81	0.31	1.44	1.41
Income after tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	0.73	(1.61)	(0.08)	0.45	0.58
Dividend per share[(1)]	0.85	0.53	-	1.12	0.70
Headcount					
Average number of employees during the year	4,294	4,477	4,534	4,400	4,873
Total payroll	277	283	273	289	317
Total employee benefit obligations paid (social security taxes and contributions to pension plans, welfare plans, etc.)	229	239	197	362	269

(1) Subject to approval by the Board of Directors

Shareholders at the AGM held to approve the 2021 financial statements will be asked to approve a dividend of €0.85 per share, representing a total amount of €2,070 million, based on the number of outstanding shares at December 31, 2021.

The dividend per share of €0.85 will be increased by 10% for all shares held by the same person for more than two years as of December 31, 2021 provided they are still held on the dividend payment date.

6.5 Statutory auditors' report on the financial statements

This is a translation into English of the statutory auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users.

This statutory auditors' report includes information required by European regulations and French law, such as information about the appointment of the statutory auditors or verification of the management report and other documents provided to the shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

Year ended December 31, 2021

To the Shareholders' Meeting of ENGIE,

Opinion

In compliance with the engagement entrusted to us by your Shareholders' Meeting, we have audited the accompanying financial statements of ENGIE for the year ended December 31, 2021.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2021 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with the independence requirements of the French Commercial Code *(Code de commerce)* and the French Code of Ethics for Statutory Auditors *(Code de déontologie de la profession de commissaire aux comptes)* for the period from January 1, 2021 to the date of our report, and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014.

Justification of Assessments - Key Audit Matters

Due to the global crisis related to the COVID-19 pandemic, the financial statements for this period have been prepared and audited under special circumstances. Indeed, this crisis and the exceptional measures taken in the context of the health emergency have had numerous consequences for companies, particularly on their operations and their financing, and have led to greater uncertainties regarding their future prospects. Some of these measures, such as travel restrictions and remote working, have also had an impact on companies' internal organization and on the performance of audits.

It is in this complex, evolving context that, in accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code *(Code de commerce)* relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Main estimates and judgments relating to revenue

[notes 1, 2 and 13.1 of the notes to the financial statements]

Key audit matter	Our response
Your company makes estimates and uses judgments notably for the recognition of (i) sales of electricity and gas delivered, not metered and not invoiced (known as "metered energy") and, in the specific case of the financial year ended December 31, 2021, (ii) gas sales made in France under the government's "tariff shield" scheme. **Revenue relating to un-metered and unbilled delivered sales of electricity and gas ("energy in the meter"):** The valuation of revenue relating to sales of electricity and gas for customers which are only metered during the accounting period represents a material estimate at the year-end. Indeed, as the meter readings are sometimes communicated by grid managers several months after the actual delivery date, your Group is required to estimate the energy delivered but not metered at the year-end. As of December 31, 2021, the receivables relating to revenue in the meter (gas and electricity un–metered and unbilled revenue) amount to €2,002 million. These receivables are determined on the basis of a method taking into account an estimate of customer consumption, based on their last invoice or their last unbilled reading consistent with the allocation of the distribution network operator over the same period, using measurement and modeling tools developed by the Group ENGIE. The volumes are measured at the average energy price, which takes account of the category of customers and the age of the energy in the meter. **Compensation relating to gas sales under the government's "tariff shield" system** The high volatility observed on the energy markets and the resulting significant increase in natural gas prices led the French Government to cap, from November 1, 2021 and temporarily until June 30, 2022 through the "tariff shield" introduced by the finance law for 2022 (law no. 2021-1900 of December 30, 2021), the regulated gas sales tariffs at the level of those of October 1, 2021. Losses of revenue incurred by your company at from November 1, 2021 constitute charges attributable to public service obligations and are subject to compensation through an irrevocable guarantee given by the French State. In this context, your company has exercised its judgment to determine the methods of accounting for the compensation to be received in this respect, the amount of which is estimated at approximately €248 million as of December 31, 2021. Considering the amounts at stakes, the sensitivity of the estimate to the assumptions used for the volumes and average energy prices, and we have considered (i) the estimate of the share of revenue delivered and not recorded as well as (ii) the compensation to be received on the closing date under the price shield scheme as a key audit matter.	**Revenue relating to un-metered and unbilled delivered sales of electricity and gas ("energy in the meter"):** The diligences carried out on the estimation of metered energy mainly consisted in: • considering the internal control procedures implemented by the Group about the billing process, and the process enabling the reliability of the accounting estimates for the energy in the meter; • assessing the models used by your company and investigate the modality of the computation for the estimated volumes; we include a specialist in algorithm in our audit team. We also: • compared the information about the volumes delivered and determined by the Group with the metering data provided by the grid operators; • examined that the methods used for the computation of the average price of the un-metered delivered power take account of its age in the meter and the different kinds of customers; • analyzed the consistency of the volumes committed in the employment operations (sales, injections and stocks) and with the energy resources (purchases, withdrawals and stocks) on the networks; • assessed the regular clearance of the metered energy during the period; • assessed the age of the energy in the meter at the closing date. **Compensation relating to gas sales made in France under the government's "tariff shield" system** Regarding the impacts resulting from the implementation of the tariff shield mechanism, our procedures mainly consisted in: • examined the government decree of October 23, 2021 and the legislative provisions voted within the 2022 finance law ("Loi de Finance 2022"); • analyzed the financial consequences drawn by your company from the application of the various provisions governing the tariff shield, as well as the valuation of the loss of earnings for the period from November 1, 2021 to December 31, 2021; • assessed the accounting treatment and the methods of presentation of the income to be recognized in the income statement and the related receivable as of December 31, 2021. We have also assessed the appropriateness of the information given in the notes 1, 2 and 13.1 to the annual accounts.

Measurement of equity investments

[notes 1, and 4 of the notes to the financial statements]

Key audit matter	Our response
Equity investments totaled €74,679 million as of December 31, 2021 (€63,361 million in net value). Newly-acquired equity investments are recognized at purchase price plus directly attributable transaction fees. As indicated in the section "Financial fixed assets", Note 1 to the financial statements, equity investments which ENGIE intends to hold on a long-term basis are written down if their value in use has fallen below their book value, including the allocated technical losses. Value in use is determined by reference to the intrinsic value which corresponds to restated net assets plus unrealized gains for investment entities, or the yield value which corresponds to the average of the last twenty stock market prices of the period for listed entities, or expected cash flows or dividends ("Discounted Cash Flow" or "Dividend Discount Model") of operating entities, and by taking into account any currency hedges. As indicated in Note 4.2, expected cash flows are drawn from the 2022 budget and 2023-2024 medium-term business plan approved by the Executive Committee and the Board of Directors and beyond this period, extrapolated future cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price projections featured in your Group's reference scenario for 2025-2040 approved by the Executive Committee. As mentioned in Note 4.2, the net reversal of impairment recognized in 2021 for €854 million mainly covers the equity investments in Electrabel (€698 million). The measurement of equity investments is considered a key audit matter given their importance on the balance sheet (61% of total assets) and due to the judgments necessary to estimate their value in use, in a context which remains sensitive to changes in the energy markets and the consequences of which make it difficult to apprehend the medium-term economic outlook.	We assessed Management's procedures for approving estimates. We examined the main data and key assumptions used to determine the values in use, assessed the sensitivity of measurements to these assumptions and verified the calculations made by your company with, the support of our valuation specialists. Our work mainly consisted in: • examining the measurement methods used to estimate values in use; • assessing the consistency of assumptions with your Group's long-term reference scenarios (trends in electricity and gas prices and demand, price of CO_2, coal and oil, inflation) with external studies carried out by international organizations or energy experts; • assessing the consistency of the operational and regulatory assumptions used to prepare cash flow forecasts for each of the entities in the scope; • examining the discount rates for which we have verified the determination methods and the consistency with the underlying market assumptions; • Regarding the methods for determining cash flow forecasts, our work consisted in: – assessing the consistency of the basic data with the budget, the medium-term business plan and beyond, the Group's long-term scenario; – assessing the consistency with past performances and market outlook. • assessing the appropriateness of the disclosure given in the notes to the financial statements.

Specific Verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

Information given in the management report and in the other documents with respect to the financial position and the financial statements provided to the shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors and in the other documents with respect to the financial position and the financial statements provided to the shareholders.

We attest the fair presentation and the consistency with the financial statements of the information relating to payment deadlines mentioned in Article D. 441-6 of the French Commercial Code (*Code de commerce*).

Report on Corporate Governance

We attest that the Board of Directors' Report on Corporate Governance sets out the information required by Articles L. 225–37–4 and L. 22–10–10 and L. 22–10–9 of the French Commercial Code (*Code de commerce*).

Concerning the information given in accordance with the requirements of Article L. 22–10–9 of the French Commercial Code *(Code de commerce)* relating to the remuneration and benefits received by, or allocated to the directors and any other commitments made in their favor, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from companies controlled thereby, included in the consolidation scope. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L. 22–10–11 of the French Commercial Code (*Code de commerce*), we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders and holders of voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

Format of preparation of the financial statements intended to be included in the annual financial report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by statutory auditors regarding the annual and consolidated financial statements prepared in the European single electronic format, that the preparation of the financial statements intended to be included in the annual financial report mentioned in Article L. 451–1–2, I of the French Monetary and Financial Code (*Code monétaire et financier*), prepared under the responsibility of the Chief Executive Officer, complies with the single electronic format defined in Commission Delegated Regulation (EU) No. 2019/815 of 17 December 2018.

On the basis of our work, we conclude that the preparation of the financial statements intended to be included in the annual financial report complies, in all material respects, with the European single electronic format.

We have no responsibility to verify that the financial statements that will ultimately be included by your Company in the annual financial report filed with the AMF (*Autorité des marchés financiers)* agree with those on which we have performed our work.

Appointment of the Statutory Auditors

We were appointed as statutory auditors of ENGIE by the Shareholder's Meeting held on May 19, 2008 for ERNST & YOUNG et Autres and on July 16, 2008 for DELOITTE & ASSOCIES.

As of December 31, 2020, our firms were in the fourteenth year of total uninterrupted engagement.

Previously, ERNST & YOUNG Audit was statutory auditor between 1995 and 2007.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Financial Statements

Objectives and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users made on the basis of these financial statements.

As specified in Article L. 823–10–1 of the French Commercial Code *(Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the financial statements.
- Assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report significant deficiencies, if any, in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France as set out in particular in Articles L. 822–10 to L. 822–14 of the French Commercial Code *(Code de commerce)* and in the French Code of Ethics for Statutory Auditors *(Code de déontologie de la profession de commissaire aux comptes)*. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense, March 4th, 2022

The Statutory Auditors *French original signed by*

DELOITTE & ASSOCIES		ERNST & YOUNG et Autres	
Patrick E. Suissa	Nadia Laadouli	Charles-Emmanuel Chosson	Guillaume Rouger

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Additional information

7.1 General information on ENGIE and its bylaws

7.1.1 Company name and trading name

The company name and trading name of the Company is: ENGIE.

7.1.2 Registration place and number and LEI

ENGIE is registered in the Nanterre Trade and Companies Register under number 542 107 651.

Its APE (principal activity) code is 3523Z.

Its legal entity identifier (LEI) is: LAXUQCHT4FH58LRZDY46.

The name of the stock is ENGIE and its ticker symbol is “ENGI”.

7.1.3 Date of incorporation and term

The Company’s term will end on November 17, 2103, unless it is dissolved early or the term is extended.

7.1.4 Registered office, legal form, legislation, address and website

The registered office is located at: 1, place Samuel de Champlain 92400 Courbevoie, France.

Telephone number of registered office: +33 1 44 22 00 00

Website: www.engie.com

The information provided on the Company’s website does not form an integral part of this document, unless it is incorporated by reference.

ENGIE is a public limited company with a Board of Directors, governed by the legislative and regulatory provisions applicable to commercial limited companies, subject to specific laws governing the Company, and by its bylaws.

7.1.5 Corporate Objective

Pursuant to Article 2.2 of the Articles of Association, ENGIE’s Objective is the management and development of its current and future tangible and intangible assets, in France and abroad, by all means and especially to:

- prospect, produce, process, import, export, purchase, transport, store, distribute, supply and market natural gas of any kind, in all its forms, and electricity, as well as other forms of energy;
- conduct trading in any energy, particularly natural gas and electricity;
- supply to any type of customer services related directly or indirectly to the aforementioned activities, including specific services to facilitate the energy transition;
- perform the public service missions assigned to it by the laws and regulations in force, particularly the Energy Code;
- study, design and implement all projects and all public or private work on behalf of any local authorities, companies and individuals; prepare and sign all treaties, public and private contracts relating to the execution of said projects and work;
- participate directly or indirectly in all operations or activities of any kind that may be related to one of the aforementioned purposes, or which could ensure the development of the corporate holdings, including research and engineering activities, via the formation of companies or new businesses, contribution, subscription or sales of securities or corporate rights, acquisitions of interests and stakes, in any form, in all existing or future businesses or companies, merger, association, or in any other manner;
- create, acquire, lease, take under lease-management all furnishings, buildings and businesses, lease, install and operate all establishments and businesses relating to one of the aforementioned purposes;
- register, acquire, operate, grant or sell all processes, patents and patent licenses relating to the activities connected with one of the aforementioned objects;
- obtain, acquire, rent and operate, mainly via subsidiaries and holdings, all concessions and undertakings relating to the supply of drinking water to towns or water to industry, the evacuation and purification of waste water, drainage and wastewater treatment operations, irrigation and transport, protection and pondage structures as well as all sales and service activities to public authorities and individuals in the development of towns and the management of the environment;
- and in general to carry out all industrial, commercial, financial, personal property or real estate operations and activities of any kind, including services, in particular insurance intermediation, acting as an agent or delegated agent in a complementary, independent or research position; these operations and activities being directly or indirectly related, in whole or in part, to any one of the aforementioned objects, to any similar, complementary or related objects and to those that may further the development of the Company’s business.

7.1.6 Purpose

Pursuant to Article 2.1 of the Articles of Association, the purpose of ENGIE is to act to accelerate the transition to a carbon-neutral economy, through low-energy solutions that are more respectful of the environment. This purpose brings together the company, its employees, customers and shareholders and reconciles economic performance and positive impact on people and the planet. ENGIE's action is assessed in its entirety and over time.

7.1.7 Fiscal year

The Company's fiscal year lasts for 12 months, starting on January 1 and ending on December 31 of each year.

7.2 Material contracts

The Group's main contracts, other than contracts concluded in the ordinary course of business, are as follows:

7.2.1 Contracts finalized in 2020

Contract for the sale of a 29.9% interest in SUEZ – see Note 4.1.2 Section 6.2.2 “Notes to consolidated financial statements” of the 2020 Universal registration document.

7.2.2 Contracts in progress at the end of fiscal year 2020 and finalized in 2021

None.

7.2.3 Contracts signed post-closing 2020

None.

7.2.4 Contracts finalized in 2021

Contract for the sale of part of the interest in GRTgaz – see Note 5.1.2 Section 6.2.2 "Notes to consolidated financial statements".

7.2.5 Contracts in progress at the end of fiscal year 2021

Contract for the sale of the activities of EQUANS – see Note 5.2.1 Section 6.2.2 "Notes to consolidated financial statements".

Contract to acquire a 97.33% interest in Eolia Renovables – see Note 5.4 Section 6.2.2 “Notes to consolidated financial statements”.

7.2.6 Contracts signed post-closing 2021

Not significant.

7.2.7 Borrowing and financing contracts

See Notes 17.3 and 19.2 Section 6.2.2 "Notes to consolidated financial statements" and Notes 11.2.1 and 11.2.2 Section 6.4.2 "Notes to parent company financial statements".

7.3 Litigation and arbitration

In the course of its operations, the Group is engaged in a certain number of legal disputes and arbitration procedures and is also subject to investigations and procedures under competition law. The principal investigations and proceedings are described in Note 26, Section 6.2.2 "Notes to consolidated financial statements" and Note 19 Section 6.4.2 "Notes to parent company financial statements".

7.4 Public documents

The documents relating to ENGIE that must be made available to the public (bylaws, reports, historical financial information on ENGIE, as well as on the Group subsidiaries included or mentioned in this Universal registration document and those relating to each of the two years prior to the filing of this Universal registration document) may be consulted at ENGIE's corporate headquarters for as long as this Universal registration document remains valid.

These documents may also be obtained in electronic format from the ENGIE website (www.engie.com) and some of them may be obtained from the AMF website (www.amf-france.org).

The ENGIE Universal registration document is translated into English. In case of contradiction, the original French version shall prevail.

As well as this Universal registration document, which is filed with the AMF, the Group publishes an integrated report each year.

The documents published on the website are available free of charge from ENGIE, 1, place Samuel de Champlain – 92400 Courbevoie, France.

7.5 Party responsible for the Universal registration document

Party responsible for the Universal registration document

Catherine MacGregor, Chief Executive Officer.

Declaration by the party responsible for the Universal registration document containing the Annual Financial Report

"I hereby certify that the information contained in this Universal registration document is, to my knowledge, in accordance with the facts and makes no omission likely to affect its import.

I hereby certify that, to the best of my knowledge, the financial statements have been prepared in accordance with the applicable accounting standards and give a true and fair view of the assets and liabilities, financial position and profit or loss of the Company and all the undertakings included in the consolidation, and that the management report, whose items are mentioned in Chapter 7 of this Universal registration document, presents a fair review of the development and performance of the business and financial position of the Company and all the undertakings included in the consolidation as well as a description of the main risks and uncertainties to which they are exposed".

Courbevoie, March 09, 2022
The Chief Executive Officer
Catherine MacGregor

7.6 Conversion table

1 kWh	0.09 m^3 of natural gas (i.e. 1 m^3 of gas = 11 kWh)
1 GWh	91,000 m^3 of natural gas
1 TWh or 1 billion kWh	91 million m^3
1 billion m^3 of gas	6.2 million barrels of oil equivalent (Mboe)

The units of conversion mentioned above are those routinely used by professionals in the energy sector. In this document they are provided solely for information purposes.

7.7 Units of Measurement

A	Ampere
Bar	Unit of measurement of fluid pressure, particularly for natural gas (1 bar = 105 Pascal)
BOE	Barrel of oil equivalent (1 barrel = 159 liters)
G	Giga (billion)
GBq	Giga becquerel
Gm^3	Giga m^3 (billion cubic meters)
GW	Gigawatt (billion watts)
GWh	Gigawatt-hour (million kilowatt-hours)
GWheeq	GWh electric equivalent
J	Joule
k	Kilo (one thousand)
kW	Kilowatt (one thousand watts)
kWh	Kilowatt-hour (one thousand watt-hours)
m	Meter
m^2	Square meter
m^3	Cubic meter
M	Mega (million)
Mboe	Million barrels oil equivalent
Mtpa	Million metric tons per annum
MW	Megawatt (million watts)
MWp	Megawatt-peak (unit of measurement for the power of solar photovoltaic installations)
MWe	Megawatt electric
MWh	Megawatt-hour (thousand kilowatt-hours)
T	Tera (thousand billion)
TBq	Terabecquerel
t/h	Metric tons per hour
TWh	Terawatt-hour (billion kilowatt-hours)
V	Volt
W	Watt
Wh	Watt-hour

7.8 Short forms and acronyms

A

ACPR: Autorité de Contrôle Prudentiel des établissements bancaires (French prudential control authority for banking institutions)

AGM: Assemblée Générale Mixte (Combined Shareholders' Meeting)

AMF: Autorité des Marchés Financiers (French Financial Markets Authority)

ATAD: *Anti-Tax Avoidance Directive*

B

BtoB: Business to Business

BtoC: Business to Consumer

BtoT: Business to Territories

BU: Business Unit

C

Capex: Capital expenditure

CCGT: Combined Cycle Gas Turbine

CER: Certified Emission Reduction – see Glossary

CO_2: Carbon dioxide

COI: Current Operating Income

Covid-19: *Coronavirus disease* 2019

CPN: Commission des provisions nucléaires (Belgian Commission for Nuclear Provisions)

CRE: Commission de Régulation de l'Énergie (French energy regulator) – see Glossary

CRM: Capacity Remuneration Mechanism – see Glossary

CSR: Corporate Social Responsibilit

D

DBSO: *Develop, Build, Share Operate*

DBOO: *Design Build Own Operate*

E

E&P: Exploration & Production of hydrocarbon

EBITDA: Earnings before Interest, Tax, Depreciation and Amortization – see Glossary

EM: Entities consolidated by the equity method

EMAS: Eco Management and Audit Scheme – see Glossary

EMTN: Euro Medium Term Note (program)

ERM: Enterprise Risk Management

EU: European Union

EUA: European Union Allowance

EWC: European Works Council

F

FC: Full Consolidation

FM: Facility management – see Glossary

G

GBU: Global Business Unit

GDPR: General Data Protection Regulation

GHG: Greenhouse gases – see Glossary

H

HR: Human Resources

I

IAS: International Accounting Standards, drawn up internationally by the IASB until 2002

IASB: *International Accounting Standards Board*

IFRS: International Financial Reporting Standards, drawn up internationally by the IASB since 2002

INCOME: Internal Control Management and Efficiency (ENGIE program)

IoT: Internet of Things

IPP: Independent Power Producer – see Glossary

IS: Information Systems

ISO: International Standards Organization – see Glossary

ISP: Investment Services Provider – see Glossary

K

KPI: Key Performance Indicator

L

LNG: Liquified natural gas – see Glossary

LPG: Liquefied petroleum gas – see Glossary

LTO : Long Term Operation

N

NGO: Non-governmental organization

NGV: Natural gas vehicle – see Glossary

NOx: Nitrogen oxide

NRE: New and renewable energy sources: wind, solar, hydro, etc.

O

OECD: Organization for Economic Cooperation and Development

ONDRAF: Organisme National des Déchets RAdioactifs et des matières Fissiles enrichies (Belgian National Agency for Radioactive Waste and enriched Fissile Material)

OPEX: Operating expenses

P

PC: Proportional consolidation

PEG: Plan d'Épargne Groupe, Group Employee Savings Plan

PPA: Power Purchase Agreement (often long-term)

PPE: Programmation Pluriannuelle de l'Energie (Multi-Year Energy Schedule)

PV: Photovoltaic

R

R&D: Research and Development

RAB: Regulated asset base – see Glossary

RES: Renewable Energy Source

ROCE: Return on capital employed

ROE: Return on equity

S

SEC: Social and Economic Committee

SO_2: Sulfur dioxide

SRV: Shuttle Regasification Vehicle – see Glossary

SSC: Shared Service Center

S&P: Services and Proximity

T

TMO: Taux Mensuel Obligataire (monthly bond yield)

TPA-d: Third party access to the distribution network – see Glossary

TSR: Total Shareholder Return – see Glossary

U

UCITS: Undertakings for Collective Investment in Transferable Securities (mutual funds)

V

VaR: Value at Risk – see Glossary

VPP: Virtual Power Plant – see Glossary

7.9 Glossary

Afep-Medef Code

Code of corporate governance for listed companies (in France), in the version published by Afep-Medef in January 2020.

Balancing area

The set of entry points, delivery points and a trading point of gas within which the consignor must achieve a balance.

Biogas

All gases, such as methane and carbon dioxide, resulting from the fermentation of organic waste in a depleted air environment such as landfills, wastewater treatment plants, etc. Such fermentation is the result of a natural or controlled bacterial activity. As such, biogas is classified as a renewable energy source.

Biomass

Mass of non-fossil organic matter of biological origin. A part of this deposit may be used as an energy source.

Branch

Transmission installation ensuring delivery between the transmission grid and one or more delivery points, and aimed exclusively or primarily at supplying a customer or a distribution network. Connections are components of the network.

Capacity Remuneration Mechanism (CRM)

Instrument intended to complement energy markets with a capacity market that ensures the availability of sufficient capacity to ensure the supply of electricity.

Certified Emission Reduction (CER)

Certificate issued to industries that have invested in developing countries to reduce greenhouse gas emissions there. CERs cannot be directly traded, but may be used in place of CO_2 quotas, with one CER equal to one quota.

Cogeneration

A technique that uses a single fuel, which may be natural gas, to simultaneously produce thermal energy (steam or overheated water or a mixture of air and combustion products) and electricity.

Combined steam cycle plant

A power plant comprising a gas turbine generator, the exhaust gases of which power a steam boiler. The steam produced in the boiler drives a turbo-generator.

Commission de Régulation de l'Énergie – CRE (French energy regulator)

The French Energy Regulation Commission is an independent administrative authority. It was created by the Act of February 10, 2000 to regulate electricity and its scope was extended to include the gas sector with the Act of January 3, 2003. Its main mission is to ensure the effective, transparent and non-discriminatory implementation of access to electricity and gas infrastructures.

More generally, its role is to ensure that the gas and electricity markets operate properly.

Compression station

Industrial facility that compresses natural gas to optimize the flow of fluids in the pipes

Connection structures

All the structures that connect a consumption site or distribution network to the transmission grid. Connection structures are made up of one or more distribution lines and one or more substations.

Corporate Power Purchase Agreement (Corporate PPA)

A corporate Power Purchase Agreement or corporate PPA is a long-term electricity supply agreement between an electricity producer and an electricity end-purchaser.

Cushion gas

Quantity of gas stored underground that cannot be fully retrieved after it has been injected.

Dark spread

Gross margin of a coal plant, equal to the difference between the sale price of electricity and the purchase price of the fuel needed to produce it. The dark spread must cover the aggregate of other costs (including operation, maintenance, cost of capital, financial charges, cost of CO_2, etc.).

Desalination

A process used to reduce the salt concentration of sea water in order to make it fit for human or animal consumption as well as for other uses, especially industrial uses.

Distribution

Distribution networks are groups of physical structures consisting mainly of medium or low-pressure pipes. They route natural gas to consumers who are not directly connected to the main network or to a regional transmission network.

EBITDA

EBITDA is often used to refer to the revenues of a business before the deduction of interest, taxes, depreciation, amortization and provisions.

EBITDA at Risk

EBITDA at Risk measures the potential loss of EBITDA, at a given probability, under the impact of various prices and volatilities over a given time horizon. This indicator is especially well-suited for measuring market risks for portfolio management activities.

If the time horizon provided is one calendar year, and the confidence interval is 95%, an EBITDA at Risk of €100 million indicates that there is a 5% probability of losing more than €100 million in EBITDA between January 1 and December 31 due to fluctuations in commodities prices.

Eco Management and Audit Scheme (EMAS)

Based on ISO 14001 certification and an environmental statement certified by European auditors accredited and published by the European Commission.

Electric and Gas Industries (EGI)

All the companies that produce, transmit or distribute electricity or gas in France and which meet the requirements of the Nationalization Act of April 8, 1946. The EGI sector includes all companies with employees that fall under the status of EGI employees.

Energy trading

The act of exchanging physical or financial contracts on the short-term energy markets (over-the-counter markets and stock markets).

Facilities Management (FM)

All the outsourced service and utility management services that accompany the supply of energy to an industrial client. These services concern the management of the client's environment. They include guard services, waste and hygiene, operation and maintenance of technical equipment, project management for construction work, management of safety equipment and telephone and reception services.

Gas Exchange Point

Virtual hub attached to a balancing area where a consignor can sell gas to another consignor.

Gas hub

Point of entry (connection point of a gas transmission network supplied from several sources. It enables operators to exchange gas physically between these sources and end users).

Gas pipeline

A pipeline that conveys fuel gas.

Green electricity

Certified electricity produced from renewable energy sources.

Greenhouse Gases (GHG)

Atmospheric gas that contributes to the retention of solar heat. Industries, automobiles, heating systems, livestock farming and other activities produce gases, some of which heighten the greenhouse effect. The greenhouse gas build-up produced by human activity is one of the causes of global warming and its impacts on the ecosystem.

Green Power Purchase Agreement (green PPA)

A green Power Purchase Agreement or green PPA is a long-term agreement for the supply of electricity produced from renewable energy sources between an electricity producer and an electricity purchaser.

Independent Power Producer (IPP)

An electricity production company independent of public sector control.

IPPs are classified exclusively on the basis of the projects developed outside the country of origin.

International Standards Organization (ISO)

Organization that defines reference systems (industrial standards used as benchmarks).

Investment Services Provider (ISP)

Investment services provider approved by the Committee of European Bank Supervisors to transmit and process market orders.

ISO 9001

An international standard establishing quality criteria for work procedures.

It applies to product design, control of the production and the manufacturing process and the quality control of the end product.

ISO 14001

An international standard that verifies a company's organizational procedures and methods, as well as the effective implementation of environmental policy and objectives.

Joint venture

A term commonly used to describe a project in which two or more entities take part. For the consolidation principles and methods applicable to the different types of partnership under IFRS, please see Note 1 in Section 6.2 Consolidated financial statements.

Liquefied Natural Gas (LNG)

Natural gas put into the liquid phase by lowering its temperature to –162°C, which makes it possible to reduce its volume by a factor of 600.

LNG terminal

Industrial facility that receives, unloads, stores, regasifies LNG and sends natural gas in the gaseous state to the transmission grid. Harbor facility with additional facilities, intended to receive ships that transport liquefied natural gas (LNG).

Load-matching

Term referring to the discrepancy between the actual conditions of a customer's gas consumption and those corresponding to standard purchases over the year of their average daily consumption. Variations (daily, weekly or seasonal) in consumption are generally covered by underground storage, to which customers and their suppliers may have access, either directly (in countries where third-party access to the facilities – regulated or negotiated – is provided) or via a load-matching service (as in the US).

Main network

All the high-pressure and large-diameter structures for transmitting natural gas that link the interconnection points with neighboring transmission grids, storage facilities and LNG terminals.

These structures are connected to regional networks as well as certain industrial consumers and distribution networks

Marketer

Seller of energy to third parties (end customer, distributor, etc.).

Natural Gas for Vehicles (NGV)

Entirely composed of natural gas, NGV is primarily used in urban transportation and waste treatment vehicles.

Natural Gas liquefaction

Transformation of natural gas from gaseous form to liquid form to be transported by ship and/or stored.

Public-Private Partnership (PPP)

The PPP is a contractual arrangement whereby the public sector authority assigns certain tasks to a private operator and specifies objectives. The public sector partner defines the service objectives for the private operator, while retaining ownership of the infrastructure and regulatory control. Local authorities are increasingly resorting to PPP agreements in managing their water services.

Pumping station

Power plant or facility that operates by moving water between reservoirs at different elevations. When electricity prices are low, typically overnight, electricity from the grid system is used to pump water into a raised reservoir and then at times of peak demand, when electricity prices are higher, the water is released back into the lower reservoir through a turbine.

Qmax

A ship of Qmax size is 345 meters (1,132 feet) long, 53.8 meters (177 feet) wide and 34.7 meters (114 feet) high, with a draft of approximately 12 meters (39 feet).

It has an LNG capacity of 266,000 cubic meters (9,400,000 cubic feet), equal to 161,994,000 cubic meters (5.7208 ×109 cubic feet) of natural gas..

Regional network

All the high-pressure and large-diameter structures that link the interconnection points with neighboring transmission grids, storage facilities and LNG terminals.

Regional networks, distribution networks and certain industrial consumers are connected to them.

Regulated asset base (RAB)

The regulated asset base is the economic value, recognized by the regulator, of assets utilized by an operator of regulated infrastructures.

Rights in kind of licensor

The "Rights in kind of licensor" line item is an item specifically pertaining to companies that are utility operators. It offsets "fixed assets held under concession" on the balance sheet.

Its valuation expresses the operator's obligation at the end of the contract to assign to the licensor, at no cost, the fixed assets assigned to the licensed utilities, such that at the end of a given contract, the value of the "Rights in kind of licensor" is equal to the carrying amount of fixed assets that are to be returned to the licensor.

Shuttle Regasification Vehicle (SRV)

LNG carrier fitted with onboard regasifiers that can connect to an underwater buoy. This enables the regasified LNG to be directly injected into a pipeline network.

Smart energy

An economically efficient, durable and secure energy system in which production of renewable energy, infrastructure and consumption are integrated and coordinated locally through energy services, active users and digital technologies.

Spark spread

Gross margin of a natural gas plant, equal to the difference between the sale price of electricity and the purchase price of the fuel needed to produce it. The spark spread must cover all other costs (including operation, maintenance, cost of capital, financial costs, cost of CO_2, etc).

Spot market

A market for the short-term purchase and sale of energy (for the day or up to three years).

Storage

Facility that allows natural gas to be stored in the summer when consumption is at its lowest, and to take natural gas out of storage in winter when consumption is higher. Gas storage is an industrial facility, mainly underground, that enables natural gas suppliers to have a natural gas reserve.

Stress test

Test performed in order to assess resistance to a disaster scenario.

Take-or-Pay

Long-term contract where the producer guarantees the supply of gas to an operator and the operator guarantees payment, regardless of whether or not the operator takes delivery.

Thermal power plant

Facility in which the chemical energy contained in solid, liquid, or gaseous fossil fuel is transformed exclusively into electricity using boilers and steam turbines.

Third Party Access to the distribution network (TPA-d)

The recognized right of each user (eligible customer, distributor, producer) to access a transmission or distribution network in return for payment for access rights.

Tolling

Contract for the transformation of a fuel (e.g. natural gas) into electricity on behalf of a third party.

Total Shareholder Return (TSR)

Return of a share over a given period that includes dividends paid and capital gains realized.

Transmission

Transmission networks are groups of physical structures consisting of high-pressure pipelines. These route natural gas to industrial consumers who are directly connected and to distribution networks.

Transmission capacity

The highest permissible continuous load of the transmission equipment with respect to the stability of its operating parameters and voltage drop.

Treasury stock

Shares of the Company purchased by the latter, by virtue of authorization given by the General Shareholders' Meeting. These shares do not have voting rights attached.

Treasury stock (in subsidiaries)

Shares of a company owned by subsidiaries controlled by the Company. These shares do not carry voting rights.

Underground storage

Use of porous geological formations, natural or artificial cavities (saline or aquifer) to store liquid or gaseous hydrocarbons.

Upstream PPAs

An upstream Power Purchase Agreement or upstream PPA is a long-term electricity supply contract between two parties, generally an electricity producer and an electricity purchaser.

Value at Risk (VaR)

Value at Risk is a global indicator used to measure the exposure of a portfolio to the risks of price fluctuations and volatility. It measures the amount of potential losses that are expected to be exceeded only with a given probability over a given time horizon. This indicator is especially well suited for measuring market risks for trading activities.

For example, if the time horizon is one day and the confidence level 99%, VaR of €5 million indicates that the probability of losing more than €5 million each day is 1%, i.e., twice or three times per year.

Virtual Power Plant (VPP)

Virtual generation capacity. A system which involves providing a third party, in return for compensation, with a band of generation capacity without the third party owning a share in the asset and without it being the asset's operator.

Working volume

Gas available in underground storage and capable of being tapped.

7.10 Thematic index

7.11 Comparison table

Regulation (EU) 2017/1129 of June 14, 2017 (Prospectus) and Delegated Regulation (EU) 2019/980 of March 14, 2019

This comparison table enables the information required by Annex 1 (referred from Annex 2) of Delegated Regulation (EU) 2019/980 of March 14, 2019, supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council, according to the prospectus layout, to be identified and cross-referenced to the Sections of the 2021 Universal registration document:

Information provided for in annexes 1 and 2 of Delegated Regulation (EU) 2019/980		Chapter of the 2021 Universal registration document		Page
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Comparison table for the annual financial report

To facilitate the reading of this document, the comparison table below may be used to identify, in this Universal registration document, the information that constitutes the annual financial report which must be published by listed companies in accordance with Articles L.451-1-2 of the French Monetary and Financial Code and 222-3 of the General Regulations of the French Financial Markets Authority (AMF).

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Comparison table for the management report (to which the report on corporate governance and the extra-financial performance declaration are appended)

To facilitate the reading of this document, the comparison table below enables the identification of the information which should be included in the management report, in accordance with the provisions of the French Commercial Code applicable to public limited companies with a Board of Directors.

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