2018 Registration Document

Including annual financial report

ENGIE

summary

Registration Document 2018

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This Registration Document (French version) was filed with the French *Autorité des Marchés Financiers* on March 20, 2019, in accordance with the provisions of article 212-13 of the General Regulations of the AMF.

It may be used in support of a financial transaction if supplemented by an information memorandum approved by the *Autorité des marchés financiers*.

This document has been prepared by the issuer, and its signatory is responsible for its content.

JEAN-PIERRE CLAMADIEU Chairman of the Board of Directors

> “BY DRIVING THE TRANSITION TO ZERO CARBON SCENARIOS, WE ARE REMAINING TRUE TO OUR VALUES AND TO OUR PURPOSE”

Appointed as Director and Chairman of the Board of ENGIE one year ago, I was thrilled to join a company that had made a clear commitment to transformation, based on a long-term vision.

During these past months, I focused on improving our corporate governance in order to strengthen its agility and its efficiency. A significant milestone will be reached at our next General Meeting, as the Board will be tightened around fewer members.

This first year also saw an intense collaboration between the Board of Directors and the Executive Committee in order to develop our strategic roadmap and, in particular, identify the growth drivers of the Group. The depth and quality of our discussions illustrate a sound and balanced governance on which ENGIE can rely on to pursue its transformation with confidence.

This strategic work was built on the achievements of the previous plan. On this basis, we are committed to seize the opportunities created by the energy transition and the demand from public and private entities for a more sustainable development. ENGIE is now in a very favorable position to meet such expectations; we have indeed all the skills to support our customers optimizing their energy consumption. We can also offer them access to the competitive low carbon energy sources that we developed, as well as our expertise in infrastructures' installation and operation.

We will be even more successful thanks to our decision to focus our resources on businesses and geographical areas where we can make a real difference. We will rely on a simpler organization and a clearer presentation of our operational and financial performance, which will allow us to monitor the progress of our transformation.

The energy world is changing very rapidly. Solar and wind power are now truly competitive. In coming years, storage, biogas and offshore wind will be part of these solutions, and hydrogen will join them very quickly. We are committed to creating value for our customers, our shareholders and all our stakeholders by combining the expertise and skills of our teams in order to give as many customers as possible access to these solutions.

ENGIE has a long industrial history, in which it has constantly sought to meet the collective challenges of the time: development of infrastructures, security of supply, access to water and energy, and energy efficiency. Today, by driving the transition to zero carbon scenarios, we are remaining true to our values and to our purpose.

Isabelle Kocher, the Executive Committee members and ENGIE employees can rely on the Board and on me to support them in the execution of this ambitious roadmap.

ISABELLE KOCHER Chief Executive Officer

Over the past three years, we re-profiled ENGIE in order to benefit from the energy revolution driven by the 3Ds of decarbonation, decentralization and digitalization. Despite the unavailability of our nuclear plants, 2018 results confirmed the trend initiated in 2017 and the relevance of our strategic repositioning: our Group has returned on the path of a positive organic growth, around 5%.

The successful completion of this first phase allows us to go on transforming our company, to accompany the major changes in the energy sector and seize its economic opportunities.

Awareness of the climate emergency is growing in civil society and among local and national authorities as well as investors. The pressure to build a zero carbon world is increasing, which results from the emerging needs of increasingly urban and digitalized societies. As a result, there is a marked acceleration in the development of clean and decentralized energy sources thanks to smart networks that enable optimized consumption.

The second wave of the energy transition is currently being driven by companies and local governments that are taking over from the nation-states. They each intend to carry out their own zero-carbon transitions. In this context, value creation will lie in the ability to provide comprehensive and competitive answers to complex energy needs. ENGIE is perfectly positioned for this.

To fulfill this ambition, we are specializing in high-value, tailor-made offers, combining the best technologies. We rely on two of the Group's historical strengths: our ability to manage complex industrial infrastructures and the knowledge of our 30,000 industrial and local government customers. These solutions, which are integrated into our "as a service" approach, enable a competitive zero-carbon transition. They represent considerable economic potential.

We have three powerful levers to achieve our objectives: strengthening the technological and digital component of our offers, a specific approach dedicated to the world's 500 largest companies and financial partnerships to increase our impact.

We will also continue to invest and strengthen our positions. Over the years 2019-2021, investments will reach €11-12 billion, in customer solutions, in renewable energies to bring 9 GW of additional capacity into service and in infrastructures. Meanwhile, over the same period, we plan to sell €6 billion in assets.

With a positioning and a strategy that suit the new challenges of the energy industry, we are strengthening our place as a central player in a world aiming for zero carbon, while offering our shareholders and stakeholders more value and sustained growth to contribute to more harmonious progress.

"WE ARE STRENGTHENING OUR PLACE AS A CENTRAL PLAYER IN A WORLD AIMING FOR ZERO CARBON"

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

This Registration Document includes (i) 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, (ii) all the mandatory information included in the Management Report of the Board of Directors to the Annual Shareholders' Meeting of May 17, 2019, as stipulated in Articles L. 225-100 and L. 225-100-2 of the French Commercial Code, and (iii) 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.

In Appendix of this Registration document, there is a comparison table between the documents mentioned in these texts and the corresponding headings in this Registration Document.

Incorporation by reference

In accordance with article 28 of European Regulation No. 809/2004 of April 29, 2004, this Registration Document incorporates by reference the following information, to which the reader should refer:

- for the ENGIE fiscal year ended December 31, 2017: the management report, consolidated financial statements prepared according to IFRS and the related Statutory Auditors' report appearing on pages 185 to 202 and 203 to 340 of the Registration Document filed with the AMF on March 28, 2018 under number D. 18-0207;

- for the ENGIE fiscal year ended December 31, 2016: the management report, consolidated financial statements prepared according to IFRS and the related Statutory Auditors' report appearing on pages 181 to 196 and 197 to 326 of the Registration Document filed with the AMF on March 23, 2017 under number D. 17-0220.

This information should be read in conjunction with the comparative information as of December 31, 2018.

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

Forward-looking information and market data

This Registration Document contains forward-looking information, particularly in Section 1.1.4 "Strategic priorities," Section 1.1.5 "Transformation plan," Section 1.1.7 "Competitive positioning," Section 1.3 "Description of the Group's activities," and Section 6.1.1.1.3 "2019 Financial targets." This information is not historical data and therefore should not be construed as a guarantee that the events and data mentioned will occur or that the objectives will be achieved, since these are by nature subject to unpredictable events and external factors, such as those described in Section 2 "Risk factors and control."

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

Note

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

A list of units of measurement, abbreviations and acronyms and a glossary of the frequently used technical terms are featured in the Appendix to this Registration Document.

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

1 Presentation of the Group

1.1 Profile, organization and strategy of the Group

1.1.1 General presentation

The ENGIE group is a global reference group in low-carbon energy and services. To respond to the climate emergency, its ambition is to become the world leader in the zero carbon transition of its customers, in particular businesses and local authorities. We rely on our key businesses (renewable, gas, services) to offer competitive turnkey solutions "as a service".

Decarbonization and digitization are continuing, while decentralization is accelerating: local authorities and companies must now respond to climate change and the zero-carbon imperative. It is a complex challenge requiring cost-efficient, proactive investment to improve stakeholder quality of life, driving new demands on energy industry players to enable these transitions. The development of client solutions, low carbon generation and infrastructure, together with a bold plan for asset rotation (see Section 1.1.5 “Transformation plan”) has transformed the Group and positioned it as a pioneer of zero carbon integrated solutions.

The ENGIE head office is located at 1, place Samuel de Champlain, 92400 Courbevoie, France. The telephone number is +33 (0) 1 44 22 00 00. ENGIE is listed in the Nanterre Trade and Companies Register under reference number 542 107 651. Its NAF (French business sector) code is 3523Z.

ENGIE is a public limited liability company (société anonyme) with a Board of Directors and is subject to the laws and regulations governing public limited companies and any specific laws governing the Company, and to its by-laws.

The Company’s 12-month fiscal year runs from January 1 to December 31 of each year.

Listed in Paris and Brussels, ENGIE is represented in the major stock indices (see Section 5.1.1.1 “Share capital and voting rights”).

1.1.2 History and evolution of the Company

The Company is the result of the merger-absorption of SUEZ by 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.

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) the provisions of which were aimed at organizing the change in the Company’s legal status.

On July 7, 2005, the Company publicly floated its shares on the stock market. The Company’s shares, under its former name, Gaz de France, 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, the Company 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. At the time, Compagnie de Suez – which had built and operated the Suez Canal until its nationalization by the Egyptian government in 1956 – was a holding company with diversified investments in Belgium and France, particularly in the finance and energy sectors. Lyonnaise des Eaux was a diversified company specializing in the management and treatment of water, waste, construction, communications and plant and equipment management. 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, the Company 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, 2012.

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 now uses the equity method to consolidate SUEZ Environnement Company’s activities in its financial statements, rather than full consolidation.

The Company intends to maintain its role as a long-term strategic partner of SUEZ (formerly SUEZ Environnement Company) and as its majority shareholder. The guiding principles of the industrial and commercial agreements between the Company and SUEZ Environnement Company were confirmed in January 2013, and formed the basis of a framework agreement between the two companies, similar to an agreement that would have been concluded with a third party outside the Group. These principles relate to reciprocal preference, under market conditions, in purchasing/sales, continuing cooperation in certain industrial activities, development of potential joint commercial offerings and cooperation in sustainable development, innovation and research and development.

In early March 2016, the two companies signed an agreement providing for the contribution by ENGIE to SUEZ (formerly SUEZ Environnement Company) of all of the share capital of SUEZ IP, which owns all intellectual property rights related to the SUEZ brand. The main terms and conditions of this transaction as set out in the contribution agreement are detailed in Section 4.1.7 "Statutory Auditors' special report on regulated agreements and commitments.

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

The name of the share listed on the stock market was also changed to ENGIE, and its ISIN code changed to "ENGI", with effect from July 31, 2015.

1.1.3 Organization

In response to the challenge of the global energy revolution and in order to get closer to its customers, on January 1, 2016, ENGIE put in place a simplified structure based on a regional and decentralized approach. The Group now comprises 23 operating entities (Business Units, or BUs) (1), five Métiers and a range of support functions and operational functions (see the Group organizational chart on the next page).

Most of the BUs are constituted to manage operations for a country or group of countries, depending on the density of the activities carried out in the geographical areas concerned. They bring together the Group's activities to meet the expectations of their customers and stakeholders in a given area.

- The following were therefore created:
  - 11 geographical BUs, in Europe and worldwide (Africa; North America; Latin America; Asia Pacific; Benelux; Brazil; China; North, South and Eastern Europe; Middle East, South and Central Asia, and Turkey; UK and Generation Europe) responsible for the central management of all Group activities within their region;
  - France has a special structure, given its size and the presence of regulated entities. It has eight BUs, four that specialize in gas infrastructure (transmission, distribution, terminals and storage) and four related to the BtoB, BtoC, networks and renewable energy businesses;
  - lastly, in addition to the operational entities, there are four global BUs with worldwide scope: Hydrogen; Global Energy Management; Gaztransport & Technigaz (GTT); and Tractebel.

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

Five Métiers have been created in addition to this geographical structure: gas value chain; centralized generation; decentralized solutions for cities and territories; solutions for businesses; and solutions for residentials and professionals.

The support functions and the operational functions complete the organization. They aim to reinforce the action of the Métiers to develop synergies within the Group and support the BUs.

- The support functions are as follows: General Secretariat; Finance Department; Group Human Resources Department; Group Strategy Department; Group Brand and Communication Department; Group Digital and IT Department; Corporate Social Responsibility Department; Group Real Estate Department; Risk Management Department; Transformation Department; Integration Department; and Functional Departments reporting to the Chief Executive Officer (Internal Audit Department and France Institutions and Territories Department).
- The operational functions are as follows: Strategic Sourcing & Supply Department; ENGIE Research; ENGIE Fab; Integration Management Office; Business Development Oversight Department; Industrial Projects Oversight & Support Department; and Nuclear Development Department.

The Métiers, the support functions and the operational functions are grouped within the scope of Corporate.

In addition, the Global Business Support entity groups together the Group's Shared Service Centers in France and Belgium. It covers seven functional areas: general procurement and IT, finance, human resources, real estate and logistics, information systems, and internal consulting and legal.

The Company operates its own business. At the end of 2018, the number of subsidiaries directly or indirectly controlled by the Company was 2,800. In addition to the lists provided in Section 6.2.2 "Consolidated financial statements – Note 2 Main subsidiaries at December 31, 2018" and Section 6.4.2 "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, "Investors" 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 1.3 "Description of the Group's activities".

(1) There is also a twenty-fourth BU comprising the holding and corporate activities, including the entities responsible for the Group's centralized financing and the contribution of the associate company SUEZ.

AN ORGANIZATION CLOSE TO CUSTOMERS AND TERRITORIES

23 Business Units

11 BUs in Europe and worldwide

- Africa
- Asia Pacific
- Benelux
- Brazil
- China
- Generation Europe
- Latin America
- North America
- North South, Eastern Europe
- Middle East, South and Central Asia, and Turkey
- United Kingdom

8 BUs in France

- Elengy
- France BtoB
- France BtoC
- France Renewable Energy
- France Networks
- GRDF
- GRTgaz
- Storengy

4 Global BUs

- Global Energy Management
- Hydrogen
- GTT
- Tractebel

Corporate

5 Métiers

- Gas Chain
- Solutions for Residentials and Professionals
- Centralized Generation
- Decentralized Solutions for Cities and Territories
- Solutions for Businesses

Support Functions

- General Secretariat
- Finance Department
- Group Human Resources Department
- Global Care Department
- Group Strategy Department
- Brand and Communication Department
- Group Digital and Information Systems Department
- Transformation Department
- Groupe Real Estate Department
- Risk Management Department
- Group Societal Responsibility Department
- Departments reporting to the Chief Executive Officer
  - —Internal Audit Department
  - —Institutions France and Territories Department

Operational Functions

- Strategic Sourcing and Supply Department
- ENGIE Research
- Business Development Oversight Department
- Industrial Projects Department
- ENGIE Fab
- Knowledge Management Department
- Integration Management Office Department

Global Business Support

1.1.4 Strategic priorities

Transformations faced by markets in which the Group is expanding are becoming more and more concrete as the second wave of energy transition is emerging:

- Decarbonization and digitization are continuing;
- A second wave in the energy transition is emerging: local authorities and companies must now respond to climate change and the zero-carbon imperative. Especially, the world's top 500 global companies which, far more than in the past, seek global strategy and implementation planning to address their sustainability and zero carbon requirements;
- Customer transition roadmaps increasingly require a sophisticated integration of strategy, design, engineering, energy-efficient asset construction, digital platforms, operations management, financing syndication and outcome assurance.

Over the past three years, the ENGIE Group has undergone a deep transformation, by focusing its development on three core activities: gas, renewable energies and energy efficiency, while firmly positioning itself in innovative activities (green mobility and smart grids in particular). This transformation has allowed ENGIE to return to organic growth and establish itself as a leader in the competitive energy transition.

ENGIE's ambition is to be the world leader in the growing market for integrated zero-carbon solutions.

During the Capital Markets Day which took place on the 28th of February 2019, the Group presented its ambitions strategic orientations for the 2019-2021 period which articulate around 3 priorities:

- to be the world leader in the growing market for integrated zero-carbon solutions targeting local authorities and companies: ENGIE's unique capability to integrate all these solution elements "as a service" (strategy, design, etc.) to its customers affords the Group a distinctive leadership position in the industry. Especially among Fortune 500 companies, ENGIE is seizing industry leadership with comprehensive 360° programs that cater to these companies with an approach that is strategically focused, cost-efficient and subject to robust performance management;
- to adopt an aligned approach to higher value activity across business lines:
  - in Clients Solutions, accelerating growth across a broadening array of services including on-site co-generation, heating and cooling networks, public lighting, rooftop solar and EV charging stations. In a concrete way these solutions will integrate the financing of the equipments of the companies and the Cities and Territories
  - in Networks, the Group will continue to generate attractive returns and substantial cash flow. In France, the next regulatory return review will be effective in 2020, and ENGIE will continue to invest in the sustainability of its gas networks, adapting to future green gas requirements. ENGIE will also actively seek attractive opportunities to invest in the growth and energy transition management of networks in dynamic developing markets;
  - in Renewables, ENGIE is further scaling its design of complex, multi-source, profiled power purchase agreements (PPAs) and 24/7 green energy flows which are now widely sought. Over the longer term, ENGIE will play a leading role in next generation renewable platforms including offshore wind and green gas. ENGIE targets 50% of new renewable projects dedicated to specific customers by 2021, to be a leading corporate PPA supplier, and to be the world leader in 24/7 green PPAs. The Group plans to add 9 GW of renewables capacity to its portfolio by 2021;
  - in its other generation businesses, ENGIE will continue to optimize operations, reducing its CO_2 footprint. ENGIE will further narrow its thermal capacity, reducing coal generation and selectively honing gas-fired capacity to customer requirements, including combined technologies such as desalination and co-generation. ENGIE's Belgian nuclear operations continue to stabilize, with operational availability anticipated to rise as previously announced;
  - in Supply, ENGIE is continuing to increase its consumer and business contract base, driven by innovative offers and improving service quality. The profitability of this growing customer base is forecast to be offset by industry margin pressure in the consumer segment, and in this context ENGIE's strategic ambitions in this segment remain limited to our current country footprint.
- to leverage key digital technology and financing syndication capabilities:
  - the Group has deployed global digital platforms that strengthen our competitiveness, and will continue to scale up software content in ENGIE's solutions to differentiate us as the leading energy software provider;
  - with an industry-leading flow of customer projects, a strong infrastructure investor relationship network and systematic, proprietary structuring capabilities, ENGIE designs financing syndication as an integrated part of our solutions, optimizing customers' cost of capital and ENGIE's ability to accelerate its growth with lower individual project capital intensity. This model has been utilized over time in ENGIE's thermal and renewables portfolios, and will now be implemented across our Client Solutions and other innovation project pipelines.

The Group adopts selective offer and investment criteria: prioritization of 20 countries, 30 urban areas but also simplifies financial reporting.

ENGIE applies rigorous strategic and financial investment criteria, and has a clear perspective on attractive investment characteristics. Complex, innovative, integrated, longer-term, outcome-based customer programs are preferred to simple, commoditized, standard fee-for-service business. Investment will be differentiated over distinct time horizons, with consistent hurdles of 200 bps over ENGIE's WACC, and 400 bps over cost of equity.

In a move to sharpen geographic focus and capital allocation, 20 countries and 30 major developing market urban areas have been identified as ENGIE's top investment-led growth priorities, with an objective to build scale, top-3 positions and higher density of operations. ENGIE will also exit approximately 20 countries over the next three years in a move to enhance focus and economic returns.

In addition, ENGIE's financial reporting will be simplified, with fewer geographic segments and strategic visibility into the progress of each Global Business Line and our energy Supply operations.

ENGIE expects to invest approximately €11-12 billion in growth over the 2019-2021 period.

ENGIE intends to invest approximately €4 billion annually in growth capital expenditures and smaller bolt-on acquisitions over the 2019-2021 period, while €6 billion of asset disposals are expected over the period. This €11-12 billion program is anticipated to be led by €4-5 billion for Client Solutions. €2.3-2.8 billion will be allocated to Renewables growth to fuel the c. 9GW of incremental capacity, while

€3.0-3.3 billion of additional capital will be invested in our Networks business line.

ENGIE will drive continuing internal cost reduction and improved profitability.

A further 2019-2021 performance program has been launched, consisting of cost reduction initiatives (spanning procurement, digitalization and shared service centers) and revenue and margin enhancement opportunities stemming from optimization of ENGIE's assets and customer offers. The aggregate operating profit impact of the program is currently targeted at €800 million, with delivery weighted slightly towards 2020 and 2021.

ENGIE's indicative profit growth expectations point to sustained acceleration.

Based upon key assumptions, an ENGIE Group EBITDA CAGR of 3.5-6% is expected over the 2018-2021 period. ENGIE Group COI is expected to accelerate to a CAGR of 6.5-8.5% over the same period, predicated on indicative business line COI growth expectations of:

- Client Solutions: 11-14% CAGR, driven by revenue acceleration and more profitable asset-based Solutions;
- Networks: (4%) – (1%) CAGR, given a regulatory review of French infrastructure returns in 2020 and growth expectations in other markets;
- Renewables: 8-11% CAGR, driven by commissioning of 9GW of additional capacity by 2021 and increasing complexity and profitability of our customer activities;
- Thermal: (6%) – (3%) excluding the impact of the disposal of Glow, given continuing generation portfolio optimization, with disposals focused on contracted coal plants and selected merchant assets;
- Nuclear: expectation of a stemming of losses and COI neutrality by 2021;
- Supply: expectations of approximately flat COI over the period.

ENGIE's financial objective is to offer its shareholders attractive returns while maintaining a solid financial structure and robust cash flow generation (see 6.1.1.1.3 "2019 financial targets").

Group net debt: the Group forecasts financial net debt of approximately €20 billion at the end of 2021 (ratio to EBITDA of <2.5x) and economic net debt in the range of €35-37 billion (ratio to EBITDA of <4.0x) at that time, and ENGIE reaffirms its current commitment to the retention of its 'A' debt rating. These debt forecasts assume no change in the existing Belgian nuclear provision legal and regulatory framework.

To become more agile and adapt to the changes in its environment, the Group began implementing an ambitious human resources action plan in 2014.

This involves creating conditions that enable it to deliver its strategy while making individual and collective concerns a central part of its transformation. The action plan was implemented in three strategic areas:

- culture and leadership: centralized responsibility, innovation and performance;
- the adaptation of skills and Métiers to customer and digital solutions;
- agile organization, project mode and continuous improvement.

Within ENGIE, environmental and societal responsibility 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 ESG risks, which involves managing the risks associated with the Group's activities and facilities that relate to the environment, local and international acceptability, health and safety, human resources management, ethics and governance.

ENGIE has formalized its commitments, primarily through the publication of its environmental and societal responsibility policy in 2014. In early May 2016, ENGIE announced its commitment to six new non-financial targets for 2020 (see 1.2.2. "CSR indicators").

Against this background of transformation, ethics and the safety of people are core elements of any Group's activity.

1.1.5 Transformation plan

In February 2016, ENGIE announced an ambitious three-year transformation plan to accelerate its shift in strategy, adapt its portfolio of activities to its long-term vision and deploy its development priorities. At the end of 2018, this plan is now complete.

The first pillar of the transformation plan involved redesigning and streamlining the portfolio, based on:

- a portfolio rotation program (€15 billion net debt impact targeted over 2016-2018). The Group has already recorded sales of €14 billion to which 2.6 billion can be added early 2019 following the sale of Engie's stake in Glow, Thailand, for a total of €16.5 billion in disposals ;
- an investment program (€15 billion growth CAPEX over 2016-2018, including €1 billion CAPEX on innovation and digital). AT the end of 2018, €16.1 billion have been recorded (€14.3 billion net of disposals under the DBpSO activity in the renewable).

The second pillar entailed investment in technological innovation, business models and digital transformation, to prepare for the future.

ENGIE's operational efficiency and competitiveness were central to the third pillar of the transformation plan. The new performance program, Lean 2018, was launched in January 2016 to bring about long-term improvements in the Group's performance. It initially aimed to achieve recurring cost savings with a net aggregate impact on EBITDA of €1 billion by 2018. This objective was raised to €1.3 billion in savings, which was reached at the end of 2018, with in particular €304 million of gains in 2018. To achieve their objectives, adapted to their situations BUs have used three main families of levers: operations, support functions and purchasing.

During the Capital Markets Day of February 28, 2019, the Group announced a new performance plan, Lean 2021, covering the period 2019-2021. The overall expected impact of the Lean 2021 program is currently set at € 800 million, with a slightly weighted result around 2020 and 2021.

The fourth pillar involved transforming ENGIE internally to make the Group more agile and connected, to attract future talent and to create an environment that fosters career development.

1.1.6 Highlights of 2018

Renewables and Thermal contracted power activities

In France, the Group confirmed its N°1 position in solar and wind power by winning 230 MW in the latest governmental call for tenders and by acquiring a portfolio of 1.8 GW of projects (acquisition of LANGA, 1.3 GW; acquisition of SAMEOLE, 500 MW). In addition, FEIH company (jointly owned by ENGIE and Crédit Agricole Assurances), reached 1.5 GW of solar and wind installed power capacity by the beginning of 2019.

In the United States, ENGIE acquired Infinity Renewables and hence became a leader in the development of wind farms. The company has already developed 1.6 GW of capacity and has a portfolio of 8 GW of projects at various stages of development. In India, the Group opened the Mirzapur solar farm and reached 1 GW of renewable capacities (solar and wind, installed or in construction) by winning a new 200 MW wind project. In Spain, the Group is developing, together with partners, 9 wind farms for a total capacity of 300 MW. In Senegal, ENGIE has been attributed the development of 2 solar parks for a total capacity of 60 MW.

ENGIE has mobilized its expertise to provide customers with complex renewable solutions, either through specific technology or tailor-made solutions. In offshore wind power in France, two ENGIE projects (Le Tréport and Yeu-Noirmoutier islands) were confirmed in July 2018 by the President of the Republic; the first authorizations were obtained in October for the Yeu and Noirmoutier islands project and on February 26th, 2019 for the Dieppe – le Tréport wind offshore project.

In early 2019, ENGIE commissioned the Kathu thermodynamic solar power plant, one of South Africa's largest renewable energy projects. This thermodynamic concentrated solar power plant (CSP) has a capacity of 100 MW and allows, via a molten salt storage system, to store 4.5 hours of autonomy.

The Group announced it will develop small-scale solar power plants, partnering with SUEZ to install photovoltaic solar parks on each of its waste storage and recycling facilities in France for a total estimated capacity of 1 GW, and partnering with GreenYellow to address areas such as roofs and parking lots. In addition, in Norway, ENGIE has signed the financial agreements for a 208 MW wind farm project whose energy will be sold to the aluminum manufacturer Hydro under the terms of a 25-year contract.

In Mexico and in Chile, the Group developed its BtoB green electricity offer and signed a 15-year power purchase agreement (PPA) with steel producer Gerdau. The electricity thus delivered will come from new supply contracts backed by a 130 MW photovoltaic power plant.

Finally, ENGIE is completing the sale of its entire stake in Glow in Asia-Pacific, and thus will cease its coal-fired power plant operations in the region.

Infrastructure activities

In France, in Dunkirk, the Group inaugurated the first pilot to inject green hydrogen to the gas distribution network (GRHYD project), and announced that it will mobilize EUR 800 million over the next five years to develop green gases.

In Brazil, the Group signed the concession contract for the Gralha Azul electric transmission line.

Client Solutions

ENGIE has strengthened its positioning in Client Solutions in several regions.

In Europe, ENGIE is increasing its leadership in airport services with the acquisition of Priora FM SA, a company specialising in building, infrastructure and facility management. In Germany, the Group confirmed its position as a leader in technical services for buildings with the acquisition of Otto Luft-und-Klimatechnik in early 2019. The Group also continued to develop its nuclear maintenance business with the acquisition by its subsidiary ENDEL of SUEZ's specialised subsidiary, ex-SRA SAVAC.

In the United States, ENGIE acquired Unity International, an electrical engineering installation company based in New York City. In Latin America, ENGIE is expanding its service offering with the acquisition of CAM (Compañía Americana de Multiservicios), a leader in installation, operation and maintenance services in the electricity and telecommunication sectors.

During 2018, ENGIE also continued its investments in innovative decentralized technologies, with the acquisition of Electro Power Systems, now ENGIE EPS, a pioneer in hybrid storage solutions and micro-grids, and of SoCore in the United States, which offers integrated solar solutions to cities, local authorities and businesses.

The Group also won landmark contracts with cities and local authorities. In France, ENGIE will create a 3D data and modelling platform for the Île-de-France region called "Smart Platform 2030". In Australia, the Group signed a partnership with Greater Springfield to make it one of the first positive energy cities in the country. In Romania, ENGIE acquired Flashnet, an IoT company specialising in intelligent public lighting.

In green mobility, ENGIE has inaugurated in France the largest hydrogen utility fleet and the first alternative multi-fuel station. It has also partnered with Arval to launch in Europe a new green electric mobility offer in which ENGIE will install and maintain charging points. In early 2019, in Chile, the Group signed a contract to supply an initial phase of 100 electric buses to the city of Santiago.

In the Campus & Universities market, ENGIE won a major contract in the UK for the renovation and management of buildings at the University of Kingston in London. Besides, in the US, to serve the Longwood Medical Campus in Boston, the Group acquired a micro-grid for electricity, heat and cooling.

In order to provide solutions adapted to the needs of retail consumers, ENGIE has enriched its solar self-consumption offer in France with a modular solution of batteries that can be combined with photovoltaic panels, and launched its 1 euro efficient gas boiler offer dedicated to under privileged households. Besides, the Group also invested in HomeBiogas, an Israeli start-up that has developed a digester that allows individuals, in various countries, to transform their organic waste into green cooking gas and liquid fertilizer. Finally, with the acquisition of Vol-V Biomasse, ENGIE becomes the leading biomethane producer in France.

Other Group events

January 10, 2018: ENGIE sets new hybrid bond record with the lowest coupon ever achieved by a Corporate and its first Green Hybrid Bond (Deeply Subordinated Perpetual Bond) of an amount of EUR 1 billion.

May 18, 2018: Following the General Shareholders' Meeting which marked the end of Gérard Mestrallet's term as Chairman of the Board and the designation of Jean-Pierre Clamadieu as an independent administrator, the ENGIE Board met and unanimously appointed Jean-Pierre Clamadieu as new Chairman. The Board also appointed Gérard Mestrallet as Honorary Chairman.

May 18, 2018: In France, ENGIE acknowledges the Conseil d'Etat's decision, announced on May 18, 2018, ruling that regulated tariffs for the sale of electricity do not comply with the European law, due to the absence of a mechanism allowing for a periodic re-examination of the tariffs in addition to their overly broad application engulfing private and professional customers.

June 20, 2018: ENGIE takes note of the European Commission's decision issued on June 20, 2018, against Luxembourg. The latter relates to two tax rulings dated 2008 and 2010 regarding the tax treatment of the financing operations of the Group's activities in Luxembourg.

July 13, 2018: ENGIE, in partnership with Nexity, plans to create its future campus in an exemplary eco-district near Paris La Défense.

August 3, 2018: Results of the 'Link 2018' plan. Launched by ENGIE on 15 February 2018 and concluded on 2 August, the Link 2018 employee shareholding plan enabled more than 40,000 Group employees in 18 countries to take part, with a total amount of 340 million euros in subscriptions, representing 33 million shares. The employees shareholders hold thus more than 4% of ENGIE capital

September 18, 2018 : ENGIE, the leading utility of the Dow Jones Sustainability Index World. ENGIE's CSR performance has once again been recognised by the extra-financial rating agency RobecoSAM which has confirmed the Group's membership of the Dow Jones Sustainability Index (DJSI) World and Europe indices in 2018.

December 11, 2018 : ENGIE confirms its intention to remain SUEZ's reference shareholder and is ready to strengthen industrial and commercial cooperation between the two groups.

January 18, 2019: On January 17, ENGIE issued its first corporate hybrid green bond of 2019, for an amount of €1 billion.

March 14, 2019: ENGIE has annouces completion of teh dispposal of Glow in Thailands for €2.6 billion.

1.1.7 Competitive positioning [1]

Electricity production and marketing and gas marketing are business sectors that are largely open to competition in Europe. However, they are still regulated differently according to the country, particularly with regard to residential energy prices. Activities that constitute natural monopolies – such as the transmission and distribution of electricity and, to a large extent, of gas – are more tightly controlled by national regulators and European rules.

Elsewhere in the world, with few exceptions, private companies often operate under long-term contracts issued on a tender basis.

ENGIE is a European and world leader in the areas of electricity and natural gas:

- ENGIE is one of the top gas sellers and importers in Europe;
- The Group is the leading gas infrastructure operator in Europe with a portfolio that includes a transmission network, distribution networks, and LNG storage and terminals;
- In renewable electricity, ENGIE is a key player in international tenders, particularly in Latin America and the Middle East, with strong positions in Brazil, Peru, Mexico and Chile. The Group is one of the leading power producers in Europe;
- Via some 21 million contracts, ENGIE provides gas and electricity to end customers worldwide, nearly half of which are located outside France.

This global and European leadership is fortified by the Group's deep French-Belgian roots:

- In France, ENGIE is the historic leader of gas marketing and the second-largest producer and supplier of electricity. In renewable energy, ENGIE is the second-largest hydropower operator in France and the number one wind and solar energy company in the country;
- In Belgium, ENGIE, through its subsidiary Electrabel, is the leading producer and supplier of electricity and supplier of natural gas.

The Group is also one of the European leaders in BtoB energy services in France, Belgium, the Netherlands, Switzerland and Italy. ENGIE also holds strong positions in Germany, Spain and the United Kingdom in heat networks and facility management. It is supported by its development bases in Central Europe, Asia, North America, Latin America, the Middle East, and Africa. The Group is the European leader in energy efficiency services, number two in installation and ninth in integrated services. Worldwide, ENGIE ranks third for heating networks (in TWh) and first for cooling networks.

In terms of new activities, ENGIE has taken a leadership position in each of the new distributed generation segments (first in microgrids and isolated microgrids) and in solar units for industrial and commercial customers.

In green mobility, ENGIE ranks second in the world in terms of the number of electric vehicle charging points installed, and seventh for charging points for natural gas vehicles.

(1) These competitive positions are 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).

1.2 Key figures

1.2.1 Group financial data

In millions of euros	2014 reported	2014 restated [(a)]	2015	2016	2016 restated [(e)]	2017	2017 restated [(f)]	2018
1. Revenues	**74,686**	**74,686**	**69,883**	**66,639**	**64,840**	**65,029**	**59,576**	**60,596**
of which generated outside France	46,852	46,852	44,817	41,693	39,942	39,307	34,325	35,612
2. Income								
EBITDA	12,138	12,133	11,262	10,689	9,491	9,316	9,199	9,236
• Current operating income after share in net income of entities accounted for using the equity method	7,161	7,156	6,326	6,172	5,636	5,273	5,172	5,126
• Net income, Group share	2,440	2,437	(4,617)	(415)	(415)	1,423	1,320	1,033
• Net recurring income, Group share	3,125	2,725	2,588	2,477	2,477	2,662	2,518	2,425
• Net recurring income from continuing operations, Group share	3,125	2,725	2,588	2,477	2,430	2,372	2,233	2,458
3. Cash flow								
Cash flow from operating activities	8,751	8,751	10,383	10,174	10,174	9,309	9,335	7,873
of which cash generated from operations before financial income and income tax	11,776	11,771	10,942	10,263	9,117	8,305	8,150	8,464
Cash flow from investment [(b)]	(3,939)	(3,939)	(6,230)	(3,655)	(3,655)	(5,157)	(5,171)	(6,095)
Cash flow from (used in) financing activities [(b)]	(4,973)	(4,973)	(3,295)	(6,034)	(6,034)	(4,725)	(4,734)	(1,928)
4. Balance sheet								
Shareholders' equity [(b)]	**49,257**	**49,548**	**43,078**	**39,578**	**39,578**	**36,639**	**36,283**	**35,551**
Total equity [(b)]	55,959	55,981	48,750	45,447	45,447	42,577	42,122	40,941
Net debt [(b)]	27,511	27,511	27,727	24,807	24,807	22,548	22,520	21,102
Net debt excl. Internal debt E&P/EBITDA	2.27	2.27	2.46	2.32	2.43	2.25	2.26	2.28
Total assets	165,305	165,304	160,658	158,499	158,499	150,332	150,140	153,702
5. Per-share data (in euros)								
• Average outstanding shares [(c)]	2,366,768,979	2,366,768,979	2,392,150,727	2,396,131,620	2,396,131,620	2,395,732,581	2,395,732,581	2,396,308,756
• 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 [(b) (c)]	1.00	1.00	(1.99)	(0.23)	(0.23)	0.53	0.49	0.37
• Net recurring income, Group share, per share [(b) (c)]	1.32	1.12	1.02	0.97	0.97	1.05	0.99	0.95
• Dividend paid[(d)]	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.75
6. Total average workforce	**236,185**	**236,185**	**241,913**	**241,509**	**239,710**	**238,216**	**238,029**	**249,795**
• Fully consolidated entities	150,589	150,589	155,494	153,950	152,175	151,667	151,480	158,505
• Proportionately consolidated entities	769	769	777	764	764	685	685	780
• Entities consolidated using the equity method	84,827	84,827	85,642	86,795	86,771	85,864	85,864	90,510

(a) December 31, 2014 data restated to reflect the retrospective application of IFRIC 21 (see Note 1.1 of Section 6.2 "Consolidated financial statements" of the 2015 Registration Document).

(b) Data including E&P for 2016 and 2017

(c) Earnings per share calculated on the basis of the average number of shares outstanding, net of treasury shares.

(d) 2018: proposed dividend, including an interim dividend of €0.37 paid in October 2018; excluding the exceptionnel dividend of €0.37 per share submitted of the OGM, i.e. a total of €1.12 per share.

(e) Some of the December 31, 2016 data have been restated due to the classification of E&P as discontinued operations (see Note 30 of Section 6 "Consolidated financial statements" of the 2017 Registration Document).

(f) 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).

1

1.2.2 CSR indicators

The Group's Corporate Social Responsibility performance is based on quantified, time-specific targets and an overall assessment organized around different monitoring methods (indicators, reporting, performance reviews and CSR rating indices).

The Board of Directors' Ethics, Environment and Sustainable Development Committee ("EESDC") defines the scope of the policies undertaken, the outlooks and the action plans in the area of Corporate Social Responsibility. The Executive Committee makes key decisions in this area (see Section 4 "Corporate governance"). The role of the CSR Executive Committee is to prepare annual action plans, monitor their implementation, gather feedback from the various entities and encourage exchange regarding major strategies.

A CSR report is submitted every year to the Executive Committee for approval and future direction, then to the EESDC to provide a progress report on the policy's implementation and the achievement of Group CSR objectives.

In response to changes in the energy sector and to the gradual integration of environmental and societal aspects into stakeholder requirements, ENGIE set itself six new CSR goals in 2016 to be achieved by 2020:

- an 85% satisfaction rate among its BtoC customers;
- a 25% share of renewable energy in the Group's electricity production capacity portfolio;
- a 20% reduction in the CO_2 emissions ratio for energy production compared to 2012;
- 100% of the Group's industrial activities to be covered by an appropriate stakeholder dialogue and consultation mechanism, based on regular meetings with the relevant NGOs and non-profits, and on the development of long-term partnerships related to the Group's activities;
- 25% of Group's workforce to be made up of women;
- and an internal workplace accident frequency rate of below 3.

The 2016-2018 results for the CSR indicators are presented in the following table:

Theme	Indicators	2020 objective	2016 results	2017 results	2018 results
Customer satisfaction	Satisfaction rate of BtoC customers	> 85%	81%	83%	81%
Renewables	Share of renewable energy in the electricity production capacity mix[1]	> 25%	19.5%	23.1%	23.7%
GHG emissions	% reduction of the CO_2 equivalent emissions ratio for energy production compared to 2012[2]	-20% (354.4[3])	-11.3% (392.8[3])	-18.1% (363.0[3])	-28.7% (315.8 [3])
Stakeholder dialogue	% of industrial activities covered by an appropriate mechanism for dialogue and consultation	100%	20%	48%	53%
Gender diversity	% of women in Group workforce	> 25%	21.9%	22.2%	21.1%
Health and safety	Internal workplace accident frequency rate	< 3[4]	3.6	3.3	3.4

(1) Consolidated at 100%.
(2) Scope 1 specific CO_2 eq. emissions of entities controlled and operated by the Group (environmental reporting)
(3) kg CO_2 eq./MWh.
(4) Scope 2015

The Group achieved a global satisfaction rate among its BtoC customers of 81% in the 13 main countries in which the Group has a commercial presence with private or professional customers. The slight decrease compared to 2017 is due to a methodological change in customer inquiries that are practiced more and more by email than by telephone.

Regarding environmental targets, in 2018 ENGIE posted a 0.6% increase year-over-year in its installed renewable energy capacity mix and a 10.6% decrease in its specific CO_2 emissions (see Section 3.5.4.1 "Climate change"). The Group's goal of reducing specific CO_2 emissions by 20% is reached two years in advance due to the current exit of carbon assets. Installed coal-fired generation capacity amounted to 7.2 GW at the end of 2018, down 7.9 GW compared with the end of 2015 and representing no more than 6.9% of the Group's installed capacity (at 100%).

The roll-out of the mechanism for structured dialogue with stakeholders continued in 2018, leading to a percentage of the Group's industrial activities that comply with the standards related to this dialogue to 53%, in progress by comparison with 2017.

ENGIE posted in 2018 a 21.1% rate of gender diversity in its workforce, down slightly compared to 2017, and an 3.4 employee accident frequency rate, up slightly over 2017 (see Section 3.4.6 "Health and safety policy"). The Group's sales and acquisitions related to its desire to accelerate its business transformation have had a significant impact on these two indicators.

With regard to its investment plans, the Group uses a number of criteria, including ethics, CO_2 emissions, social impact, human resources, environmental management of ecosystems, cooperation with stakeholders, local procurement, and health and safety. The Group also takes into account an internal carbon price when deciding on new projects.

The Group's social reporting (see Section 3.4), environmental reporting (see Section 3.5), and societal reporting (see Section 3.6) are used to publish a set of indicators that are verified by an independent third party (see Section 3.8).

In terms of ESG ratings, ENGIE's CSR performance was again recognized by ESG agency RobecoSAM, which confirmed the Group's membership of the Dow Jones Sustainability Index (DJSI) World and Europe in 2018. The 2018 assessment positions the Group as industry leader in its sector (Multi and Water Utilities) with a rating of 82 out of 100.

The Group continues to be listed in four indices Euronext Vigeo Eiris World 120, Europe 120, Eurozone 120 and France 20. In 2018, the Group was evaluated by the rating agency Sustainalytics. It obtained a score of 70/100, an improvement of 6 points compared with the previous rating awarded in 2015, positioning it as an "Average Performer".

Lastly, as it does every year, ENGIE also completed the CDP (formerly Carbon Disclosure Project) questionnaire. In 2018, the Group maintained its position in the "A-list" of companies recognized for their leadership in terms of strategies and initiatives to combat climate change.

In conclusion, the Group has posted very good CSR ratings, with industry-leading performance recognized by RobecoSAM, MSCI, CDP Climat, CDP Water and Ecovadis.

1.3 Description of the Group's activities

Under the Group's new organizational structure, which is presented in detail in Section 1.1.3 "Organization", ENGIE is now composed of 23 BUs(1), primarily geographic. For financial reporting purposes, the Group has grouped operating segments in accordance with IFRS 8 and presents sector information organized around nine reportable segments (see Section 6.2 "Consolidated financial statements" – Note 7 "Segment information").

In this section, the description of the Group's businesses and strategic economic assets is primarily structured around financial reporting requirements. The first nine sub-sections correspond to the reportable segments (composed of one or more BUs), and the tenth sub-section presents the Group's 5 Businesses.

1.3.1 North America

The North America reportable segment corresponds to the North America BU. The BU entities provide renewable power generation, district energy services, retail electricity sales, natural gas, the United States, Canada and Puerto Rico.

KEY FIGURES

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Total change *(in %)***
Revenues	3,383	2,964	+14.1
EBITDA	224	224	+0.1

1.3.1.1 Role & Strategy

NORAM BU believes BtoB and BtoT customers will lead the energy transition in demanding more green complex sustainable solutions, mostly because their own customers are asking them to. Our strategy -to provide energy as cleanly as possible to our customers while helping them consume it more efficiently - is clear, impactful and fully aligned with their needs. We plan to be their partner and solution provider by:

- developing leadership in grid scale renewable energy generation to meet growing clean energy mandates of BtoB/BtoT customers (Corporate green PPAs);
- expanding our BtoB/BtoT footprint in key geographies that are dense, urbanized, and high GDP with progressive energy policies where we can meet rising needs of energy transformation solutions such as decentralized energy, efficiency, design/build, facility management and green PPA (onsite or offsite);
- target key market verticals such as Healthcare, Schools, Universities, Industrials, Airports and Data Centers where NORAM BU can manage the way district energy and space is used, although this can be long cycle.

(1) There is also a twenty-fourth BU comprising the holding and corporate activities, including the entities responsible for the Group's centralized financing and the contribution of the associate company SUEZ.

1.3.1.2 Description of activities

BU organization was changed on January 1, 2018 to reflect its strategy to focus on a selected array of activities albeit with a large geographical coverage and strong customer-centricity. Current operations are organized by five main business lines:

- the Asset Optimization organization covers the operating power generation assets, managing district energy customers OSU and LMEC in the BtoT segment, plus ENGIE Storage;
- the Energy Management organization increases cross-selling and comprehensive solution selling in the BtoB space and leverages the capabilities of each organization over complimentary customer portfolios;
- the Energy Services organization consolidates the increasing array of service activities while positioning the BU to derive operational synergies as it continues to acquire service companies and share best practices in the delivery of services to BtoT and BtoB customers;
- Gas and Think Energy are grouped together reflecting the fact that these businesses are undergoing acute transformation in line with current portfolio re-shaping efforts;
- the Business Development organization develops and constructs the newly acquired renewables project portfolios of SoCore and Infinity, on top of its previous activities (including development of BtoT projects and acquisition of service activities).

The asset rotation program is mostly over with the closing of thermal merchant asset (Feb 2017), the closing of operationnel Utility activites (jan. 2018) and the sale of the Everett LNG import terminal (Oct. 2018).

The BU has been successful in M&A growth over last year with the acquisitions of Infinity (grid-scale wind developer), SoCore (developer of solar installations), Talen (BtoB services), Unity (electrical installation); Donnelly (Mechanical Installation); and added major BtoT contracts like LMEC (Longwood Medical Energy Collaborative).

Regulatory changes in 2018 in NoRAM, have had limited impacts on the Groups's activities, including US tariffs set on chinese goods, especially on PV panels.

1.3.2 Latin America

The Latin America reportable segment includes the activities of two BUs: the Latin America BU (Argentina, Chile, Mexico and Peru) and the Brazil BU.

KEY FIGURES

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	Total change *(in %)*
Revenues	4,639	4.383	+5.8
EBITDA	1,775	1,709	+3.8

1.3.2.1 Latin America (excluding Brazil)

1.3.2.1.1 Role & Strategy

The Latin America BU's role in the five countries where ENGIE currently operates (Chile, Peru, Mexico, Colombia and Argentina) is to develop:

- energy supply solutions:
  - supply of power generated from renewable sources, (solar and onshore wind power), and thermal power plants,
  - supply of gas through (GNL and pipeline gas) supply agreements and gas infrastructure management, such as a regasification terminal and transmission and distribution networks.
- energy services.

The Latin America BU is involved in the development of new solutions, particularly through ENGIE Factory (an incubator and accelerator for energy-related startups) and by expanding the BtoB, BtoC and BtoT segments.

1.3.2.1.2 Description of activities

In Peru, ENGIE owns a 61.77% stake in ENGIE Energia Peru, a power generation company with an installed capacity of 2,456 MW. ENGIE Energia Peru is the country's leading operator with a market share of around 20% in terms of installed capacity. ENGIE Energia Peru shares are traded on the Lima stock exchange.

In the services area, ENGIE operates through a wholly owned company under the name ENGIE Services Peru. The entity was established in 2015 and specializes in multi-technical building services. ENGIE Services Peru also offers distributed solar generation solutions in rural areas.

In Chile, ENGIE holds a 52.76% stake in ENGIE Energia Chile (formerly E-CL). This company, listed on the Santiago Stock Exchange, is the largest electricity producer in northern Chile, with an installed capacity of 1,971 MW and a network of 2,293km of transmission lines. Also in the electricity transmission sector, ENGIE holds a 50% stake in TEN. This company operates 600 km of lines, commissioned in November 2017, that connect the north and the center of Chile.

In the gas business, ENGIE holds a 63% stake in GNL Mejillones, an LNG regasification terminal with a 5.5 Mm3/day capacity, and 100% in ENGIE Gas Chile and ENGIE Stream Solutions Chile, companies dedicated to the commercialization of natural gas through distribution pipelines and LNG trucks.

In the services area, ENGIE operates through a wholly owned company under the name ENGIE Services Chile, which mainly provides industrial maintenance, multi-technical services, HVAC engineering and installation and provides solutions in automation and instrumentation for a broad range of clients in the mining, retail and energy sector throughout Chile.

In Mexico, ENGIE operates six local distribution companies providing natural gas to more than 500,000 customers through a 11,500 km network, and 3 gas transmission companies operating over 1,300 km of pipelines.

In renewable power generation, ENGIE was awarded 6 projects in the 2016 and 2017 national tenders for a total of 896.6 MW (4 solar parks and 2 wind farms). Additionally, on October 2018, ENGIE Mexico signed a 15-year power purchase agreement (PPA) to supply renewable energy to steel producer, Gerdau. For this purpose, the Group is developing a 130 MW photovoltaic plant in the state of Sonora.

In Argentina, ENGIE holds a 64.2% stake in Litoral Gas, a gas distribution company with more than 720,000 clients. In addition, it holds a 46.7% stake in Energy Consulting Services (ECS), an electricity and gas sales and consulting firm. ENGIE also holds an interest in Gasoducto NorAndino, an approximately 1,000 kilometers pipeline between Argentina and Chile, wholly owned by ENGIE Energia Chile.

In December 2018, ENGIE Latin America, through its subsidiaries ENGIE Services Chile and ENGIE Services Peru, has acquired CAM, a services company leader in installation, operation and maintenance services for electricity and telecommunication.

1.3.2.2 Brazil

1.3.2.2.1 Role & Strategy

Its mission is to provide innovative and sustainable solutions in energy and services to people, companies and territories.

More specifically, the BU Brazil`s strategic directions are focused on:

- centralized power generation - be at the forefront of the transition towards an increasingly renewable world of energy, investing in wind, leveraging sites to invest in centralized solar PV while maintaining core competencies in hydropower;
- gas - be in the forefront of the re-structuring of the gas market in Brazil resulting in a more competitive market and benefit from new opportunities to come;
- services - become relevant in energy-related Services in Brazil with a focus on large commercials and industrial sites and territories;
- decentralized power generation – support development of “prosumer” in Brazil setting up a BtoC decentralized generation.

1.3.2.2.2 Description of activities

- Centralized Energy Generation: ENGIE Brasil Participações (EBP) is the holding company of ENGIE's activities (68.7% share capital) in Brazil. EBP holds power generation assets in two companies, EBE and ESBR, totaling an installed capacity of 9,356 MW in operation (including the Jaguara (424 MW) and Miranda (408 MW) hydropower plants) and 1,032 MW under construction (including the acquisition of the Umburanas wind project (605 MW), with 360 MW under construction and 245 MW in the development phase).
  - ENGIE Brasil Energia (EBE) – The company has 7,856 MW of installed capacity and operates a generating complex of 9,577 MW, accounting for approximately 6% of Brazil's total capacity. 83% of the installed capacity are hydroelectric power plants, 11% thermoelectric and 6% complementary plants (biomass, wind, small hydroelectric power plants and solar). EBE is under the control of EBP, which holds 68.71% of its capital. The compagny is listed on the Brazilian stock exchange.
  - ESBR (Energia Sustentavel do Brasil) : EBP holds a 40% stake in ESBR Participações S.A., company that holds 100% of ESBR. ESBR holds 100% of Jirau hydroelectric power plant (3,750 MW);
- Electricity Transmission: In December 2017, ENGIE, through EBE, marked its entrance in the Transmission Line business in Brazil with 1,000 km of transmission lines and 5 substations in Paraná state, South region of Brazil;
- Solar Decentralized Generation: In Brazil, ENGIE develops Solar Decentralized Generation activities through ENGIE Geração Solar Distribuída (EGSD);
- Integrated Solutions: ENGIE Brasil Soluções Integradas (EBSI) acts in the development and integration of telecommunications, security and safety systems for the oil & gas industry, infrastructures and smart cities. The company is a subsidiary of EBP;
- Energy Services:
  - in January 2018, ENGIE acquired ACS, renamed ENGIE Gerenciamento de Energia (EGE), leader in energy monitoring. Currently, the company manages more than 5,000 contracts,
  - acquired by ENGIE in August 2018, GV Energy is the leader in energy management in Brazil. The company manages and supervises 25,000 public lighting points;
  - in October 2018, EBP acquired Sadenco, one of Brazil's leaders in the management of public lighting networks, with 300,000 points.

1.3.3 Africa/Asia

The Africa/Asia reportable segment comprises the activities of four BUs: the Africa BU, the China BU, the Middle East, South and Central Asia, and Turkey BU (including India and Pakistan), and the Asia Pacific BU (Australia, New Zealand, Thailand, Singapore, Indonesia and Laos). In all of these regions, the Group is active in electricity generation and sales, gas distribution and sales, energy services, and seawater desalination in the Arabian Peninsula.

The Asia Pacific, China, Africa and the Middle East, South and Central Asia, and Turkey operating segments have been grouped together within the Africa/Asia reportable segment as all these regions have high power generation requirements and consequently represent significant growth prospects for the Group in the energy and energy services businesses. A substantial portion of their revenue is generated by electricity sales under long-term agreements.

KEY FIGURES

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Total change *(in %)***
Revenues	4,014	3,939	+1.9
EBITDA	1,122	1,272	-11,.

1.3.3.1 Africa

1.3.3.1.1 Role & Strategy

The Africa BU is in charge of developing ENGIE activities in African countries where it already operates and of entering a selection of new countries, which offer a promising balance between rewards and risks for the core activities of ENGIE. More specifically, the BU aims at developing:

- infrastructure & centralized power generation: renewable energy (wind, solar photovoltaic and concentrated solar power, hydro, biomass, geothermal) Transmission & distribution and utility scale storage. As natural complement to renewables, gas fired power is developed in several African countries and also gas infrastructure (regasification terminals, storage, transport);
- customers Solutions for Businesses (BtoB), Installation, maintenance, integrated services and energy sales for C&I sector and also provide off-grid solutions for remote clients;
- customer solutions for cities & territories, focusing on public lighting, electric mobility, public safety, area development & airports;
- customer solutions for Access to Energy: deployment of pay as you go Solar Home System, innovative mini-grids solutions and also develop solutions for reliable electricity in urban areas & clean cooking fuels.

1.3.3.1.2 Description of activities

In Morocco, the Tarfaya wind farm (301 MW) is operated by a 50/50 joint venture (TAREC) between ENGIE and Nareva Holding. The farm represents 40% of Morocco total wind capacity. The Safi plant, which started operations in December 2018, includes two state-of-the-art thermal power generation units (2×693 MW). ENGIE holds 35% in the project company SAFIEC.

In Egypt, ENGIE has signed in 2017 a contract to build, own and operate (BOO) the 250 MW Gulf of SUEZ wind farm (Ras Ghareb). Construction of the wind park started end 2017.

In Senegal, ENGIE signed in November, a 25-year PPA with Senelec, for two solar photovoltaic projects (60 MW). Next to large scale grid-connected power generation projects, ENGIE is also active on the off-grid market. In April 2018, ENGIE completed the acquisition of 100% of Fenix International, an energy company offering Solar Home Systems in Africa. Fenix has its main activities in Uganda where it is the largest Solar Home System (SHS) player. To date, Fenix has delivered clean energy to over 300,000 households, impacting over 1,500,000 people.

ENGIE's energy services activities are spread in Africa via a number of companies. In March 2018 the Group concluded the acquisition of SPIE Maroc, a key player in electrical works, HVAC, telecommunications systems and the multi-maintenance market in Morocco.

In February 2018, ENGIE officially acquired 100% of Thermaire Investments (Pty) Ltd. and Ampair (Pty) Ltd. shares. The two companies operate in South Africa, Mozambique and Botswana and are the leaders in the HVAC installation and maintenance segment in the South African market.

In West Africa, ENGIE acquired two companies specializing in energy services. Afric Power and Tieri than employ more than 140 people specialize in the design, installation and maintenance of electrical systems and automated control mechanisms.

The Dedisa and Avon peaking power plants are two open-cycle gas turbine plants (335 MW and 670 MW); ENGIE holds 38% in the two companies that own the plants.

Kathu is a 100 MW concentrated solar power (CSP) plant under construction in the Northern Cape province. Start of operations is expected beginning of 2019. The shareholders of Kathu Solar Park comprise a group of investors, including ENGIE (48.5%).

1.3.3.2 China

1.3.3.2.1 Role & Strategy

Starting 2018, China BU has consolidated its previous activities into two main sectors: Clean Energy and Solutions to Territory & Industry. The expanding scope of each pillar are paving the way for continued growth.

Our priority areas are all located along the coastal line and Yangtze river, focusing BtoB and BtoT in first and second tier cities in the short term.

1.3.3.2.2 Description of activities

Cooperating with its Chinese partners, ENGIE China has operation in 6 JVs, active mainly in solar power development and distributed energy:

- UNISUN (*30% owned by ENGIE*), a solar photovoltaic (PV) development company based in Ningbo city of Zhejiang Province. UNISUN develops both centralized and decentralized projects and has developed ~1GW PV projects by the end of 2018 and is the largest distributed PV developer in the world. After two-year's development, UPER, the O&M arm of UNISUN (100% owned), has become the largest third-party PV O&M provider in China serving for around 1.8 GW PV assets. Meanwhile, UNISUN has formed a good client portfolio covering over 50 cities in China;

- EV Chong (*25% owned by ENGIE via investment closed mid of 2018*) has developed 2 main businesses: 1) Services to Electrical Vehicles charging stations, including development, installation and O&M; and 2) a "battery as services" offer for captive EV fleets;
- SFES, a JV (*40% ENGIE, 60% Chongqing Gas Group*) which operates and develops DHC projects in Chongqing area;
- YUECHI, a single project JV (*49% ENGIE, 51% Sichuan Energy Investment Company - SCEI*) which develops and operates a steam power cogeneration project in Sichuan Province;
- ETS, a service-oriented JV (*50% ENGIE, 50% SCEI*), based in Chengdu city - Sichuan Province, which provides O&M (Yuechi) and technical energy advisory services.

On top of the above activities, ENGIE, through Tractebel, owns 49% of an engineering JV called BUGET (*51% Beiran Enterprise Company*), based in Beijing.

On May 31, 2018, China's national policy makers jointly released a policy document with immediate execution on the same day. The policy restricts new solar installations that require national subsidy (mostly ground mounted projects) and reduces the subsidy of new distributed PV projects by 0.05 RMB/kWh.

Even if the policy came out without any warning, the impact is limited on ENGIE China's overall strategy since UNISUN has started a strategy shift towards distributed wind.

This new regulation obviously slows down the development of new solar photovoltaic projects, and has caused a drop in the price of solar panels.

1.3.3.3 Middle East, South and Central Asia, and Turkey (MESCAT)

1.3.3.3.1 Role & Strategy

The role of the MESCAT BU is to continue to develop strong positions in low-carbon centralized power generation (natural gas) and new activities: renewable energy-based power generation, independent production of desalinated water, and the development of integrated BtoB and BtoT solutions.

The BU's strategy is based on two key pillars:

- safeguarding and growing the value of the portfolio of existing assets;
- generating growth through new business lines and services in the countries of the MESCAT BU via acquisitions and the purchase of larger equity interests.

1.3.3.3.2 Description of activities

Centralized Energy Generation

In the Gulf Cooperation Council (GCC) Countries, the MESCAT BU acts as an asset developer, owner and operator, selling the electricity and water it produces under long-term public Power (and Water) Purchase Agreements (P(W)PAs).

The MESCAT BU is the leading private power and water developer and/or operator in the region, with a total generation capacity of 30 GW and nearly 6 million m^3 of water/day produced from desalination facilities in operation or under construction.

In Southern Asia:

- in Pakistan, ENGIE holds 100% of two combined cycle gas turbine (CCGT) plants for a total capacity of 932 MW. The electricity produced is sold under long-term PPAs to the distribution companies;
- in India, ENGIE now holds a portfolio of nearly 1 GW in renewable power capacities (810 MW of solar and 280 MW of wind), installed or under construction.

In Turkey, ENGIE holds stakes in two CCGTs with total production capacities of 1,243 MW. The electricity is sold to TETAS, the national electricity off-taker, under long-term PPAs.

Decentralized Energy Generation

In India, ENGIE has acquired a majority stake in Simpa Networks, which markets individual solar electrification solutions in the rural areas of northern India.

Gas Value Chain

In Turkey, ENGIE owns 90% of IZGAZ, the country's fifth-largest natural gas distributor, which distributes and markets natural gas to 370,000 residential, commercial and industrial customers in the Kocaeli region.

Services

In the GCC countries, ENGIE is a major facility manager in the region and provides its customers with energy performance services and a range of airport services.

ENGIE holds a 40% stake in Tabreed (National Central Cooling Company PJSC), the leader in urban cooling networks in the GCC. The company distributes the equivalent of one million tons of cooling produced by its 71 urban cooling plants located in the Gulf countries, and is expanding in India.

ENGIE provides operating and maintenance (O&M) services to industrial companies, in both power production and distribution, in Turkey and in the GCC countries.

1.3.3.4 Asia Pacific

1.3.3.4.1 Role & Strategy

In 31 décember, 2018, the Asia-Pacific BU has strongholds in Thaïalnd, Singapore and Australia, commercial activities in: Philippines, Malaysia and Thaïland, and development offices in Indonesia, Mongolia and Japan. The Asia-Pacific BU is at the final stage of a large scale decarbonization with the last of its coal fired power plants under divestment and has embarked on an ambitious growth plan for renewable generation (4 projects under construction and many more in the pipeline), services and new businesses around rural electrification, green mobility and smart cities.

1.3.3.4.2 Description of activities

In Australia, ENGIE operates about 1,000 MW (gross) of renewable (wind turbine) and gas-fired plants. The Hazelwood power plant was closed on March 31, 2017 and the Loy Yang B power plant was sold in January 2018. The BU has a pipeline of solar and wind projects under development, including Willogoleche's solar plant (119 MW) that was commissioned in early 2019. The portfolio also includes a growing energy retail business called "Simply Energy", serving electricity and gas accounts in the BtoB and BtoC segments (around 670,000 contracts) and also offers a suite of energy solutions across solar and battery storage to help customers reduce energy costs and minimize environmental impact, including a virtual power plant. During 2018, energy retail prices were impacted by political intervention and is expected to continue during 2019.

In Thailand, ENGIE has entered, in June 2018, into a Share Purchase Agreement with Global Power Synergy Public Company Ltd. (GPSC) for the sale of its 69.1% interest in Glow, an independent power producer listed on the Stock Exchange of Thailand. The Thailand Energy Regulatory Commission (ERC) approved the transaction on December 26 with one condition precedent, that Glow must sell the business of Glow SPP1 Co. Ltd. (140 MW generation unit), prior to or at the same time as the consolidation with GPSC.

The Group has annouced completion of disposal of Glow on March 14, 2019.

In Thailand, ENGIE also owns a 40% stake in PTT NGD, a distributor of natural gas to industrial customers in the Bangkok region.

In 2017 the Energy Regulatory Commission (ERC) commenced working towards a change in regulation to reduce the exposure of gas distributors to commodity risk. There have been significant delays in implementing this regulatory change, with the best estimate for new regulations being implemented in mid-2019. In the meantime, ENGIE continues to bear commodity risk which has had a significant positive impact on earnings in 2018.

In Indonesia the BU is building two geothermal powerEplants in Sumatra.ENGIE began construction work for the first stage of the geothermal projects of Muara Laboch (80MW) and Rantau Dedap (90MW).

in 2018, ENGIE signed an agreement with Adaro Power and EVI to develop energy access solutions using solar energy and batteries in Papua.

In November 2018, Indonesia introduced new regulation related to solar rooftop that enable net metering for Residential and C&I projects and regulates the process for its developement.

In Singapore, ENGIE holds a 30% stake in Senoko Energy, operating a portfolio of power generation assets with a combined capacity of 3,300 MW. Senoko is also present in the BtoB electricity retail market and is participating in the BtoC retail market opening this year.

Since April 1, 2018, Singapore commenced the soft launch of Open Electricity Market. The full opening will be effective on May 1, 2019.

Singapore introduced Southeast Asia's first Carbon Tax from January 1, 2019. applying to the largest 20 or 30 biggest emitters will impact all the GENCO's.

The Group has been active in district heating and cooling networks in Malaysia (following the acquisition of a 49% stake in Megajana - operating the district cooling plants of CyberJaya) and in Philippines.

Additionally, in Australia, New-Zealand, Thailand, Malaysia, Singapore and Philippines, ENGIE's services businesses provide multi-technical building services and installation with a focus on facility management, maintenance mechanical, fire protection, electrical communications, audio visual and energy efficiency. Especially in Singapore, the BU has two key businesses in energy services:

- ENGIE Services Singapore (Cofely FMO) whose core business is integrated facility management and energy efficiency solutions with key expertise in critical facilities such as airports, healthcare, rail and education;
- ENGIE ITS (Cofely Data Centers) is a specialist in data centers with core capabilities in the design, building and maintenance of data centers.

In Japan, the BU opened an office in Tokyo in early 2018 to oversee its development efforts in the country in renewable generation and energy services.

1.3.4 Benelux

The Benelux reportable segment corresponds to the Benelux BU which includes the Group's activities in Belgium, the Netherlands and Luxembourg, specifically power generation from the Group's nuclear power plants and renewable power generation facilities, electricity and natural gas sales activities, and energy services and installation activities.

KEY FIGURES

In millions of euros	Dec. 31, 2018	Dec 31., 2017	Total change *(in %)*
Revenues	6,690	6,771	-1.2
EBITDA	(186)	550	-133.7

1.3.4.1 Role & Strategy

The Benelux BU is the historical leading provider of electricity and natural gas in the Belgian market, a challenger in the Netherlands, and the leader in the services segment in the Benelux countries. The BU's mission is: "leading in global and sustainable solutions, that make the difference for our customers, in energy, services and technical installations" and its vision is "to be at the heart of the Energy Transition" by making its countries the champions of the Energy Transition.

It therefore develops and implements energy and industrial solutions for the future in Belgium, Luxembourg and the Netherlands:

- reliable, competitively priced carbon-free power generation that complies with the highest standards in terms of safety and environmental protection;
- the supply of energy, energy services and mobility solutions to simplify the life of its retail customers;
- a broad range of know-how and expertise leveraged on behalf of industrial and tertiary customers, cities and local authorities to implement sustainable solutions.

1.3.4.2 Description of activities

The Benelux BU operates and maintains, in compliance with the strictest nuclear safety standards, the Doel and Tihange nuclear power plants in Belgium, representing a total installed capacity of 5,918 MWe (with total drawing rights of 897 MWe held by third parties). Moreover, the Benelux BU owns drawing rights of 1,218 MWe with EDF in France and 290 MWe with E.ON in Germany.

A stable legal and fiscal framework has been set for the nuclear power plants until 2025 defining amongst other things the economic parameters governing the lifetime extension of Tihange 1, Doel 1 and Doel 2 and the mechanism to calculate the level of nuclear contribution to be paid by ENGIE 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. As of December 31, 2018, the nuclear provisions in the Group's consolidated financial statements amounted to €11.6 billion (of which €5.3 billion related to the dismantling of the facilities and €6.2 billion to the management of the downstream part of the fuel cycle). These provisions are based on the basic features presented in the three-year statement approved by the Nuclear Provisions Commission (CPN) on December 12, 2016.

In 2018, the increase of nuclear provisions by €0.4 billion in the Group's consolidated financial statements results from the recurring discounting charge and the additional provision for quantities of irradiated fuel consumed during 2017.

The BU also operates renewable energy production assets, comprising onshore wind capacity of 387 MWe (+29 MWe in 2018) in Belgium and in the Netherlands and solar capacity. It is responsible for developing, building, operating and maintaining these assets. Within the framework of the ENGIE Offshore Wind strategy, the BU is involved since 2011 in the development of the offshore wind project MERMAID. In 2018, it merged with the offshore wind project Seastar to create SEAMADE (487 MWe) which ENGIE Electrabel owns 17.5% in. As regards Offshore High Voltage Substations (OHVS), the BU – through ENGIE Fabricom – is a market leader (22 substations constructed and 7 substations under construction or ordered).

In biogas, the BU has recently acquired the biogas development, engineering and service company BIOGASPLUS to boost its development in the Netherlands.

Through ENGIE Axima, ENGIE Cofely and ENGIE Fabricom, the Benelux BU operates in the tertiary, industrial, energy and transport sectors and provides public and private customers with various multi-technical services and solutions like:

- greater energy efficiency and limited environmental impact of buildings (energy efficiency audits, HVAC systems, multi-technical management and maintenance, energy performance contracts, etc.);
- production, operation and distribution of local and renewable energy sources (cogeneration plants, industrial utilities, etc.);
- integrated services (facility management, multi-site management, public-private partnerships, etc.);
- maintenance activities of networks (medium & low voltage power, low pressure gas, telecom, water, public lighting, etc.);
- installation & industrial maintenance activities (3D printing, electricity & instrumentation, process solutions, automation, etc.);
- construction and maintenance activities to mobility infrastructures in the field of roads (lighting, traffic management, etc), waterways, airport, ports and rail & metro (stations, catenary, signalization, passenger information systems, etc.).

In the retail market, the Benelux BU manages approximately 2.66 million electricity contracts (9.1 TWh) and 1.47 million natural gas contracts (20.9 TWh) in Belgium, and approximately 301,000 electricity (1.2 TWh) and 294,000 natural gas contracts (4.7 TWh) in the Netherlands. Lastly, the BU has developed an innovative offer of technical services for its retail customers. It also has a portfolio of business customers (industrial and tertiary) who buy electricity and natural, as well as energy services.

On the regulatory front, in Belgium, the main changes concern the adoption (at the end of March 2018) of the Energy Pact, which confirms the nuclear exit target but subjects it to several criteria, as well as the draft law (approved by the Cabinet of Ministers of January 11, 2019) on a Capacity Remuneration Mechanism (CRM) designed specifically to guarantee the security of supply in the event of nuclear output.

1.3.5 France

The France reporting sector combines the activities of four BUs: the France Renewable Energy BU (development, construction, financing, operation and maintenance of all renewable power generation assets in France), the France BtoB BU (energy sales and services for buildings and industry, cities and regions and major infrastructure), the France BtoC BU (sales of energy and related services to residential and small business customers), and the France Networks BU (which designs, finances, builds and operates decentralized energy production and distribution facilities - power, heating and cooling networks).

The France Renewable Energy, France BtoB, France BtoC and France Networks operating segments include all French downstream energy business lines and renewable energy production, which is becoming increasingly decentralized. These are complementary businesses that are supported by a strong regional network and primarily aim to develop a combined offering for local customers consisting of energy services, decentralized production resources, and combined gas and electricity supply contracts.

KEY FIGURES

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Total change** ***(in %)***
Revenues	15,183	14,157	+7.2
EBITDA	1,669	1,461	+14.2

1.3.5.1 France Renewable Energy

1.3.5.1.1 Role & Strategy

The role of the France Renewable Energy BU is to develop, build, finance, operate and maintain ENGIE's biomethane and power production in France. The BU offers energy production capacity that are greener, more diversified, more local and safer through six sectors: solar power, onshore wind power, fixed offshore wind power, floating offshore wind power, hydroelectric energy and biogas.

The BU also provides technical expertise and industrial support, including procurement, to the Group and in particular its European subsidiaries, through pooled teams of experts.

It performs its missions through the ENGIE subsidiaries that report to and the BU and are described in the following section.

Whether in the most mature existing technologies (hydro, wind, solar, etc.) or in the new technologies (fixed and floating offshore wind, biogas, etc.), the BU is active in all activities that are driving and will drive the green growth in the French energy mix. The BU aims to substantially boost its development in wind and solar while bolstering its positions in hydroelectricity:

- onshore wind: strengthen the Group's leadership in a market that is expected to more than double by 2023. The objective is to reach nearly 3 GW installed capacity in this technology in 2021. The BU is competitively positioned within a secure regulatory framework (notified to the European Commission);
- solar power: significantly accelerate growth in a market expected to more than triple by 2023. The goal is to reach nearly 2.2 GW of installed capacity in this technology in 2021, within a secure regulatory context that has also been notified to the European Commission;
- hydroelectricity: maintain a leadership role by seizing opportunities that will arise on hydraulic concessions while continuing to protect the Group's positions;
- marine energy: leverage the Group's expertise on the first projects to continue to accelerate the development of this segment (fixed and floating offshore wind farms);
- biogas: build on the initial projects developed in order to accelerate significantly and make ENGIE a "market maker" in this high-potential market. ENGIE is setting a target to product and inject 1.5 TWh in the grids by 2023.

1.3.5.1.2 Description of activities

The France Renewable Energy BU comprises a set of subsidiaries owned by ENGIE, either alone or in partnership:

- ENGIE Green (resulting from the merger of Futures Energies and Maia Eolis in 2016 and LCV – La Compagnie du Vent – in 2017 and the progressive integration of the development, operational and maintenance activities of Solairedirect in France as of January 1, 2018): onshore wind, solar, renewable marine energy and biogas;
- SHEM (Société Hydro-Électrique du Midi): hydroelectricity;
- CNR (Compagnie Nationale du Rhône), and its subsidiary CN'Air: hydroelectricity, onshore wind, solar power;
- Dieppe/Le Tréport, and l'Île d'Yeu/Noirmoutier projects: offshore wind power (2 x 500 MW in potential installed capacity);
- Altiservice: management of three ski resorts in the Pyrenees, 100% powered by renewable energies;
- Langa: a company acquired in 2018 that specializes in the development and operation of roof and ground wind and solar farms. Langa holds a portfolio in operation that is expected to reach installed capacity of 215 MW by the end of 2018, including 165 MW of solar energy and 39 MW of wind.

1.3.5.2 France BtoB

1.3.5.2.1 Role & Strategy

In a national context where there is strong focus on energy and environmental efficiency, the France BtoB BU designs, builds and operates high-performance facilities, buildings and infrastructure for both the public sector (local authorities, towns or regions) and the private sector (industrial activities, tertiary sectors, multi-dwelling units).

The solutions deployed by the BU rely on the strong expertise of its four entities, a dense national presence, solid customer relationships, and a drive for innovation. As a result, the BU is able to anticipate and support new needs by combining digital innovations (Building Information Modeling, hypervision, data analysis, etc.), technological innovations (hydrogen, biogas and biomass, mini-cogeneration, micro-grids, etc.) and behavioral innovations (usage performance, self-consumption, appetite for local solutions and sharing, etc.).

To consolidate its position as France's leading integrator of energy and environmental efficiency solutions, the France BtoB BU is stepping up its strategy of organic growth and targeted acquisitions along three lines:

- expansion of its historical business lines in France (see ENGIE Cofely's acquisition of SERT, InterEnergies or DARGENT Thermique);
- reinforcement of its specialist activities, so they become the undisputed leaders with the ability to be deployed in various international regions in support of the Group's other BUs (see ENDEL ENGIE's acquisition of ERAS in industrial engineering, or ENDEL Axima's acquisition of Noske Kaeze, an operator in ship construction and maintenance);
- development of innovative offers that combine new technologies and digital technology, as well as integrated offers; see the acquisition of AEGE (jointly by ENGIE Axima and ENGIE Ineo), a key player in general contracting.

1.3.5.2.2 Description of activities

The complementary expertise of its four historical entities means that the France BtoB BU is active throughout the entire energy services value chain, from design and build (or renovation) to maintenance and full operation, including performance commitments. These energy and environmental efficiency solutions and associated services are aimed at manufacturers, the tertiary sector (public or private), infrastructure managers, municipalities and local authorities, and multi-dwelling unit managers.

- ENGIE Axima specializes in HVAC engineering (heating, ventilation, air-conditioning, cooling and air treatment). It designs, builds or renovates decentralized power-generation and distribution facilities in commercial or industrial buildings. ENGIE Axima is also a major player in fire prevention.
- ENGIE Ineo specializes in electrical engineering and works with municipal and national customers to deploy or modernize their infrastructure networks (railroad tracks, power grids, video-surveillance systems, public lighting, telecommunications networks, urban transport, renewable energy, etc.).
- ENDEL ENGIE specializes in mechanical engineering and provides industrial customers with management and maintenance services for their production facilities or processes. The company is also a leading player in nuclear maintenance.
- ENGIE Cofely specializes in power engineering. It offers a range of energy and environmental performance solutions for the operation and management of industrial, commercial or multi-dwelling buildings. Through its energy savings performance contracts and usage performance contracts, the company ensures that the facilities it operates are optimally efficient while having a minimal environmental footprint. Lastly, ENGIE Cofely provides comprehensive integrated service solutions (such as facility management) to large corporations or government agencies.

1.3.5.3 France BtoC

1.3.5.3.1 Role & Strategy

The France BtoC teams handle energy sales and related services for residential and small business customers.

The goal of the France BtoC BU is to become a key player in the energy transition and home comfort, and to remain a leader in energy supply.

Its strategic priorities are:

- growth of electricity and services sales;
- customer satisfaction;
- operational excellence;
- innovation.

With regard to changes in the regulatory environment, it should be noted that a proposed law is expected in 2019 that will specify the calendar and conditions for the disappearance of the regulated gas tariffs following the decision of the French Council of State (*Conseil d'État*) of July 19, 2017. In addition, the General Data Protection Regulation (GDPR), which provides a framework for the utilization of your personal data, was implemented on May 25, 2018.

1.3.5.3.2 Description of activities

Energy: the BU is still the leading seller of natural gas in France, despite increasingly intense competition from new arrivals on the market. In electricity, the BU accelerated its expansion in 2018 and confirmed its lead over other alternative power suppliers with a portfolio of 4.3 million customers at the end of 2018, including 2 million customers in green electricity. The success of the launch of its green offers in 2016 was confirmed in 2017 and 2018 and positions ENGIE as the leading green energy supplier in France.

Services: the BU is active in (i) the deployment of decentralized power or heat generation solutions based on renewable energy (photovoltaic, heat pumps), (ii) energy efficiency services (energy diagnostics, energy consulting and coaching; facilities design, work, financing and maintenance), and (iii) home services (insurance, equipment maintenance, repairs). Among other things, the Group is a leader in domestic boiler maintenance through its ENGIE Home Services subsidiary.

New offers were launched in 2018, illustrating the BU's capacity for innovation and expanding its offering:

- Home comfort services: "Eideris", a connected boiler offer that provides remote monitoring of the boiler and allows preventive maintenance; "Mes Dépanneurs", a multi-business intervention offer that has expended with Do-it-yourself (DIY) and gardening offers;
- Equipment offers: a water heater offer and an air-conditioning offer complete the product line;
- Energy decentralization services: "My Power + Battery", an expansion of the self-consumption line with the addition of a storage offer coupled with the installation of a photovoltaic roof.
- Energy offers:
  - "Mon Elec", an extensive selection of production sites for green electricity,
  - "Ma Conso", the online service to assist in controlling consumption has been expanded to include new functionalities, including consumption projections, a link with Google voice assistance, a comparison with similar homes, and the impact of the outside temperature on the level of consumption.

1.3.5.4 France Networks

1.3.5.4.1 Role & Strategy

The France Networks BU partners with local authorities in cities and island territories to help accelerate their energy transition by providing innovative, integrated solutions in renewable energy and energy efficiency.

The France Networks BU has leadership positions in the design and management of large heating and cooling networks as well as in power generation and distribution. It builds and operates high-performance facilities and infrastructures designed for both public and private players. It is backed by an ambitious policy of innovation and development, focused both internally and externally, to meet the needs of its customers and stakeholders and thus contribute to creating value for the regions in which it operates.

Thanks to their local roots, its employees work alongside their customers, whether public, private or retail, to achieve a greener energy mix.

The France Networks BU's strategic priorities are to:

- grow its portfolio of activities by preserving and expanding its existing contracts, capturing new networks and diversifying its activities to facilitate the green transition in the regions its services;
- strengthen its renewable energy production resources (solar, wind, hydropower, geothermal, biomass, biofuel, waste-to-energy, etc.);
- achieve the highest customer relationship standards.

In mainland France, the France Networks BU uses diversified, local and renewable energy sources to make accessible, to the greatest number of customers possible, an efficient, virtuous and sustainable method of heating and cooling in urban areas.

In the island territories, the France Networks BU is developing a comprehensive range of industrial and energy services to support the territories' sustainable development, along with a renewable electricity generation system.

1.3.5.4.2 Description of activities

The France Networks BU provides integrated, customized solutions tailored to the geographical characteristics, economic constraints, and local climate and ecological challenges in its host territories through six operating entities and their subsidiaries:

- CPCU, Paris heating network (France's leading district heating network);
- Climespace, Paris's cooling network (Europe's leading district cooling network);
- ENGIE Réseaux, responsible for France's large heating and cooling networks with recognized expertise in biomass and geothermal energy;
- SMEG and SMA in Monaco, active in gas and electricity distribution and supply, public lighting, heating and cooling production and distribution, waste cleaning and collection services, and waste-to-energy production;
- EEC, Alizés Énergies, Pacific Airport, Socometra, Somainko and Endel NC in New Caledonia, EEWF in Wallis and Futuna, Unelco and Vanuatu Services in Vanuatu: active in power production and distribution, energy services, installation and multi-technical management, and airport facilities management;
- EDT, Marama Nui, ENGIE Services Polynésie, and Poly-Diesel in French Polynesia: active in power production and distribution, installation and technical maintenance, facility management and energy services.

1.3.6 Europe (excluding France and Benelux)

The Europe reportable segment groups together the activities of two BUs: the United Kingdom BU (management of renewable power generation assets and district heating and cooling network assets, supply of energy services and solutions, etc.), and the North, South and Eastern Europe BU (sales of natural gas and electricity and related energy services and solutions, operation of renewable power generation assets, management of distribution networks).

The United Kingdom and North, South and Eastern Europe operating segments have been grouped together within the Europe reportable segment as both BUs have a similar business mix (energy services, production and sales of renewable energy) and operate in mature energy markets that are undergoing a process of transformation as part of the energy transition.

KEY FIGURES

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	Total change *(in %)*
Revenues	9,527	8,831	+7.9
EBITDA	679	650	+4.5

1.3.6.1 United Kingdom

1.3.6.1.1 Role & Strategy

The United Kingdom (UK) BU has the defined mission of improving lives through better living and working environments. The BU combines its capabilities in energy and services to enable customers to embrace a lower carbon, more efficient and increasingly digital world. It does this through the supply of reliable, flexible and renewable energy, energy efficient and smart building solutions, provision of effective and innovative services and the transformation of neighbourhoods through regeneration.

1.3.6.1.2 Description of activities

There are four divisions in the UK BU:

- *Energy infrastructure* (power generation, renewables development and trading and portfolio management):

  The BU has over 2 GW of generation assets. including the UK's foremost pumped storage facility (First Hydro) and an established renewables development business (on & offshore wind and solar). The business has a pipeline of renewable projects in development, including a 23.3% stake in the 950 MW Moray East offshore wind farm in Scotland.
- *Business Energy & Services* (energy efficiency, energy supply & power purchase, facilities management, technical services):

  The BU focuses on combining the deliveries. Its extensive capabilities are designed to serve both public and private organisations. In 2018 ENGIE signed an agreement with Bombardier Transportation, for a five-year contract to deliver integrated FM, production maintenance and project services to 33 sites across 12 countries, including the UK.
- *Places & Communities* (design & refurbishment of homes, buildings and places, facilities management, PV, district energy):

  The UK BU is a strategic partner in placemaking to create and regenerate communities as well as maintain and support them. Activities also include provision of energy efficiency measures and renewable technologies. Customers include local authorities, housing associations, healthcare and educational institutions. In 2018 ENGIE was selected for by Kingston University in London to deliver a major regeneration project across two student accommodation sites with an additional FM contract to maintain the sites over 50 year period.
- *Homes & Enterprises* (energy supply, smart home technology, EV charging and infrastructure):

  ENGIE is a supplier of energy and related services to homes and SME's across the country. The BU also provides EV charging points, connected and smart technologies for consumers. ENGIE UK currently has around 75,000 customers (150,000 customer accounts). In 2018 ENGIE was awarded a 10 year contract to install and manage EV infrastructure across the West Yorkshire region, including supply of 100% renewable electricity.

1.3.6.2 North, South and Eastern Europe (NECST)

1.3.6.2.1 Role & Strategy

The North, South & Eastern Europe Business Unit (BU) is active today in Austria, Czech Republic, Germany, Greece, Italy, Norway, Poland, Romania, Slovakia, Spain and Switzerland. Business areas cover customer solutions (BtoB, BtoT, BtoC), green energy generation (notably wind) and gas infrastructures. The BU implements its strategy through a country-based organization which allows to accelerate its development, all to the benefit of its customers.

Its business environment is characterized by a rapid succession of far-reaching changes, such as decentralization and digitization, although the maturity of these changes varies from country to country. The BU's mission is thus to co-develop, with clients, reliable and sustainable solutions for a new energy world.

1.3.6.2.2 Description of activities

- In Romania, the main activity is natural gas distribution via the Distrigaz Sud Retele subsidiary, which operates a 19,643 km distribution network, with natural gas storage through its Depomures subsidiary. ENGIE Romania supplies natural gas and electricity to 1.7 million customers (BtoC and BtoB) as well as energy services in particular to BtoC customers through ENGIE Servicii. ENGIE Romania operates two wind farms in Gemenele and Baleni, for an installed capacity of 98 MW. In 2018, the BU acquired the internet of things company Flashnet, which develops intelligent energy management systems for cities and is specialized in smart public lighting.

The government re-regulated the wholesale domestic gas prices for residential and non-residential consumers at the end of 2018 for a 3-year period (April 2019 - February 2022) by setting a regulated wholesale price of 68 lei/MWh for natural gas extracted from domestic resources. The retail price of electricity for households will also be regulated. A 2% tax on turnover to be paid to ANRE by gas and electricity license holders has been adopted by the government. Finally, new tariffs methodologies have been drafted by ANRE for both distribution and regulated supply during the fourth regulatory period (starting in January 2019); however, these draft methodologies must be revised in order to harmonize their provisions with the new primary legislation.

- In Italy, the BU is active in natural gas and electricity sales with more than 820,000 consumers (BtoC and BtoB). In 2018, it reinforced its position in public lighting, becoming one of the main players in Italy, and in district heating networks with, among others, the acquisition of Cinisello Balsamo's grid. The BU also provides energy efficiency and decentralized solutions to residential clients, businesses and public authorities, participating to many Consip public procurement tenders. ENGIE Italy operates 165 MW of wind and ground- and roof-mounted solar power assets, as well as biomass units.

  In 2018, the Italian Parliament approved the end of regulated prices for gas and electricity in July 2020.
- In Germany, the BU is active in the installation, operation and maintenance (O&M) of energy efficiency solutions. It also supplies power and gas mainly in connection with its stakes in four municipal utilities, encompassing activities in heating networks, energy distribution and decentralized solutions. With effect as from December 31, 2018, ENGIE sold 100% of ENGIE Energielösungen GmbH and phased out the BU's pure commodity supply activity for BtoB at national level. The BU also operates 338 MW of renewables (wind, hydro) and a battery storage site.
- In Spain, the entities operate 66 MW of solar and hydropower through a partnership with Mitsui, and cogeneration units and heating networks in Barcelona. ENGIE Spain is also active in installation and maintenance services and supply of energy efficiency solutions. It supplies natural gas and electricity to BtoB customers. In 2018, the BU achieved a major development in renewables with a 300 MW wind project under a 12-year power purchase agreement (PPA).
- In Portugal, the BU is mainly involved in renewable energy power generation, via TrustWind (a 50-50 joint venture with Marubeni), operating notably 489 MW of wind power. It also distributes heating and cooling to the city of Lisbon through its Climaespaço subsidiary, and provides O&M services and energy efficiency solutions.
- In Poland, the BU is active in installation and integrated services and has a BtoB customer portfolio in electricity. It is also active in wind power generation, with an installed capacity of 138 MW, as well as in heating networks.
- In Norway, the BU partnered in 2018 with Susi Partners to develop a 208 MW wind farm in Tonstad where the power is sold under a 25-year offtake agreement with aluminum producer Hydro.
- In Austria and Switzerland, the BU is mainly active in energy efficiency services, installation and maintenance. In 2018, the BU stepped in the airport industry by acquiring Priora FM which handles the management of buildings, infrastructures and performs all facility management tasks for Geneva and Zurich airports.
- In the Czech Republic and Slovakia, the BU provides installation and O&M solutions. It is an important private heating network operator in Slovakia and owns facilities for manufacturing switchboards in the Czech Republic.
- In Greece, ENGIE Hellas subsidiary is active in energy efficiency solutions and technical services for buildings and supplies electricity and gas to retail, industrial and commercial customers.
- In Hungary, the Group finalized in January 2018 the sale of 100% of Égáz-Dégáz to NKM, a company owned by the Hungarians state.

1.3.7 Infrastructures Europe

The Infrastructures Europe reportable segment groups together the activities of four BUs: GRTgaz, GRDF, Elengy, and Storengy. These BUs develop, operate and maintain – primarily in France and Germany – natural gas transmission, storage, and distribution networks and facilities, along with LNG terminals. They also sell access rights to these infrastructures to third parties.

The GRTgaz, GRDF, Elengy and Storengy operating segments, which comprise the gas infrastructure businesses in Europe (distribution, transport, storage, and LNG terminals), have been grouped together within the Infrastructures Europe reportable segment as they are all regulated businesses (or businesses likely to be regulated) with similar risk profiles and margins.

KEY FIGURES

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Total change *(in %)***
Revenues	5,694	5,446	+4.6
EBITDA	3,499	3,386	+3.3

1.3.7.1 GRTgaz

1.3.7.1.1 Role & Strategy

GRTgaz is an independent subsidiary of ENGIE. In addition to GRTgaz employees who own 0.35% of the capital of their company, GRTgaz shareholders are ENGIE and Société d'Infrastructures Gazières (SIG), a consortium composed of CNP Assurances, CDC Infrastructures and Caisse des Dépôts. ENGIE and the SIG respectively own 75% and 25% of the remaining share of the capital.

GRTgaz develops, operates and maintains the main gas transmission network in France, manages the natural gas flows that flow through it, and markets network access services to gas suppliers. It manages gas transmission operations in Germany through its GRTgaz Deutschland subsidiary. In 2017, GRTgaz acquired ENGIE subsidiary Elengy, which operates LNG terminals in France.

GRTgaz's strategy is to ensure the company's development in the long term both in France and internationally. GRTgaz is intent on:

- being a leader in gas infrastructure in Europe, in particular by contributing to better integration of the European markets;
- being a driving force in the energy transition, particularly by promoting new uses of natural gas (industry/mobility), developing renewable natural gas by injecting biomethane into the transmission network, and conducting research on monetizing surplus renewable energy (power-to-gas);
- continuing to expand internationally in countries where natural gas consumption is growing fast, in close collaboration with other Group entities.

1.3.7.1.2 Description of activities

In France, it owns and operates more than 32,000 km of buried pipeline and 26 compression stations to take gas from suppliers to consumers (distributors or manufacturers directly connected to the transmission network). GRTgaz has a public service mandate to guarantee the continuous supply of gas to consumers. It also sells transmission services to network users. GRTgaz plays an active role in the energy transition, investing in innovative solutions to adapt its network accordingly and combine competitiveness and security of supply with environmental protection.

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

France's Energy Code stipulates that the construction and operation of natural gas transmission pipelines are subject to a specific and non-transferable authorization issued by the competent administrative body. Pursuant to its ruling of December 15, 2016, the French Energy Regulation Commission (CRE) defined the methodology and set the tariffs for the use of transmission networks in France known as "ATRT 6," which entered into force in April 2017 for a period of around four years. A revision clause at the end of two years allows an adjustment of the blueprint for net operating expenses under certain conditions.

The new tariff set by the CRE provides GRTgaz with all the resources needed to respond to the challenges of energy transition and takes account of the changes in the gas market. The CRE is also strengthening the GRTgaz performance incentives and the incentive scheme for the creation of more selective interconnection capacity.

This new framework was supposed to result in a 0.4% reduction in the average unit tariff over the ATRT6 period, as a result of various factors:

- first, the erosion of the subscriptions anticipated over the period and the commissioning of significant investment projects;
- and second, a drop in energy prices, a decrease in the weighted average cost of capital from 6.5% to 5.25% (real before taxes), and efficiency targets set for GRTgaz.

Within this framework, and in application of the methodology, the tariff update led to an increase of 3.0% in the average tariff on April 1, 2018 (CRE ruling of February 7, 2018) related primarily to the creation of the single market place in France.

1.3.7.2 GRDF

1.3.7.2.1 Role & Strategy

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

Its strategy is revised every four years. In 2018, GRDF developed its activities according to the three objectives stated in its enterprise project, covering the period from 2015 to 2018:

- strive for operational excellence in the performance of its business lines to be recognized as a committed professional;

- make natural gas an energy of the future by demonstrating its relevance in the energy mix;
- build a responsible, more open and collaborative business model with all the business lines.

1.3.7.2.2 Description of activities

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 standard specifications established jointly by the French national federation of concession-granting and state-controlled municipalities (FNCCR) and GRDF. Concession-granting bodies exercise control to ensure the proper execution of the obligations resulting from these specifications.

Distribution structures belong to the municipalities even when they are built and financed by the concession operator, who has an exclusive right to use them. The Energy Code recognizes the entitlement of exclusive concession rights to 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 whom 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 (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, the Energy Code allows all municipalities not supplied with natural gas to entrust their public gas distribution to the authorized operator of their choice.

In addition to the special case of public service delegations recently acquired after a competitive bidding process, GRDF's activity is remunerated by a tariff set by the CRE. Following the CRE's decision of March 10, 2016, the new GRDF natural gas distribution tariff, "ATRD5," entered into force on July 1, 2016 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, allowing the company to continue its industrial safety and development initiatives while at the same time requiring it to increase its productivity.

This new tariff framework led to an increase of 2.76% effective July 1, 2016. The transmission rate remains stable, as the decrease in the rate by -2.05% on July 1, 2017 was followed by an increase of 2.01% on July 1, 2018. The rate hike on July 1, 2018 primarily covers the increase in unpaid charges repaid to the gas suppliers and the expenses related to the pilot phase of the gas changeover project (conversion from B gas to H gas for the customers in northern France).

The year 2018 was also the year of the implementation of the CRE's decisions on the remuneration of natural gas suppliers for the customer management services they perform on behalf of the distributor.

The Energy Code assigns a joint service, primarily responsible for construction, worksite project management, network operations and maintenance, and metering operations. GRDF and Enedis (formerly ERDF) are linked by an agreement defining their relationship within the Joint Department, the services it provides, and the distribution of the resulting costs. This agreement, signed for an indefinite period, may be terminated at any time, subject to 18 months' notice, during which period the parties undertake to renegotiate this agreement.

1.3.7.3 Elengy

1.3.7.3.1 Role & Strategy

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

Elengy is the second-largest European LNG terminal operator (source: GIIGNL), with three LNG terminals in France. The facilities operated by Elengy had a total regasification capacity of 21.25 billion m^3 (Gm^3) of gas per annum as of December 31, 2018.

Elengy's strategy is defined around on the following key points:

- optimize operation methods for each of the three sites in order to get best value from them regardless of their utilization rate;
- imagine and offer, in its terminals or other infrastructures, new storage and transfer services for imported or renewable LNG, particularly with a view to its use as an onshore or maritime fuel;
- find growth opportunities internationally by highlighting the asset management and operations expertise developed over the past 50 years.

In 2017, GRTgaz, ENGIE's independent subsidiary, acquired Elengy.

1.3.7.3.2 Description of activities

- Fos Tonkin Terminal: Brought into service in 1972, Fos Tonkin is located on the Mediterranean coast and receives LNG primarily from Algeria. Its regasification capacity stands at 3 billion Gm^3 of gas per year. Its jetty can accommodate vessels carrying up to 75,000 m^3 of LNG and its tank has a total capacity of 80,000 m^3.
- Montoir-de-Bretagne Terminal: Montoir-de-Bretagne, which was brought into service 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, two docks that can accept tankers transporting up to 260,000 m^3 of LNG (Qmax) and three storage tanks with a total capacity of 360,000 m^3 of LNG. The work completed in 2017 allowed the start-up of a new, sustainable transshipment activity.
- Fos Cavaou Terminal: the Fos Cavaou terminal was brought into commercial service in 2010. It has a regasification capacity of 8.25 billion Gm^3 of gas per year, a jetty that can accommodate Qmax-size tankers, and three tanks with a total capacity of 330,000 m^3 of LNG. The terminal is owned by a dedicated subsidiary, Fosmax LNG, in which Elengy has a 72.5% stake and Total Gaz Electricité Holding France SAS has a 27.5% stake. It is operated by Elengy.
- Access to LNG terminals (principles and tariffs): 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 ruling of January 18, 2017 and have been in force since April 1, 2017.

They are significantly lower than the previous tariffs: 6.5% for Montoir, 18.2% for Fos Tonkin, and 18.6% for Fos Cavaou. These decreases are mainly due to the lower return on assets, reduced operating expenses, and higher productivity, all of which benefit the LNG terminal users.

The current tariffs apply to a basic service, i.e., the main offer of the LNG terminal operators, which can be supplemented by subscription to an option that guarantees uniform supply for 20 to 40 days.

The LNG tanker transshipment and loading services are not regulated.

1.3.7.4 Storengy

1.3.7.4.1 Role & Strategy

With Storengy and its subsidiaries, the Group is the leader in underground gas storage in Europe, with net storage capacity of 12.2 billion m^3. Against a backdrop of long-term adverse market conditions and major shakeups in the energy sector, Storengy adapts to handle the risks weighing on its core business and develop new ambitions made possible by the energy transition.

Its strategy is to:

- provide high-performance, innovative solutions to its customers by optimizing its operations in its traditional markets and by promoting regulatory frameworks adapted to the business of storage infrastructure manager;
- be a driving force in the energy transition, leveraging its sites to best serve its territories;
- develop business in growth markets: production and storage of renewable gas, solutions designed to compensate for the intermittent nature of the production of electrical renewables and geothermal power, and by creating value for its core expertise (drilling, geosciences, surface processes, risk management, etc.).

1.3.7.4.2 Description of activities

In **France**, as of December 31, 2018, the subsidiary Storengy SA was operating in France:

- 14 underground storage facilities (13 of them wholly owned). Nine of these storage facilities are in aquifers (total useful storage volume of 9 billion m^3), four are in salt caverns (total useful storage volume of 1 billion m^3), and one is in a depleted field (useful storage volume of 80 million m^3); three of these sites are in reduced operation according to precise regulatory procedures (corresponding to a total useful volume of 880 million m^3);
- 36 compressors with a total power of 186 MW, to withdraw and inject natural gas;
- surface facilities to process the gas withdrawn, before injection into the transmission network.

Underground storage facilities fall under the Mining Code and are operated pursuant to a concession granted by the French government following a public inquiry and competitive tenders. In light of the 2018 campaign, the French regulatory system governing the storage business was completely reformed. The system lays out the following major principles:

- the Multi-Year Energy Schedule defines the scope of the infrastructures that are essential to the safety of supply in the region. This scope is the regulated infrastructures;
- every year, a decree establishes the minimum subscription and fill level for storage facilities;
- the French Energy Regulation Commission (CRE) defines the authorized revenue of the storage operators;
- storage capacity are marketed via public auctions combined with a compensation system to allow reaching the authorized revenue defined by the CRE.

Following consultations initiated by the public authorities with the various actors (storage operators, natural gas suppliers in France) the CRE, in its resolution of February 22, 2018, set the parameters of the regulation. These parameters have been applied since January 1, 2018.

In **Germany**, Storengy Deutschland GmbH, a wholly owned subsidiary of Storengy, holds and operates six storage sites for a working capacity of nearly 1.7 billion m^3 (three salt sites and three depleted sites).

In the **United Kingdom**, Storengy UK Ltd, a wholly owned subsidiary of Storengy, is dedicated to the construction and marketing of storage capacity in saline cavities at Stublach, in Cheshire. The planned storage capacity at the site is 400 million m^3 of useful volume, divided into 20 cavities. Half of the capacity (10 cavities) was in operation and being sold in 2017. In 2018, Storengy UK placed five new cavities under gas.

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1.3.8 Global Energy Management

The GLobal Energy Management (GEM B manages and optimizes the Group's portfolios of physical and contractual assets (excluding gas transmission, distribution and storage infrastructures), particularly in the European market, on behalf of the BUs that hold power generation assets and of customer portfolios. It is also responsible for selling energy to national and pan-European key industrial accounts and for supplying energy to the BUs which sell it on to their customers. Lastly, it leverages its expertise in the energy-related financial markets to provide solutions to third parties.

The Global Energy Management reportable segment includes the activities the GEM BU and the Entreprises et Collectivités (E&C) entity attached to it. The partnership between the operations of "Entreprises & Collectivités" and the GEM BU is reflected in the integration of the energy management teams for BtoB customers in France. As the partnership is operational, the financial results of the "Entreprises et Collectivités" activities are reported separately from those of GEM under the "Other" segment.

KEY FIGURES

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Total change *(in %)***
Revenues	6,968	7,638	-8.8
EBITDA	240	(188)	N/A

1.3.8.1 Role & Strategy

Operating in the Group's major businesses - the decarbonization of customer offers and the digitization and decentralization of energy production - the Global Energy Management (GEM) BU is at the core of the energy value chain and manages the Group's portfolio of assets in electricity, natural gas, environmental products and other raw materials such as biomass. It is also developing a portfolio of international external customers. Finally, GEM provides the Group and third parties with various services in energy supply and logistical operations, optimization of assets in the markets, direct access to those markets, and also contributes to the understanding and organization of the markets worldwide.

1.3.8.2 Description of activities

The GEM BU's activities are as follows:

- supply and management of gas assets: management and structuring of gas supplies and related logistical support, optimization and enhancement of asset flexibilities in the market, management of capacity contracts (transmission and storage) and gas regulation;
- management and development of electricity assets: optimization and balancing of positions, enhancement of ancillary products, access to markets and proactive monitoring of regulations, management of electricity assets and development of asset management activities for third parties;
- energy supply and risk management: marketing of gas, electricity and energy services to major pan-European or national industrial accounts, internal sourcing for sales entities within the Group in the northwest Europe region;
- market access services: marketing of standard products organized around risk management and access to the energy markets in Europe, Asia Pacific and America;
- services to manage and create value for renewable assets: development of market solutions to accelerate the energy transition, decentralized production aggregator (wind/solar) and flexibility services (DSM).

The entry into force of the Vigilance Act 2018 led the GEM BU to analyze all its different supply chains and suppliers.

Since May 2018, the GEM BU has also fully adopted the new General Data Protection Regulation (GDPR), the new European Union legal framework that governs the collection and processing of data.

1.3.9 Other

The "Other" reportable segment includes the activities of the Europe Generation BU, which includes the Group's thermal power generation activities in Europe, the Tractebel BU (engineering companies specializing in the energy, hydropower, and infrastructure sectors), the GTT BU (specializing in the design of cryogenic membrane confinement systems for maritime transport and onshore and offshore storage of LNG), the contribution of the Hydrogen BU, the "Entreprises et Collectivités" activities of ENGIE SA, and the Group's holding and corporate activities, which include the entities that centralize the Group's financing requirements, and the contribution of the equity associate SUEZ.

On January 1, 2018, the French government introduced a new mode of access to storage capacities via an auction process. This new mechanism, which was introduced by the Act of December 30, 2017 ending hydrocarbon exploration and production, led to the regulation of the natural gas storage activity in France, replacing the negotiated access that prevailed until that date, and now allows all market players to subscribe to storage capacity at market value.

On May 18, 2018, the Council of State (*Conseil d'État*) ruled that the regulated natural gas sale tariffs are incompatible with EU law, which means the French government will have to progressively eliminate the regulated natural gas tariffs and the regulated electricity tariffs for the sites of large companies in order to make them compatible with the law of the European Union.

On November 1, 2018, the merger of France's two balancing areas, PEG Nord (northern Gas Exchange Point) and TRS (Trading Region South), resulted in a single balancing region (Trading Region France) for the French natural gas market, like the electricity market. This progress in the implementation of the European electricity network codes is intended to harmonize the operating rules of the forward, day-ahead, intraday and balancing markets.

The European tri-party negotiations on the "Clean Energy Package" ended on November 13, 2018, and will impact the design of the electricity markets: stronger regional coordination, increased availability of the trans-border transport capacity market, and increased demand in the markets.

The entry into force of the Vigilance Act in 2018 led the GEM BU to analyze all its different supply chains and suppliers.

Since May 2018, the GEM BU has also fully adopted the new General Data Protection Regulation (GDPR), the new European Union legal framework that governs the collection and processing of data.

On January 3, 2018, the entry into force of the new European Markets in Financial Instruments Directive (MIFID II) helped to increase transparency and the protection of customers in terms of the financial products from which they benefit.

KEY FIGURES

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Total change (in %)**
Revenues	4,498	5,445	-17.4
EBITDA	213	136	+56.6

1.3.9.1 Generation Europe

1.3.9.1.1 Role & Strategy

The market environment of BU Generation Europe is impacted by a transition towards a less carbon intensive economy. This is characterized by an ever-increasing share of renewable energy sources (RES) combined with a stable or even decreasing demand for power, which has led to over-capacity and an intensified competition on its mature markets.

However, the rise of intermittent RES triggers more generation volatility and thus both issues of security of supply for the industry and grid stability for the Transmission System Operators (TSO). For that, natural gas power plants play a key role in today's energy markets, by offering the needed flexibility. To allow the power plants to remain operational and, produce power at times of low power generation from renewable energy sources, governments are also gradually adopting various mechanisms which remunerate power generators to ensure back-up capacity (Capacity Reserve Mechanism, strategic reserve...).

In this context, BU Generation Europe wants to play that role of perfect complement to renewables and to help large industrial customers to face the challenges of the energy transition. BU Generation Europe offer power energy competitively on mature European commodity markets by bringing to market the most economically priced energy, by :

- operating and developing selectively low CO_2 emitting gas generation activities;
- developing battery storage, especially in combination with CCGTs, and where possible extend pump-storage;
- offering solutions for large industrials, for the (new) challenges they face in the energy transition;
- supporting the development of a sustainable value chain around green hydrogen.

The BU has also continued to remodel its portfolio of activities, this contributing to the ENGIE transformation plan.

1.3.9.1.2 Description of activities

BU Generation Europe is managing a portfolio of thermal generation assets with an installed capacity of 20.3 GW in 8 European countries (Belgium, The Netherlands, Germany, France, Italy, Portugal, Spain, and Greece). The installed capacity split by technology is the following: gas (15.6 GW), coal (2.9 GW), hydropower and pump storage (1.3 GW), biomass & others (0.5 GW).

Next to its power generation business, BU Generation Europe offers services to large industrial customers around energy and O&M solutions, to help them face the challenges in the energy transition, based on our strengths, proximity and our strong references.

1.3.9.2 Tractebel

1.3.9.2.1 Role & Strategy

As many other fields, the engineering business is evolving worldwide as customer needs are changing. In a very competitive environment where megafirms offer a wide range of services in more countries than before, Tractebel wants to strengthen its global consulting and engineering capabilities. Tractebel will focus on an urban future, engineering tools and integrated solutions by combining its expertise in energy, water and urban infrastructure.

1.3.9.2.2 Description of activities

Tractebel provides a full range of services throughout the life cycle of its clients' projects. Its broad range of expertise extends across Europe, Africa, Asia and Latin America, allowing it to rise to its clients' most demanding challenges with high-quality engineering and consulting services, no matter where their projects are. In 2018, Tractebel acquired Overdick and Deutsche Offshore Consulting to become a leading offshore wind player. Furthermore, it signed an agreement with Tata Consulting Services to develop new products and services protecting utilities against emerging cyber security threats. Tractebel's participation in the design of Armonia, a 100 MW microgrid in Palau, the engineering of the Mirzapur Solar Power Plant in India or its consulting services for Greater Springfield in Australia through its 360° City Scan, are some of the emblematic projects which underline the company's mission to shape the world of tomorrow.

1.3.9.3 Gaztransport & Technigaz (GTT)

1.3.9.3.1 Role & Strategy

The company specializes in systems of cryogenic, or very low temperature, membrane containment used for sea transport and onshore and offshore storage of LNG and other liquefied gases. It was formed in 1994 by the merger of Gaztransport and Technigaz.

GTT aims to:

- provide the various stakeholders in the LNG chain (shipyards, ship owners, gas companies) with containment systems designed by the company for safe and reliable bulk transportation and storage of liquefied gas;
- provide engineering, consultancy, training, maintenance assistance and execution of technical studies at every stage of the liquefied gas chain;
- and promote new outlets for LNG, contributing to the development of LNG as a shipping fuel and encouraging the transport of LNG by sea or river in small or mid-sized vessels.

1.3.9.3.2 Description of activities

Over the past 50 years, GTT has developed tried and tested technologies for sea transportation and onshore and offshore storage of LNG and other liquefied gases.

The confinement systems designed by GTT are based on its Mark and NO membrane technologies for LNG tankers and other floating units; GST for LNG onshore storage tanks. These systems make it possible to transport and store liquefied gas in bulk, safely and reliably.

GTT also provides solutions for the use of LNG as a fuel for shipping as well as a broad range of services in engineering, assistance in emergency situations, consulting, training, maintenance assistance and the performance of technical studies. In 2018, GTT won a record number of orders for LNG tankers and confirmed its entrance into the high-potential LNG fuel market.

Traded in Compartment A of the Euronext Paris market, GTT is 40.41% held by ENGIE.

1.3.9.4 ENGIE SA "Entreprises & Collectivités" activities

1.3.9.4.1 Role & Strategy

Entreprises & Collectivités (E&C) aims to be the preferred energy supplier for businesses, local authorities and condominiums (BtoB segment) in France, except for the so-called "Giants" customers, that are in the scope of the Global Energy Management BU, and for customers at the low end of the small business customer portfolio, that are in the scope of the France BtoC BU.

1.3.9.4.2 Description of activities

In 2017, E&C conducted a transformation plan organized around three key projects: an ambitious performance plan, a strong refocus on the core business of energy supply, and closer ties with the Global Energy Management BU teams responsible for wholesale supply on the markets. E&C also moved under the management scope of the BU's Chief Executive Officer while remaining independent. In 2018, E&C continued its correction by prioritizing the development of new customers, the customer experience and operational excellence.

E&C is structured into two major commercial segments (Key Accounts, covering the top end of the public and private portfolios, and Enterprises, covering diffuse and single-site customers such as condominiums and small- and medium-sized industries) and has three key differentiators: expertise (to guide its customers in a complex energy world), green energies (to help its customers move toward a low-carbon world) and customer satisfaction (to facilitate the management of its customers' energy needs on a daily basis).

1.3.9.5 BU Hydrogen

1.3.9.5.1 Role & Strategy

ENGIE's Hydrogen Business Unit (H2 BU) was launched in 2018 to reach a priority goal: devise carbon-free energy solutions based on renewable hydrogen, produced from the electrolysis of renewable electricity, to make a 100% renewable world a reality for territories.

ENGIE's strategy is to develop large scale integrated solutions to lower hydrogen production costs.

To achieve this goal, ENGIE will adopt a comprehensive and phased approach :

- develop large scale projects in the most favourable geographies with industrial clients, designing replicable offers for targeted segments such as ammonia, refineries or mines ;
- expand to a wider range and scalable uses, such as mobility, heating, power grid services or energy storage to develop multi usage H2 platforms .

1.3.9.5.2 Description of activities

Progressing Large Scale Projects

The BU develops, in a stepwise approach, large hydrogen Hubs, starting with local consumption anchored on large industrials.

A number of concrete commercial leads for large scale developments are under discussion with key players, with 3 of them that could eventually reach projects after a first phase currently reaching pre-feasibility stages.

At the same time, prospection is progressing in areas most favorable to the development of projects, in the MESCAT area, in Morocco, South of France, USA, etc.

1.3.10 Description of the Métiers

The Métiers work with the Group Strategy Department, ENGIE Research, and ENGIE Lab to develop the medium-term strategy of their various business segments and the roadmaps of their support actions in order to accelerate the growth of the BUs in their fields.

1.3.10.1 Métier Gas Chain

The Métier Gas Chain covers all activities in the gas value chain up to its supply to the Group's customers. The Métier's ambition is to promote natural gas as a driver of the energy transition worldwide, to introduce innovative solutions, and to develop new uses for natural gas.

The Métier's main activities are:

- "traditional" gas chain activity (over the different links in the value chain) in a variety of contexts in which they may or may not separate marketing activities from infrastructure activities;
- new gas activities (new products and solutions such as biogas, small-scale LNG, transported LNG, hydrogen, etc.).

1.3.10.2 Métier Centralized Production of Electricity

The Métier Centralized Production of Electricity is active in renewable and thermal power projects and in power distribution projects.

The Métier's objectives are to:

- support the development and acquisition of centralized thermal power units;
- accelerate the increase in production from renewable resources;
- develop the most innovative and competitive solutions.

1.3.10.3 Métier Decentralized Solutions for Cities and Territories

The Métier Decentralized Solutions for Cities and Territories aims to guide the Group's approach to the long-term challenges of massive urbanization and the digital revolution by:

- helping to transform new ideas into new products and services within each BU;
- promoting the sharing of best practices and knowledge management within the BUs;
- creating the Group's strategy for each activity within its particular scope.

1.3.10.4 Métier Solutions for Businesses

The Métier Solutions for Businesses comprises energy sales and services, two activities characterized by highly competitive markets that require Group entities to adapt to customers' changing needs and expectations.

The Métier promotes the creation of more local, flexible, and innovative offerings, its main role being to:

- provide the BtoB entities with a strategic approach to the market through strategic analyses, and maintain competitive and technological intelligence to monitor changes in their environments;
- guide investments and disinvestments;
- support the business activities of current Group customers and prospects by promoting existing offerings or developing new ones, forming partnerships, and so on.

1.3.10.5 Métier Solutions for Residentials and Professionals

The goal of the Métier Solutions for Residentials and Professionals is to speed up and facilitate the energy transition in the residential and small business market by offering cutting-edge solutions.

To achieve this ambition and handle the unprecedented changes that are shaking up the energy world, the Métier is building on the following three components:

- increasing ENGIE's presence by developing the customer portfolio and providing access to energy in emerging countries;
- opening up new opportunities and supporting operational excellence by increasing customer satisfaction and improving commercial performance;
- aligning skills with accountability and customer focus by facilitating the ability to develop new ideas.

1.4 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, 2018, 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 Notes 22 and 23 of Section 6.2.2 "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	670	Fuel-oil fired
Germany	Wilhelmshaven	726	Coal
	Zolling	538	Coal-, biomass-, fuel oil-fired
Saudi Arabia	Marafiq	2,744	Natural gas
	Ju'aymah	484	Natural gas
	Shedgum	484	Natural gas
	Uthmaniyah	484	Natural gas
	Riyadh PP11	1,729	Natural gas
Australia	Pelican Point	478	Natural gas
Bahrain	Al Dur	1,234	Natural gas
	Al Ezzel	954	Natural gas
	Al Hidd	929	Natural gas
Belgium	Amercœur	451	Natural gas
	Coo	1,164	Hydraulic pumping
	Doel	2,910	Nuclear
	Drogenbos	460	Natural gas
	Herdersbrug	480	Natural gas
	Tihange	3,008	Nuclear
Brazil	Cana Brava	450	Hydroelectric
	Estreito	1,087	Hydroelectric
	Jaguara	424	Hydroelectric
	Jirau	3,750	Hydroelectric
	Miranda	408	Hydroelectric
	Ita	1,450	Hydroelectric
	Jorge Lacerda	773	Coal
	Machadinho	1,140	Hydroelectric
	Salto Osòrio	1,078	Hydroelectric
	Salto Santiago	1,420	Hydroelectric
Chile	Mejillones	884	Coal-fired and natural gas
	Tocopilla	891	Natural gas, coal- and fuel oil-fired
United Arab Emirates	Fujairah F2	2,000	Natural gas
	Mirfa	1,599	Natural gas
	Shuweihat 1	1,500	Natural gas
	Shuweihat 2	1,510	Natural gas
	Taweelah	1,592	Natural gas
	Umm Al Nar	1,532	Natural gas
Spain	Cartagena	1,199	Natural gas
	Castelnou	791	Natural gas
USA	Astoria 1	575	Natural gas
	Astoria 2	575	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
Greece	Viotia	570	Natural gas
Italy	Torre Valdaliga	1,134	Natural gas
	Vado Ligure	782	Natural gas
Kuwait	Az Zour North	1,539	Natural gas
Morocco	Safi	1,250	Coal
Oman	Al-Rusail	665	Natural gas
	Barka 2	678	Natural gas
	Barka 3	744	Natural gas
	Sohar	585	Natural gas
	Sohar 2	744	Natural gas
Pakistan	Uch 1	551	Natural gas
Netherlands	Eems	1,929	Natural gas
	Flevo	841	Natural gas
	Rotterdam	731	Coal
Peru	Chilca	917	Natural gas
	ILO Nodo	600	Fuel-oil fired
	ILO 31	564	Fuel-oil fired
Puerto Rico	Ecoelectrica	507	Natural gas
Portugal	Elecgas	840	Natural gas
	Pego	576	Coal
	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	3,201	Natural gas and fuel oil-fired
Thailand	Gheco One[(2)]	660	Coal
	Glow IPP[(2)]	713	Natural gas
Turkey	Ankara Boo	763	Natural gas
	Marmara	480	Natural gas

(1) Capacity of assets held by ENGIE, all of which are taken into account irrespective of the real ownership percentage.
(2) Finalization of the disposal in March 2019

UNDERGROUND NATURAL GAS STORAGE (> 550 MM^3 OF TOTAL USEFUL STORAGE VOLUME [(1)])

Country	Location	Gross useful volume *(Mm^3)* [(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	0.8

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

1.5 Innovation, research and technologies policy

1.5.1 Innovation

In order to be a leader of the energy transition in Europe, the Group relies on innovation to meet its customers' new requirements.

ENGIE Fab is the starting point for innovation, nurturing new business from idea to implementation. ENGIE Fab is organized around three segments: Innovation & Sourcing, ENGIE New Ventures, and ENGIE New Business Factory.

The Innovation and Sourcing segment aims to position the Group at the cutting edge of developments in mature energy markets and to stimulate the convergence of energy services and information technology. It fosters the development of new models for growth and the exercise of the Group's business lines. A number of tools and processes have been deployed to foster entrepreneurial creativity and ensure that innovation promotes the Group's long-term commercial development. The innov@ENGIE collaborative platform, designed for ENGIE employees, aims to foster innovation within the Group and promote collaborative innovation among employees. On December 31, 2018, innov@ENGIE had over 22,500 members and nearly 800 innovation ideas had been proposed.

The platform builds on existing approaches, particularly the Innovation Awards, an annual in-house competition that recognizes innovative projects put forward by the Group's employees. The 2018 edition of the Innovation Awards received 530 submissions from 36 countries.

To strengthen its links with the innovation ecosystem of its host regions, the Group partners with major innovation-themed events. In 2018, ENGIE participated in the Consumer Electronics Show (CES) in Las Vegas and in the Viva Technology trade show in Paris. In May 2018, ENGIE's "Innovation Week" saw the organization of around 130 events, bringing together thousands of participants, including Group employees, customers, startups and entrepreneurs from 25 countries.

Since 2014, ENGIE has launched more than 90 calls for projects aimed at startups. More than 2,650 proposals were received in response to the technological or commercial needs of the Group's operating entities.

The investment fund ENGIE New Ventures has been helping innovative startups since 2014, in order to create opportunities for ENGIE. With €166 million in funds, it aims to acquire (minority) stakes in startups under development that have a connection to the Group's activities, offering them both financial and operational assistance. It also invests in other funds (e.g. in the Paris Fonds Vert fund in 2018).

At December 31, 2018, the ENGIE New Ventures portfolio had 18 direct investments. The most recent of these include investments in Unabiz (Singapore – IoT applications and objects), HomeBiogas (Israel – biogas production from organic household waste), and Redaptive (USA – energy efficiency).

ENGIE New Business Factory was created in mid-2018 with the aim of incubating and accelerating new businesses every year, in order to produce solutions with the potential to become major new income streams for ENGIE ("scalutions", or scalable solutions). Three initial ideas have been identified and are under development: DERMS (energy management systems), TEO (blockchain solution for the authentication of renewable energy), and A2E (renewable cooking gas).

1.5.2 Research & Technologies

In a time of energy transition, research and technological development activities lay the groundwork for the Group's future by strengthening its ability to identify, evaluate and test new technologies and business models to validate safe and efficient solutions that will be integrated into the offerings of tomorrow. R&D also helps the continuous improvement of operational performance.

These activities, which rely on partnerships with globally recognized organizations (e.g., laboratories, universities, manufacturers and startups), help to integrate the Group within a powerful R&D and innovation ecosystem. This raises its profile in the industry and boosts its growth in the markets.

In 2018, Group expenditures on research and technological development amounted to €182 million.

The Research & Technologies network, which is led and managed *ENGIE Research* comprises 900 employees. It includes all Group entities conducting research specific to their fields of activity:

- research centers:
  - the ENGIE CRIGEN Lab (specializing in research and innovation in natural gas and new energies),
  - the ENGIE Laborelec Lab (center of excellence specializing in electric power technology research),
  - the ENGIE Cylergie Lab (energy efficiency services and smart energy management).

  These Labs are supplemented by international satellites connecting the Group to highly active local research ecosystems. In 2018, ENGIE Research expanded its global footprint. In addition to the Labs in Singapore (APAC), Abu Dhabi (Middle East) and Santiago (LATAM), two new Labs were created: the China Lab in Shanghai and the Brazil Lab in Florianópolis;
- centers of expertise and engineering: the Center of Expertise in Economic Modeling and Studies (CEEME), the Nuclear Development Department, the ENGIE EPS R&D Center (a recent acquisition that expands the Group's R&D capacities), and ENGIE Tractebel;
- BUs and subsidiaries that conduct additional research to support their activities, such as the France BtoB business unit, GRTgaz, GRDF, Storengy (GeoEnergyl Lab), Compagnie Nationale du Rhône (CNR), and Gaz Transport & Technigaz (GTT).

Cross-disciplinary expertise spread across various research and technological development entities around the world is grouped into 22 thematic Labs corresponding to the Group's major research areas related to its business challenges: new energy sources, new energy uses, digital and support technologies.

Below is a list of some of the most notable research work carried out in 2018 by these Labs:

- new energy sources:
  - new biogas production technologies: continued R&D work on all sectors working on green gases that can be injected into the networks, with research clearly differentiated according to the maturity of the various sectors, including incremental innovations (e.g., new biogas purification technologies), performance optimization through the implementation of digital technologies, and industrialization of new sectors by dramatically reducing production costs. ENGIE is also coordinating a European project on behalf of the European Gas Research Group (GERG) to assess the impact of biomethane trace compounds on gas infrastructure and end uses,
  - hydrogen energy sector: continued assessment of high-temperature electrolyzer technologies, primarily with the Atomic Energy Commission, and development of a solar hydrogen production prototype in collaboration with a US startup. The Group also launched the MéthyCentre project in France to produce synthetic methane from CO_2 recovered from anaerobic digestion and electrolysis-produced hydrogen. With regard to hydrogen uses, the first tests have begun of a prototype reversible fuel cell combined with hydrogen and battery storage, designed for use in zero-energy buildings (micro-CHP). Finally, the Group commissioned the GHRYD power-to-gas demonstrator in Dunkirk (France) to test the technical and economic feasibility of injecting renewable hydrogen into natural gas distribution networks,
  - liquefaction: the first successful tests on bio-LNG production technology (LiLiBox solution) which then entered the industrialization phase; the LNG innovation prize awarded to the Optiretail digital solution (which reduces LNG transport and distribution costs) at the 2018 World Gas Conference in Washington DC (USA),
  - solar energy: the launch in June 2018 of a demonstrator that generates power from organic photovoltaic films that were installed on the steel façade and integrated into the glass of an ENGIE Fabricom building in Zwijnaarde (Belgium); further testing of antifouling systems integrated into photovoltaic modules and robots that can clean PV panels,
  - wind and marine energy: set-up of a pilot project (100 kW) in France based on airborne wind technology, which includes the development of a first 30-kW prototype that will then be assessed for potential use in Belgium; analysis of the interaction between radars and wind turbines,
  - geothermal energy: development of an innovative method of detecting geothermal steam for power generation, successfully tested in Muara Laboh (Indonesia); launch of a zero-emission geothermal plant pilot project in Castel Nuovo (Italy) that includes the reinjection of non-condensable gases;
- new energy uses:
  - energy management in the future homes of tomorrow: consolidation of the results produced by a peer-to-peer community energy platform demonstrator involving 70 homes; further assessment of the potential for an energy retrofit of individual homes (in collaboration with the Energyville R&D center in Belgium and KU Leuven),
  - energy efficiency of sustainable buildings and cities: development, in partnership with French startup Boostheat, of an innovative natural gas heat pump technology using CO_2; the implementation of a tool to track renovation work and building management services using a blockchain approach; and the development of a BIM pilot project (testing of eight technologies for scanning existing buildings, testing of different software, and management of dynamic data generated by the pilot project),
  - green mobility: continued development and assessment of smart charging technology; implementation of the smart parking concept; planning for changes in urban mobility with autonomous vehicles. In the field of natural gas mobility, research continued on gas storage technology, and on improving the profitability of natural gas stations and the quality of biomethane for road transport,
  - future industry: completion of the first proofs of concept implementing digital simulations of thermal, mixed-reality and digital twin systems applied to combustion systems for Industry 4.0. The Group also commissioned an industrial-scale system that will use natural biopolymers to treat regasification water (Elengy Terminal, Fos-sur-Mer, France),
  - energy storage: continued assessment and testing of batteries from different suppliers, with a particular focus on safety, assessment of second-life batteries and how they age, and the development of machine learning algorithms to predict capacity loss,
  - microgrids: assessment of the technological building blocks needed to develop microgrids (converters, inverters, generators, etc.) and the development of simulators to identify the best solution for moving forward with the Renewable Energy Integration Demonstration-Singapore (REIDS) project for multi-fluid and multi-energy island microgrids in Singapore,
  - indoor air quality: implementation of a protocol for monitoring air quality and comfort in commercial buildings undergoing renovation; roll-out of an offering that meets indoor air quality standards in schools and nurseries; development of technology that will continuously measure trichloramine in the air of public swimming pool facilities; air quality audits in commercial buildings (or specific-use buildings); testing of new connected air quality sensors,
  - lighting: development of a service to assess public lighting infrastructure including the monitoring of lighting levels; the identification of the number of lighting points; the locating of defective lighting points,
  - CO_2 emissions and use: identification of the most relevant CO_2 capture and recovery technologies for different types of industry (cement works, refineries, etc.) and active involvement in the CO_2 Value Europe association with a particular focus on the conversion of CO_2 into fuel,
  - environmental and societal impacts: continued development of methodologies and services for assessing the environmental and economic performance of industrial ecology projects or various renewable energy sectors; assessment of the environmental consequences of rolling out green gas networks at the regional level;

- digital, cross-functional and disruptive technologies:
  - artificial intelligence (AI): continued development of algorithms and models, for example for BtoT (business to territory) customers (road traffic optimization, etc.), to improve the performance of industrial assets (e.g., detection of defects on wind turbines, etc.) or for facilities management for BtoB customers (recognition of objects in indoor spaces, etc.); development of several blockchain applications in the energy sector; development of platforms for energy communities and microgrids (development of an energy management system for the REIDS pilot in Singapore),
  - cyber security: development of an integrated approach to safeguard energy-community and microgrid systems,
  - communicating sensors and nanotechnologies: continued development of new miniaturized connected sensors such as micro-analyzers for measuring the calorific value of gas; testing in Brazil of an autonomous sensor infrastructure to detect geological sources of natural hydrogen; prototyping of autonomous, blockchain-ready counting sensors for Guarantee of Origin certificates; production launch of connected ATEX sensors to monitor biogas facilities; or the development of a fall-detection service for the elderly that can be integrated into an e-health offering,
  - robots and drones: in 2018, priority was given to developing solutions for site monitoring and anomaly detection in the Group's infrastructures, including the development of autonomous robotic platforms, computer tools to detect, locate and analyze defects (in wind turbines, solar panels, heating networks, engineered structures, etc.), and indoor or subsea inspection offerings; and long-term assignments conducted to monitor gas infrastructures,
  - Energu system modeling: continued work on optimizing multi-fluid energy systems (energy-mobility, multi-fluid energy districts, road map for decarbonization and rural electrification); development of simulation and optimization tools for integrating available flexibility into a building’s electrical systems,
  - 3D printing: testing of the fatigue strength of 3D-printed metal parts.

The expertise developed by these thematic Labs in close collaboration with the BUs and leading external partners allows new technologies to be brought to maturity and the integration of the best of them into new high value-added offerings for our customers.

2

Risk factors and control

The material risks to which the Group is exposed, based on its own assessment, are described below. 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 BUs and Corporate Functions. These Chief Risk Officers assess the BU'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 4.1.1.2.3 "Standing 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 feedback from 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

ENGIE may have to face crisis situations. The Group has defined a crisis management policy, which sets out the general principles and the roles of the various participants, and has set up a dedicated organization.

The Group is thus equipped with a warning, analysis and decision-making system to manage crises at the relevant organizational level.

The effectiveness of the system is regularly assessed by means of internal controls and appropriate exercises.

2.1.3 Risk and insurance coverage

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 0.14% of the Group's 2018 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 power plants in Doel and Tihange (Belgium), Electrabel's civil liability is governed by the Paris and Brussels Conventions, 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) and a Royal Decree dated December 2, 2018.

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 and limited in time to a period of 10 years. This period was increased to 30 years by the amended Law of June 29, 2014, and reduced again to 10 years by the Law of December 7, 2016. The signatory countries to the conventions also created a mechanism that provides additional compensation beyond the maximum amount.

The nuclear civil liability insurance program taken out by Electrabel complies with the Belgian national law requiring the operator to provide financial guarantees or to take out civil liability insurance up to €1.2 billion. Insufficient capacity in the insurance markets, however, resulted in a shortfall of up to €891 million. This only affected the liability extended by the Law of June 29, 2014, and only for nuclear accidents that allegedly occurred between January 1, 2016, and December 24, 2016, when the Law of December 7, 2016 came into force.

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 Risks related to the external environment

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 policy also helps to deal with strategic developments (see Section 1.5.1 "Innovation" and 1.5.2 "Research & Technologies").

2.2.1 Economic and competitive environment

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 Sections 1.1.4 and 1.1.7).

After several years in decline, European commodities prices have begun to climb again. Their regular fluctuations have created uncertainty regarding some of the Group's assets.

The weak growth in natural gas demand could result in overcapacity in the gas infrastructure.

With regard to service-related activities, competition remains strong and weighs on margins.

In its different businesses, the Group competes with players with increasingly diverse profiles, both in terms of size – with major international players and local emerging players – and sectors. The decentralization of systems due to energy transition has lowered the entry barriers to some activities (photovoltaic power, services), allowing smaller players to compete with the Group.

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.

In response to these uncertainties and changes:

- In the short term, the Group is rationalizing its generation fleet, managing market risk (see Section 2.5.1 "Commodities market risk"), adapting its asset portfolio and keeping an active watch on the changes taking shape; the Group has also started to significantly reduce its merchant exposure;
- In the medium term, the Group is getting ready to offer a new energy market model and is campaigning for a higher CO_2 price on the European market. It is also taking action in Europe and France to propose a change to the gas market through the development of biogas and, in Belgium, to create the conditions required to operate nuclear power plants under favorable economic conditions. It is also transforming its business model (see Sections 1.1.4 and 1.1.5).

2.2.2 Regulatory and political environment

The legal and regulatory landscape for the Group's businesses is changing, both in terms of environmental and social issues and energy sector regulation.

2.2.2.1 Environmental and social legislation

The Group's businesses are subject to a host of laws and regulations that address environmental protection issues, promote energy systems with zero or low greenhouse gas emissions, reduce energy consumption, protect health and the biosphere, and impose safety standards. The legislative bills and regulatory texts mentioned below, or others yet to come, could impact the Group's strategy and results:

Internationally:

Following the adoption of the Paris Agreement, the world's first universal climate change agreement, at the COP21 in December 2015, the COP22, COP23 and COP24 began to draw up the road map for the signatory States. Although much work remains to be done to finalize the arrangements to implement the agreement by 2020, the 1.5°C report produced by the IPCC (Intergovernmental Panel on Climate Change) demonstrates that there can no longer be any doubt as to the need to accelerate national CO_2 emissions policies. The Group is actively preparing for this.

In Europe:

- Europe's 2030 climate and energy policy (the "Energy Union") promotes energy efficiency, CO_2 emission reductions, and an increase in the percentage of renewable energies in the energy mix;
- Changes in European and national regulations on CO_2 allowances and prices have affected the CO_2 market in Europe and have consequences for the relative competitiveness of natural gas and coal power generation. On the European front, the 2018 agreement on the post-2020 reform of the EU Emissions Trading System resulted in higher CO_2 prices, which remain volatile;

In France:

- As part of the French law on the energy transition for green growth, the Programmation Pluriannuelle de l'Énergie (PPE, or Multi-Year Energy Program), published in October 2016, reaffirmed its two priorities of decreasing the CO_2 footprint and developing renewable energy sources. The Group continues to pay close attention to measures aimed at achieving these objectives, particularly support mechanisms for renewable energy, competitive tendering for hydropower concessions, and measures to combat fuel poverty. The SNBC (Stratégie Nationale Bas-Carbone or National Low-Carbon Strategy) and its implementation in the form of a PPE is expected to be updated by the public authorities in 2019. Decisions made regarding the energy mix could materially influence market share in natural gas;
- The fourth obligation period under France's energy saving certificates scheme (Certificats d'Économie d'Énergie or CEE), which runs from January 1, 2018, to December 31, 2020, will significantly increase ENGIE's obligations compared to the previous period. The scarcity of CEEs, lower flat rates and more stringent requirements resulted in an increase in CEE prices in 2018. This is expected to continue and could impact the Group's margins;
- The future thermal regulation, depending on how it addresses the CO_2 footprint of new buildings, could give a boost to electric heating, to the detriment of gas;
- The law on restoring biodiversity, nature and landscapes in France has introduced the principle of "Avoid, Reduce, Offset" to the environmental code. This principle has also been applied to the regulations of other countries. It also introduces the principle of environmental prejudice. The biodiversity plan, published on July 4, 2018, has supported the implementation of this law and accelerated the implementation of the National Biodiversity Strategy (2020 objective). These laws have tightened environmental constraints on projects in France but are effectively a driver of innovation for the implementation of solutions that preserve nature.

The increasing implementation of "soft law" across the world requires the Group to analyze its activities through an additional lens, and to better incorporate the input and expectations of stakeholders.

The Group is shifting its strategy and rationalizing its generation fleet and its project portfolio so that it can take advantage of opportunities, and is working to limit all of these risks, principally as part of a proactive environmental and social policy (see Section 3.5 "Environmental information"). In 2015, the Group decided not to launch any new developments in coal. In January 2018, it sold its stake in the Loy Yang B coal-fired power plant in Australia, and is in the process of selling its stake in Glow in Thailand and the coal assets it owns in Germany and the Netherlands, thus reducing risks related to coal activities.

2.2.2.2 Sector regulations

In Europe and in some other regions including the United States, Asia Pacific, Mexico and Brazil, public authorities intervene in the energy sector through regulation and the extension of regulatory powers in the area of competition. These measures can take the form of increased taxation on energy company profits, the withdrawal of funds established for the decommissioning of nuclear power plants, 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, and the move towards the remunicipalization of certain utilities.

Some regulatory changes may alter the risk profile of the Group and impact its earnings and its business model:

In Europe:

- The Juncker Commission launched the Clean Energy Package, a wide-ranging series of laws implementing its "Energy Union" project, as well as the Clean Mobility Package for sustainable mobility. Some developments are positive, because they introduce greater visibility, such as the formalization of an energy and climate framework for 2030 based on targets for the development of renewables and energy efficiency, a stronger carbon market, and the redesign of the electricity market model (see below, Section 2.2.2.1). Others could have more negative effects on the Group's businesses, for example the trend towards electrification, particularly in building and transport. In the final phase of negotiations on the architecture of the new electricity market, the Group is paying particular attention to the framework that will enable coordinated development of national capacity markets in a legally secure environment, to the future rules on ownership of electricity storage assets, and to the impact of future European standards on changes in regulated electricity tariffs. It is also focused on ensuring that gas solutions (LNG, NGV and hydrogen) are included in the range of alternative fuels promoted by the Clean Mobility Package;
- The implementation of common rules for the European internal electricity and gas markets (including the electricity and gas network codes) is intended to complete the creation of a real internal energy market. These changes, which are necessary but will not be enough to adapt the market to the energy transition, could facilitate the emergence of price signals enabling the various sources of flexibility (production, demand, storage) to be valued in the market;
- The guidelines for state aids for energy and the environment, published in 2014, have impacted the Group's activities, in particular support mechanisms for renewable energy sources (to gradually integrate them into the market) and energy efficiency, infrastructure financing, environmental tax exemptions and exemptions from the costs linked to the financing of renewables (preferential rates for manufacturers) and capacity payment mechanisms.

In France:

- A portion of the Group's sales are made in the context of regulated tariffs. French laws and rules and European regulations, and decisions by regulators (in particular, the French Energy Regulation Commission (CRE) with regard to decisions on tariffs for access to certain infrastructures) may affect the Group's revenue, profits or profitability, in the event of the partial pass-through of supply, infrastructure and commercial costs to natural gas selling prices or the partial pass-through of costs from gas infrastructure access tariffs or the sales of electricity generated from renewable energy.
- The regulation of underground natural gas storage facilities that came into force on January 1, 2018, has ensured greater stability in the associated revenues. However, the scope of the regulated assets has yet to be defined as part of the annual revision of the PPE.
- The opening up of the electricity market to suppliers other than the traditional operator, aside from the opening obtained for very large customers, is still limited and could be jeopardized by the emergence of price cuts arising from regulated tariffs that remain and compete with commercial offerings.
- The decision by the French Council of State (Conseil d'État) on July 19, 2017, which paves the way for the removal of regulated tariffs for gas sale to individuals without removing as well the regulated tariffs for electricity sale , may negatively affect the Group's market share in France. The decision by the French Council of State on May 18, 2018, heralds the end of regulated tariffs for electricity sale to some professional customers. The government has undertaken to legislate on gas and electricity tariffs via the PACTE law, which was submitted to the National Assembly in October 2018 and is scheduled for submission to the Senate in early 2019.

In Belgium:

- The government has been working on drawing up an "energy pact" with the aim of defining the key strategic objectives of the future energy and sustainable development policy adopted at the end of March 2018. It still aims to do away with nuclear power by 2025, as long as certain criteria are met: security of supply, climate change targets, competitive prices for manufacturers and nuclear safety. A monitoring committee will be set up to assess compliance with these criteria. Following the pact, the Group could be subject in the medium term to new regulations, such as those defining the power generation mix to be achieved by 2050, and/or new obligations imposed on gas and electricity suppliers in order to achieve the goals of the energy pact. The pact will also provide opportunities for the Group, particularly in the services area.
- The bill on the implementation of a capacity remuneration mechanism (CRM), which objective is to ensure security of supply, i.e. sufficient power production capacity to allow for the phase-out of nuclear power by 2025, is expected to be put to a vote before the next federal elections in May 2019.
- The decision to extend the operating life of the nuclear power unit Tihange 1 to 50 years took effect on October 1, 2015, with a program of associated works that will continue until early 2020 (see Notes 10 and 14 of Section 6.2.2 "Notes to consolidated financial statements"). The Belgian government's decision to extend the date of shutdown of the Doel 1 and 2 nuclear power units after 50 years, which was confirmed by parliamentary vote at the end of 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 will be in place early 2020. Legal proceedings brought by environmental organizations before 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 are still ongoing, and there is a risk that this law may be annulled (See Note 28 of Section 6.2.2 "Notes to consolidated financial statements").

- Compliance with the seismic standards recommended by the European Nuclear Security Regulators Association could be transposed into Belgian law and lead to additional investment, hurting Electrabel's bottom line.
- The operation of nuclear power plants is regulated in part by radioactive waste authorizations. The Group therefore reduces its radioactive liquid and gaseous effluent waste as much as possible, while controlling the volume of low and medium level radioactive waste. 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. This proposal has yet to be approved by the Belgian government.
- 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 Synatom to propose a solution 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 Consolidated financial statements".

In the rest of the world:

- Price control mechanisms also exist in countries other than France, specifically Belgium, Italy, Romania, Brazil and Mexico, for energy generation, distribution and sales, which may potentially impact the Group's results.
- In Brazil, the Group is exposed to changes in the regulation of electricity markets, such as subsidy reductions;
- Changes in energy market regulations in the United States could impact the Group's activities and development in this region;
- In Mexico and the Asia-Pacific region, deregulation of the energy markets or tariff changes could jeopardize the maintenance or renewal of certain power sales agreements or affect their profitability, leading to greater uncertainty over results.

Through its presence in the EU and Member State institutions, the Group tries to anticipate any legislation likely to affect it, 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. However, some regulatory developments offer new opportunities for the Group's activities.

2.2.2.3 Social responsibility

In order to carry out its activities, the Group must hold various permits and authorizations. Dealing with the regulatory authorities concerned to obtain or renew these can involve long and costly procedures. The Group may face opposition from the local population or associations during the installation or operation of certain equipment, or in relation to protests against energy prices.

The Group therefore carries out broad consultation processes prior to the start of its projects, forges partnerships with civil society and ensures that its activities have a positive economic impact, in line with community expectations (see Section 3.6 "Societal information").

France's law of March 27, 2017 on the duty of vigilance of parent and ordering companies extends the scope of the Group's legal responsibilities and thus the list of potential areas that could be subject to non-compliance, which could impact the Group's reputation (see Section 4.3 "Vigilance plan").

2.2.2.4 Country risk

The Group is present, operates 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 changes in regulation, sovereign default, convertibility, expropriation, corruption, acts of war or terrorism, and the extra-territorial effects of some legislation. Moreover, in the event of a dispute with national governments or other local public entities, the Group might be unable to defend its rights in certain countries due to a lack of independence of local courts.

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 Group's decentralized organization means that the Business Units are responsible for their own income statements and investments. Each Business Unit is overseen by a Group Executive Vice President who is a member of the Executive Committee. This organization enables the Group to closely manage political and regulatory changes in each country in which it operates, while ensuring that country risk is taken into account at the appropriate level.

- 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 2.3.2). On October 31, 2017, 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 2.3.2. 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 II. On these grounds, ENGIE's contractual financing commitments, signed before August 2 2017, have been fulfilled. However, if the Nord Stream II project were to become subject to sanctions, these could impact the project contractors (but alternative solutions exist), ENGIE's future investments (to which a "drawstop" would then be applied, like other European companies, in order to avoid sanctions, and Gazprom would have to continue to fund the project alone) or investments already made, obliging ENGIE to withdraw from its financing agreements. This last scenario seems unlikely. The Group is mobilizing all its resources to reduce this risk.

- In Europe, an orderly Brexit is expected to have a limited impact on the Group's activities. Uncertainties about the ability of the UK government and the European authorities to reach a political agreement and the possibility of a “no-deal” Brexit are being monitored in order to identify the legal issues that could affect the Group's activities in the United Kingdom and those of entities with links to the UK BU. The consequences of a “no deal” Brexit on gas and electricity trading, the functioning of the European carbon market, the continuity of contracts and the HR process, in particular, will have to be defined on the basis of how the negotiations play out and if an agreement is reached or not between the UK and the European Union
- The UK’s withdrawal from the Euratom treaty is not likely to have a significant effect on ENGIE, as the Group has withdrawn from the NuGen project, Group subsidiaries with activities in the UK nuclear sector are based in the UK with UK staff, and measures have already been taken by Synatom in relation to nuclear fuel.

2.2.3 Impact of climate

Information presented in this section and in Section 3.5.4.1 “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 the components of its activity.

In the short term, climate phenomena (e.g., temperature variation, flooding, wind, drought) affect energy generation and demand. They have a direct effect on the Group’s results.

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.

In the longer term, climate change could have a bigger impact on the Group’s activities, for example through changes in regional or seasonal energy demand, the obligation to reduce CO_2 equivalent emissions, conflicts over water use, and the preservation of natural carbon sinks, etc.

To manage this risk, 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 2020 targets for greenhouse gas emissions and renewable energy (see Section 3.5 “Environmental information”) The expansion of its renewable energy fleet and the development of service offerings are the main drivers of ENGIE’s energy transition strategy. For the longer term, ENGIE made the decision at the end of 2017 to pursue a trajectory compatible with the goal of limiting the global temperature increase to 2°C, by reducing its direct emissions by 85% by 2050 and developing the substitution of natural gas by renewable gas;
- The Group is gradually developing adaptation plans to prepare for an increase in extreme weather events (see Section 3.5 “Environmental information”);
- 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 Disclosures) and is now reviewing the implementation of its recommendations.

2.2.4 Reputational risk

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.

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 2.3 “Operational risks” and Section 2.4 “Industrial risks”) and smear campaigns that could affect its reputation.

The Group relies on an external monitoring agency to record disputes, including those on social networks, where its name is mentioned, in order to identify and deal with any problems at source.

The Group takes its environmental and societal responsibilities seriously; It decided to close the Hazelwood coal-fired power plant in Australia at the end of March 2017 and manages its nuclear activities without compromise in terms of safety.

2.3 Operational risks

2.3.1 Purchases and sales

2.3.1.1 Purchase and sale of natural gas

The Group has established a procurement portfolio composed, in part, of long-term contracts, including some with a take-or-pay clause which, under certain conditions, stipulates that minimum quantities will be taken during a period.

In case of major gas supply interruption (for example, due to the interruption of Russian deliveries or an interruption to transit in Ukraine) or difficulty in renewing certain contracts under favorable economic conditions, the replacement cost for gas, including transportation, could be higher and affect the Group's margins. To mitigate this risk, the Group has a number of tools for flexibility and modulation (flexibility in long-term contracts, storage and regasification capacity, and purchasing in the marketplaces) as well as a diversified portfolio.

Prices of long-term purchase contracts may be decorrelated from selling prices or prices in the gas markets (mainly due to transmission costs). This spread might have a significant impact on the Group's results. Long-term contracts include price adjustment clauses, so that the economic balance between producer and buyer can be adjusted. The Group's buy/sell margin may therefore change according to price adjustments in gas contracts and the state of the gas market in general.

Negotiations in recent years have led to the integration of market indices in long-term contracts and/or to the reduction of the difference between contract prices and market prices. They have also led to increased frequency of price revisions.

2.3.1.2 Purchase and sale of electricity

The Group is an electricity producer with a major presence in Europe and Brazil, where the profitability of its assets is linked mainly to prices in electricity markets. The economic climate or decisions by some states regarding the electricity sector may lead to volatility in electricity prices, which may have an impact on Group earnings.

The Group may also have to buy power to supply its customers, for example to cover any temporary non-availability of its facilities. These purchases are optimized but could generate extra supply costs.

The Group monitors changes in its risk exposure and makes decisions accordingly (see Section 2.5.1 "Commodities market risk").

2.3.1.3 Operational risks related to the purchase and sale of energy

In its portfolio optimization activities for physical assets (power plants), long-term contracts and customers, as well as in managing the associated financial positions, the Group is exposed to operational risks such as fraud, execution error, and process and system failure. If they were to materialize, these risks would likely result in both economic and reputational consequences for the Company. Operations are monitored via appropriate processes, and risks are taken into account as part of the Group's internal control program, known as "INCOME". In addition, a specific system for increased monitoring of operational risks has been set up in some of the Group's entities, with the aim of recording incidents, analyzing their primary causes and establishing appropriate mitigation plans.

2.3.1.4 Purchase risks and supply chain risks (excluding energy)

The main task of ENGIE's Purchasing function is to offer operational managers a panel of competitive, distinctive suppliers and to negotiate with them and monitor contracts. This relationship with suppliers enables ENGIE's business to be developed while maintaining compliance with the Group's commitments and managing the risks of the entire supply chain.

The management of purchasing risk replicates the structure of the purchasing function:

- Risks relating to the Group's key suppliers (called "preferential" suppliers) are managed cross-functionally in the Group's Strategic Sourcing & Supply Department by the Category Manager in charge of his or her category. He or she carries out a full analysis of all the different supply chain risks (technical, industrial, financial, ethical, health and safety, environmental, human rights, etc.). Suppliers are classified and selected according to their exposure to these risks weighted for country risk. Contracts with these suppliers include specific clauses according to the risk criteria encountered, which may result in penalty systems in the event of non-fulfillment. Lastly, the performance delivered by suppliers is measured periodically as part of business reviews, and the associated improvement plans are reviewed by the Category Manager.
- Risks related to the major suppliers of each BU are managed by the Chief Procurement Officers (CPOs) of each BU, who adapt their mitigation plans according to the specific requirements of their BU (activities, local legislation, etc.). This management of the BU's purchasing risk is incorporated into its ERM system.
- More generally, the Purchasing chain's main risks, which are managed at the Group level, are:
  - Operational or contractual breaches by our suppliers,
  - The loss of sensitive Group data entrusted to our suppliers,
  - Failure to comply with the commitments of a socially responsible company (SRC), particularly in the areas of health and safety, human rights and the environment (all of which are part of the duty of vigilance prevention plan),
  - Late payment by ENGIE of supplier invoices.

Lastly, in industrial projects, risk management covers the purchasing chain, suppliers and subcontractors.

2.3.2 Management of assets and development

2.3.2.1 Optimization of the asset and investment portfolio

For the purposes of external expansion, especially by means of acquisitions, the Group may issue equity securities or have recourse to borrowing. Acquisitions present risks related to integration difficulties and failure to achieve expected benefits and synergies. Risks related to the valuation of assets or liabilities or non-achievement of expected results could arise at the end of the acquisition process, resulting in provisions for asset impairment. The Group also sells assets for which it may be obliged to provide certain liability guarantees (see Note 17.1.5 to the financial parent company statements).

The processes implemented by the Group for analyzing, auditing (especially during due diligence) and structuring risks during a planned acquisition are designed to provide a more accurate assessment of the uncertainties that arise in such cases and to propose mechanisms to protect against the risks identified. The resulting risk allocation depends on the quality of the information transmitted to the Group and is limited by the legal and regulatory framework applicable under local corporate law, and the outcome of the negotiation process.

With regard to integration, the Group has set up a dedicated team to develop a suitable methodology and to support BUs through the process.

2.3.2.2 Risks related to development and major projects

The Group bases its growth on various industrial construction projects, such as gas or electricity infrastructure for production or transportation, of which it is the owner. These projects include some major projects, such as thermal power plants (Fadhili in Saudi Arabia, Safi in Morocco, Pampa Sul in Brazil, IEM Red Dragon in Chile), off-shore wind farms (Tréport and Noirmoutiers in France, Moray in the United Kingdom) and gas infrastructures (Stublach gas storage in the United Kingdom, in particular) and a majority of medium-to-small projects (renewable energy [KATHU solar park in Africa and wind projects, particularly in Brazil and Egypt] and local heating or cooling networks). 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 responsible for the facility design and construction phases of some projects. Although these projects are always subject to in-depth studies and the Group has acknowledged expertise, construction deadlines may not always be met, resulting in penalties, 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 or criminal liability. This could have a negative impact on the Group's image, financial position, or earnings.

The Group has strengthened the operational monitoring and oversight of projects and has put in place a program to monitor the portfolio of large-scale projects at Group level, in order to provide the warnings needed to launch corrective actions. A policy governing supervision of project construction and joint project management methods have reinforced existing mechanisms within the entities executing industrial projects. In addition, training focused on project risk management has been developed for all project managers and developers.

Furthermore, the implementation of contract management measures enables part of these risks to be mitigated, including by compensation mechanisms. Insurance underwriting allows for insured losses to be indemnified and also improves prevention.

2.3.2.3 Risks relating to partnerships and minority investments

Partnerships and acquisitions of equity stakes 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 more appropriately to the specific context of local markets (see Note 4 to Section 6.2.2 "Notes to consolidated financial statements"). The Group strives as much as possible 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.

To address these situations, the Group may establish contractual provisions to resolve impasses within partnerships (deadlock resolutions), exit clauses and, in the event of disputes with the partner(s), litigation resolution clauses.

2.3.3 Legal risks

The Group manages its activities carefully, including their legal aspects. In order to limit the legal risks inherent in any commercial activity, the Group monitors the legal and regulatory framework, its operating activities, partnerships, acquisitions and contracts concluded with third parties, in particular through the presence of legal departments, both at the parent company level and in each BU.

However, the Group may find itself having to deal with disputes, investigations and/or legal proceedings. The most significant of these are described in Note 28 of Section 6.2.2 "Notes to consolidated financial statements". To the Company's knowledge, no other administrative, legal or arbitration proceedings (including proceedings that have been postponed or threatened[(1)]) exists that is likely to have, or has had, material impact on the financial position or profitability of the Group in the past 12 months.

(1) This term refers to investigations or audits underway

2.3.4 Ethical risks

The main risks identified are: corruption, violations of human rights, non compliance to competition and/or embargo rules, fraud and breaches of personal data. Any breach of the ethical principles of the Group could constitute a legal and reputational risk (see Note 28 of Section 6.2.2 "Notes to consolidated financial statements").

In order to prevent as far as possible these risks from materializing, ethical compliance policies and procedures are deployed throughout the entire Group and they are applicable in all our controlled entities. The Ethics, Compliance and Privacy Department promotes their implementation within the Group, relying on the management line and the Ethics & Compliance Officers and Data Protection Managers networks. Those policies and procedures are instrumental in the compliance to new Sapin II laws and Duty of Vigilance as well as to the European Regulation n°2016/679 on the protection of personal data.

Ethical risks are analyzed annually and action plans are implemented if necessary. Moreover, risks relating to corruption and human rights are specifically assessed as part of the Group's risk analysis process (see Section 4.2 "Ethics, Compliance and Privacy").

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.

2.3.5 Risks related to human resources

In the context of its ambitious transformation plan (new businesses, digitization, etc.) the Group could encounter difficulties in ensuring that it has the right skills to support its development and to unite employees around its business plan.

The skill risk relates as much to quality (adaptation of skills to new activities) as to skills volumes (shortage in the labor market).

The transformation plan could also undermine employee engagement, resulting in individual or collective attitudes that are not aligned with the behaviors required for the transformation or to at-risk situations regarding occupational well-being.

2.3.5.1 Workforce competencies

Developing the employability of its workforce is one of the Group's main HR priorities.

Pursuing the commitments made in the European Social Agreement, which it signed on April 8, 2016, ENGIE is providing HR support for the transformation in three key ways: anticipating the skills needed and managing changes in the Group's jobs (ENGIE Skills prospective approach), stimulating the internal labor market (ENGIE Mobility) and training (ENGIE Schools, in particular) (see Section 3.4.1 "Human resources development and mobility policies").

2.3.5.2 Employee commitment

Given the scale and speed of the Group's transformation, it needs to support managers and employees to give meaning to the changes and promote buy-in.

In October 2018, for the third consecutive year, the Group carried out its "ENGIE & Me" engagement survey to measure employee buy-in and adapt its action plan.

Via its "ENGIE Leadership Way" program, ENGIE promotes managerial behavior that fosters innovation and employee development (see Section 3.4.1.4 "Targeted development policies"). In addition, the Group provides a "co-leader" training program for its 30,000 managers. ENGIE is also particularly attentive to the prevention of psychosocial risks.

By communicating regularly about innovation, new business models, and other topics related to the transformation, the Group aims to strengthen internal support and encourage dialogue with employees.

2.3.5.3 Occupational well-being

The steps taken since 2016 to adapt the Corporate headquarters' organization, to push forward ways of working and more generally to anchor the Group's transformation are accompanied by different measures aiming at preventing, detecting and remedying at-risk situations, regarding occupational well-being, inherent to this type of transformation.

2.3.6 Risks related to health and safety and protection of Group assets

2.3.6.1 Health and safety at work

The Group is committed to eradicating fatal accidents and reducing workplace accidents and occupational illnesses. The Group health and safety policy was agreed with the union federations at European level and subsequently worldwide. An action plan was defined for the period 2016-2020, which was strengthened in 2017 with a specific action program called "No Life at Risk", the aim of which is to develop the safety culture and the commitment and vigilance of all individuals in order to protect their lives and those of others, involving everybody working on behalf of the Group. (see Section 3.4.6 "Health and safety policy"). In 2018, the focus was put on the health and safety of subcontractors.

2.3.6.2 Employee safety

The international scope of the Group means that some employees and other parties such as subcontractors may be exposed to health and safety risks, the threat of which warrants a specific organization incorporating a "country watch". Wherever it operates, the Group continually assesses the risks related to 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, which correspond to specific prevention and protection measures. To accomplish this mission, the Group relies on State services as well as specialized providers. If a specific situation occurs, the crisis management system may be triggered, in order to deploy the necessary assistance measures to ensure the safety of all people concerned.

2.3.6.3 Protection of tangible and intangible corporate assets

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 even communicated verbally, constitutes the Group's intangible assets and may also be exposed to malicious acts.

To fight against this type of risk, the Group implements a policy for the protection of tangible and intangible assets, covering technical (including IT), legal, managerial and organizational areas. Sensitive sites where tangible corporate assets are located are subject to protective measures tailored to the local situation and revised according to the current threat status.

The Group continually acts to protect its intangible assets in order to deal with any reported incidents and to prevent any internal or external action aimed at capturing and using sensitive information. An Information Security Committee brings together members from all the relevant functional departments under the authority of the Executive Vice-President in charge of Digital and Information Systems to coordinate and manage the Group's security policies. It reports to the Executive Committee.

2.3.7 Risks related to information systems

The Group is continually exposed to new threats from the introduction of new technologies, particularly the multiplication of connected objects, the development of industrial control systems, the spread of mobility tools, and the development of new uses (e.g. social networking). Cyber attacks target both the company and its customers and partners. More generally, IT system failure could result in information losses or leaks, delays and/or extra costs that could be detrimental to the Group's activities or its reputation.

In response, the Group continually adjusts its prevention, detection and protection measures for all of its information systems and critical data. The Group therefore has a Global Security Operation Center (GSOC) in place that is operated worldwide with the assistance of Thales, strengthened controls for access to its cloud platforms, data encryption devices and cyber-insurance cover. To comply with the new regulations (European Regulation 2016/679 on the protection of personal data, European Directive 2016/1148 on the security of networks and information systems), assessments are organized for the sites or applications concerned (Data Privacy Impact Assessments) and some Group entities have taken steps to obtain ISO 27001 certification of the security of their information systems. Large-scale attacks are managed by the Incident Management Committee (IMC), which reports to the Group Security Department. In connection with its internal control policy and security policy, these organizational, functional, technical and legal security measures are subject to continuous controls that include testing (intrusion tests, social engineering tests, phishing tests, cyber crisis management tests, etc.) and campaigns to raise awareness.

2.4 Industrial risks

The areas of activity in which the Group operates entail major industrial risks capable of causing harm to individuals and property, and exposing it to claims for civil, criminal and environmental liability. These risks may concern facilities that belong to the Group or are managed by the Group on behalf of third parties (manufacturers or local authorities), or facilities where the Group's employees work. The industrial 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.

2.4.1 Industrial facilities and Seveso sites

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

Risks can stem, for example, from operating incidents or design flaws or from external events beyond the Group's control (including third-party actions and natural disasters). Industrial accidents can cause injuries, loss of life or major property and/or environmental damage, as well as activity interruptions and operating losses.

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 a safety management system at these sites based on the principle of continuous improvement, which is intended to reduce the level of residual risk by responding to the highest risks as a priority. Moreover, industrial safety is part of the Group's internal control program. The Group conducts periodic audit and control missions to ensure that these measures are effectively implemented.

A specific action plan for protecting industrial control systems linked to industrial processes has been implemented and is updated according to changes in threat. It aims to prevent the risk of activity interruption or accidents due to cyber-attacks.

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 Industrial Safety Committee meets twice a year, and more often if there is a specific issue that needs to be addressed, mainly to encourage the inter-BU and inter-Métier exchange of information on risks and accidents and the sharing of best practices in the Group's various activities.

2.4.2 Pollution of the surrounding environment

Facilities that the Group owns or manages on behalf of third parties may entail risks of damage to the natural environment (air, water, soil, habitat and biodiversity), and may pose health risks to consumers, neighboring residents, employees and subcontractors. These health and environmental risks are governed by strict national and international regulations. Non-compliance with or violation of these environmental standards could have a significant negative impact on the Group's image, its business, financial situation, earnings and outlook, and trigger its liability as a legal entity. Any amounts set aside, insured or guaranteed may be insufficient. Complaints and convictions relating to the environment are detailed in Section 3.5.4.9, "Active prevention of environmental risks".

Health and environmental risks are regularly monitored by the Group, by external auditors and by government authorities, both for operational sites and closed facilities, such as former gas plants.

2.4.3 Risks of nuclear activities

The Group 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. Since the commissioning of the first reactor in 1974, these sites 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.

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

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, both nuclear sites have OHSAS 18001, ISO 14001 and EMAS certification.

Electrabel takes into account feedback from accidents or incidents, 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 closed in October 2018 with the agreement of the FANC, as the actions undertaken had become an integral part of the management system and monitoring in the context of inspections relating to the management system.

In 2015, hydrogen-induced flaws, created during the vessel manufacturing process, were detected in the vessel walls of the Doel 3 and Tihange 2 reactors. The recommissioning of the reactors was authorized at the end of November 2015 by the FANC and confirmed during inspections in 2016 and 2017.

In October 2017, during a planned shutdown, the concrete ceiling of the Doel 3 reactor bunker was found to have degraded. The same kind of degradation was discovered in reactors with a similar bunker design: Tihange 3, Doel 4 and Tihange 2. Stripping of the damaged areas showed anomalies at Tihange 2 and 3 in the positioning of the concrete frames of the bunker, which had been present since the building was constructed. These buildings house second-level emergency systems such as emergency pumps and diesel generators. The building has to be able to withstand external events, so that these emergency systems are guaranteed to operate at all times. The extent of the degradation and the anomalies identified during inspection calls into question the ability of these buildings to withstand an external accident such as a falling aircraft. Electrabel decided to adapt the review program for its nuclear power plants in order to inspect and repair the degraded areas.

In April 2018, Electrabel found a minor leak in the emergency water cooling circuit of the Doel 1 reactor. The reactor was stopped after this event, and the maintenance review of the Doel 1 reactor was brought forward so that the repair could be carried out. Electrabel decided to inspect the second pipe in the same water cooling circuit of Doel 1, as well as the pipes of Doel 2, as it has the same reactor cooling system.

The risk of one or more nuclear units not being available for technical or safety reasons is one of Electrabel's major risks, and could have an impact on its performance objectives.

Following the discovery in 2013 of a gel-like substance on the surface of barrels of medium level radioactive waste (originating in the Doel plant and stored at Belgoprocess), waste conditioning processes at the Doel and Tihange sites were subject to additional checks by ONDRAF, the Belgian National Agency for Radioactive Waste and Enriched Fissile Material. As a result, the accreditations for a number of processes were either not renewed or were withdrawn. Several performance tests have been established to meet all the ONDRAF requirements and regain the accreditations. At this time, the accreditations have been regained, except for two categories at Doel and one at Tihange. The situation regarding the storage capacity and availability of waste treatment facilities remains complex. Temporary solutions have had to be developed to increase storage capacity at the two generation sites.

2.4.4 Exploration & production of hydrocarbons

After the sale of its hydrocarbon exploration and production business to Neptune in early 2018, ENGIE is now only a minority co-shareholder in the Touat project in Algeria, as Neptune is the operator.

2.5 Financial risks

2.5.1 Commodities market risk

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, coal, oil and oil-based products, other fuels, 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) (note 18.2 of Section 6.2.2 "Notes to consolidated financial statements).

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 of Section 6.2.2 "Notes to consolidated financial statements").

The Group has implemented a specific governance process to manage market and counterparty risks based on (i) the general principle of separation of risk management and risk control, (ii) a Group-level Energy Market Risks Committee that is responsible for validating risk policies and monitoring consolidated exposure, (iii) following the market and counterparty risk mandates, and (iv) a specific risk control function coordinated by the Finance Department.

Part of its electricity generation activity outside Europe is secured 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 the transfer is not perfect in some contracts.

The Group also uses derivatives to offer hedging instruments to its clients and to hedge its own positions.

2.5.2 Counterparty risk

Due to its financial and operational activities, the Group is exposed to the risk of its counterparties default (customers, suppliers, partners, intermediaries, and banks).

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) or assets (loss of financial investments).

Following the introduction of the new IFRS 9 standard, the Group has defined a Group-level methodology to assess counterparty risk, which is described in note 18.2 of Section 6.2.2 "Notes to consolidated financial statements".

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. Operational activities may also involve prepayments or suitable recovery procedures (especially for retail customers).

2.5.3 Foreign exchange risk

The Group is exposed to foreign exchange risk, which is defined as the impact on the balance sheet and income statement of exchange rate fluctuations, in the performance of its operational and financial activities. This risk is broken down into (i) a transactional risk related to current operations, (ii) a specific transactional risk related to investment, merger-acquisition or disposal projects, (iii) a translational risk related to the value of assets outside the Eurozone, and (iv) a risk related to the consolidation of the subsidiaries' accounts in euros where the functional currency is not the euro. The three main exposures to translational and consolidation risks correspond, in order of importance, to assets in US dollars, Brazilian real and British pounds.

For an analysis of foreign exchange risk sensitivity, see Note 18.1.3.2 of Section 6.2.2 "Notes to consolidated financial statements".

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.

2.5.4 Interest rate risk

The Group is exposed to interest rate fluctuations. The Group's objective is to control its borrowing costs by limiting the impact of interest rate changes on its income statement. To do this, the Group seeks to achieve a balance between fixed, floating and protected floating ("capped floating") rates. This distribution may change within the limits set by management according to the market situation.

The breakdown of the outstanding financial debt by type of interest rate and the analysis of sensitivity to interest rate risk are presented, respectively, in Note 18.1.4.1 and Note 18.1.4.2 of Section 6.3 "Notes to consolidated financial statements".

In order to manage the interest rate structure for its net debt, the Group uses hedging instruments, particularly interest rate swaps and options. Managed centrally, rate positions are reviewed periodically and when any new financing is raised. This management is subject to a risk mandate: any substantial change in the rate structure requires prior approval from the Finance Department.

2.5.5 Liquidity risk

Liquidity is based on the regular renewal of various financing tools available to the Group such as credit lines, bond financing or other financing tools, to ensure their availability and their adequacy in relation to financing requirements. These credit facilities are pre-agreed and appropriate for the scale of its operations and for the timing of contractual debt repayments. Note 18.3 of Section 6.3 "Notes to consolidated financial statements" explains the distribution of the various forms of financing used.

ENGIE pools the majority of the cash flow requirements and surpluses of the Group's majority-owned subsidiaries, as well as most of their medium- and long-term external financing requirements. Financing vehicles (long-term and short-term) provide centralization, as do the Group's dedicated cash-pooling vehicles in France, Belgium and Luxembourg.

2.5.6 Impairment risk

Assumptions and estimates are made to calculate the recoverable value of goodwill and tangible and intangible fixed assets. They particularly refer to market outlook and changes in the regulatory framework, which are used for the measurement of cash flows, which sensitivity varies depending on the activity, and the determination of the discount rate.

Any changes to these assumptions could have a significant effect on the amount of the recoverable value and could lead to changes in the impairment to be recognized (see Note 14 of Section 6.3 "Notes to consolidated financial statements").

2.5.7 Equity risk

As of December 31, 2018, the Group holds a number of non-consolidated interests in listed companies (see Note 17.1.1.1 of Section 6.3 "Notes to consolidated financial statements"), the value of which fluctuates according to the position of the relevant companies and/or trends in the world stock markets.

In addition, the Group holds interests in listed companies consolidated using the equity method, including SUEZ (see Note 4 in Section 6.3 "Notes to consolidated financial statements"), for which a significant or extended fall in the share price below the value on the balance sheet is an indication of impairment.

2.5.8 Tax risk

Given their tightening budget constraints and pressure from the media, national governments are increasingly introducing anti-abuse measures, both general and special, with a broad and subjective scope, and are giving their supervisory authorities increased powers of investigation. This has created a climate of tax insecurity that may have an impact on the Group's results. Similarly, the European Commission's interventions in both state aid (especially the querying of prior agreements issued by authorities that were designed to confirm the complex tax treatment of certain transactions and consequently give companies legal security) and draft directives in the area of combating tax avoidance (see ATAD1 and 2 [1]) and the European harmonization project (see CCCTB [2]) have created uncertainty and may impact the Group's results over various time periods (see Note 28 of Section 6.2 "Notes to consolidated financial statements").

The ENGIE group has established a tax policy that has been published on its website since 2015, along with the corporation tax amounts incurred each year in the main jurisdictions where it operates. This policy mainly states that the Group undertakes to respect with honesty and integrity the tax laws and regulations that apply to it and to pay its fair share of taxes in the countries where it operates. To this end, internal procedures, including regular control mechanisms, have been put in place to ensure its proper application in the countries concerned. These procedures cover both corporate tax practices and the choice of location of Group structures. Furthermore, tax practices within the

(1) ATAD: Anti-Tax Avoidance Directive

(2) CCTB: Common Consolidaded Tax Base

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 the new Article L225-102-1 of the French Commercial Code relating to combating tax fraud.

2.5.9 Pension funding risk

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 defined-benefit plans still in operation include, in France, the special Electricity and Gas Industry (EGI) plan, which is a statutory plan.

Note 21 of Section 6.2.2 "Notes to 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, commitments within the scope of the EGI 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.

2.6 Internal corporate control procedures

2.6.1 Internal control definitions and objectives

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 is based on five components: control environment, risk assessment, control activities, information and communication, and monitoring activities.

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;
- effectiveness and efficiency of operations.

Internal control is constantly being adapted to changes in the Group's organization and businesses and contributes to the rolling out of its strategy.

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.

INCOME program

On the basis of financial materiality and an analysis of risks, each year ENGIE updates the scope of the most significant controlled entities that are subject to centralized monitoring through the INCOME program (181 entities in 2018).

2.6.2 Internal control organization and stakeholders

2.6.2.1 Organization of internal control

The organization of internal control complies with the principles of the Group's organization, particularly decentralization, autonomy and the accountability of managers. In the context of the authorities delegated by the Chief Executive Officer, each manager of a BU or entity is responsible for implementing and overseeing an internal control system that conforms to the applicable regulatory framework and any specific features thereof. The Internal Control Department reports to the Finance Department and is in charge of leading and coordinating the system at Group level. It proposes and updates a framework, a methodology and an information system that centralizes all the data relating to the rolling out and assessment of the system's effectiveness.

2.6.2.2 Elements of the general compliance framework

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 4.2 “Ethics, compliance and privacy”).

Recruitment, training and skills management

The quality, commitment and skills of its employees are necessary conditions for the management of the Group's operations. Recruitment, training and skills management policies are key elements of the internal control system, ensuring the required level of competence in all areas, particularly those in which specific expertise is needed, in accordance with the Group's values (see Section 3.4 “Social information”).

Information systems

The digital and IS strategy, and the IT solutions policies and standards, are defined by the Group Digital and IT 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. Similarly, the BUs are responsible for the security of their information systems under the control of the Group Digital and IT Department and, for the industrial control systems (ICSs), under the control of the Global Care Department, in cooperation with the Group Digital and IT Department, which coordinates the technical actions to secure these ICSs for sites classed as critical and sensitive.

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.

The IT managers of the BUs are, among other things, in charge of the information system recovery plans, while the information systems security officer of the BU is responsible for cybersecurity.

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 all 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 all the Group's employees with the following procedures and best practices:

- methodological guides for entities relating to the definition, assessment and coordination of an internal control system adapted to the nature of their activities;

- internal control frawork (48 sets in 2018) covering business, support and global processes (e.g.: sales, procurement, payroll, information systems, accounting, tax, investment , cash management and personal data protection). Each framework details the intrinsic risks and the key controls designed to manage them;
- best practice on subjects such as the segregation of duties, the role of directors, data protection, etc.

These guidelines can be tailored as needed to the BUs and entities.

2.6.2.3 The system's stakeholders

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

The Group's governance bodies

The Board of Directors ensures the proper functioning of internal control within the Group. 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.

First line of management

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

The Management Committees of the BUs and 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, communicating, etc.

Second line of management

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

The Finance Department carries out internal accounting and financial control (see the relevant section 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 Ethics, Compliance and Privacy Department is responsible for drafting ENGIE's ethics and compliance rules, as well as ensuring that such rules are actually applied in accordance with the laws and regulations in force.

The Corporate Societal Relations Department is responsible for compliance with environmental laws and regulations throughout ENGIE. It assesses the environmental maturity of the Group's various businesses and is in charge of regulatory environmental reporting.

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

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 so that it covers priority subjects for the Group (subjects related to ethics, personal data protection, etc.). Submitted for approval to the Audit Committee, this plan is designed to cover all of the entities and enables the quality of the business control and management environment to be checked.

Internal Audit also assesses the internal control covering operational and financial processes and the reliability of the self-assessment of controls carried out under the INCOME program.

Internal Audit presents its conclusions to the managers of the BUs and entities and regularly reports on its key observations and on the progress of the associated action plans to the Executive Committee and the Audit Committee. It regularly meets with the Statutory Auditors to share internal control analyses.

2.6.3 Internal control relating to financial and accounting information

2.6.3.1 Organization and stakeholders

The Group Accounting Department is in charge of financial reporting, preparing the parent company financial statements of ENGIE and the financial vehicles managed by Corporate, producing the consolidated financial statements, and liaising with 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 and adapts the principles accordingly. Within the Group 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 Enterprise Performance Management Department is tasked with establishing the analyses and reports required by the Executive Board 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.

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 BUs and Métiers 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 software package "Business Objects Financial Consolidation" for the consolidation of the Group's financial statements and management reporting. This application 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 Group 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. As it has a central administrative role, the Group Tax Department is hierarchically responsible for all tax activities. Generally speaking, it is closely supported by the Finance Departments of the BUs, which assume responsibility for tax in terms of compliance and transparency.

The Investor Relations Department is in charge of relations with the analysts that cover the Group and, more broadly, with institutional investors. With regard to management information, the Management Control sector of corporate is the Investor Relations Department's only source of information. All 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 (quarterly, half-yearly and annual financial information and information on major transactions) in collaboration with the General Secretariat.

The Finance Departement also uses the current "Missions and operating principles of financial communication" procedure, which sets out management principles for the Group's financial communication and clearly defines its activities in areas concerning analyst and investor relations and market intelligence.

Through the functional lines, all of these corporate departments oversee internal control within their respective areas via the Finance Departments of the BUs, which are specifically responsible for:

- producing the separate financial statements of the legal entities and accounting bodies that comprise them and converting them according to IFRS. corporate is responsible for consolidating these converted data;
- implementing internal control procedures at all the operating subsidiaries, as well as decentralized management control (see the section entitled "Setting objectives and coordination" below).

2.6.3.2 Consolidation process

The Group Accounting Department is in charge of producing the consolidated financial statements, supported by the BU consolidation, Enterprise Performance Management and the management control teams. It manually updates the accounting principles and closing instructions disseminated before each phase of consolidation.

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. This principle of subsidiarity allows second-tier controls to be applied to the prepared information, at the following levels:

- at the BU level for information passed on to this level by the reporting entities;
- at the corporate level for information passed on to this level by the BUs.

The CEO and CFO of each BU attest to the quality and comprehensiveness of the financial information provided to the Group by means of a representation letter.

Discussions with the Statutory Auditors enhance the quality of financial information with respect to the standards, particularly in the case of complex situations that are open to interpretation.

2.6.3.3 Setting objectives and coordination

Every year, each of the Group's BUs produces a medium-term business plan (MTBP), a budget and budget re-estimates. The Enterprise Performance Management Department, which reports to the Finance Department, prepares instructions for this purpose for each BU, including details such as macroeconomic hypotheses, financial and non-financial indicators, the timetable and the segmentation of the scope of activity. Each BU 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 BU Committee, which is chaired by the Executive Board and brings together the corporate departments and the operational and financial departments of each BU, approves for each BU 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, to be used as the basis for the impairment testing of goodwill and long-term assets. The Group's consolidated budget and MTBP are presented to Audit Committee and the Strategy, Investment and Technology Committee before being submitted to the Board of Directors.

The BU Committees enable regular dialogue between the BUs and the Group based on analyses of real current data, forecasts and past data.

2.6.4 Formalization and coordination of internal control

Within the scope of the INCOME program, oversight of the internal control system takes place at several levels:

- the operational managers oversee the correct implementation of the control activities of their processes, assess the results and rectify any weaknesses detected;
- a formalized annual process of self-assessment of key controls, carried out with the support of the individuals responsible for internal control within the entities, taking into account the entities' control processes and general control environment;
- Internal Audit reviews the quality of the self-assessments and the pertinence of the action plans.

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 BUs and the main functional departments concerning the establishment, oversight and effectiveness of an internal control system covering their respective areas of responsibility.

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, where necessary, action plans to rectify any weaknesses detected.

2.6.5 Recent actions to strengthen the system

The most significant actions are as follows:

- the progress of the Common Finance project for integration of the information systems of the BUs and the subsidiaries;
- the design and roll-out, with the Group Ethics and Compliance Department, of a set of internal control toolkits focused on personal data protection;
- the strengthening of internal control relating to the vigilance plan (see Section 4.3 "Vigilance plan");
- the in-depth analysis of incidents reported to the Group Ethics and Compliance Department in order to make the prevention system more efficient.

3

Statement on non-financial performance and CSR information

The ENGIE Group's non-financial statement comprises the following elements:

- A description of the Group's activities presented in a summary form by major business segments in Section 3.2 "Business model", and in a detailed form in Section 1.3 "Presentation of the Group".
- An analysis of CSR risks according to the six areas set forth in the CSR Directive (Directive 2014/95/EU on the disclosure of non-financial information by companies), described in Section 3.3 "Analysis of CSR risks", together with a detailed presentation of these risks in Section 2 "Risk factors and control"
- 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 "Governance",
  - the vigilance plan described in Section 4.3 "Vigilance plan",
  - the rules of ethics described in Section 4.2 "Ethics, compliance and privacy".

3.1 Corporate Social Responsibility

Rethinking the global energy landscape has today become a necessity in the face of climate change. 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 aim of the CSR policy and the environmental and societal policies deriving from it, which were updated 2017 and 2018, is to help the Group to open new avenues and create shared value by placing the environment at the heart of its actions, giving meaning to its actions, promoting an alternative way of consuming energy, and contributing to the achievement of the UN Sustainable Development Goals.

The CSR Department relies on a network of Chief Sustainable Officers in each BU, as well as an internal network of global CSR ambassadors, in order to engage employees as widely as possible on these subjects.

After approval by the Executive Vice-President in charge of CSR, the CSR Department gives regular presentations on the latest CSR topics (Science-Based Targets (SBTs), Task Force on Climate-related Financial Disclosures (TCFD), CSR commitments) and an annual report to the Executive Committee and subsequently to the EESDC (CSR rating, CSR objectives, environmental and societal actions of the Group and the BUs).

The CSR Department jointly chairs the Green Bond Committee with the Finance Department, overseeing projects likely to be financed by green bonds regularly issued on the market by the Group. It also jointly chairs the Duty of Vigilance Committee (see Section 4.3 "Vigilance plan").

The CSR Department regularly meets with a range of stakeholders, such as NGOs, investors (including socially responsible investors), ratings agencies, clients, and opinion leaders, and organizes panels to work on the sustainability of offerings, projects and services related to the Group's operations.

At its Shareholders' Meeting, the Group publishes an integrated report on its overall financial, environmental, social and societal performance and discusses it in advance with its main stakeholders.

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.

ENGIE's business model includes the modeling of the Group's activities and of the value creation associated with these activities.

The Group's activities, described in Section 1.3 "presentation of the Group", can be divided into three segments:

- The client solutions segment, which can itself be divided into three parts:
  - BtoC solutions: energy sales, home services, decentralized energy generation, connected home services, and e-commerce;
  - BtoB solutions: engineering, installation, energy efficiency, energy sales, and integrated services (including facility management);
  - BtoT solutions: heat and cooling networks, decentralized energy generation, green mobility (NGV, hydrogen), digital systems and platforms, solutions for cities (lighting, videosurveillance, etc.).
- The energy generation segment, which can be divided into as many parts as source energies used to generate it.
- The global infrastructures segment, which can be divided into:
  - gas transmission, which includes gas transmission by pipeline, regasification of LNG delivered by tanker, LNG transportation by truck, and the injection of green gases;
  - gas storage, which includes underground gas storage and geothermal drilling;
  - gas distribution, which includes natural gas distribution and the injection of green gases.

The following chart provides the key figures for each activity.

Customer solutions (2.43 G€ or 25% EBITDA)

BtoC solutions
- Brand: Engie
- €9 bn of revenue,
- 24.4 m contracts, including 11.7 m in France
- 144 TWh of gas sales and 37 TWh of electricity sales
- 1st supplier of natural gas
- 10,000 employees

BtoB solutions
- Brands: Engie cofely, Engie Inéo, Engie Axima, Endel Engie, Tractebel
- €28 bn of revenue
- present in 26 countries on 4 continents
- Leader in B to B solutions in 11 countries
- 2nd supplier in the world of technical installation services
- 180 TWh of gas sales and 152 TWh of electricity sales
- 110,000 employees

BtoT solutions
- Brands in France: CPCU, Climespace, Engie Réseaux, GNV, Engie Inéo
- €3 bn of revenue
- Heating and cooling networks, decentralized energy production, Green mobility (GNV, hydrogen), Digital platforms and systems, Solutions for cities (public lighting, video security)
- 350 heating networks (4th largest in the world) and cooling networks (world leader) in 20 countries (France, Italy, Spain, Malaysia, Philippines, Portugal, United Arab Emirates, etc.)
- 1.5 million lighting units under management
- 2,000 employees

Electricity generation (2.86 G€ or 30% EBITDA)

Wind
- 5.4 GW
- 1st onshore wind producer in France
- Activities under PPAs

Solar
- 2.2 GW
- 1st producer in France
- Activities under PPAs

Biogas/Biomass
- 0.7 GW
- 1st producer in France
- Activities under PPAs

Hydropower
- 19.9 GW
- 1st alternative hydroelectric producer in France
- Activities under PPAs

Natural gas
- 57.8 GW
- Major presence in Middle East (30.1GW)
- Activities under PPAs

Nuclear
- 6.4 GW
- 1st producer in Belgium
- Activities under PPAs

Coal
- 7.1 GW
- Exit in progress

Global infrastructures (4.38 G€ or 45% EBITDA)

Transmission
- GRTgaz and Elengy (France), gas transportation subsidiaries in Germany, Mexico, etc.
- 1st transporter in France and the second-largest in Europe
- 1st terminals operator in France and 2nd in Europe
- GRTgaz: 3,000 employees
- Elengy: 360 employees
- Activities mainly regulated

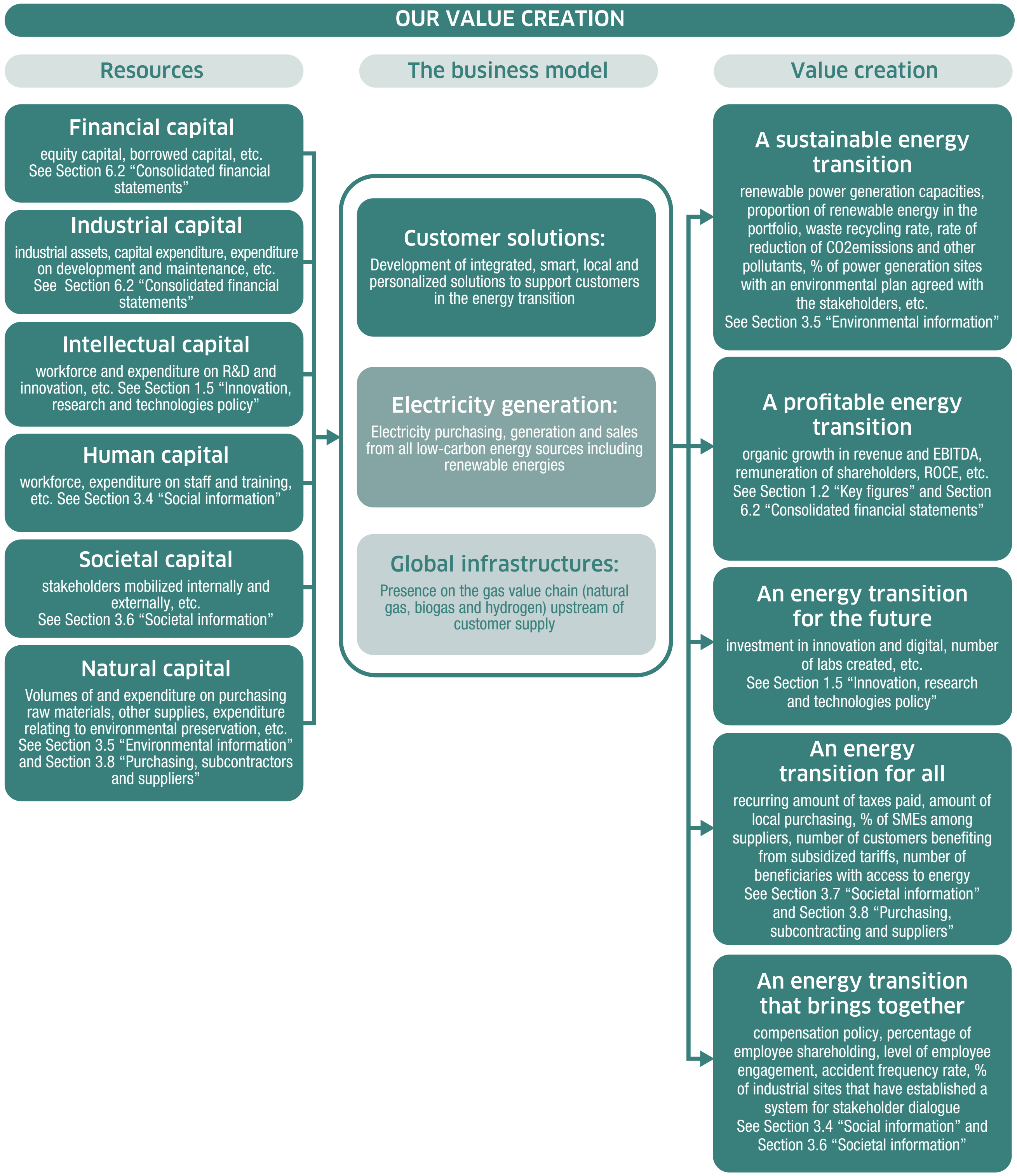
Storage
- Storengy France, Storengy Deutschland, Storengy UK
- Leader in underground gas storage in Europe
- 950 employees
- Storage activities regulated in France, competitive in the UK and in Germany

Distribution
- GRDF (France), Distrigaz (Romania), Engie MaxiGas (Mexico), Turkey, Argentina, Thailand
- 11,300 employees (France)
- Activities mainly regulated

This model will be reviewed in 2019 following announcements made during the presentation of the strategy 2019-2021 in the framework of Capital Markets Day of February 28th, 2019 which focuses the activity of the Group on 4 Business Lines: Client Solutions (BtoB and BtoT) - Renewables - Thermal (gas and coal) - Networks, complemented by 2 segments: a first Supply segment that combines the activities of purchases-wholesale sales and activities BtoC client solutions and a second segment, dedicated to nuclear activities.

In modeling the value created by the activities, the International Integrated Reporting Council (IIRC) recommends distinguishing resources mobilized on the one hand and the results obtained on the other.

The Group's three segments of activity (customer solutions, electricity generation and global infrastructure) utilize capital or resources of different kinds and create value according to five areas, as shown below.

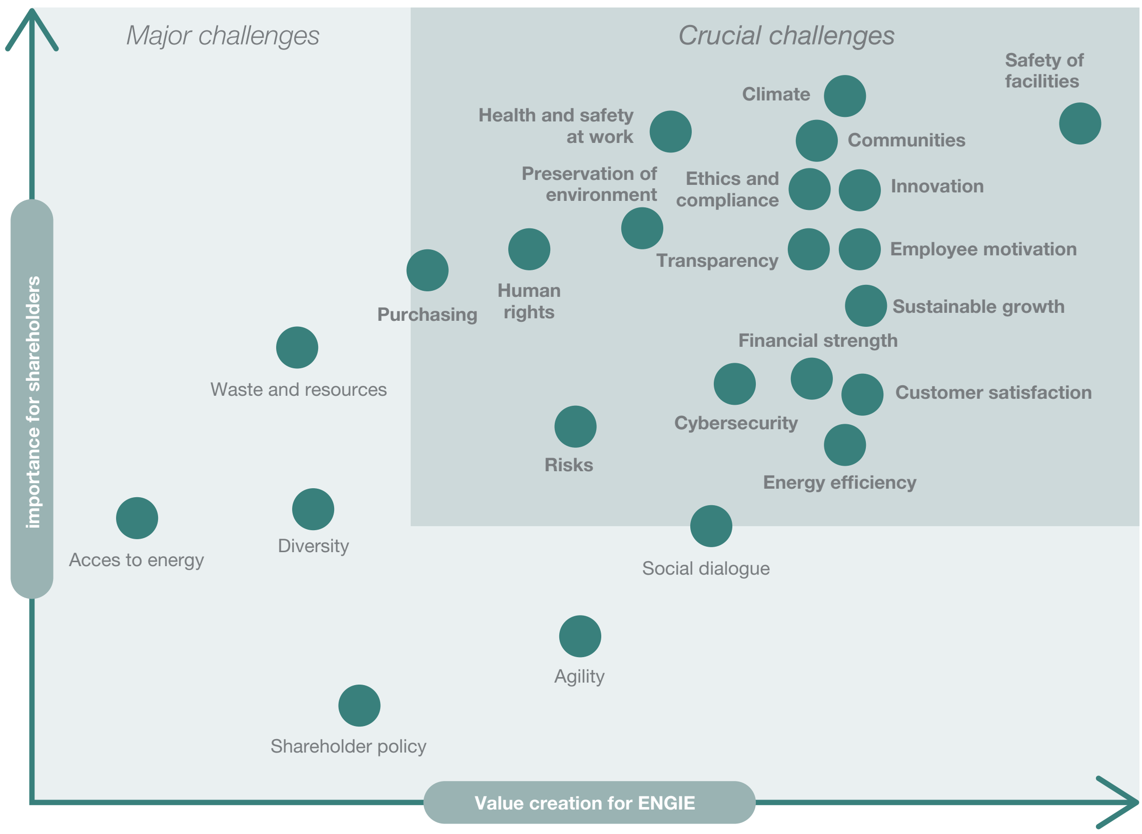


To align its business model with ambitious environmental, social and societal challenges, in 2016 the Group set six CSR objectives for 2020. Their results as of the end of 2018 are detailed in Section 1.2.2 "CSR indicators". In addition, to ensure the sustainability of its investments, a matrix of approximately 10 CSR criteria is analyzed for the investment files.

The CSR Department contributes to the consideration of environmental and societal aspects in Group offerings and projects related to BUs and Mé tiers. The Group wants to answer effectively to societal issues and co-build its offers and projects with its stakeholders to maximize global value creation. As a result of its leadership and expertise, the Group plays a role in societal issues, such as access to energy, the development of renewable energies, sustainable consumption, gender diversity and fuel poverty.

3.3 Analysis of main CSR risks

ENGIE updated its matrix of challenges or materiality matrix at the end of 2017. Each stakeholder evaluated the importance of around twenty challenges for ENGIE's performance and value creation (y-axis). At the same time, Group management evaluated the impact of these same challenges (x-axis). This cross-analysis of challenges is summarized in a materiality matrix that positions the crucial challenges (deemed to have a significant impact on both stakeholders and management) and the major challenges (considered to have a significant impact for only one of the two).



This matrix identifies 23 challenges that carry both risks and opportunities. The CSR risks, which are shown in the table below according to the risk categories of the statement on non-financial performance, can be linked to a crucial challenge on this matrix and are monitored each year by the Group's ERM process, details of which are provided in Section 2 "Risk factors and control".

ENVIRONMENTAL

Associated CSR risks identified and monitored by the ERM process	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Crucial challenge: Security of facilities **This challenge includes the security of nuclear facilities and the cybersecurity of entities and industrial facilities.**				
Industrial safety risk (see Section 2.4.1)	ENGIE health and safety policy that includes industrial safety Industrial safety policies specific to the different activities conducted by Group subsidiaries Action plans implemented by the subsidiaries that integrate feedback from experience as part of a continuous improvement approach	Monitoring of incidents and accidents related to industrial safety at the level of the subsidiaries 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
Nuclear Safety Risk	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	Prevent nuclear incidents and accidents and limit their consequences on workers, population and the environment Achieve good radiation protection performance and secure the radioactive source term	No significant incident	No significant incident
Risk of a cyber-attack on industrial control systems (see Section 2.4.1)	Group Policy on the Security of Industrial Control Systems Technical security standards 2016-2018 enhanced security action plan	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)	All critical sites were secured at the end of 2017 as well as a majority of the sensitive sites	All critical and sensitive sites were secured at the end of 2018
Attacks on tangible and intangible assets (see Section 2.3.6.3)	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 Reinforcement of event-detection mechanisms	No significant damage to assets	No significant damage to assets
Crucial challenge: Climate **This challenge includes the reduction of greenhouse gases**				
Risk related to the contribution of our operations to climate change (see Sections 2.2.3 and 3.5.4.1)	2016-2018 Transformation Plan (See Section 1.1.5)	The Group has committed to increasing the proportion of low-carbon activities that make up its EBITDA to 90% by 2020	91%	93%
	The environmental policy specifies the Group's environmental challenges whose climate change, the resources used by the Group to meet these challenges and improve its performance, and the governance elements that contribute to the implementation of the Group's environmental policy.	In order to reduce its carbon exposure, ENGIE has given itself three 2020 objectives:		
		- the activities with low CO_2 emissions will account for 90% of its EBITDA	91%	93%
		- the ratio of direct CO_2 emissions in energy production will be reduced by 20% compared to 2012	-18,1%	-28,7%
		- the share of renewable energies in the production capacity mix will be 25%	23.1%	23.7%
Risk associated with the impact of climate change on the Group's activities (see Section 2.2.3)	Environmental policy	The Group has set a target of ensuring that 100% of its target sites have management plans that incorporate environmental issues, drawn up in collaboration with their stakeholders, and include adaptation of the Group's facilities to respond to climate change.	61%	75%

Associated CSR risks identified and monitored by the ERM process	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Crucial challenge: Preservation of the environment This challenge includes pollution of soil, the air and the atmosphere **Major challenge: Resources and waste** This challenge includes the preservation of biodiversity (fauna and flora) and protected habitats close to the Group's facilities, the optimal management of water and other potentially scarce resources, the management of usage conflicts, waste recycling, the preservation of landscapes, combating noise and odors, and the reduction of the impact on local residents				
Risk of pollution of the surrounding environment (see Section 2.4.2)				
Loss of biodiversity (see Section 3.5.4.8)	Environmental policy	ENGIE undertakes to provide an action plan for each of its priority sites in order to tackle the challenges associated with preserving biodiversity	90%	94%
Water resources (see Section 3.5.4.5)	Environmental policy	The Group has set a target of reducing its level of freshwater withdrawals per MWh of energy generation by 15% compared with 2012	-48%	-39%
		Sites in areas of high water stress must define local action plans in collaboration with stakeholders.	Not available	58%
Atmospheric pollutants (see Section 3.5.4.7)	Environmental policy 2016-2018 Transformation plan	See the details on the monitoring of atmospheric pollutants in Section 3.5.4.7		
Waste (see Section 3.5.4.6)	Environmental policy	See the details on the monitoring of waste management in Section 3.5.4.6		

SOCIETAL

Associated CSR risks identified and monitored by the ERM process	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Crucial challenge: Communities This challenge includes dialogue with stakeholders, local acceptability, local economic development, including job creation resulting from the Group's activities, and philanthropy and partnership actions with civil society **Crucial challenge: Transparency** This challenge includes the management of controversies, the transparency and reliability of communication, and the management of the ENGIE brand				
Societal responsibility risks (see Section 2.2.2.3)	Societal policy: this specifies the Group's societal challenges, the resources used by the Group to meet these challenges, and the governance elements that contribute to the implementation of the Group's societal policy	The Group has committed to ensuring that 100% of its industrial activities are covered by an appropriate stakeholder dialogue and collaboration mechanism	48%	53%
	Stakeholder engagement tool: this self-assessment tool is based on the AA1000 stakeholder management principles issued by the NGO AccountAbility	Number of Group BUs or entities trained each year in the "stakeholder engagement" tool	6	6
	Vigilance Plan (see Section 4.3)	See Section 4.3 "Vigilance Plan"		
Risks related to organic growth and major projects (see Section 2.3.2.2)	Investment procedure	Self-assessment using a matrix of 12 CSR criteria reviewed by the Investment Committee Realization of EIA (Environmental Impact Assessment) Realization of ESIA (Environmental and Social Impact Assessment)		
	Societal policy	The Group has committed to ensuring that 100% of its industrial activities are covered by an appropriate stakeholder dialogue and collaboration mechanism	48%	53%
Reputational risk (see Section 2.2.4)	Protection of the brand	The Group has committed to achieving a BtoC customer satisfaction level of 85% by 2020	83%	81%
	Ethics policy	Monitoring of the number of incidents (proven or unproven) declared in INFORM'ethics	175	218
	Environmental policy	Monitoring of number of environmental complaints and convictions	13 complaints and 1 conviction with no compensation obligation	24 complaints and no conviction
	Purchasing policy: sets out the obligations and commitments applicable to ENGIE in terms of its relations with suppliers	The Group has committed to ensuring that 100% of its entities have established a system for responsible supply chain management by 2020	37%	84%

SOCIAL

Associated CSR risks identified and monitored by the ERM proces	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Crucial challenge: Employee motivation				
This challenge includes the satisfaction, empowerment and well-being of employees, the management of talented individuals, training, the management of mobility, change management, support for the Group's transformation, and the development of a collaborative and international management culture				
Major challenge: Diversity				
This challenge includes measures to promote equal opportunities, and the promotion of women to management positions				
Risks related to human resources (see Section 2.3.5.1)				
Skills	Human resources development and mobility policy: this policy is based around the ENGIE Skills system, which is aimed at developing skills early to prepare for the future, and ENGIE Mobility, which fosters internal mobility and is supported by ENGIE University	The Group has committed to increasing the rate of trained employees to more than 66% by 2020	67.7%	66.1%
		Monitoring of number of hires	See Section 3.4.7.2	See Section 3.4.7.2
		Monitoring of voluntary turnover rate	See Section 3.4.7.2	See Section 3.4.7.2
Participation of employees	The Leadership Way defines four key behaviors: caring, demanding, open and 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 insipiring behavior on a daliy basis. ENGIE&Me annual engagement survey	The Group has committed to achieving an engagement level of more than 80% in 2020	78%	79%
	Diversity policy: this policy has been awarded the Diversity Label	The Group has committed to increasing the proportion of women in its workforce to 25% by 2020	22.2%	21.1%
		The Group has committed to ensuring that the proportion of women in senior management positions is more than 33% by 2020	38.5%	24%
		The Group has committed to increasing the proportion of non-French and non-Belgian senior managers to more than 25% by 2020	21%	24%
Crucial challenge: Health and Safety at work - Personal safety				
This challenge includes the health and safety of employees, contractors, and subcontractors, and the quality of work life at ENGIE's sites				
Occupational health and safety risk (see Section 2.3.6.1)	Global agreement on health and safety at work, which states the goals and strategies of the health and safety policy. Group health and safety policy: this policy sets out the fundamental principles and minimum requirements that have to be met for all the ENGIE entities, BUs and functional departments, regardless of their location, for the health and safety of individuals and property. It constitutes, for every person, a reference point for the actions undertaken, to ensure that health and safety are incorporated within all projects and initiatives, and are fully associated with ENGIE's image. European agreement on the improvement of working conditions. 2016-2020 Health and safety action plan “No Life at Risk” program of specific actions designed to strengthen the health and safety culture. Annual communication campaign Feedback shared among the BUs and subsidiaries	Frequency rate of less than 3 for accidents with lost time for employees by 2020 (at 2015 scope)	Employee accident FR of 3.3 against a 2017 target of 3.6 (Employee accident FR of3.5 at 2018 scope)	Employee accident FR of 3.4 against a 2018 target of 3.5
		Managerial safety inspections		
		Identification of potentially serious situations and events:		
		% of Group entities that have a process that ensures training in the “life-saving rules” for subcontractors	85%	92%
		% of Group entities that have a process that ensures the identification and management of potentially serious events	90%	93%
		Annual health and safety reviews conducted with each BU		
		Monitoring of health and safety results by the Executive Committee and the EESDC		

Associated CSR risks identified and monitored by the ERM proces	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Personal safety risk *(see Section - 2.3.6.2)*	Safety rules for international trips Employee access to the SOS international medical and health portal Employee access to the analyses and reports of the *Control Risks* site on country risks and to the e-learning on personal security when traveling abroad	In 2017, communication campaign on work shutdowns if safety conditions are not met In 2018, communication campaign on the employee and subcontractor engagement: "United together for everyone's safety" Reinforcement of event-detection mechanisms "Travel Tracker" tool to monitor individuals traveling in high-risk areas	No significant event	No significant event

CORRUPTION

Associated CSR risks identified and monitored by the ERM process	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Crucial challenge: Ethics and compliance **This challenge includes conducting business responsibly, the fight against corruption, compliance with ethical rules in conducting business and lobbying, and compliance with tax and regulatory requirements**				
Corruption risk *(see Sections 2.3.4 and 4.2)*	Anti-corruption policy based on: • the Ethics Charter • the Practical Guide to Ethics • the Integrity referential • the Ethics Compliance referential • the Codes of Conduct, including the Code on Lobbying and the Code of Conduct in Supplier Relations • Ethics and CSR clause in General Terms of Sales	System for whistleblowing and reporting ethics incidents Control process Annual compliance procedure INCOME COR 4 internal control program Internal audits External audits, including the ISO 37001 certification audit (certification received in 2018)	175 incidents (proven or unproven) declared in INFORM'ethics	218 incidents (proven or unproven) declared in INFORM'ethics
		The Group has committed to train 100% of its senior managers in the fight against corruption by 2020	94%	91%

HUMAN RIGHTS

Associated CSR risks identified and monitored by the ERM process	Policies or action plans established	Objectives, methods and indicators established to monitor performance	2017 results	2018 results
Crucial challenge: Human rights **This challenge includes respect for the rights of employees and local communities and respect for the Group's commitments in its commercial relationships**				
Risk of human rights violations (see Sections 2.2.4, 4.2 and 4.3)	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 2.2.4 et 4.2.3) Annual ethics compliance report (quantitative and qualitative indicators) (See Section 4.2.7) System for whistleblowing and reporting ethics incidents (see Section 4.2.5) Monitoring of the Group vigilance plan (See Section 4.3.3)	175 incidents (proven or non-proven) declared in INFORM'ethics, 19% of which involve social responsibility and human rights and 4% involve HR practices	218 incidents (proven or non-proven) declared in INFORM'ethics, 34% of which involve social responsibility and human rights, including HR practices

TAX				
Associated CSR risks identified and monitored by the ERM process	**Policies or action plans established**	**Objectives, methods and indicators established to monitor performance**	**2017 results**	**2018 results**
Crucial challenge: Ethics and compliance **This challenge includes conducting business responsibly, the fight against corruption, compliance with ethical rules in conducting business and lobbying, and compliance with tax and regulatory requirements**				
Tax risk (see Sections 2.5.8, 6.2: Note 28)	Tax policy: this policy sets out the rules and principles for the payment of taxes in the countries in which the Group operates.	Tax reporting by country	See tax reporting table by country on the ENGIE website	See tax reporting table by country on the ENGIE website

The main non-financial risks associated with the activity, products and business relationships are presented in Section 2 “Risk facrors”.

Pursuant to the French Act of March 27, 2017, ENGIE has drawn up a 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 controled subsidiaries world-wide, as well as those of its main suppliers. The vigilance plan is described in Section 4.3 “Vigilance plan”.

The CSR Department monitors environmental and societal controversies and regularly reports on them to Management and to the Committee on Ethics, Environment and Sustainable Development (EESDC). It is in contact with NGOs to discuss these topics and manages stakeholder engagement training to reduce their occurrence in the future.

3.4 Social information

3.4.1 Human resources development and mobility policies

To become more agile and adapt to the changes in its environment, the Group began implementing an ambitious human resources action plan in 2014. This involves creating conditions that enable it to deliver its strategy while making individual and collective concerns a central part of its transformation. The action plan was implemented in three strategic areas:

- culture and leadership: centralized responsibility, innovation and performance;
- the adaptation of skills and Métiers to customer and digital solutions;
- agile organization, project mode and continuous improvement.

HR activities are also organized around two fundamental, cross-functional factors: the Group's commitment to health and safety and the attention given to the social and societal impact of its actions.

In 2018, ENGIE made use of its Skills, Mobility and Schools initiatives in order to adapt its employee's skills to the current and future challenges it faces and to enhance their employability. The aim of these initiatives is to accelerate the shift towards growth-oriented activities, favoring mobility by promoting careers within the Group and creating a trend conducive to the transferring and sharing of skills.

3.4.1.1 Anticipation of the skills needed to prepare for the future

In order to prepare employees for the challenges of the future and to plan our activities in relation to the development of our associated skills and our transformation, the ENGIE Skills initiative continued in 2018. An analysis of key trends and challenges in terms of skills was carried out, and a teaching and operational action plan was implemented.

This consists of:

- sharing the results achieved by ENGIE Skills within the respective areas at Executive Leadership Sessions with the BU management teams and the Group Executive Committee. These are a key element in strategic planning for the BUs and the Métiers;
- communicating globally and, in particular, to union organizations in Europe, which were very keen for information on this strategic subject. ENGIE Skills makes an effective contribution to social dialogue;
- developing operational initiatives and specifically promoting the technical sector and the role of “ENGIE Technician”, which is central to the Group's skills in a context of worldwide shortage. These initiatives will be rolled out in Europe in 2019:
  - the creation of a network of ambassador “Technicians” who work to promote their technical occupations and the associated careers. The network comprised 100 ambassadors at the end of 2018 and is expected to become a community of 500 employees by the end of 2019. This approach has been welcomed, in particular, by the sector and our social partners,
  - the rolling out of 10 internal career pathways. Experimentation with opening these pathways externally, with the aim of attracting populations not currently engaged in technical employment into our technical occupations.

3.4.1.2 Internal mobility to support the Group’s transformation

ENGIE Mobility contributed to the Group's transformation by supporting 10 major projects, eight of which were successfully completed, including the evolution of Corporate in Europe and the sale of the EPI exploration and production business. It took responsibility for new projects, including the customer relations project managed by the BtoC BU.

ENGIE Mobility is developing initiatives to prepare for the future, enhancing the engagement and employability of employees in France. It aims to extend these initiatives to other countries where the Group operates in 2019:

- the modeling, based on a design created with 100 employees, of the employee experience of mobility, which is a decisive factor in the development of effectiveness at all levels of the business; the launch of a digital mobility space at the end of 2018 in France; and the testing, together with a start-up, of a solution using artificial intelligence;
- the stimulation of the internal labor market with, among other things, events for specific occupations (with 1,500 employees taking part in five events), coordination of regional mobility networks and more than 50 local events at our agencies.

ENGIE Mobility has helped to professionalize stakeholders in mobility and has provided individual support to nearly 500 employees in relation to their career plans, which, for half of them, included organizational mobility.

3.4.1.3 Developing employee skills and employability through training

The ENGIE Schools initiative was launched in 2018 in order to support the Group's international growth. The aim is to focus our energy on seven projects, to organize skills transfers and to strengthen the excellence and reach of the Group’s 21 professional development schools.

In 2018, ENGIE University accelerated the deployment of leadership, energy revolution, customer focus and digital programs with managers and the talented individuals it is developing. Five temporary campuses were created, each delivering more than 20 different training courses at a time in a single location. The campuses host hundreds of employees, providing a way of taking the training offered by ENGIE University into the Group's various geographical areas. They provide an effective response to the challenges of decentralization and the development of leadership skills whilst maintaining the Group’s philosophy. These events, which complemented the traditional training courses, were a key driver for ENGIE’s culture, serving to boost employees’ commitment, sense of belonging, and ownership of the strategy.

The Group continued to implement a digital culture among its employees and managers. Digital methods are increasingly used in employee training. The number of digital training hours has doubled since 2016. The original training initiatives, which are based on a series of programs rolled out over several weeks, have been delivered with great success to more than 15,000 employees at a time.

In 2018, approximately 6,000 employees signed up to use the SynerFORM tool for optimized, shared learning in France.

In a context of individual change and collective transformation, the Group HR Department designed a whole range of solutions to meet the needs of employees: coaching, mentoring, training, entrepreneurship development, financial support, end-of-career paid leave, etc.

In 2018, 66.1% of ENGIE's employees received training.

3.4.1.4 Targeted development policies

The ENGIE Boost initiative, which was launched in 2018, is aimed at identifying, developing, motivating and increasing the loyalty of high-potential talent at all levels of the organization, in order to prepare these individuals to occupy the most strategic roles at the Group.

ENGIE Boost is an acceleration program designed to develop our key Talent, the ENGIE Boosters.

The Rise! and Pulse! programs prepare leaders with the capacity to assume strategic responsibilities within ENGIE in the near future. The Up! program is designed for High-Potential talent within each BU.

Inclusion in the Rise! or Pulse! programs is determined by the Group Human Resources Department, which uses People Reviews carried out with the BUs and a range of assessment/development tools to ensure a clear and coherent approach.

Individuals who join the Rise! program will have progressed three career levels; those who join the Pulse! program have more proven experience.

In accordance with the principle of subsidiarity, inclusion in the Up! program is managed at BU level.

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 we are in the best position for future development

The Leadership Way is an essential part of this transformation and is rolled out to all managers and in each of the HR processes, in order to provide strength and consistency, particularly during staff hiring and selection, training and development, talent detection and performance appraisal. With regard to the latter, since 2017, the variable remuneration of the Group's 600 "executives" has been divided into three parts:

- an economic part (65% of the total), based on financial criteria at Group and BU level;
- an individual part (35% of the total), based on the involvement of the executive in this group (in terms of innovation, cooperation and managerial conduct);
- a possible maximum penalty of 20% of the target bonus triggered in the event of the observation of conduct that does not comply with the Group's values (occupational fatalities or ethical problems).

The Co.Leader training course, a central part of the rolling out of ENGIE's Leadership Way, was delivered to 23,000 Group managers in two years.

ENGIE has continued to implement targeted policies through coaching and mentoring; personalized career support for individuals with Group-level roles and the ENGIE Boosters; development programs based on 360° feedback, i.e. evaluations by line managers, peers and direct reports; missions or projects that aim to provide unique, enriching experiences; and the identification of talent pools for the different types of key organizational role managed at Group level.

At the end of June 2018, the Group had 305 individuals in roles managed at Group level, 29% of whom were women and 23% of whom were not French or Belgian.

3.4.1.5 HR cross-functionality and innovation to boost the Group's performance

The Group's success depends on the establishment of new, more cross-functional and open working methods and leadership styles at each level of management.

The HR Department uses new technologies and digital tools to develop a common culture and to boost performance. The following initiatives are highlighted:

- the continued simplification of HR processes through "One HR", the shared HR management system, to share and facilitate data analysis to help with employee development;
- transparency and the promotion of shared objectives, such as ENGIE Goals, an application aimed at the ENGIE 50 and the BU Management Committees which enables them to monitor and share their individual and collective goals;
- the launch of a digital committee to coordinate experiments in the BUs and at Group level relating to topics such as the management of future skills and HR data;
- the development of dynamic work spaces to encourage cross-functionality and teamwork;
- the third year of the ENGIE&Me engagement survey of Group employees, which had a participation rate of around 50%, slightly higher than in 2017;
- the "No Life at Risk" health and safety project, rolled out Group-wide.

3.4.2 Attracting and hiring talent

In 2018, the Group strengthened its image among young people and influencers as an international group serving tomorrow's renewable, carbon-free, and digital energy world, particularly through the #ENGIE HarmonyProject brand campaign, which promotes ENGIE's "Imaginative Builders" — a group of employees who refer to themselves as a "community" working towards the common good.

Targeted recruitment campaigns focused on the Group's future activities in the key populations that ENGIE recruits (technicians, occupations related to renewable energy or digital technology, business developers, etc.), in France and abroad, particularly through coordination of the HR ecosystem (ENGIE.com careers pages, job boards, LinkedIn, Twitter, etc.) and on the Imaginative Builders: employees who are extraordinary due to their technical skills as well as their personalities, brought together by their desire to contribute to harmonious progress.

ENGIE recruitment days were held in various French regions, combining the promotion of internal mobility and external recruitment.

Other events, such as the ENGIE People Labs, which are designed to act as accelerators of societal innovation, bringing together the various talented individuals of the Group and its partners (such as the Junior Entrepreneurs), also enhanced the Group's attractiveness, bringing together internal and external communities to reflect on themes associated with the new energy world and major societal trends. One event was dedicated to how women imagined their lives would be in 2030. ENGIE's participation and promotion in high-profile activities continued with initiatives such as "*Paris Pionnières*", which welcomed 15 female employees into an entrepreneurship program aimed at increasing awareness and incubating business ideas, and "Science factor", which promotes science among young women.

3.4.3 Social commitment: Building a company committed to corporate citizenship and solidarity

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. The social dimension of ENGIE's CSR policy is organized around three key areas: diversity, inclusion, and solidarity and social connection. Social innovation underpins all of these areas.

Diversity

The diversity policy implemented by ENGIE in 2012 was rewarded by the four-year renewal of its Diversity label in October 2017 for all Group activities in France. ENGIE is also a founding partner of the Management and Diversity Chair at Paris-Dauphine University and a founding member of the *Fondation Égalité Mixité* (Equity Diversity Foundation) under the aegis of the non-profit association *Fondation Agir Contre l'Exclusion*, or FACE (Action Against Exclusion Foundation). In 2017, ENGIE produced a guide for the HR sector and managers called "How to diagnose a situation of alleged discrimination and how to respond", drawn up in collaboration with the Ethics sector.

"Diversity allows ENGIE to be successful and attract young talent. ENGIE's effectiveness will stem from its ability to resemble the society it serves" - Isabelle Kocher - 10/05/2018.

Professional and gender equity

Equal pay for women and men is one of the key points to which the Group is committed, in addition to achieving the quantified goal of 25% women in its workforce by 2020.

In the context of the European agreement signed on November 22, 2017, a European seminar was held in Paris to promote diversity and inspire all the stakeholders (social partners, managers and the HR sector) on the basis of actions already carried out by the BUs. Isabelle Kocher encouraged the teams to exceed the target of 25% and to be very ambitious in their proposals.

In 2018, ENGIE carried out an experimental study to compare the career development of women and men at the various levels of the organization, to identify the factors contributing to pay gaps and to create a benchmark with other groups. This initial study took place at three Group companies: ENGIE SA, ENGIE Cofely and ENGIE Electrabel. In 2019 and 2020, ENGIE will carry out diagnostic testing on this subject on a global scale.

At the end of 2018, the proportion of women in the Group was 21.1%.

The proportion of women on the Group Executive Committee is 27% (three women and eight men). Women represent 20% of the ENGIE 50.

To promote gender equity within the business lines, ENGIE strives to raise awareness among young people so that they become familiar with the Group's technical careers. To this end, it has partnered with programs such as "*Elles Bougent*" and "Girls Day and Boys Day" in Belgium and the Netherlands.

Young employees, seniors and intergenerational policy

Employability, particularly that of young people, is a key priority, with a target, in France, of 5% of the workforce in work-study programs and a conversion rate of 60% into technical jobs at the end of the training period. With a higher number of young workers taking part in 2018 (4,796) work-study programs are particularly favored by the Group, which wants to create a path to excellence that leads to employment via high-quality training. In 2018, ENGIE also pursued its inclusion initiatives on the Engagement Jeunes intercompany exchange platform, dedicated to young people on work-study programs looking for their first job, and signed the White Paper on access to employment for disadvantaged young people. ENGIE also took part in the Pacte Avec les Quartiers pour Toutes les Entreprises initiative, with a commitment to providing internships to 2,000 young people in troisième (ninth grade) from December 2018.

ENGIE continued to contribute to the Pact for Youth initiative in 2018 by participating in the "Apprentices in Motion" international mobility project. As part of its membership of the Alliance for Youth initiative (the first pan-European movement in Europe, bringing together 200 companies around Nestlé), ENGIE took part in the European Skills Pass and *Mini-entreprises* projects in France, in partnership with *Entreprendre Pour Apprendre* (affiliated to Junior Achievement Europe) which aims to develop the entrepreneurial skills of young people while enabling the company's employees to get involved with young people in the general population.

Knowledge and skills transfer is also boosted by planning for pre-retirement periods, encouraging younger workers to take part in tutoring programs such as "*Les maîtres de l'énergie*" (Energy Experts), and mentoring and reverse mentoring programs, i.e., where employees receive personalized support from other employees who are either more senior or have more expertise in a specific area. At the same time, and for the seventh straight year, ENGIE raised awareness of intergenerational issues among its employees by taking part in the Octave program, a powerful tool for change led by Danone. By opening itself up to other enterprises in this way, ENGIE has developed its capacity for innovation.

Religious diversity

One of the 26 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. To support managers with this issue, in 2015 the Group prepared some points of reference on "religious diversity in the company." This guide was collectively reviewed in 2018 and an updated edition was announced.

Employees with disabilities

The Group pursues measures to encourage the hiring, career development, training and retention of people with disabilities. For several years, it has had a disabilities network which promotes discussion and skills-building initiatives in the field, and the development of joint large-scale initiatives.

For ENGIE in France, the overall employment rate of people with disabilities was 4.61% in 2017, while the direct employment rate was 4% and rising. In total, ENGIE employs more than 2,700 individuals with disabilities in France, up 33% in five years.

ENGIE pursued its commitment to people with disabilities in 2018 by signing a new agreement with employee representatives for the period 2018-2020. The undertakings set out in the agreement include:

- favoring the hiring of people with disabilities;
- taking into account the needs of people affected by the transformation by providing the necessary support and facilities;
- supporting professional development;
- expanding purchasing in the sheltered and adapted sector.

ENGIE conducts specialized recruitment in France to identify people with disabilities who have skills and abilities the Group needs (Handy'recruteurs campaigns). Purchasing in the sheltered and protected sector represented around €7 million in 2018.

On November 22, 2018, as part of the European Day of Persons with Disabilities (EDPD), an awareness-raising day was held at ENGIE's registered office and at Paris sites, enabling all employees to take part in entertaining and informative workshops on every floor of the T1 Tower. In addition to this, a number of events were organized by the Group entities as part of the EDPD.

Inclusion, job-seeking support and social solidarity

The Group is committed to the social and professional inclusion of people in severe difficulty or in a situation of exclusion. Its actions include:

- sponsorship of talented students from disadvantaged neighborhoods (scholarships and mentoring by a committed Group employee, post-baccalaureate and pre-baccalaureate);
- assistance with job creation via ENGIE's employment foundation, *Fondation Agir Pour l'Emploi* (FAPE), which operates under the auspices of the *Fondation de France*. The foundation's resources come from donations by Group employees and retirees, which are fully matched by their companies. Since its establishment in 2013, FAPE (in France and Belgium) has awarded more than €1.1 million in grants for 93 projects aimed at access to employment, job creation and inclusion of the most vulnerable individuals across the region;
- the Group renewed the *Parcours Emploi – Mobilité* – Sport (PEMS) program in two regions: Ile-de-France (50 young people) and Arras (15 young people). The program helps young people between the ages of 18 and 25 from disadvantaged city neighborhoods to obtain work-study contracts. More than 200 young people have been supported by the initiative since it started in 2016.
- the ENGIE *Solidarité Nouvelle contre le Chômage* (SNC) Group was created with 20 volunteers who partner up to mentor around a dozen people in long-term unemployment living in Ile-de-France.

ENGIE supports the International Social Observatory (ISO) and the work of its international delegations in Europe, China, South America and Africa.

LGBT (lesbian, gay, bisexual and transgender) employees

As part of its initiatives to boost diversity and combat discrimination, ENGIE signed the L'Autre Cercle's LGBT commitment charter on December 6, 2017. Following this commitment, a working group comprising LGBT employees was created to implement an action plan in 2019.

3.4.4 Employee savings plans and shareholding

3.4.4.1 Group employee savings plans policy

These plans are available to employees of companies that are fully consolidated or whose share capital is majority-owned, directly or indirectly, by ENGIE SA.

Savings plans

In France, since the end of 2009, ENGIE Group employees have had access to a Group Savings Plan (*Plan d'Épargne Groupe* – PEG), which includes employee shareholding funds as well as a large range of diversified savings options.

Outside France, measures have also been put in place in some countries to allow employees to save, under terms adapted to local laws.

Retirement savings plans

In France, since 2010, all Group employees may, at their own pace, build funds for retirement by paying into the ENGIE Group Collective Retirement Plan (*Plan d'Épargne pour la Retraite Collectif* – PERCO).

Outside France, products exist in some countries that allow employees to supplement their pensions by making voluntary contributions on favorable terms.

Solidarity funds

In France, the ENGIE solidarity employee mutual Fund (FCPE) called "*Rassembleurs d'Énergies Flexible*" has supplemented the range of Group Savings Plan and Retirement Savings Plan investment products since the beginning of 2012 and enables employees to take part in a social initiative in tune with their businesses.

3.4.4.2 Profit-sharing and incentive plans

Due to the existence of separate legal companies, a common collective profit-sharing and incentive plan is not possible for the Group.

At the ENGIE SA level, an incentive agreement was signed with all representative trade unions on June 26, 2017, for the 2017-2019 period. The amount paid out in 2018 for 2017 profit-sharing was €17,958,000. The employee profit-sharing agreement for ENGIE was signed on June 26, 2009. Application of the statutory profit-sharing formula for 2017 resulted in no payment being made to employees in 2018.

3.4.4.3 Employee shareholding

At the end of 2018, employees held 3.9% of the share capital (including 3% held through an FCPE). Pursuant to Article L. 225-100-3 of the French Commercial Code, the Supervisory Boards of these FCPEs exercise the voting rights attached to the securities registered among their assets and decide, if necessary, whether to contribute these securities to public tender or exchange offers.

The Supervisory Boards of the employee-sponsored mutual funds comprise shareholder representatives and, up to a maximum of half the members, company representatives designated under the procedures set out in the funds' rules. Although the Supervisory Board is composed in an equitable way, its chairman, who must be chosen from the shareholder representatives, holds the casting vote.

In 2018, the Link 2018 employee shareholding plan enabled more than 40,000 Group employees in 18 countries to take part, for a total subscription of €340 million, corresponding to 33 million shares.

This is the first employee shareholding operation since ENGIE's shift in strategy in 2016, which aimed to reposition the Group in the businesses of the future. The successful implementation of the strategy is due to the commitment of its employees. Subscriber numbers increased by more than 25% compared with the previous plan, Link 2014, confirming the confidence of employees in the transformation plan. In France, more than 30,000 employees signed up to the new Link+ plan, committing themselves for 10 years.

3.4.5 Employee relations

At Group level, employee relations are organized around two representative bodies that are privileged forums for consultation between management and employee representatives.

The European Works Council (EWC)

With 41 full members representing the Group's 135,000 employees throughout Europe, the purpose of the EWC is to develop and strengthen European social dialogue, ensure balanced representation between the Group's countries and main business activities, and develop social dialogue within these activities. A secretariat with 13 members representing eight countries meets once every two months.

In 2018, the EWC held four plenary meetings, along with eight EWC secretariat meetings, and eight meetings of the health and safety, social, strategy and research working groups.

French Group Works Council

This body, which represents more than 72,500 employees in France, has 30 full members. Two meetings were held in 2018.

Group collective bargaining agreements

On November 22, 2017, Isabelle Kocher and three European trades union federations industriAll Europe, EPSU and FETBB, signed a European agreement on professional gender equality. This agreement for an indefinite term reaffirms by extendng the 2012 agreement that the promotion of egual opportunity, egual treatment and diversity of employeed is an absolute priority for the Group. ENGIE also remains true to the commitments made under the global agreement on fundamental rights, social dialogue and sustainable development signed in 2010. The renewal of the diversity label in 2017 in France (first obtained in 2014) and the signing of the international Labor Organisation's (LO) Disability Charter in 2016.

3.4.6 Health and safety policy

3.4.6.1 Results

As in previous years, performance in terms of frequency and severity of accidents involving Group employees continued to improve in 2018. The rates of accidents at work were as follows:

- a lost-time injury frequency rate for Group employees of 3.4, in the scope extended since January 1, 2016 to include all activities under ENGIE's management. This good result relative to the Group's 2018 target of FR of <3.5 confirms the progress of previous years, and shall be appreciated in view of the current transformation of the Group's activities towards more service activities that are more exposed to risks for people, and on average less mature concerning safety culture than industrial activities;
- a severity rate of 0.19 decreasing compared to last year (0.20).

The number of fatal accidents arising from the exercise of a professional activity among all the people working for the Group (Group employees, temporary workers and subcontractors) was 7 in 2018, within a broader scope of activities than in 2017 and with a greater potential exposure to risk due to the transformation of the Group's activities.

In the field of occupational health, the number of new cases of occupational disease was 91 in 2018.

3.4.6.2 The health and safety management system

The key principles of the Group's health and safety policy were defined in 2010 through an agreement with the representative bodies of European personnel, and strengthened by the global agreement on occupational health and safety of May 13, 2014.

The Group's Health and Safety Rules set out the minimum standards and requirements that apply within the Group.

Targets set for the period 2016-2020 focus mainly on eliminating serious and fatal accidents, controlling industrial risks, reducing workplace accidents, reducing absenteeism for medical reasons, and developing a health and safety culture and commitment among employees, managers and subcontractors.

The Group's performance in terms of occupational health and safety and process safety is monitored by the Executive Committee, the Board of Directors and the Ethics, Environment and Sustainable Development Committee of the Board of Directors (EESDC). In 2018, all analyses of fatal workplace accidents were presented to the Executive Committee and the, EESDC. Regular updates were also provided at meetings of the Board of Directors and of ENGIE 50, which brings together all the directors of the BUs and the Group's functional directors.

The health and safety performance is shared with managers and the Group's health and safety functional line, distributed to the BUs via managers and made available to all employees on the Group intranet.

Periodic updates and annual reviews are carried out with each BU in order to assess the effectiveness of the measures implemented and, particularly in 2018, to evaluate their capacity to prevent serious and fatal accidents involving employees and subcontractors.

3.4.6.3 Strengthening the health and safety culture

Various tools are used to strengthen the health and safety culture among the Group's employees and subcontractors.

The action program to reinforce the safety culture of everyone, with a focus on preventing serious and fatal accidents (“*No Life at Risk*”) continued, with a focus on four areas:

- making the ENGIE Care DNA visible and perceptible for everyone;
- strengthening interactions and exchanges between BUs;
- strengthening the commitment of subcontractors;
- ensuring that health and safety Group Rules are strictly implemented.

The Group has established a major training program in order to develop the leadership qualities of its managers in health and safety, i.e. their capacity to influence the safety behavior of their colleagues. The Group is also increasing the capacity of its operators to influence the safety behavior of their colleagues through the detection of situations and events with high-potential of severity and through shared vigilance (see Section 3.4.6.4).

Substantial investments were made in training in 2018: 32% of the total number of training hours were devoted to Quality, Safety and Environment (QSE).

A memory anchor learning module, based on the latest scientific expertise in memory and artificial intelligence, has been developed to give each employee a personalized tool for learning the main rules to be respected in terms of health, safety and security.

In 2018, the Group’s annual health and safety campaign (United together for everyone’s safety) focused on the basic practices to be implemented by each employee and each subcontractor of the Group to prevent accidents at work, particularly serious and fatal accidents. Awareness campaigns on specific subjects were also rolled out by the BUs and the subsidiaries, with respect to the most significant risks generated by their activities.

The health and safety functional line facilitation makes extensive use of digital tools, with a great deal of work going into dissemination of information to the various BUs and entities: organization of themed monthly webinars, and of presentation of feedback on fatal accidents, and the provision for the functional line of various technical media through a shared collaborative space (SharePoint Global Care).

The Group also promotes the sharing of practical solutions through networks, communities of practices and thematic discussion groups on Yammer, the Group’s social networ

A weekly newsletter, Prevention News, covering most of the exchanges with the BUs, is sent out to the entire health and safety functional line. This document enables information on all accidents, significant hazardous situations and situations and events with high-potential severity (HiPo) reported by the BUs to be shared Group-wide.

In 2018, the Group’s Global Care functional line (occupational health and safety, quality of life at work, security, process safety and crisis management) breathed new life into risk prevention approaches with its “Acceleration Days” convention. These days brought together the health/safety/security managers of the BUs, subsidiaries and entities to address the two key themes: the commitment of the Group's managers and of our subcontractors to improve risk management when providing services contracted by ENGIE..

3.4.6.4 Prevention of serious and fatal accidents

As part of its action plan to eradicate fatal accidents, the Group has defined nine “Life-Saving Rules”, which constitute the last guardrail before a serious or fatal accident, if all other technical and organizational barriers have not worked. The BUs are also implementing a systematic approach to identifying and handling situations and events with high-potential severity (HiPo) that are precursors to serious accidents. Lastly, operators are asked to stop working if safety conditions are not met (the “Stop the work” approach) and to engage in shared vigilance (“I am equally vigilant about the safety of other people”).

The Group’s unwavering commitment to eradicate fatal accidents, particularly among its subcontractors, prompted it to revise the Group rules on health and safety in subcontracting in 2018, simplifying and reinforcing its requirements, and to establish a specific action plan in this regard, implemented by the operational teams with the support and coordination of the Group’s Global Care and Procurement functional lines.

3.4.6.5 Dialogue with social partners

In 2018, dialogue with employee representatives and trade unions continued at all levels of the Group and particularly with global and European bodies in the context of Group health and safety agreements. Specific committees met to monitor the implementation of the various commitments.

3.4.7 Social data

3.4.7.1 Note on the methodology of social indicators

1 Tool

The social indicators are derived from Group social reporting (GSR). They are set out in a shared Group database (which may be viewed on request).

The collection, processing and reporting of data entered by the local legal entities, subsidiaries of the ENGIE Group, is carried out in the Magnitude financial consolidation application, in accordance with the IFRS financial scope.

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.

2 Scope of reporting

A reporting percentage is attached to each indicator, according to the workforce covered. Some missing or inconsistent data are omitted from the report .

Only data relating to the workforce and turnover is reported for the Africa BU.

Data relating to remuneration and professional training have not been included for the GTT BU. The data reported for workforce, turnover and working conditions at December 31, 2018 are the same as for 2017.

The headcount of the entities AEGE Concept and SERT, acquired at the end of the year, were not included in the HR and SST reporting. Their exclusion from the scope of reporting is therefore not reflected in the restitution rates [1].

3 Consolidation methods

The indicators for this report are consolidated using clearly defined procedures and criteria.

Data on the organization's structure, employee turnover, working conditions, training and safety were consolidated by aggregation.

4 Internal control

The social data are successively consolidated and verified by each operational entity and by each BU, before reaching the Group HRD level.

5 Additional information on some indicators

a) Employment

The Group data encompass the data of the 23 BUs, divided into nine operating segments.

Administrative employees are recognized under "senior technicians and supervisors".

The Belgian entities in the energy sector (Electrabel) do not declare "manual workers, clerical staff and technicians" as, contractually, unskilled or low-skilled workers have employee status. This might cause some underestimation of this category.

The French concept of cadres (managerial staff) is sometimes difficult to understand in other countries. This can lead to a slight underestimation of the number of managerial staff because some entities may take only their senior management into account.

b) Staff changes

Since 2017, 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.

c) Diversity and equal opportunity

The declared percentage of people with disabilities provides the best possible information on the inclusion of people with disabilities. We do 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.

d) Career development

The professional training indicators provided in this document do not take e-learning into account.

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.

e) 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.

f) Compensation

Group policy is to offer everyone remuneration that is personalized, fair and competitive on the market, and which reflects the performance and level of responsibility of each person.

The compensation indicator is the ratio of the gross average salary in the "manual workers, clerical staff and technicians" category as a proportion of the national legal minimum wage. This ratio enables assessment of the relative average national salaries of full-time manual workers, clerical staff and technicians.

The average gross salary is obtained by dividing the annual gross salary by the average monthly full-time equivalent (FTE) workforce.

The restitution rate mainly depends on the existence and availability of a legal minimum wage. Legal minimum wage data for 2018 are provided by Eurostat.

Changes in payroll costs are also provided in Section 6.4.4 "Five-year financial summary".

(1) The proportion of disabled employees indicator is not reported for the UK BU.

g) Health and safety indicators

The analyzes carried out in this document concern the entities and activities in within ENGIE has operational management, regardless of the method of financial consolidation.

The occupational health & safety reporting scope includes the data of entities sold during the year up to their date of transfer, in particular, the data of the LNG BU, sold in 2018, is included in the occupational health & safety reporting within the LNG and GEM sector (representing 15% of the hours worked in the sector), unlike the HR reporting of which they are excluded.

The following entities International Power Ltd. E.V.Box, Priora FM SA, EGST, Teksial, ENGIE Contracting Almaghrib (ECAM), Thermaire & Ampair, FENIX Internation Inc., Fenix Uganda and Tieri fully consolidated and reported for HR indicators not included in Health & Safety reporting these exclusions are reflected in the refund rates presented.

Concerning the indicator number of new cases of occupational illness, we do not consider relevant to provide a refund rate since some companies cannot collect this indicator due to local regulatory constraints.

3.4.7.2 Table of social indicators

		GROUP*			NORTH AMERICA		
	GRI	2018	2017	2016	2018	2017	2016
EMPLOYMENT							
Total workforce ■■	**LA1**	**160,301**	**155,128**	**153,090**	**6,010**	**3,770**	**3,635**
Workforce by geographic region ■■	**LA1**						
France	LA1	74,961	72,589	72,651	0	0	
Belgium	LA1	16,910	16,658	16,697	0	0	
Other European countries	LA1	42,228	45,266	43,946	0	0	61
Total Europe	**LA1**	**134,099**	**134,513**	**133,294**	**0**	**0**	**61**
North America	LA1	7,380	4,903	4,350	6,010	3,770	3,574
South America	LA1	7,033	6,147	6,256	0	0	
Asia - Middle East - Oceania	LA1	9,092	8,858	8,813	0	0	
Africa	LA1	2,697	707	377	0	0	
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown of workforce by SPC	**LA1**						
Managers ■■	LA1	40,131	37,191	35,587	1680	893	1,050
Non-managers ■■	LA1	120,170	117,937	117,503	4,330	2,877	2,85
% Managers		25.0%	24.0%	23.2%	28.0%	23.7%	28.9%
% Non-managers		75.0%	76.0%	76.8%	72.0%	76.3%	7.1%
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown of workforce by type of contract	**LA1**						
Permanent ■■	LA1	92.5%	93.3%	93.4%	99.4%	99.2%	90.3%
Fixed terms ■■	LA1	7.5%	6.7%	6.6%	0.6%	0.8%	9.7%
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Age pyramid of permanent employees ■■	**LA1**						
Under 25 years old	LA1	3.4%	3.1%	3.1%	6.3%	5.6%	4.1%
25-29 yrs old	LA1	9.5%	9.5%	9.7%	11.6%	13.4%	11.7%
30-34 yrs old	LA1	13.5%	13.5%	13.7%	12.9%	14.6%	14.0%
35-39 yrs old	LA1	15.1%	14.6%	14.3%	13.1%	14.7%	14.9%
40-44 yrs old	LA1	13.6%	13.5%	13.6%	12.6%	12.5%	13.8%
45-49 yrs old	LA1	14.3%	14.7%	14.6%	12.3%	11.9%	12.2%
50-54 yrs old	LA1	14.1%	14.2%	14.1%	12.3%	10.8%	11.0%
55-59 yrs old	LA1	11.2%	11.5%	11.4%	10.9%	9.2%	10.6%
60-64 yrs old	LA1	4.5%	4.6%	4.6%	5.7%	5.2%	5.8%
65 and +	LA1	0.8%	0.9%	0.9%	2.4%	2.1%	2.0%
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female workforce ■■	**LA13**	**33,817**	**34,378**	**33,529**	**1,405**	**1,256**	**1,192**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
DIVERSITY AND EQUAL OPPORTUNITY							
Proportion of women in workforce ■■	**LA13**	**21.1%**	**22.2%**	**21.9%**	**23.4%**	**33.3%**	**32.8%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of women in management ■■	**LA13**	**23.3%**	**22.9%**	**22.8%**	**29.2%**	**30.8%**	**32.6%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of apprentices in workforce	**LA1**	**3.0%**	**2.9%**	**2.8%**	**0.1%**	**0.0%**	**0.0%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

* *ENGIE Group covers the 9 sectors.*

■■ *Reasonable assurance for financial year (FY) 2018.*
The 2016 flows are calculated on a like-for-like basis.

LATIN AMERICA			AFRICA/ASIA			BENELUX		
2018	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
7,407	**6,446**	**6,413**	**8,957**	**6,510**	**6,166**	**20,851**	**20,885**	**20,915**
0	0		34	14		136	92	95
0	0		0	0		13,585	13,230	13,287
0	0		0	0		7,065	7,331	7,497
0	**0**	**0**	**34**	**14**	**0**	**20,786**	**20,653**	**20,879**
979	844	740	241	0		65	232	36
6,428	5,602	5,673	0	0		0	0	
0	0		6,261	6,187	6,166	0	0	
0	0		2,421	309		0	0	
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1,556	1,016	973	1,712	1,335	1,152	4,791	4,579	4,585
5,851	5,430	5,440	7,245	5,175	5,014	16,060	16,306	16,330
21.0%	15.8%	15.2%	19.1%	20.5%	18.7%	23.0%	21.9%	21.9%
79.0%	84.2%	84.8%	80.9%	79.5%	81.3%	77.0%	78.1%	78.1%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
91.8%	92.6%	94.3%	82.5%	87.2%	88.3%	96.5%	96.9%	97.0%
8.2%	7.4%	5.7%	17.5%	12.8%	11.7%	3.5%	3.1%	3.0%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
4.6%	4.4%	6.2%	3.5%	3.5%	4.4%	3.3%	3.2%	3.2%
14.7%	14.5%	14.8%	13.8%	14.6%	14.2%	8.1%	8.2%	8.5%
18.8%	18.3%	17.9%	19.2%	18.5%	16.4%	11.1%	12.0%	13.0%
19.2%	18.3%	18.0%	17.4%	16.2%	15.3%	14.5%	14.1%	13.5%
14.3%	14.2%	13.6%	14.2%	14.6%	14.8%	12.4%	12.1%	12.3%
10.3%	11.0%	10.4%	13.5%	13.3%	12.9%	14.2%	14.9%	15.6%
9.0%	9.5%	9.5%	8.8%	8.9%	10.2%	15.6%	15.6%	15.0%
5.8%	5.7%	5.6%	6.3%	6.8%	7.4%	12.9%	12.7%	12.3%
2.7%	3.3%	3.0%	2.6%	3.0%	3.7%	7.2%	6.9%	6.3%
0.7%	0.8%	1.0%	0.8%	0.6%	0.9%	0.7%	0.4%	0.3%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1,256	**1,118**	**1,032**	**1,564**	**1,010**	**921**	**2,918**	**2,858**	**2,905**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
17.0%	**17.3%**	**16.1%**	**17.5%**	**15.5%**	**14.9%**	**14.0%**	**13.7%**	**13.9%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
19.2%	**17.3%**	**17.6%**	**22.7%**	**20.4%**	**18.7%**	**12.7%**	**12.3%**	**12.1%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
0.6%	**2.1%**	**0.1%**	**1.4%**	**1.4%**	**2.4%**	**0.4%**	**0.4%**	**0.4%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

3

		GROUP*			NORTH AMERICA		
	GRI	2018	2017	2016	2018	2017	2016
Proportion of disabled employees		2.1%	2.0%	2.1%	0.0%	0.0%	0.0%
Employees under 25 as a % of permanent hires		13.9%	15.7%	17.6%	9.8%	10.2%	14.1%
Employees over 50 as a % of permanent hires		13.6%	14.3%	12.6%	21.7%	23.8%	17.1%
STAFF AND JOB MOVEMENT							
No. of permanent hires	LA2	18,011	14,339	12,058	1,246	886	680
No. of fixed-term hires	LA2	11,743	9,499	9,190	74	31	356
Hiring rate	LA2	18.9%	15.6%	14.0%	30.3%	24.8%	28.7%
% reporting		99.38%	99.07%	100.00%	81.68%	61.59%	100.00%
Permanent hiring rate	LA2	60.5%	60.2%	56.7%	94.4%	96.6%	65.6%
% reporting		99.38%	99.07%	100.00%	81.68%	61.59%	100.00%
Number of lay-offs		4,101	4,204	3,866	706	572	189
% reporting		99.38%	99.07%	100.00%	81.68%	61.59%	100.00%
Turnover	LA2	9.3%	8.4%	7.8%	27.9%	21.0%	19.3%
% reporting		99.38%	99.07%	100.00%	81.68%	61.59%	100.00%
Voluntary turnover	LA2	5.8%	5.8%	4.4%	11.5%	5.3%	13.6%
% reporting		99.38%	99.07%	100.00%	81.68%	61.59%	100.00%
CAREER DEVELOPMENT							
Proportion of workforce trained ■■	LA10	66.1%	67.7%	65.6%	67.3%	17.7%	53.4%
% reporting		95.00%	97.57%	97.88%	13.47%	17.95%	28.77%
Proportion of women in trained workforce	LA10	18.4%	17.6%	16.8%	16.4%	5.5%	25.7%
% reporting		95.00%	96.13%	97.88%	13.47%	5.34%	28.77%
Proportion of managers and non-managers in trained workforce:	LA10						
Managers	LA10	25.0%	24.6%	22.8%	13.0%	7.7%	22.4%
Non-managers	LA10	75.0%	75.4%	77.2%	87.0%	92.3%	77.6%
% reporting		95.00%	97.57%	97.88%	13.47%	17.95%	28.77%
Total no. of training hours	LA10	3,069,973	3,082,644	3,039,026	5,097	10,541	9,797
% reporting		95.00%	97.57%	97.88%	13.47%	17.95%	28.77%
Hours of training by topic	LA10						
Business techniques		40.8%	45.2%	44.2%	21.0%	50.1%	12.3%
Quality. safety and environment.		32.0%	31.7%	30.2%	20.6%	39.0%	21.1%
Languages		2.8%	2.9%	3.4%	2.5%	0.0%	2.8%
Management and personnel development		17.4%	13.0%	13.8%	2.6%	2.8%	3.8%
Other borrowings and debt		7.0%	7.1%	8.5%	53.4%	8.0%	60.1%
% reporting		95.00%	97.57%	97.88%	13.47%	17.95%	28.77%
No. of training hours per person trained	LA10	31	30	31	11	16	17
% reporting		95.00%	97.57%	97.88%	13.47%	17.95%	28.77%
No. of training hours per woman trained	LA10	27	27	28	9	29	13
% reporting		95.00%	96.13%	97.88%	13.47%	5.34%	28.97%
Training expenses per hour of training *(in €)*	LA10	29	34	33	10	12	31
% reporting		95.00%	97.57%	97.86%	13.47%	17.95%	27.83%

** *ENGIE Group covers the 9 sectors.*

■■ *Reasonable assurance for financial year (FY) 2018.*
The 2016 flows are calculated on a like-for-like basis.

	LATIN AMERICA			AFRICA/ASIA			BENELUX		
	2018	2017	2016	**2018**	2017	2016	**2018**	2017	2016
	1.1%	**0.5%**	**1.2%**	**0.3%**	**0.2%**	**0.2%**	**0.3%**	**0.4%**	**0.3%**
	12.2%	**13.9%**	**14.9%**	**12.1%**	**13.3%**	**25.3%**	**14.5%**	**19.4%**	**20.9%**
	6.5%	**5.1%**	**7.2%**	**6.4%**	**9.5%**	**5.7%**	**16.1%**	**16.8%**	**9.4%**
	1,773	**1,199**	**1,284**	**840**	**677**	**435**	**1,975**	**1,674**	**1,536**
	2,010	**1,464**	**1,309**	**549**	**311**	**236**	**577**	**517**	**511**
	53.7%	**41.3%**	**40.1%**	**16.0%**	**15.2%**	**13.3%**	**12.2%**	**10.5%**	**9.7%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	46.9%	**45.0%**	**49.5%**	**60.5%**	**68.5%**	**64.8%**	**77.4%**	**76.4%**	**75.0%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	667	**869**	**893**	**99**	**372**	**46**	**527**	**311**	**449**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	16.8%	**21.7%**	**20.4%**	**9.0%**	**13.6%**	**9.5%**	**9.0%**	**6.7%**	**7.2%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	6.4%	**7.5%**	**6.2%**	**7.6%**	**7.5%**	**8.4%**	**5.6%**	**4.0%**	**3.7%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	72.5%	**72.7%**	**75.3%**	**56.3%**	**73.1%**	**77.4%**	**73.1%**	**73.1%**	**74.7%**
	100.00%	100.00%	100.00%	65.88%	95.06%	99.37%	100.00%	100.00%	100.00%
	18.4%	**18.8%**	**14.5%**	**16.0%**	**16.2%**	**14.2%**	**12.3%**	**12.5%**	**12.5%**
	100.00%	100.00%	100.00%	65.88%	95.07%	99.37%	100.00%	100.00%	100.00%
	24.2%	19.0%	15.2%	22.2%	22.0%	18.9%	23.4%	22.0%	21.5%
	75.8%	81.0%	84.8%	77.8%	78.0%	81.1%	76.6%	78.0%	78.5%
	100.00%	100.00%	100.00%	65.88%	95.06%	99.37%	100.00%	100.00%	100.00%
	217,719	**147,670**	**179,573**	**171,645**	**220,215**	**215,940**	**504,736**	**521,534**	**507,468**
	100.00%	100.00%	100.00%	65.88%	95.06%	99.37%	100.00%	100.00%	100.00%
	38.8%	41.1%	41.3%	43.4%	59.3%	57.9%	50.5%	57.0%	63.2%
	34.0%	26.7%	29.9%	32.1%	25.6%	29.4%	24.9%	29.8%	27.5%
	10.3%	7.8%	8.7%	2.1%	1.5%	2.9%	0.9%	0.7%	0.7%
	9.2%	13.2%	9.1%	9.1%	7.2%	5.5%	15.9%	7.2%	6.4%
	7.6%	11.2%	10.9%	13.3%	6.4%	4.3%	7.8%	5.3%	2.3%
	100.00%	100.00%	100.00%	65.80%	95.06%	99.37%	100.00%	100.00%	100.00%
	43	**31**	**37**	**35**	**49**	**46**	**33**	**34**	**32**
	100.00%	100.00%	100.00%	65.88%	95.06%	99.37%	100.00%	100.00%	100.00%
	38	**31**	**39**	**28**	**29**	**27**	**24**	**27**	**22**
	100.00%	100.00%	100.00%	65.88%	95.07%	99.37%	100.00%	100.00%	100.00%
	12	**14**	**22**	**11**	**14**	**15**	**29**	**26**	**27**
	100.00%	100.00%	100.00%	65.88%	95.06%	99.37%	100.00%	100.00%	100.00%

		GROUP*			NORTH AMERICA		
	GRI	2018	2017	2016	2018	2017	2016
Training expenses per person trained ***(in €)***	**LA10**	**885**	**1,036**	**1,000**	**109**	**199**	**542**
% reporting		95.00%	97.57%	97.86%	13.47%	17.95%	27.83%
WORKING CONDITIONS							
Days of absence per person	**LA7**	**13**	**12**	**12**	**6**	**3**	**7**
% reporting		95.90%	98.32%	99.06%	29.65%	48.92%	62.76%
Overtime	**LA7**	**3.0%**	**3.0%**	**3.2%**	**3.8%**	**4.4%**	**4.6%**
% reporting		96.39%	98.62%	99.95%	38.79%	61.59%	100.00%
HEALTH AND SAFETY DATA							
Number of fatal accidents (employees)		**4**	**1**	**4**	**0**	**0**	**0**
% reporting		100%	100%	100%	100%	100%	100%
Frequency rate		**3.40**	**3.30** (2)	**3.55**	**1.00**	**0.69**	**1.70**
% reporting		98%	99.08%	100%	100%	65%	100%
Severity rate (French framework) (1)		**0.19**	**0.20**	**0.18**	**0.03**	**0.08**	**0.09**
% reporting		98%	99.08%	90%	100%	65%	100%
Severity rate (ILO framework) (1)		**0.13**	**0.13**	**0.13**	**0.03**	**0.01**	**0.04**
% reporting		98%	99.08%	100%	100%	65%	100%
Number of new cases of occupational illness		**91**	**76**	**100**	**0**	**2**	**1**
COMPENSATION							
Average salary of manual workers. clerical staff and technicians compared with national minimum wage	**legal annual minimum wage in 2018 €**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
France	17,982	NS	NS	NS			
Belgium	18,751						
Spain	10,303						
Netherlands	19,130						
United Kingdom	17,566						1.44
Luxembourg	23,983						
Romania	4,889						
Poland	5,762						
Czech Republic	5,626						
Hungary	5,022						
Slovakia	5,760						
Portugal	8,120						
Greece	8,205						
Germany	17,976						
Turkey	4,562						
United States	12,935				2.06	2.39	4.55
% reporting					21.10%	1.29%	1.86%

(1) the evolution of severity rates does not include fatalities.
(2) 3.50 at 2018 perimeter
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■■ *Reasonable assurance for financial year (FY) 2018.*
The 2016 flows are calculated on a like-for-like basis

LATIN AMERICA			AFRICA/ASIA			BENELUX		
2018	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
490	**449**	**822**	**385**	**676**	**670**	**944**	**905**	**865**
100.00%	100.00%	100.00%	65.88%	95.06%	99.37%	100.00%	100.00%	100.00%
7	**9**	**9**	**5**	**7**	**8**	**15**	**15**	**15**
100.00%	100.00%	100.00%	68.51%	95.06%	100.00%	100.00%	100.00%	100.00%
4.4%	**3.9%**	**8.1%**	**8.7%**	**9.0%**	**10.0%**	**2.9%**	**2.6%**	**2.6%**
100.00%	100.00%	100.00%	71.86%	95.06%	100.00%	100.00%	100.00%	100.00%
1	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
100%	100%	100%	100%	100%	100%	100%	100%	100%
1.84	**1.44**	**3.54**	**0.48**	**0.80**	**1.61**	**3.60**	**2.96**	**3.15**
100%	100%	100%	80%	100%	100%	100%	100%	100%
0.10	**0.10**	**0.05**	**0.01**	**0.04**	**0.06**	**0.24**	**0.20**	**0.20**
100%	100%	100%	80%	100%	100%	100%	100%	100%
1.10	**0.02**	**0.05**	**0.01**	**0.01**	**0.03**	**0.18**	**0.14**	**0.16**
100%	100%	100%	80%	100%	100%	100%	100%	100%
1	**3**	**1**	**4**	**0**	**1**	**3**	**2**	**3**
100%	100%	100%	80%	100%	100%	100%	100%	100%
2018	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
						1.17	1.67	1.71
						1.95	1.88	1.86
						2.13	1.94	1.94
						5.18	3.04	2.42
						1.90	1.71	1.74
			3.49	3.62	3.57			
			0.00					
0.00%	0.00%		7.84%	7.78%	7.64%	97.35%	98.35%	98.05%

	GRI	FRANCE 2018	FRANCE 2017	FRANCE 2016	EUROPE EXCL. FRANCE & BENELUX 2018	EUROPE EXCL. FRANCE & BENELUX 2017	EUROPE EXCL. FRANCE & BENELUX 2016
WORKFORCE							
Total workforce ■■	**LA1**	**55,631**	**52,478**	**53,814**	**31,655**	**33,813**	**31,554**
Workforce by geographic region ■■	**LA1**						
France	LA1	52,470	49,685	50,968	42	42	35
Belgium	LA1	0	0		0	0	
Other European countries	LA1	913	530	542	31,613	33,771	31,519
Total Europe	**LA1**	**53,383**	**50,215**	**51,510**	**31,655**	**33,813**	**31,554**
North America	LA1	21	0		0	0	
South America	LA1	8	8	22	0	0	
Asia - Middle East - Oceania	LA1	1,951	1,890	1,940	0	0	
Africa	LA1	268	365	342	0	0	
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown of workforce by SPC	**LA1**						
Managers ■■	LA1	13,153	11,758	12,039	4,639	4,441	3,206
Non-managers ■■	LA1	42,478	40,720	41,775	27,016	29,372	28,348
% Managers		23.6%	22.4%	22.4%	14.7%	13.1%	10.2%
% Non-managers		76.4%	77.6%	77.6%	85.3%	86.9%	89.8%
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown of workforce by type of contract	**LA1**						
Permanent ■■	LA1	91.6%	91.9%	92.3%	91.5%	92.2%	92.8%
Fixed terms ■■	LA1	8.4%	8.1%	7.7%	8.5%	7.8%	7.2%
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Age pyramid of permanent employees ■■	**LA1**						
Under 25 years old	LA1	3.4%	3.0%	2.9%	3.2%	3.1%	3.0%
25-29 yrs old	LA1	10.0%	10.4%	10.8%	7.2%	6.9%	6.7%
30-34 yrs old	LA1	14.3%	14.5%	14.8%	9.7%	9.3%	9.2%
35-39 yrs old	LA1	15.7%	15.4%	14.9%	11.8%	11.5%	11.6%
40-44 yrs old	LA1	13.4%	13.4%	13.8%	13.3%	13.0%	13.4%
45-49 yrs old	LA1	14.3%	14.5%	14.7%	15.4%	16.4%	16.6%
50-54 yrs old	LA1	14.4%	14.5%	14.3%	16.5%	15.6%	15.3%
55-59 yrs old	LA1	11.5%	11.4%	11.1%	13.2%	13.8%	13.3%
60-64 yrs old	LA1	2.8%	2.8%	2.6%	7.7%	7.8%	8.2%
65 and +	LA1	0.3%	0.3%	0.2%	2.0%	2.6%	2.7%
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female workforce ■■	**LA13**	**9,190**	**8,551**	**9,205**	**8,729**	**10,555**	**10,075**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
DIVERSITY AND EQUAL OPPORTUNITY							
Proportion of women in workforce ■■	**LA13**	**16.5%**	**16.3%**	**17.1%**	**27.6%**	**31.2%**	**31.9%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of women in management ■■	**LA13**	**21.6%**	**21.1%**	**21.2%**	**22.0%**	**21.4%**	**23.3%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of apprentices in workforce	**LA1**	**5.0%**	**4.8%**	**4.6%**	**1.5%**	**1.2%**	**0.9%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

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INFRASTRUCTURES EUROPE			EMT & LNG			OTHER		
2018	2017	2016	**2018**	2017	2016	**2018**	2017	2016
17,194	17,032	16,942	1,260	1,474	1,456	11,336	11,294	10,493
16,970	16,809	16,714	593	774	801	4,716	5,001	3,760
0	0		386	422	439	2,939	3,006	2,971
224	223	228	165	183	216	2,248	2,016	2,504
17,194	**17,032**	**16,942**	**1,144**	**1,379**	**1,456**	**9,903**	**10,023**	**9,235**
0	0		58	57		6	0	
0	0		0	0		597	537	561
0	0		58	38		822	734	697
0	0		0	0		8	0	
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
4,437	4,245	4,103	1,087	1,252	1,257	7,076	7,183	6,614
12,757	12,787	12,839	173	222	199	4,260	4,111	3,879
25.8%	24.9%	24.2%	86.3%	84.9%	86.3%	62.4%	63.6%	63.0%
74.2%	75.1%	75.8%	13.7%	15.1%	13.7%	37.6%	36.4%	37.0%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
94.3%	94.3%	94.1%	97.8%	97.3%	98.3%	94.0%	95.3%	94.9%
5.7%	5.7%	5.9%	2.2%	2.7%	1.7%	6.0%	4.7%	5.1%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
3.31%	3.9%	4.1%	1.0%	0.6%	0.5%	1.3%	1.1%	0.9%
10.80%	11.4%	11.7%	6.7%	5.3%	8.4%	7.4%	7.1%	7.6%
15.08%	15.3%	14.8%	20.0%	22.2%	26.2%	14.2%	14.8%	15.9%
15.56%	14.8%	14.4%	26.7%	27.7%	27.3%	17.2%	16.0%	15.4%
14.41%	14.5%	14.6%	22.1%	20.6%	16.1%	14.8%	14.8%	13.8%
14.73%	14.0%	13.1%	13.3%	11.8%	9.9%	14.5%	14.9%	14.1%
13.05%	13.6%	14.7%	7.0%	7.1%	7.4%	13.8%	13.7%	13.8%
10.87%	10.6%	11.0%	2.4%	4.1%	3.4%	10.4%	11.7%	12.3%
2.10%	1.8%	1.7%	0.9%	0.7%	0.8%	5.1%	5.0%	5.4%
0.09%	0.1%	0.0%	0.0%	0.0%	0.0%	1.4%	0.9%	0.9%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
4,553	**4,406**	**4,236**	**404**	**505**	**514**	**3,798**	**3,814**	**3,055**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
26.5%	**25.9%**	**25.0%**	**32.1%**	**34.3%**	**35.3%**	**33.5%**	**33.8%**	**29.1%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
31.9%	**31.4%**	**30.4%**	**29.1%**	**30.4%**	**30.8%**	**27.7%**	**27.4%**	**26.5%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
5.5%	**5.4%**	**5.8%**	**0.8%**	**1.1%**	**0.5%**	**2.6%**	**2.3%**	**2.0%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

3

	GRI	FRANCE 2018	FRANCE 2017	FRANCE 2016	EUROPE EXCL. FRANCE & BENELUX 2018	EUROPE EXCL. FRANCE & BENELUX 2017	EUROPE EXCL. FRANCE & BENELUX 2016
Proportion of disabled employees		**3.8%**	**3.6%**	**3.8%**	**0.9%**	**0.8%**	**0.9%**
Employees under 25 as a % of permanent hires		**17.3%**	**18.8%**	**19.6%**	**10.9%**	**12.4%**	**13.8%**
Employees over 50 as a % of permanent hires		**8.4%**	**8.8%**	**8.0%**	**23.4%**	**22.8%**	**21.8%**
STAFF AND JOB MOVEMENT							
No. of permanent hires	**LA2**	**5,840**	**4,183**	**3,167**	**4,573**	**4,144**	**3,502**
No. of fixed-term hires	**LA2**	**5,476**	**4,423**	**4,480**	**1,919**	**1,783**	**1,330**
Hiring rate	**LA2**	**20.6%**	**16.5%**	**14.2%**	**20.3%**	**18.4%**	**15.5%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Permanent hiring rate	**LA2**	**51.6%**	**48.6%**	**41.4%**	**70.4%**	**69.9%**	**72.5%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Number of lay-offs		**809**	**876**	**911**	**1,043**	**925**	**902**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Turnover	**LA2**	**7.5%**	**6.5%**	**5.7%**	**13.5%**	**12.2%**	**11.9%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Voluntary turnover	**LA2**	**4.9%**	**3.7%**	**2.8%**	**9.4%**	**8.7%**	**8.4%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
CAREER DEVELOPMENT							
Proportion of workforce trained ■■	LA10	63.3%	70.5%	71.6%	56.3%	53.0%	44.7%
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
Proportion of women in trained workforce	**LA10**	**12.8%**	**12.6%**	**14.1%**	**22.2%**	**21.8%**	**21.2%**
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
Proportion of managers and non-managers in trained workforce:	**LA10**						
Managers	LA10	22.6%	22.8%	21.5%	19.8%	18.8%	13.4%
Non-managers	LA10	77.4%	77.2%	78.5%	80.2%	81.2%	86.6%
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
Total no. of training hours	LA10	950,527	1,018,716	1,018,873	426,341	407,738	389,697
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
Hours of training by topic	**LA10**						
Business techniques		34.0%	36.2%	32.6%	41.3%	42.8%	43.7%
Quality. safety and environment.		45.5%	43.3%	40.3%	33.1%	31.7%	27.3%
Languages		1.6%	1.8%	1.7%	4.0%	6.2%	7.2%
Management and personnel development		12.4%	11.9%	13.0%	15.6%	11.0%	15.5%
Other borrowings and debt		6.5%	6.8%	12.4%	6.0%	8.2%	6.3%
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
No. of training hours per person trained	**LA10**	**27**	**28**	**26**	**24**	**24**	**28**
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
No. of training hours per woman trained	**LA10**	**24**	**25**	**23**	**21**	**22**	**29**
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
Training expenses per hour of training *(in €)*	**LA10**	**27**	**31**	**29**	**16**	**33**	**33**
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%

* *ENGIE Group covers the 9 sectors.*

■■ *Reasonable assurance for financial year (FY) 2018.*
The 2016 flows are calculated on a like-for-like basis

INFRASTRUCTURES EUROPE			EMT & LNG			OTHER		
2018	2017	2016	**2018**	2017	2016	**2018**	2017	2016
3.6%	**3.4%**	**3.5%**	**0.4%**	**0.4%**	**0.5%**	**1.3%**	**1.5%**	**1.2%**
28.2%	**29.4%**	**29.8%**	**6.3%**	**2.6%**	**9.9%**	**8.1%**	**7.8%**	**10.9%**
3.2%	**4.4%**	**2.9%**	**3.1%**	**0.0%**	**7.0%**	**10.1%**	**12.0%**	**16.7%**
592	**742**	**799**	**128**	**78**	**71**	**1,044**	**734**	**570**
651	**586**	**600**	**23**	**29**	**22**	**464**	**346**	**329**
7.3%	**7.8%**	**8.2%**	**12.0%**	**7.5%**	**6.3%**	**13.5%**	**9.5%**	**8.4%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
47.6%	**55.9%**	**57.1%**	**84.8%**	**72.9%**	**76.3%**	**69.2%**	**68.0%**	**63.4%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
19	**23**	**19**	**11**	**16**	**6**	**220**	**235**	**439**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1.1%	**0.7%**	**0.7%**	**6.3%**	**4.1%**	**3.7%**	**7.4%**	**6.4%**	**8.1%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
0.9%	**0.5%**	**0.6%**	**3.2%**	**2.0%**	**2.7%**	**4.5%**	**3.9%**	**3.4%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
78.8%	75.2%	72.9%	64.6%	54.6%	53.0%	59.2%	68.0%	58.4%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%
26.0%	**21.4%**	**21.2%**	**35.8%**	**43.0%**	**38.9%**	**35.9%**	**34.2%**	**26.9%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	98.06%	95.16%
21.8%	20.4%	21.8%	86.3%	81.6%	84.3%	58.2%	57.1%	59.5%
78.2%	79.6%	78.2%	13.7%	18.4%	15.7%	41.8%	42.9%	40.5%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%
582,986	531,107	496,411	25,673	20,325	18,252	185,250	180,151	169,886
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%
45.5%	51.5%	46.5%	6.4%	25.2%	35.5%	38.9%	40.2%	43.4%
17.3%	18.6%	16.2%	1.6%	3.9%	6.5%	27.2%	20.2%	23.4%
1.6%	1.5%	1.6%	4.3%	29.9%	19.8%	6.4%	7.5%	10.5%
31.3%	23.1%	27.6%	86.7%	35.6%	32.8%	16.1%	17.6%	12.6%
4.2%	5.3%	8.2%	0.9%	5.3%	5.4%	11.4%	14.5%	10.1%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%
43	**42**	**40**	**32**	**26**	**23**	**28**	**23**	**28**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%
38	38	42	31	23	26	24	22	24
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	98.06%	95.16%
49	**57**	**57**	**32**	**47**	**51**	**41**	**40**	**30**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%

		FRANCE			EUROPE EXCL. FRANCE & BENELUX		
	GRI	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
Training expenses per person trained *(in €)*	**LA10**	**735**	**857**	**758**	**370**	**776**	**917**
% reporting		99.97%	100.00%	99.88%	100.00%	100.00%	100.00%
WORKING CONDITIONS							
Days of absence per person	**LA7**	**13**	**13**	**14**	**11**	**10**	**9**
% reporting		99.97%	100.00%	100.00%	100.00%	100.00%	100.00%
Overtime	**LA7**	**1.8%**	**1.6%**	**1.5%**	**4.3%**	**4.9%**	**4.9%**
% reporting		99.97%	100.00%	100.00%	100.00%	100.00%	100.00%
HEALTH AND SAFETY DATA							
Number of fatal accidents (employees)		**1**	**1**	**3**	**0**	**0**	**1**
% reporting		100%	100.0%	99.5%	100%	100%	100%
Frequency rate		**5.22**	**5.38**	**5.79**	**3.72**	**3.10**	**3.17**
% reporting		100%	100..0%	99..5%	100%	100%	100%
Severity rate (French framework) (1)		**0.34**	**0.38**	**0.36**	**0.12**	**0.16**	**0.09**
% reporting		100%	100%	100%	100%	100%	52%
Severity rate (ILO framework) (1)		**0.20**	**0.22**	**0.24**	**0.11**	**0.11**	**0.08**
% reporting		100%	100%	100%	100%	100%	100%
Number of new cases of occupational illness		**82**	**68**	**92**	**0**	**0**	**0**
COMPENSATION							
Average salary of manual workers. clerical staff and technicians compared with national minimum wage	**legal annual minimum wage in 2018 €**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
France	17,982	1.50	1.50	1.48	1.00		0.85
Belgium	18,751						
Spain	10,303				2.72	2.93	2.93
Netherlands	19,130						
United Kingdom	17,566	1.40			1.49	1.42	1.53
Luxembourg	23,983						
Romania	4,889				2.90	2.84	3.24
Poland	5,762				2.25	2.00	2.24
Czech Republic	5, 626				3.24	3.35	3.49
Hungary	5,022				2.92	2.88	2.97
Slovakia	5,760				2.33	2.19	2.20
Portugal	8,120				2.09	2.52	2.67
Greece	8,205				2.14	2.24	2.24
Germany	17,976	2.45			2.57	2.56	2.52
Turkey	4,562						
United States	12,935	3.00					
% reporting		91.49%	91.71%	92.02%	84.10%	85.88%	83.55%

(1) the evolution of severity rates does not include fatalities.
*** Groupe ENGIE Group covers the 9 sectors.*
■■ Reasonable assurance for financial year (FY) 2018.
The 2016 flows are calculated on a like-for-like basis

INFRASTRUCTURES EUROPE			EMT & LNG			OTHER		
2018	2017	2016	**2018**	2017	2016	**2018**	2017	2016
2,113	**2,366**	**2,287**	**1,006**	**1,212**	**1,187**	**1,152**	**935**	**852**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.91%	96.72%	95.16%
16	**16**	**16**	**14**	**14**	**10**	**12**	**12**	**11**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.72%	99.32%
2.4%	**2.5%**	**2.4%**	**0.4%**	**0.4%**	**0.4%**	**0.5%**	**0.5%**	**0.6%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.72%	99.32%
1	**0%**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
100%	100%	100%	100%	100%	100%	100%	100%	100%
2.47	**2.20**	**1.79**	**0.74**	**1.34**	**0.00**	**1.09**	**1.87**	**1.15**
100%	100%	100%	100%	100%	100%	97%	100%	100%
0.12	**0.11**	**0.09**	**0.02**	**0.01**	**0.00**	**0.03**	**0.07**	**0.02**
100%	100%	100%	100%	100%	100%	97%	100%	100%
0.07	**0.09**	**0.07**	**0.02**	**0.01**	**0.00**	**0.03**	**0.06**	**0.02**
100%	100%	100%	100%	100%	100%	97%	100%	100%
1	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**
100%	100%	100%	100%	100%	100%	97%	100%	100%
2018	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
1.64	1.60	1.63			0.85	2.08	1.50	1.25
							3.70	3.68
						4.29	4.32	4.92
						1.89	1.86	1.74
		2.93						
								4.07
						1.45	1.57	1.91
								3.39
						0.34		0.24
						1.92	1.56	
100.00%	100.00%	100.00%	0.00%	0.00%	100.00%	43.32%	71.16%	84.08%

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 Director of Environment. It has environmental coordinators in each BU 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 BUs' 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 Section 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 price 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).

nn Verified by the Statutory Auditors with "reasonable" assurance for 2018

3.5.2 Environmental management

At the end of 2018, the entities that had implemented an Environmental Management System (EMS) accounted for 80.3% of relevant revenue(1). The need to obtain external EMS certification is assessed locally with regard to local economic conditions and benefits.

PERCENTAGE OF RELEVANT REVENUE COVERED

Indicator title	ENGIE 2018	ENGIE 2017	ENGIE 2016
By an EMAS certification ■■	2.4%	4.7%	4.8%
By an ISO 14001 (non-EMAS) certification ■■	66%	61.8%	58.5%
By another external EMS certification	2.2%	3.2%	3.1%
TOTAL EXTERNAL CERTIFICATIONS	**70.6%**	**69.7%**	**66.5%**
By an internal certification (but not by a certified EMS)	9.7%	11.9%	14.7%
TOTAL INTERNAL AND EXTERNAL EMS	**80.3%**	**81.6%**	**81.2%**

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2018.*

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 and make it their own.

(1) *Relevant revenue excludes revenue; generated by activities not considered pertinent in terms of environmental impact (services, trading, sales activities, etc.).*

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 Board 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 of the BUs 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 solely engaged in energy trading, financial activities or engineering are excluded. The selected entities 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. Legal entities consolidated at equity are excluded.

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.

The scope is determined on June 30 of the fiscal year. For disposals after that date, the entity is expected to complete the environmental questionnaire with the data available on the last day of the month prior to the disposal. Acquisitions made after June 30 are not taken into account, unless the relevant BU has requested an exception, and subject to the data being available.

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.

The environmental data reporting procedures encompass general procedures defined as standard guidelines to be implemented at the appropriate levels of the reporting process. 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 BU 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 BU.

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).

Previously, ENGIE used to provide a "coverage rate" for each indicator published, corresponding to the response rate obtained from all the entities surveyed. Thanks to the implementation of the new EARTH reporting tool, the coverage rate is now 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 the BU's environmental managers in order to check which industrial entities contributing to EARTH report to which financial entities
- for facilities burning natural gas but which do not have automated measurement systems. Default emission factors for SOx and fine particle emissions has 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). 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 Assessment Report – 2014), considered on a 100-year scale;
- specific GHG emissions from energy generation in kg CO_2 eq./MWh are calculated for the BUs 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, 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 and also includes heat supplied by third parties;
- ENGIE operates hydraulic installations, somes of which have water tanks. Given the difficulties in modeling the evaporation of each site, the evaporated water is not yet included in the environnemental reporting;
- for category 11 of scope 3 (use stage of product), only gas sales to end customers are taken into account. Market sales are now excluded and data reported for the years 2016 and 2017 have been restated.

3.5.4 Group actions

3.5.4.1 Climate change

Direct emissions

Information presented in this section and in Section 2.2.3 “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 Code of Commerce.

By developing a low carbon energy mix(1) 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. ENGIE is further increasing its decarbonization efforts: the emission rate at the end of 2018 was 315.8 g CO_2 eq./kWh, down 13.2% compared to 2017, and down 28.6% compared to 2012 objective of, i.e. well in excess of its 2020 target of -20%. The Group's absolute direct CO_2 eq. emissions fell by more than 23.4 million tons in one year, from 89.4 tons to 65.8 million tons, a 26.4% reduction.

This excellent result reflects 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 prepares a plan to implement these recommendations. 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	ENGIE 2018	ENGIE 2017	ENGIE 2016
Total direct GHG emissions – Scope 1 ■■	65,778,897 t CO_2 eq	89,438,553 t CO_2 eq	120,150,105 t CO_2 eq
of which CH_4 emissions	1,513,026 t CO_2 eq	1,935,173 t CO_2 eq	1,754,034 t CO_2 eq
GHG emissions per business unit – energy generation	315.8 kg CO_2 eq./MWh eq.	363.7 kg CO_2 eq./MWh eq.	392.8 kg CO_2 eq./MWh eq.
GHG emissions per business unit – gas storage	0.9 kg CO_2 eq./MWh eq.	0.8 kg CO_2 eq./MWh eq.	0.9 kg CO_2 eq./MWh eq.
GHG emissions per business unit – gas transportation (excluding via LNG tanker)	1.2 kg CO_2 eq./MWh eq.	1.7 kg CO_2 eq./MWh eq.	1.7 kg CO_2 eq./MWh eq.
GHG emissions per business unit – LNG terminals	1.6 kg CO_2 eq./MWh eq.	2.3 kg CO_2 eq./MWh eq.	2.6 kg CO_2 eq./MWh eq.
GHG emissions per business unit – gas distribution	2.3 kg CO_2 eq./MWh eq.	2.1 kg CO_2 eq./MWh eq.	2.0 kg CO_2 eq./MWh eq.

■■ *Verified by the Statutory Auditors with “reasonable” assurance for 2018.*

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 a plan to construct a 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 in England, etc. 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, 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.

(1) The share of energy production from renewable and nuclear sources has increased by 40.8% in 4 years, from 32.7% in 2015 to 46.1% in 2018.

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. For the purposes of consistency with the other environmental information published, the "Scope 2" and "Scope 3" emissions listed below do not include those of the water and waste management businesses of SUEZ.

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	ENGIE 2018	ENGIE 2017	ENGIE 2016
Indirect emissions related to energy ("Scope 2")	**3,423,114 t CO_2 eq.**	**3,576,861 t CO_2 eq.**	**3,855,133 t CO_2 eq.**
Indirect emissions related to power consumption(1)	2,364,224 t CO_2 eq.	2,602,395 t CO_2 eq.	2,776,748 t CO_2 eq
Indirect emissions related to the consumption of steam, heating or cooling (1)	1,058,890 t CO_2 eq.	974,466 t CO_2 eq.	1,078,385 t CO_2 eq.
Other indirect GHG emissions ("Scope 3")	**139,009,236 t CO_2 eq.**	**153,051,062 t CO_2 eq.**	**161,870,565 t CO_2 eq.**
Upstream fuel chain (energy-related emissions not included in the "direct GHG emissions" and "indirect energy-related GHG emissions" categories)	10,730,035 t CO_2 eq.	12,498,089 t CO_2 eq.	16,507,068 t CO_2 eq.
Investments (GHG emissions from power plants consolidated under the equity method)	30,732,680 t CO_2 eq.	27,963,262 t CO_2 eq.	32,046,546 t CO_2 eq.
Use of products sold (fuel sales to third parties, market sales excluded)	87,383,910 t CO_2 eq.	99,440,102 t CO_2 eq.	113,316,951 t CO_2 eq.
Purchased products and services	6,812,253 t CO_2 eq.	9,847,667 t CO_2 eq.	Not available
Capital equipment	3,350,358 t CO_2 eq.	3,301,942 t CO_2 eq.	Not available

(1) The electricity and thermal energy consumption used to calculate this data is subject to verification by the Statutory Auditors with "reasonable" assurance for the financial year 2018 (see Section 3.6.4.3).

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 2018, renewable energy accounted for close to 18 GW of installed electric equivalent, representing 27.8% of the total capacity directly operated by the Group.

Indicator title	ENGIE 2018	ENGIE 2017	ENGIE 2016
Renewable – Net installed power (electric and thermal) ■■	18,094 MW eq.	16,812 MW eq.	16,795 MW eq.
Share of renewable resources in installed capacity	27.8%	24.5%	21.5%
Renewable – Electricity and heat produced ■■	65,781 GWh eq.	58,985 GWh eq.	74,082 GWh eq.
Energy produced – share of large hydropower	75.95%	75.43%	78.05%
Energy produced – share of small hydropower	1.51%	1.35%	1.26%
Energy produced – share of wind	9.33%	9.90%	7.62%
Energy produced – share of geothermal	0.2%	0.15%	0.1%
Energy produced – share of solar	2.57%	1.14%	0.61%
Energy produced – share of biomass and biogas	10.43%	12.03%	12.36%

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2018.*
These capacities correspond to the scope of the environmental reporting specified in Section 3.6.3 (excluding equity-accounted and non-controlled facilities).

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	ENGIE 2018	ENGIE 2017	ENGIE 2016
Primary energy consumption – total (excluding own consumption) ■■	330,640 GWh	445,327 GWh	573,500 GWh
Share of coal/lignite	20.85%	24.55%	30.13%
Share of natural gas	44.56%	40.11%	39.74%
Share of fuel oil (heavy and light)	0.76%	0.99%	0.84%
Share of uranium	24.48%	26.90%	21.47%
Share of biomass and biogas	5.78%	4.57%	5.67%
Share of other fuels	3.28%	2.63%	1.95%
Share of fuel in transport	0.29%	0.25%	0.2%
Electricity and thermal energy consumption (excluding own consumption) ■■	9,156 GWh eq.	9,503 GWh eq.	9,901 GWh eq.
Energy efficiency of fossil fuel plants (including biomass/biogas) ■■	44.2%	43.4%	41.7%

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2018.*

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).

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 20.2.2 to Section 6.2 "Consolidated financial statements".

Indicator title	ENGIE 2018	ENGIE 2017	ENGIE 2016
Radioactive gas emissions			
Rare gases	54.4 TBq	34 TBq	58.84 TBq
Iodines	0.03 GBq	0.01 GBq	0.04 GBq
Aerosols	0.26 GBq	0.34 GBq	0.40 GBq
Radioactive nuclear waste (low and medium level)	204 m^3	178 m^3	204 m^3
Radioactive liquid wastes			
Beta and Gamma emitters	22.77 GBq	20.56 GBq	17.66 GBq
Tritium	84.82 TBq	55.66 TBq	82.88 TBq

The risk factors relating to nuclear power are presented in Section 2.4.3 " Risk of Nuclear activities".

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 two water-related objectives for 2020: one involves the implementation of concerted local action plans for sites in areas with extremely high water stress, and the other involves reducing freshwater withdrawals across the Group. In 2018, ENGIE was awarded a B- 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). In 2018, 40 sites were located in areas with extremely high water stress (5.5% of sites excluding solar and wind), for which action plans are being implemented. The impact of water stress is relative, however, as it depends on the site's activity and fresh water needs. Only six of the 40 sites have substantial freshwater requirements (more than 100,000 m^3/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 62.3% reduction in freshwater withdrawals from its power generation business since 2012. Thanks to its commitment to water resources management, ENGIE has been awarded an A- rating by the CDP Water Disclosure program.

Indicator title	ENGIE 2018	ENGIE 2017	ENGIE 2016
Fresh water			
Total withdrawal	2,759 Mm^3	2,793 Mm^3	5,110 Mm^3
Total discharge	2,686 Mm^3	2,680 Mm^3	4,971 Mm^3
Non-fresh water			
Total withdrawal	7,603 Mm^3	8,685 Mm^3	8,829 Mm^3
Total discharge	7,594 Mm^3	8,672 Mm^3	8,812 Mm^3
Total consumption	82.8 Mm^3	124.9 Mm^3	156.2 Mm^3

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. 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 85% for non-hazardous waste and 27.7% for hazardous waste in 2018. 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	ENGIE 2018	ENGIE 2017	ENGIE 2016
Total quantity of non-hazardous waste and by-products discharged (including sludge)	2,742,387 t	2,773,419 t	4,682,305 t
Fly ash, refioms (residues from the purification of incineration fumes from household waste)	1,497,249 t	1,709,087 t	2,715,145 t
Ash, bottom ash	676,474 t	503,592 t	1,403,843 t
Desulfurization by-products	180,478 t	191,522 t	352,129 t
Sludge	19,500 t	20,576 t	21,321 t
Driftwood	8,888 t	7,331 t	6,321 t
Total quantity of non-hazardous waste and by-products recovered (including sludge)	2,333,690 t	2,255,802 t	4,088,134 t
Total quantity of hazardous waste and by-products discharged (including sludge and excluding radioactive waste) ■■	43,190 t	386,783 t	529,180 t
Total quantity of hazardous waste and by-products recovered (including sludge and excluding radioactive waste) ■■	11,968 t	52,203 t	53,263 t

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2018*

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-NOx 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 2018 thanks to the reorientation of ENGIE's production assets portfolio.

Indicator title	ENGIE 2018	ENGIE 2017	ENGIE 2016
NOx emissions	61,786 t	92,209 t	136,895 t
SO_2 emissions	131,101 t	159,623 t	192,213 t
Fine particle emissions	4,960 t	7,353 t	13,353 t

3.5.4.8 Management of 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. Restoring natural habitats (e.g. contribution of Glow in Thailand to the restoration of the Houay Mahad Hill Forest), reducing the impact of wind turbines on wildlife (e.g. Cheppes-la-Prairie windfarm in France), installing fish ladders at dams (e.g. the Sauveterre-sur-le-Rhône fishway), ensuring that gas-grid easements contribute to ecological continuity, and applying differentiated landscaping to green spaces are examples of actions taken by the Group. 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.

As part of a voluntary initiative, which was recognized at the end of 2012 by the French government as part of the National Biodiversity Strategy, the Group has defined a targeted action plane [(1)] for each of its priority sites in Europe designed to address the biodiversity protection issues identified at the site and/or by local stakeholders, based on the site's activity. Since 2016, biodiversity action plans have been incorporated into a more comprehensive approach to integrated and concerted environmental management at site level for the target sites, but the method of identifying sites for biodiversity remains unchanged.

Building on the results of 2015, and to support the Group's change and transformation, ENGIE extended its contribution to the National Biodiversity Strategy for the period 2016-2018 by defining a new objective: local and sustainable integration. The aim of this objective is to position biodiversity as an asset in order to integrate its activities within the regions in conjunction with its stakeholders, and to highlight the good practices carried out by the Group's business units, such as ecological site management. The Group also strengthened its international commitments by joining the act4nature initiative in July 2018.

3.5.4.9 Active prevention of environmental risks

The management of industrial, health and environmental risks has two components: risk prevention and crisis management.

Indicator title	2018 data	2017 data	2016 data
% of relevant revenue covered by an environmental risk prevention plan	87.6%	83.2%	82.7%
% of relevant revenue covered by an environmental crisis management plan	88.4%	87.7%	85.8%

The 24 complaints registered in 2018 did not give rise to any obligation to compensate. One complaint concerns an accidental spreading of 10m^3 of methanol, duly reported to the authorities, seven are related to nuisances caused by construction sites, fifteen were sent to ENGIE by private individuals because of the noise from wind turbines, and the last one was motivated by the colour of the smoke from a power plant although no anomalies were identified. The Group actively monitors these data and implements actions to further reduce them. ENGIE has set aside a provision of €19.2 million for risks relating to environmental disputes. In 2018, environmental expenses (investments and current operating expenses related to environmental preservation) amounted to more than 411 million euros.

In 2017, nearby community intended a lawsuit before the Environmental Court of Valdivia, for alleged environmental damage caused by the growth of an alguae, during the summer, in the tank of the hydropower plant of Laja (Chili). Engie has not yet received a notification. The Group has implemented measures to containt the growth of such algae.

Indicator title	2018 data	2017 data	2016 data
Environment-related complaints	24	13	24
Environment-related convictions	0	1	2
Amount of compensation (in € thousands)	0	0	4.5
Environmental expenditure (in € thousands)	411,680	396,819	644,415

(1) A targeted action plan must combine and detail all the measures taken to preserve or restore biodiversity locally See the note on methodology in Section 3.5.3 for more details

3.5.4.10 Noise pollution

Any industrial activity is a source of noise pollution. In order to reduce its impact, 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, 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 optain prefectoral authorisations 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 €800 Million in 2018 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 dialogue 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 dialogue is defined at Group level and then rolled out to each BU according to specific local requirements in terms of issues, activities and regulations. As part of these new CSR objectives, ENGIE aims to cover 100% of its industrial activities with an appropriate dialogue and consultation mechanism by 2020.

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 developed by ENGIE is based on professional dialogue with all stakeholders to encourage co-construction and shared value creation.

3.6.1 Socio-economic development in local communities

For ENGIE, adapting its offerings to meet its customers' requirements and learning about them make innovation and partnerships a central part of its local activities.

Internationally, in agreement with local authorities, the Group is committed, as part of a structured and participatory approach, to developing social programs linked to its industrial projects. ENGIE supports small and medium-sized enterprises and start-ups through various programs implemented in local communities.

The Group also supports social enterprise through the ENGIE *Rassembleurs d'Énergies* social and environmental fund, which aims to bring together and strengthen the Group's actions to encourage access to energy and combat fuel poverty.

By the end of 2018, eight years after it was created, the ENGIE Rassembleurs d'Énergies fund had invested in 17 companies active on four continents – Europe, Africa, Asia and Latin America – and in around 20 countries. These companies cover a broad range of technologies that respond to the problem of energy access and help to reduce fuel poverty: energy efficiency in social housing in Europe, access to electricity through individual or collective solar power systems and access to clean cooking solutions in emerging countries. The companies in the portfolio currently provide power to more than 3.3 million recipients and employ more than 2,300 people worldwide. More than 20,000 employees have invested in the ENGIE Rassembleurs d'Energies fund. ENGIE Rassembleurs d'Énergies has thus invested €25 million, including €4,9 million in 2018 alone. ENGIE Rassembleurs d'Energies fund was evalued en 2018 by BLab and obtained BCorp certification

3

3.6.2 Dialogue with stakeholders and partnerships

ENGIE maintains an ongoing and proactive dialogue with all stakeholders around its industrial activities. Based on the existing approaches, the Group has started supporting its operating entities to deepen and structure their practices, from the implementation of dialogue strategies to their operational deployment. 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 or IFC and consists of both the awareness-raising/training of managers and colleagues with respect to dialogue with stakeholders, and technical support for the creation/structuring of action plans adapted to the challenges of the territories and reflecting the expectations of stakeholders. The goal is to optimize performance and increase value creation by improving/integrating engagement with stakeholders throughout the business cycle.

The Group has also set itself the target of ensuring that 100% of its industrial activities are be covered by 2020 by an appropriate dialogue and consultation mechanism which aims to prevent conflicts and strengthen the sustainability of its activities. Of the Group's 182 industrial activities (sites or groupings of sites) identified at the end of 2018 to be covered by such a mechanism, 53% were covered at the end of 2018, reflecting the effective implementation of the method on the ground after a definition phase in 2015 and a learning phase in 2018.

As guarantee of sustainability for the company and a creator of shared value, this culture of listening and dialogue is extended by lasting partnerships on social and environmental issues.

At the international level, ENGIE is a member of the United Nations Global Compact in the Global Compact Advanced category.

The Group is continuing its partnerships with GRET (group for research and technology exchange) and with Emmaus France in the context of its contribution to energy access and its commitment to the fight against fuel poverty as well as with the ONE Foundation (Océan Nature et Environnement — Ocean, Nature and Environment) in support of the company/NGO dialogue around its industrial projects.

3.6.3 Community philanthropy, solidarity and combating fuel poverty

In all geographical regions where ENGIE operates, initiatives promoting community philanthropy, solidarity and combating fuel poverty are implemented by the ENGIE Corporate Foundation or Group entities, in connection with local authorities, local associations, local NGOs or the Group's corporate functional departments.

ENGIE, in particular through its Foundation, has launched several initiatives promoting solidarity and combating fuel poverty.

In 2018, ENGIE continued to support the Fonds de Solidarité pour le Logement (French solidarity housing fund), providing €6 million in line with the Public Service Agreement. In 2018, nearly 80,000 of ENGIE's retail customers benefited from these Departmental council subsidies.

Since 2011, the Group has been acting alongside the public authorities as a partner in the French national "Live Better" program. Under the new agreement signed in December 2014, ENGIE extended its commitment to the program and paid out €53 million in the period 2014-2017 to renovate 185,000 homes.

ENGIE has created a network of mediation partners with over 200 customer assistance centers throughout the country as of the end of 2018. 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.

ENGIE Energy Solidarity partners are in touch with local communities, départments and associations. Some 100 ENGIE solidarity advisers are also dedicated to processing requests from social workers. In 2018, those advisers responded to approximately 300,000 requests from social services.

The ISIGAZ (Information Sécurité Intérieure Gaz) program set up by GRDF provides information and education to low-income customers about the safety of their indoor natural gas appliances and ways to save energy. In 2018, the program was deployed to close to 16,200 households in around 20 French cities, more than 1,300 were fitted with replacement gas stove connectors that are safe and have no expiry date, free of charge.

Since the launch of ISIGAZ in 2006, a total of 334,000 families in around 100 cities have received such information and more than 52,000 stove connectors have been installed.

Through the ENGIE Volunteers Program, ENGIE supports the Group's internal NGOs in missions to promote energy access for populations in difficulty.

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;
- 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:

- an innately sustainable purchasing policy: this external document, which is shared with suppliers, is the expression of ENGIE's involvement; it specifies the Group's commitments and requirements in its relationship with its suppliers, particularly;
  - compliance with health and safety requirements: the requirement for suppliers to make health and safety commitments;
  - social responsibility, ethics, embargo and anti-corruption: a commitment from suppliers to engage in ethical business relationships;
  - sustainable Development: the search for competitive bids and sustainable and innovative solutions;
- purchasing governance: this internal document defines Group-wide principles for the management of external expenditure and sets out the rules for how the Purchasing function operates within its activities. It aims to reinforce the separation of tasks between buyers and purchasing advisers, while strengthening their cooperation when selecting the best offerings.

The requirements of these two Purchasing function reference documents, as well as the Group's more general requirements, are included in the operational processes in order to enable their implementation, control and remediation. There are three operational processes: Manage the supplier panel, Manage the purchasing categories, Buy / Supply.

The other Group reference documents integrated in the processes are: The Ethics & Compliance Charter, the CSR Policy, the Health and Safety Policy, the Code of Conduct in Supplier Relations and the Supplier Due Diligence Policy

In addition, the Group's Purchasing function has set itself the goal of implementing a CSR approach by 2020 for the management of the supply chain for the Group's controlled entities.

This CSR approach is:

- structured around 3 key components:
  - respect for supplier and subcontractor payment deadlines;
  - support for subcontractors with regard to the Health and Safety Policy;
  - integration within operational processes of a CSR continuous improvement approach and training in this approach for key stakeholders;
- integration into the operational processes via the following key steps using a *Plan-Do-Check-Act* approach:
  - analysis of risks and opportunities by Purchasing category, prioritized by country. Each Purchasing category is evaluated using a shared method based on the 7 dimensions of CSR weighted by country risk (Governance, Environment, Health & Safety, Societal Impact, Human Rights, Development of Human Resources, Ethics and Anti-Corruption),
  - a mitigation plan and the definition of supplier qualification and selection criteria using the analysis above. As these plans and criteria are specific, they 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 is measured periodically in the context of the Business reviews and the associated revised improvement plans,
  - finally, in the context of continuous improvement, all the preceding steps are integrated within the internal control and audit processes;
- implementation with the Group's preferred suppliers (~250) first, then with the major supplies for each BU in the Group.

This bold ambition will be achieved via a progressive, ongoing training program that began in 2013 within the Purchasing function and the Business Units, which covers the Group's challenges, strategy, the contribution of the Purchasing function to the transformation of the Group, ethics in supplier relationships and, specifically in 2018, as part of training offered to 840 stakeholders in the Purchasing function, the advanced purchasing levers that integrate the requirements of new laws (Duty of vigilance and Sapin 2).

In addition, all meetings of the Purchasing function managers include sessions to increase awareness of CSR issues, as do meetings organized with purchasing advisors and operational staff involved in the Purchasing process.

This training plan acts as a lever for the development of greater expertise and the transformation of the function.

3.8 Report of one of the Statutory Auditors, appointed as independent third party, on the consolidated non financial statement published in the group management report

This is a free English translation of the Statutory Auditors' report 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.

For the year ended December 31, 2018

To the Shareholders,

In our capacity as Statutory Auditor of ENGIE SA, appointed as independent third party and accredited by COFRAC under number 3-1048 (scope of accreditation available at www.cofrac.fr), we hereby report to you on the consolidated non financial statement for the year ended December 31, 2018 (hereinafter the "Statement"), presented in the group management report pursuant to the legal and regulatory provisions of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code de commerce*).

Company's responsibility

The Board of Directors is responsible for preparing a Statement pursuant to legal and regulatory provisions, including a presentation of the business model, a description of the main extra-financial risks, a presentation of the policies implemented with respect to these risks as well as the results of these policies, including key performance indicators. The Statement was prepared by applying the company's procedures (hereinafter the "Guidelines"), summarized in the Statement and available on request from its headquarters.

Independence and quality control

Our independence is defined by Article L. 822-11-3 of the French Commercial Code and the French Code of Ethics for Statutory Auditors (*Code de déontologie*). In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements, French professional standards and applicable legal and regulatory requirements.

Responsibility of the statutory auditor appointed as independent third party

Based on our work, our responsibility is to express a limited assurance conclusion on:

- the compliance of the Statement with Article R. 225-105 of the French Commercial Code;
- the fairness of the information provided pursuant to part 3 of sections I and II of Article R. 225-105 of the French Commercial Code, i.e. the outcomes of policies, including key performance indicators, and measures relating to the main risks, hereinafter the "Information."

However, it is not our responsibility to provide any conclusion on:

- the company's compliance with other applicable legal and regulatory provisions, particularly with regard to the duty of vigilance, anti-corruption and taxation
- the compliance of products and services with the applicable regulations.

Nature and scope of procedures

We performed our work in accordance with Articles A. 225-1 *et seq.* of the French Commercial Code defining the conditions under which the independent third party performs its engagement and the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie nationale des commissaires aux comptes*) relating to this engagement and with ISAE 3000 (*Assurance engagements other than audits or reviews of historical financial information)*.

We conducted procedures in order to assess the Statement's compliance with regulatory provisions, and the fairness of the Information:

- We familiarized ourselves with all of the companies included in the consolidation scope, the report on the main social and environmental risks relating to this activity and the impacts thereof with regard to the respect for human rights and the fight against corruption and tax evasion, together with the subsequent policies and their results.
- We assessed the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and clarity, taking into account, where appropriate, best practices within the sector;
- We verified that the Statement covers each category of information stipulated in section III of Article L. 225-102-1 governing social and environmental affairs, the respect for human rights and the fight against corruption and tax evasion.
- We verified that the Statement includes an explanation justifying the absence of information required by paragraph 2 of section III of Article L. 225-102-1.
- We verified that the Statement presents the business model and the main risks relating to the activity of all of the entities included in the consolidation scope, including, where relevant and proportionate, the risks generated by its business relations, products or services as well as policies, measures and outcomes, including key performance indicators.
- We verified that, when relevant to the main risks or policies presented, the Statement presents the information stipulated in section II of Article R. 225-105.
- We assessed the process of selecting and validating the main risks.
- We inquired as to the existence of internal control and risk management procedures set up by the company.
- We assessed the consistency of the results and key performance indicators used with regard to the main risks and policies presented.
- We verified that the Statement includes a clear and reasoned explanation justifying the absence of policy regarding one or more of these risks.
- We verified that the Statement covers the consolidated scope, i.e. all companies within the consolidation scope in accordance with Article L. 233-16, with the limits specified in the Statement.

- We assessed the collection process set up by the entity to ensure the completeness and fairness of the Information.
- For the key performance indicators and other quantitative outcomes (1) that in our judgment were of most significance, we carried out:
- analytical procedures that consisted in verifying the correct consolidation of collected data as well as the consistency of changes thereto;
- substantive tests, on a sampling basis, that consisted in verifying the proper application of definitions and procedures and reconciling data with supporting documents. These procedures were conducted for a selection of contributing entities (2) and covered between 30% and 91% of the consolidated data for the key performance indicators and outcomes selected for these tests;
- We consulted documentary sources and conducted interviews to corroborate the qualitative information (measures and outcomes) that in our judgment were of most significance (3);
- We assessed the overall consistency of the Statement in relation to our knowledge of the Group.

We believe that the procedures we have performed, based on our professional judgment, are sufficient to provide a basis for a limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our work engaged the skills of ten people between December 2018 and March 2019.

To assist us in conducting our work, we referred to our corporate social responsibility and sustainable development experts. We conducted around fifteen interviews with people responsible for preparing the Statement.

Conclusion

Based on our work, nothing has come to our attention that cause us to believe that the non financial statement does not comply with the applicable regulatory provisions and that the Information, taken as a whole, is not fairly presented in accordance with the Guidelines.

Comments

Without qualifying the conclusion expressed above and in accordance with Article A. 225-3 of the French Commercial Code, we make the following comments: as specified in the Statement and the associated methodological elements, the consolidated restitution rates for social indicators concerning training, absenteeism and compensation in the regions North America and Asia-Africa do not include data from entities that were recently acquired by the Group.

Paris-La Défense, 8 March, 2019

One of the statutory auditors,

Deloitte & Associés

Patrick E. Suissa	Olivier Broissand
Partner	Partner

(1) *Social and health and safety information:* *Total workforce, total workforce – Breakdown of workforce by geographic region, Total workforce - Breakdown of workforce by SPC, Total workforce - Breakdown of workforce by type of contract, Proportion of females in total workforce, Proportion of females in management positions, Proportion of trainees in the workforce, Proportion of disabled employees, Number of employees hired with permanent contracts, Number of employees hired with fixed-term contracts, Hiring rate, Hiring rate for permanent contracts, Number of dismissals, Turnover, Voluntary turnover, Proportion of workforce trained –, Total number of training hours, Breakdown of training hours by topic, Number of training hours per employee trained, Days of absence per employee, Number of fatal accidents (employees), Frequency rate, Severity rate (based on the French guidelines), Severity rate (based on the ILO guidelines), Number of new cases of occupational diseases, Average salary of WET with regards the local minimum wage per country.*
Environmental information: *Percentage of relevant revenue covered by an EMAS certification, Percentage of relevant revenue covered by an ISO14001 certification (non-EMAS), Renewable – Net installed capacity (electric and thermal), Renewable – Electricity and heat produced, Primary energy consumption – total (excluding own consumption), Electricity and thermal energy consumption (auto-consumption excluded), Energy efficiency of fossil fuel plants (including biomass/biogas), Total direct GHG emissions - scope 1, GHG emissions per business unit – energy generation kg CO2 eq./Mwheq, Fresh water (Total input and total output), Non fresh water (Total input and Total output), Total water consumption, Total quantity of non-hazardous waste and by-products evacuated (including sludge), Total quantity of non-hazardous waste & by products evacuated & recovered (including sludge), Total quantity of hazardous waste & by products evacuated (including sludge and excluding radioactive waste), Total quantity of hazardous waste & by products evacuated & recovered (including sludge and excluding radioactive waste), NOx emissions, SO2 emissions, Particulate matter emissions.*

(2) *Social and health and safety information:* *BU France BtoB : INEO, Axima Concept ; BU Benelux : Electrabel - activités nucléaires, Cofely Fabricom (Belgium) ; BU North America: Engie Insight Services, Engie North America ; BU Latin America : Engie Mexico ; BU Brazil : Engie Brazil Energia ; BU GRTgaz : GRTgaz ; BU GRDF : GRDF ; BU Tractebel Engineering : Tractebel Engineering (Belgium).*
Environmental information: *BU Latin America : Tocopilla (units 12 to 15) and Central Termoeléctrica Andina (ENGIE Energia Chile), Chilca (ENGIE Energia Peru), Tractebel Energía De Monterrey ; BU North America : Colorado Energy Nations Company ; BU Benelux : Tihange (Electrabel) ; BU Brazil : Jorge Lacerda, Itá Energética, Salto Osório, Salto Santiago (Engie Brasil Energia); BU Generation Europe : Biomasseheizkraftwerk Zolling, Coo-Trois-Ponts (Electrabel), Dunkerque DK6 (Engie Thermique France), Eems, Maasvlakte and Maxima (Engie Energie Nederland), Herdersbrug (Electrabel), Leini (ENGIE Produzione), GDF SUEZ Kraftwerk Wilhelmshaven ; BU GRTgaz : GRTgaz ; BU Storengy : Chémery storage (Storengy France).*

(3) *Purchasing and Suppliers, Targeted development policies, HR cross-functionality and innovation to boost the Group's performance; Health and safety management measures, Strengthening the health and safety culture, Ethics and compliance program, Climate change, Management of biodiversity, Waste.*

3.9 Statutory auditors' reasonable assurance report on selected social, environmental and governance information

This is a free translation into English of the original report issued in the French language and is provided solely for the convenience of English speaking readers

Pursuant to your request and in our capacity as Statutory Auditors of ENGIE SA, we performed a review in the aim of providing reasonable assurance on the environmental and social indicators selected by ENGIE SA and identified by the symbols □□ in sections 3.4 and 3.5 of the Reference Document for fiscal year 2018 (the "Data" [(1)]).

Responsibility of the Company

The Data has been prepared under the responsibility of ENGIE SA executive management, in accordance with the criteria used by the company (hereinafter the "Reporting Criteria") for social and environmental reporting data, a summary of which appears in the Registration Document in the section « "Methodological elements of the 2018 environmental reporting" and "Methodological memo on the 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.

Independence and quality control

Our independence is defined by regulatory texts, the profession's Code of Ethics as well as the provisions set forth in Article L.822-11-3 of the French Commercial Code (*Code de commerce*). Furthermore, we have set up a quality control system that includes the documented policies and procedures designed to ensure compliance with ethical rules, professional standards and the applicable legal texts and regulations.

Responsibility of the Statutory Auditors

Based on our work, our responsibility is to express reasonable assurance on the fact that the Data has been prepared, in all material aspects, in accordance with the Reporting Criteria. The conclusions expressed here below cover only this Data and not all of the information set forth in sections 3.4 and 3.5 of the Reference Document.

We have performed the procedures described below in accordance with the professional guidance issued by the national auditing body (Compagnie nationale des commissaires aux comptes) relating to this operation and ISAE 3000 [(2)].

- 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 Data;
- We 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 at the headquarters and Business Units (hereinafter "BUs") in order to analyze the deployment and application of the Reporting Criteria.
- We have set up analytical procedures on the Data and verified, using sampling techniques, the calculations as well as the consolidation of Data.

(1) *Social, health and safety information: Total workforce, Total workforce - Workforce by geographic region, Total workforce - Breakdown by SPC, Total workforce – Breakdown by type of contract, Female workforce, Proportion of women in workforce, Proportion of women in management, Proportion of workforce trained, Frequency rate.*
Environmental information: Percentage of relevant revenue covered by an EMAS certification, Percentage of relevant revenue covered by an ISO14001 certification (non EMAS), 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, GHG emissions per business unit – energy generation.

(2) *ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.*

- We have tested the Data for a representative sample of entities that we selected [(1)] based on their activity, their contribution to the consolidated Data, 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 48% of the workforce and between 21% and 78% of the environmental information.

We believe that the sampling methods and sizes of the samples we have used in exercising our professional judgment enable us to express a reasonable assurance. Due to the use of sampling techniques and the other limits inherent to the operations of any information and internal control system, the risk that a material anomaly be identified in the Data cannot be totally eliminated.

We believe that these procedures enable us to express reasonable assurance on the Data.

Conclusion

In our opinion, the information selected by the Group and identified by the sign □□ in sections 3.4 and 3.5 of the Reference Document have been prepared, in all material aspects, in accordance with the Reporting Criteria.

Paris-La Défense, March 8, 2019

The Statutory Auditors

Deloitte & Associés		ERNST & YOUNG et Autres	
Patrick E. Suissa Partner	Olivier Broissand Partner	Charles-Emmanuel Chosson Partner	Stéphane Pédron Partner

(1) *Social, health and safety information: Latin America BU: Engie Mexico; Brazil BU: Engie Brasil Energia; North America BU: Engie Insight Services, Engie North America; North, South and Eastern Europe BU: Engie Deutschland AG (corporate), Engie Gebäudetechnik GmbH, Engie Deutschland GmbH; Benelux BU: Electrabel – nuclear activities, Cofely Fabricom (Belgium); France BtoB BU: INEO, Axima Concept, Cofely Services (Engie Energie Services); France BtoC BU: Engie Home Services; France Renewable Energy BU: Engie Green France; United Kingdom BU: Keepmoat Regeneration, Engie Services (Ltd); BU GRTgaz : GRTgaz; BU GRDF : GRDF; BU Global Energy Management : Engie Global Markets France; BU Tractebel Engineering : Tractebel Engineering (Belgium).*
Environmental information : *Latin America BU: Tocopilla (units 12 to 15), Central Termoeléctrica Andina (Engie Energia Chile), Chilca (Engie Energia Peru), Tractebel Energía De Monterrey; North America BU: Colorado Energy Nations Company; Benelux BU: Tihange (Electrabel); Brazil BU: Jorge Lacerda, Itá Energética, Salto Osório, Salto Santiago (Engie Brasil Energia); Generation Europe BU : Biomasseheizkraftwerk Zolling, Coo-Trois-Ponts (Electrabel), Dunkerque DK6 (Engie Thermique France), Eems, Maasvlakte and Maxima (Engie Energie Nederland), Herdersbrug (Electrabel), Leini (Engie Produzione), GDF SUEZ Kraftwerk Wilhelmshaven; GRTgaz BU: GRTgaz; Storengy BU: Chémery storage (Storengy France); Middle East, South and Central Asia, and Turkey BU: Baymina Enerji, National Power Enerji; North, South and Eastern Europe BU: Cofely Espana, Martorell, Sant Joan, Kosurkuntza, Districlima and Districlima Zaragoza, Engie Zielona Energia; United Kingdom BU: Keepmoat Regeneration, Ffestiniog; France BtoB BU: Territoire Ouest-Sud - PDE subsidiaries; France Networks BU: Compagnie Parisienne de Chauffage Urbain (CPCU), Société Monégasque d'Assainissement (SMA); France Renewable Energy BU: Engie Green France, Société Hydro-électrique du Midi (SHEM).*

Governance

4.1 The Board of Directors’ report on corporate governance

The information presented in this section 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. It was presented to the Appointments, Compensation and Governance Committee and the Audit Committee for the parts relevant to their areas of activity, and then approved by the Board at its meeting of February 27, 2019[(1)].

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 Executive Board. It also covers ENGIE’s policy on diversity of expertise within the Board. This report sets out, in Section 4.1.4 “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.

4.1.1 Corporate governance bodies

4.1.1.1 Composition of the Board of Directors

Pursuant to Article 13 of the Company by-laws and the provisions of Articles L. 225-17, L. 225-23 and L. 225-27 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 Group’s employees and one Director who represents employee shareholders.

The duration of the Directors’ term of office is four years, as described in Section 7.1.2 “Corporate governance bodies”.

The General Shareholders’ Meeting of May 18, 2018 elected as Directors Jean-Pierre Clamadieu (replacing Gérard Mestrallet resigning) and Ross McInnes (replacing Stéphane Pallez resigning). Following the corporate elections, the terms of Alain Beullier and Philippe Lepage, Directors representing employees, were renewed. During the same elections, Christophe Agogué was named as a Director representing employees to replace Olivier Marquer, effective May 18, 2018.

On the date of this report, the Company is administered by a Board of Directors composed of 18 members, including:

- 11 Directors elected by the Shareholders’ Meeting pursuant to the provisions of the French Commercial Code relating to public limited companies;
- 3 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;
- 3 Directors elected representing employees, pursuant to Articles L. 225-27 et seq. of the French Commercial Code; and
- 1 Director representing employee shareholders, pursuant to Article L. 225-23 of the French Commercial Code, elected by the General Shareholders' Meeting.

The office of Director representing the French State, appointed by decree under Article 4 of Ordinance No. 2014-948 of August 20, 2014, is currently vacant following the resignation of Lucie Muniesa on October 30, 2018.

The Board of Directors includes 9 Independent Directors (see Sections 4.1.1.1.1 “Experience and expertise of the Directors in office”, and 4.1.1.1.5 “Independence of Directors in office”), making the percentage of Independent Directors 64% [(2)]; pursuant to the Afep-Medef Code, the number of Directors representing employees and employee shareholders is not included in the calculation of the percentage of Independent Directors.

4.1.1.1.1 Experience and expertise of the Directors in office

The Board of Directors has seven female members out of a total of 18 [(2)]. Act 2011-103 of January 27, 2011 establishes a principle of balanced gender representation on boards of directors. In assessing the ratio of women to men on boards of directors, the law stipulates that Directors who are employee representatives — who are not elected by the Shareholders’ Meeting — are not taken into account. As the Board of Directors of ENGIE includes three Directors representing employees, the assessment is based on 15 Directors, 7 of whom are women (a ratio of 46%).

ENGIE also seeks to increase the diversity and international experience of its Board of Directors. Five foreign nationalities are represented by the 18 [(2)] Directors (Australian, British, Canadian, German and Swiss).

(1) *The changes in the composition of the Board of Directors submitted to the General Shareholders' Meeting of May 17, 2019 are listed in Section 4.1.2 "General Shareholders' Meeting of May 17, 2019 - Composition of the Board of Directors".*

(2) *Since the resignation of Lucie Muniesa with effect from October 30, 2018, the French State has not yet provided a replacement, the calculations above are therefore based on a Board comprising 18 members.*

SUMMARY PRESENTATION OF THE BOARD OF DIRECTORS

First and last name	Age	Gender (1)	Nationality	Number of ENGIE shares held	Number of offices in other listed companies	Inde-pendent Director	Date of initial appointment	Expiration of term	Seniority on the Board (2)	Participation in Board Committees (3)
Jean-Pierre Clamadieu	60	M	French	10,000 (4)	2 (5)	P	May 18, 2018	2022	0	ACGC (6), SITC (6)
Isabelle Kocher	52	F	French	42,485	1		Nov. 12, 2014	2020	4	ACGC (6), SITC (6)
Ann-Kristin Achleitner	52	F	German	50	4	P	Sept. 19, 2012	2019	6	Chairman of the EESDC
Edmond Alphandéry	75	M	French	2,923	0	P	Jul. 16, 2008	2019	10	Chairman of SITC, Audit Committee
Fabrice Brégier	57	M	French	50	1	P	May 3, 2016	2020	2	ACGC
Aldo Cardoso	62	M	French	1,038	3		Nov. 20, 2004	2019	14	Audit Committee, SITC
Barbara Kux	65	F	Swiss	50	2	P	Apr. 28, 2015	2019	3	EESDC
Françoise Malrieu	73	F	French	1,419	0	P	May 2, 2011	2019	7	Chairman of the ACGC, Audit Committee, EESDC
Ross McInnes	64	M	French Australian	500	3	P	May 18, 2018	2022	0	Audit Committee
Marie-José Nadeau	65	F	Canadian	50	1	P	Apr. 28, 2015	2019	3	Chairman of the Audit Committee, SITC
Lord Ricketts of Shortlands	66	M	British	250	0	P	May 3, 2016 (7)	2020	2	ACGC
Patrice Durand	65	M	French	750	0		Dec. 14, 2016	2019	2	SITC
Catherine Guillouard	54	F	French	0	2		Apr. 28, 2015	2019	3	SITC
Mari-Noëlle Jégo-Laveissière	50	F	French	0	2		Apr. 28, 2015	2019	3	EESDC
Christophe Agogué	57	M	French	125	0	NA (8)	May 18, 2018	2022	0	EESDC
Alain Beullier	54	M	French	51	0	NA (8)	Jan. 21, 2009	2022	10	ACGC
Philippe Lepage	54	M	French	287	0	NA (8)	Apr. 28, 2014	2022	4	SITC
Christophe Aubert	54	M	French	60	0	NA (8)	May 12, 2017	2021	1	Audit Committee

(1) Female (F), Male (M)
(2) In years elapse
(3) SITC : Strategy, Investment and Technology Committee
ACGC : Appointments, Compensation and Governance Committee
EESDC : Ethics, Environment and Sustainable Development Committee
(4) Raised to 30,000 shares following the acquisition of 20,000 ENGIE shares on March 1st, 2019
(5) On March 2nd, 2019
(6) Attends without being a member
(7) With effect from August 1st, 2016
(8) Pursuant to the Afep-Medef Code, the number of directors representing employees and employee shareholders is not taken into account in calculating the percentage of independent directors; see also Section 4.1.1.1.3 below

CHANGES IN COMPOSITION OF THE BOARD OF DIRECTORS AND COMMITTEES IN 2018

	Departure	Appointment	Renewal
Board of Directors	Gérard Mestrallet (05/18/18)	Jean-Pierre Clamadieu (05/18/18)	Alain Beullier (05/18/18)
	Stéphane Pallez (05/18/18)	Ross McInnes (05/18/18)	Philippe Lepage (05/18/18)
	Olivier Marquer (05/18/18)	Christophe Agogué (05/18/18)	
	Lucie Muniesa (10/30/18)		
Audit Committee	Lucie Muniesa (10/30/18)	Ross McInnes (05/18/18)	
SITC	Lucie Muniesa (10/30/18)		Philippe Lepage (05/18/18)
ACGC	Lucie Muniesa (10/30/18)		Alain Beullier (05/18/18)
EESDC	Olivier Marquer (05/18/18)	Christophe Agogué (05/18/18)	

Director elected by the Shareholders' Meeting (11)

JEAN-PIERRE CLAMADIEU

Chairman of the Board of Directors of ENGIE

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 jointed 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.

Age and nationality

60

French nationality

First appointment

05/18/2018

Expiration of term

2022

Shares held

10,000 shares [4]

(at 12/31/2018)

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

France

Participation in Board committees

Attends without being a member the meetings of the Appointments, Compensation and Governance Committee

Attends without being a member the meetings of the Strategy, Investment and Technology Committee

Principal activities outside the Company [1]

Director of companies

Chairman of the Board of Directors of the National Opera of Paris

Current offices held

Offices and positions in Group companies

Chairman of the Board of Directors

Offices and positions in companies outside the Group

Chairman of the Executive Committee and CEO of Solvay (Belgium) [2] [3]

Chairman of the Board of Directors of the National Opera of Paris

Director of AXA [3], Airbus [3] and France Industrie

Vice-Chairman of the Executive Committee of the World Business Council for Sustainable Development (WBCSD) (Switzerland)

Offices that have expired in the last five years

Director of Faurecia and SNCF

Chairman of the CEFIC (European Chemical Industry Council)

Director of the International Council of Chemical Associations (ICCA)

Chairman of the Medef sustainable development commission

Chairman of the Council of France-Brazil business leaders of Medef International

(1) As of March 2nd, 2019

(2) Until March 1st, 2019

(3) Listed company

(4) Raised to 30,000 shares following the acquisition of 20,000 ENGIE shares on March 1st, 2019

Age and nationality

52

French nationality

First appointment

11/12/2014

Expiration of term

2020

Shares held

42,485 shares

(at 12/31/2018)

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

France

ISABELLE KOCHER

Chief Executive Officer of ENGIE

Isabelle Kocher is a graduate of the École Normale Supérieure. She is also a Corps des Mines Engineer and a qualified lecturer in Physics. From 1997 to 1999, she was Budget Officer for telecommunications and defense at the French Ministry for the Economy. From 1999 to 2002, she served as Industrial Affairs Advisor to Prime Minister Lionel Jospin. In 2002, she joined the SUEZ Group, which became ENGIE, where she held a series of functional and operational positions over twelve years: from 2002 to 2005, in the Strategy and Development department; from 2005 to 2007, as Director of Performance and Organization; from 2007 to 2011, Isabelle Kocher served as Deputy CEO and then Chief Executive Officer of Lyonnaise des Eaux. From 2011 to 2014, she was Executive Vice-President, Chief Financial Officer of the Group. On November 12, 2014, she became Director, Deputy CEO and Chief Operating Officer of the Group. She was appointed Chief Executive Officer of ENGIE on May 3, 2016.

Participation in Board committees

Attends without being a member the meetings of the Appointments, Compensation and Governance Committee

Attends without being a member the meetings of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chief Executive Officer of ENGIE

Chairman of Electrabel (Belgium) (1)

Offices and positions in companies outside the Group

Director de SUEZ (France) (2)

Offices that have expired in the last five years

Director of Axa (2) and ENGIE E.S (1)

Deputy CEO of ENGIE

Vice-Chairman of Electrabel (Belgium) (1)

Director of International Power (UK) (1)

(1) ENGIE Group

(2) Listed company

4

ANN-KRISTIN ACHLEITNER

A doctor of business administration, a doctor of law and authorized to direct research at the University of St. Gallen (HSG — Switzerland), Ann-Kristin Achleitner successively served as consultant for MS Management Service AG in St. Gallen (1991-1992) and Assistant Professor of finance and external audit at the University of St. Gallen (1992-1994). Since 1994 she has been a teacher of business administration (finance and accounting) at the University of St. Gallen. In 1994, she became a consultant at McKinsey & Company Inc. in Frankfurt (Germany) and, in 1995, she held the banking and finance chair and served as Chairman of the Board at the Institut für Finanzmanagement, the European Business School at the International University Schloss Reichartshausen in Oestrich-Winkel (Germany). Since 2001, she has held the corporate finance chair at the Technical University of Munich, where she became Scientific Co-Director of the Enterprise and Finance Research Center in 2003. In 2009, she was also Associate Professor of corporate finance at the University of St. Gallen.

Participation in Board committees

Chairman of the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

University professor

Director of companies

Age and nationality

52

German nationality

First election

09/19/2012

Expiration of term

2019

Shares held

50 shares

(at 12/31/2018)

Business address

Residenzstrasse 27

80333 Munich

Germany

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chairman of the Ethics, Environment and Sustainable Development Committee

Offices and positions in companies outside the Group

Member of the Supervisory Board of Linde AG (1), Linde plc (1), Deutsche Börse AG (1) and MunichRe (1) (Germany), the International Advisory Board of Investcorp, and the Executive Committee of Deutsche Akademie der Technikwissenschaften (acatech)

Member of the Board of Directors of Johannes B. Ortner-Stiftung (Germany).

Economic Council of the Embassy of France in Berlin (Germany)

Offices that have expired in the last five years

Member of the Government Commission on the German Corporate Governance Code

Member of the Board of Helmholtz-Validierungsfonds, of Helmholtz-Gemeinschaft Deutscher Forschunszentren and of Fraunhofer Gesellschaft

Member of the Supervisory Board of Metro AG (1) (Germany)

Member of the Advisory Committee of the Social Entrepreneurship Akademie (SEA)

Member of the Finance Committee for Social Enterprises within KfW-Bankengruppe on behalf of the German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth (BMFSFJ)

(1) Listed company

Age and nationality

75

French nationality

First appointment

07/16/2008

Expiration of term

2019

Shares held

2,923 shares

(at 12/31/2018)

Business address

Nomura Bank France

7 place d'Iéna

75016 Paris

France

EDMOND ALPHANDÉRY

A graduate of the Institut d'Études Politiques de Paris and a qualified lecturer in economics, he is a Professor Emeritus at the University of Paris II. He served as Mayor of Longué-Jumelles and member of the Maine-et-Loire departmental council until 2008 and was Minister of the Economy from March 1993 to May 1995. He chaired the Supervisory Board of CNP from 1988 to 1993 and was the Chairman of Électricité de France from 1995 to 1998. From July 1998 to July 2012, he again served as Chairman of CNP Assurances. He was also Chairman of the CEPS (Center for European Policy Studies) from January 2014 to July 2016.

Participation in Board committees

Chairman of the Strategy, Investment and Technology Committee

Member of the Audit Committee

Principal activities outside the Company

Director of companies

Member of advisory boards for various companies, associations and institutions

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chairman of the Strategy, Investment and Technology Committee

Member of the Audit Committee

Offices and positions in companies outside the Group

Senior Advisor of Nomura Bank France

Member of the Board of Directors of the Stichting Continuïteit ST Foundation (Netherlands)

Member of the Advisory Committee of Omnès Capital

Member of the Advisory Board of Montrose (UK)

Vice-Chairman of the Club of Three

Member of the Advisory Board of Quadrille

Chairman of the Strategic Committee of InfraLion Capital Management

Offices that have expired in the last five years

Chairman of Centre des Professions Financières, of the Board of Directors of CNP Assurances [1] and of CNP International

Chairman of the CEPS (Center for European Policy Studies) (Belgium)

Director of Neovacs (France)

Director of Caixa Seguros (Brazil) and CNP Vita (Italy)

Non-voting director of Crédit Agricole CIB

Member of the Advisory Board of A.T. Kearney France

(1) Listed company

Age and nationality

57

French nationality

First appointment

05/03/2016

Expiration of term

2020

Shares held

50 shares

(at 12/31/2018)

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

France

FABRICE BRÉGIER

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, leading company in the field of Big Data.

Participation in Board committees

Member of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Chairman of Palantir Technologies France

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

Chairman of Palantir Technologies France

Offices that have expired in the last five years

Chief Operating Officer of Airbus [1] and Chairman of Airbus Commercial Aircraft until February 2018.

(1) Listed company

Age and nationality

62

French nationality

First appointment

11/20/2004

Expiration of term

2019

Shares held

1,038 shares

(at 12/31/2018)

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

France

ALDO CARDOSO

A graduate of the École Supérieure de Commerce de Paris, Aldo Cardoso holds a Master's Degree in Business Law and is a Certified Public Accountant. From 1979 to 2003, he held several successive positions at Arthur Andersen, including Consultant, Partner (1989), President France (1994), member of the Board of Directors of Andersen Worldwide (1998), Chairman of the Board of Directors (non-executive) of Andersen Worldwide (2000) and Chief Executive Officer of Andersen Worldwide (2002-2003). Since 2003, he has served as a director of French and foreign companies.

Participation in Board committees

Member of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Chairman of the Board of Directors of Société Monégasque de l'Electricité et du Gaz (1)

Offices and positions in companies outside the Group

Chairman of the Board of Directors of Bureau Veritas (2), Director of Imerys (2), Worldline (1), DWS (2) (Germany)

Offices that have expired in the last five years

Director of Accor (2), Gecina (2), Rhodia (2) and GE Corporate Finance Bank SAS

Director of Mobistar (2) (Belgium)

Non-voting Director of AXA Investment Managers

(1) ENGIE Group

(2) Listed company

4

Age and nationality

65

Swiss nationality

First appointment

04/28/2015

Expiration of term

2019

Shares held

50 shares

(at 12/31/2018)

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

France

BARBARA KUX

Barbara Kux holds an MBA, with honors, from INSEAD Business School in Fontainebleau. In 1984, she joined McKinsey & Company as a management consultant, handling global assignments in strategy and business transformation for major international clients. Between 1989 and 1999, she was head of business development in emerging markets for ABB, and later for Nestlé. She served as a director of Ford Motor Company in Europe from 1999 to 2003. In 2003, Barbara Kux joined the Management Board of the Philips Group, taking charge of the group's sustainable development initiatives in 2005. From 2008 to 2013 she was a member of the Management Board of Siemens AG, serving as Head of Supply Chain Management and Chief Sustainability Officer. Since 2013, she has been a director of various international world-class companies. She is also a member of the INSEAD Advisory Board, where she teaches corporate governance as Director for Corporate Governance. In 2016, she was appointed by the European Commission as a member of the Expert Group — High-Level Panel of the European Decarbonisation Pathways Initiative.

Participation in Board committees

Member of the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Ethics, Environment and Sustainable Development Committee

Offices and positions in companies outside the Group

Vice-Chairman of Firmenich (Switzerland)

Director of Pargesa Holding (1) (Switzerland)

Member of the Supervisory Board of Henkel AG & Co KGaA (1) (Germany)

Member of the European Commission's High-Level Panel for European Decarbonisation

Member of the Advisory Board of INSEAD

Offices that have expired in the last five years

Director of Umicore (1) (Belgium) and Total (1)

(1) Listed company

FRANÇOISE MALRIEU

Age and nationality

73

French nationality

First appointment

05/02/2011

Expiration of term

2019

Shares held

1,419 shares

(at 12/31/2018)

Business address

19 avenue Léopold II

75016 Paris

France

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.

Participation in Board committees

Chairman of the Appointments, Compensation and Governance Committee

Member of the Audit Committee

Member of the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chairman of the Appointments, Compensation and Governance Committee

Member of the Audit Committee

Member of the Ethics, Environment and Sustainable Development Committee

Offices and positions in companies outside the Group

Director of La Poste, Lazard Frères Banque and Institut Français des Administrateurs

Vice-Chairman of French Impact

Director of integration company Ares and Chairman of Ares Coop

Offices that have expired in the last five years

Director of Aéroports de Paris [1]

Chairman of the Board of Directors of the Société de Financement de l'Économie Française - SFEF

Member of the Supervisory Board of Oberthur Technologies

Member of the Supervisory Board of Bayard Presse SA

(1) Listed company

4

Age and nationality

64

French and Australian nationalities

First appointment

05/18/2018

Expiration of term

2022

Shares held

500 shares

(at 12/31/2018)

Business address

SAFRAN

2 bd du Général Martial Valin

CS 51618

75015 Paris

France

ROSS MCINNES

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. At the end of 2016 he joined the High Committee on Corporate Governance on the recommendation of Afep-Medef. In February 2017, he joined SICOM, the general partner of VIVESCIA Industries, as a "qualified person". In October 2017, the 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. In January 2018, Ross McInnes was named 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 and Lectra (since January 2018).

Participation in Board committees

Member of the Audit Committee (since May 18, 2018)

Principal activities outside the Company

Chairman of the Board of Directors of Safran (1)

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Audit Committee

Offices and positions in companies outside the Group

Chairman of the Board of Directors of Safran (1)

Director of Lectra (1) and Eutelsat Communications (1)

Co-Chairman of the "Public Action 2022" Committee

Member of the High Committee on Corporate Governance

Special representative for economic relations with Australia

Qualified person at SICOM, the general partner of VIVESCIA Industries

Trustee and Director of the IFRS Foundation

Offices that have expired in the last five years

Director of Faurecia (1), IMI Plc (1) (Great Britain), Global Motors Inc (USA), Limoni Spa (Italy) and Société Financière du Planier

Permanent representative to the Board of Directors of Santé SA (Luxembourg) and Générale de Santé.

Within the Safran group (1): Deputy Chief Executive Officer of Safran, Director of Safran USA, Inc., Safran Nacelles, Safran Helicopter Engines, Safran Landing Systems, Safran Identity & Security, Safran Aircraft Engines, Safran Electronics & Defense, Vallaroche Conseil and permanent representative on the Board of Directors of Etablissements Vallaroche et de Soreval.

(1) Listed company

MARIE-JOSÉ NADEAU

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. A trained attorney who holds a Master's degree in law from the University of Ottawa, she served as Secretary General and Executive Vice-President for Corporate Affairs at Hydro-Québec (Canada) for 22 years. An experienced director, she is Vice-Chair of the Advisory Council of the Electric Power Research Institute (United States), Vice-Chair of the Board and the Executive Committee of the Montreal Symphony Orchestra, a director of Metro Inc., one of the major Canadian retailers, and a director of Trans Mountain Corporation, a company that operates and is developing a network of pipelines in western Canada. In 2009, she was awarded the title of Advocatus Emeritus by the Quebec Bar in recognition of her exceptional 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.

Participation in Board committees

Chairman of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Director of companies

Age and nationality

65

Canadian nationality

First appointment

04/28/2015

Expiration of term

2019

Shares held

50 shares

(at 12/31/2018)

Business address

Dr. Penfield avenue, 1515,

Suite 1001

Montreal (Quebec)

H3G 2R8
Canada

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chairman of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Offices and positions in companies outside the Group

Director of Metro Inc.(1) (Canada)

Director of Trans Mountain Corporation (Canada)

Vice-Chairman of the Board and Director of the Montreal Symphony Orchestra (Canada)

Vice-Chairman of the Advisory Council 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)

Vice-Chairman of the Board of Concordia University (Canada)

Director of Churchill Falls and Labrador Corporation Limited (Canada)

(1) Listed company

Age and nationality

66

British nationality

First appointment

05/03/2016

Expiration of term

2020

Shares held

250 shares

(at 12/31/2018)

Business address

15 Queensmead Road

Bromley

Kent - BR2 0ER

United Kingdom

LORD RICKETTS OF SHORTLANDS

A graduate of Oxford University, with a Master of Arts (MA) in English Literature from Pembroke College, Honorary DLC from the University of Kent and Honorary LLD from the University of Bath, Peter Ricketts 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.

Participation in Board committees

Member of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Member of the House of Lords, London

Strategic Consultant, Lockheed Martin (UK)

President, Normandy Memorial Trust (Charitable Association)

Member, Royal Academy

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

Directors elected by the Shareholders' Meeting on the recommendation of the French State (3)

Director from the private sector

Age and nationality

65

French nationality

First appointment

12/14/2016

Expiration of term

2019

Shares held

750 shares

(at 12/31/2018)

Business address

22 avenue Théophile Gautier

75016 Paris

France

PATRICE DURAND

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.

Participation in Board committees

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Strategy, Investment and Technology Committee

Offices and positions in companies outside the Group

Director of Ingenico Holdings Asia (Hong Kong) and Fujian Landi Commercial Equipment Co. Ltd (China)

Member of the Supervisory Board of GCS Holding BV (Netherlands), Global Collect Services BV (Netherlands)

Offices that have expired in the last five years

Chairman of Sogeade

Director of Sogepa, Ingenico do Brasil Ltda (Brazil), Ingenico Holdings Asia II Limited (Hong Kong), Ingenico Mexico, SA de C.V (Mexico), Ingenico Corp., Ingenico Inc. (Latin America) and Ingenico Inc. (United States)

Member of the Supervisory Board of GCS Holding BV (Netherlands)

Non-voting director of Nanjing ZTE-Ingenico Network Technology CO. Ltd (China)

Chief Finance and Operations Officer Ingenico (1)

(1) Listed company

4

Director from the public sector

Age and nationality

54

French nationality

First appointment

04/28/2015

Expiration of term

2019

Shares held

0 shares

(at 12/31/2018)

Business address

RATP

54 quai de la Rapée

LAC A8A

75599 Paris Cedex 12

France

CATHERINE GUILLOUARD

A graduate of Institut d'Études Politiques de Paris and of École Nationale d'Administration, Catherine Guillouard also holds a post-Master's specialization (DESS) in European Union Law. She started her career in 1993 at the Treasury Department of the French Finance Ministry, where she served as Deputy Director of the CFA Zone in Africa, and then in the Banking Affairs Department. She then held various positions at Air France, including Deputy Vice-President of Corporate Control, Vice-President of Flight Operations, Vice-President of Human Resources and Change Management, and, from 2005 to September 2007, Senior Vice-President of Finance. In September 2007, she became Chief Financial Officer and Executive Committee member of Eutelsat. In April 2013, she became Director of Finance, Control and Legal Affairs at Rexel, and then Deputy CEO from May 2014 to February 2017. She was appointed Chairman and CEO of RATP by a French presidential decree on August 2, 2017.

Participation in Board committees

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Chairman-Chief Executive Officer of RATP

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Strategy, Investment and Technology Committee

Offices and positions in companies outside the Group

Chair-Chief Executive Officer of RATP

Director of Airbus (1)

Offices that have expired in the last five years

Director of Technicolor (1) and Aéroports de Paris (1)

Deputy Chief Executive Officer of Rexel (1)

(1) Listed company

Director from the private sector

Age and nationality

50

French nationality

First appointment

04/28/2015

Expiration of term

2019

Shares held

0 shares

(at 12/31/2018)

Business address

ORANGE

Orange Gardens

44 avenue de la République

92320 Châtillon

France

MARI-NOËLLE JÉGO-LAVEISSIÈRE

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. Since March 2014, Mari-Noëlle Jégo-Laveissière has served as Executive Director of Innovation, Marketing and Technology and as member of the Executive Committee of the Orange Group.

Participation in Board committees

Member of the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

Executive Director of Innovation, Marketing and Technologies and member of the Executive Committee of the Orange Group (France)

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Ethics, Environment and Sustainable Development Committee

Offices and positions in companies outside the Group

Deputy Director General of Orange Group [(1)] in charge of Technology and Global Innovation entity (since May 2, 2018)

Director of Valéo [(1)] and Orange Romania (Romania), Soft@Home and Viaccess

Offices that have expired in the last five years

Non-voting member of the Supervisory Board of Cloudwatt

Member of the Supervisory Board of Orange Marine

Director of Agence Nationale des Fréquences (ANFR) and of Nordnet

(1) Listed company

Directors elected to represent employees (3)

Age and nationality

57

French nationality

First appointment

05/18/2018

Expiration of term

2022

Shares held

125 shares

(at 12/31/2018)

Business address

GRDF

6 rue Condorcet

75009 Paris

France

CHRISTOPHE AGOGUÉ

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 the ATRD3 tariff and the ATRD4 and 5 tariff consultations. He has held union positions on behalf of CFE-Energies 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.

Participation in Board committees

Member of the Ethics, Environment and Sustainable Development Committee (since May 18, 2018)

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 sponsored by the Federation of the Gas and Electricity Industries - CFE-CGC trade union

Member of the Ethics, Environment and Sustainable Development Committee (since May 18, 2018)

Member of the Board of Rassembleurs d'Energies [(1)]

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

(1) ENGIE Group

Age and nationality

54

French nationality

First appointment

01/21/2009

Expiration of term

2022

Shares held

51 shares

(at 12/31/2018)

Business address

Elengy

Zone portuaire, BP 35

44550 Montoir-de-Bretagne

France

ALAIN BEULLIER

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. Alain Beullier holds a corporate director's certificate issued by Sciences Po Executive Education and the Institut Français des Administrateurs, class of 2016.

Participation in Board committees

Member of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Elengy [1] employee responsible for the monitoring of environmental regulations

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the Chemical Energy Federation — CFDT trade union

Member of the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

(1) ENGIE Group

Age and nationality

54

French nationality

First appointment

04/28/2014

Expiration of term

2022

Shares held

287 shares

(at 12/31/2018)

Business address

Elengy

Zone portuaire, BP 35

44550 Montoir-de-Bretagne

France

PHILIPPE LEPAGE

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.

Participation in Board committees

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Elengy [(1)] employee attached to the General Secretariat

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the National Federation of Employee Unions in the Electricity, Nuclear and Gas Industries – CGT trade union

Member of the Strategy, Investment and Technology Committee

Director representing employees of Elengy [(1)]

Offices and positions in companies outside the Group:

Member of the French Gas Association, representing employees for the CGT union to the European Trade Union Confederation in the "worker participation" group, and a member of the Business Line Strategy Committee on "New Energy Systems"

Offices that have expired in the last five years

None

(1) ENGIE Group

Director elected by the Shareholders' Meeting to represent employee shareholders (1)

Age and nationality

54

French nationality

First appointment

05/12/2017

Expiration of term

2021

Shares held

60 shares

(at 12/31/2018)

Business address

ENGIE COFELY

18 rue Thomas Edison

33610 Canéjan
France

CHRISTOPHE AUBERT

Christophe Aubert has worked for a wide variety of companies, including Technicatome (CEA), Staefa Control System, Landis&Gyr (Siemens) and Industelec (EDF), before joining ENGIE Cofely in February 2002 as head of sales at a regional office in southwest France, before joining the southwest regional sales management team in 2007. He holds a corporate director's certificate issued by Sciences Po Executive Education and the Institut Français des Administrateurs, class of 2019.

Participation in Board committees

Member of the Audit Committee

Principal activities outside the Company

ENGIE Energy Services (1) employee, serving as project head attached to the southwest sales department, responsible for the development of complex projects

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the Federation Construction Bois - CFDT trade union

Member of the Audit Committee

Offices and positions in companies outside the Group

Member of the Supervisory Board of the Link France and 2015 ORS France mutual funds

Manager of MAAC IMMO

Offices that have expired in the last five years

None

(1) ENGIE Group

4.1.1.1.2 Absences of conflicts of interest or conviction

The Chairman 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, relating, if applicable, to 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.

In addition to the provisions of the French Commercial Code which govern related-party agreements, the Directors' Charter (see Section 4.1.1.2.1 – "Operating procedures of the Board of Directors") 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.

In this regard, Edmond Alphandéry consulted the Chairman about a potential conflict of interests, because of the position as *senior advisor* held by Mr. Alphandéry for Nomura Bank France.

To ENGIE's knowledge, with the exception of Edmond Alphandéry, 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 senior managers of ENGIE has been convicted of fraud, served as manager in a bankruptcy, receivership or liquidation situation, been subject to indictment 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.

4.1.1.1.3 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 Appointments, Compensation and Governance Committee at its meeting of February 5, 2019, and then by the Board of Directors at its meeting of February 27, 2019.

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.

Other than Isabelle Kocher, an executive corporate officer, and Aldo Cardoso [(1)], it is specified that the following Directors, who were appointed as a result of statutory obligations, cannot be deemed independent:

- Patrice Durand, Catherine Guillouard, and Mari-Noëlle Jégo-Laveissière, 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;

- Alain Beullier, Philippe Lepage and Christophe Agogué, Directors representing the employees pursuant to Articles L. 225-27 et seq. of the French Commercial Code, and Christophe Aubert, Director representing employee shareholders, pursuant to Article L. 225-23 of the same code.

Nine Directors are deemed to be independent (see also Section 4.1.1.1.5 "Diversity policy for members of the Board of Directors"), making the percentage of Independent Directors 64% [(2)]; it is 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.

(1) Because of his 14-year service as Director and his mandate of Chairman of the Board of directors of Société Monegasque de l'Electricité et du Gaz (ENGIE subsidiary).

(2) Since the resignation of Lucie Muniesa, Director representing the French State, whose replacement is in progress as at February 27, 2019, the calculations above are therefore based on a Board comprising 18 members.

INDEPENDENCE OF THE DIRECTORS UNDER THE INDEPENDENCE CRITERIA SET FORTH IN SECTION 8 OF THE AFEP-MEDEF CODE

	Independent (I) Not independent (NI)	Corporate employee during the previous 5 years	Cross-directorships	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								
Isabelle Kocher	NI	O							
Ann-Kristin Achleitner	I								
Edmond Aphandéry	I								
Fabrice Brégier	I								
Aldo Cardoso	NI	O					O		
Barbara Kux	I								
Françoise Malrieu	I								
Ross McInnes	I								
Marie-José Nadeau	I								
Lord Ricketts of Shortlands	I								
Patrice Durand	NI								O
Catherine Guillouard	NI								O
Mari-Noëlle Jégo-Laveissière	NI								O
Christophe Agogué	NI	O							
Alain Beuillier	NI	O							
Philippe Lepage	NI	O							
Christophe Aubert	NI	O							

O *= Independence criterion not met*

Criterion 1 : Corporate employee during the previous 5 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-directorships

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 rep*ort.*

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 5 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 independant when such shareholders do not exercice 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.

4.1.1.1.4 Multiple directorships

The number of offices held by the directors in listed companies outside the Group, including foreign companies, was assessed as of February 27, 2019, in accordance with the recommendations of paragraph 18 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 (2)	P
Isabelle Kocher	1	P
Ann-Kristin Achleitner	4	P
Edmond Alphandéry	0	P
Fabrice Brégier	0	P
Aldo Cardoso	4	P
Barbara Kux	2	P
Françoise Malrieu	0	P
Ross McInnes	3	P
Marie-José Nadeau	1	P
Lord Ricketts of Shortlands	0	P
Patrice Durand	0	P
Catherine Guillouard	1	P
Mari-Noëlle Jégo-Laveissière	1	P
Christophe Agogué	0	P
Alain Beullier	0	P
Philippe Lepage	0	P
Christophe Aubert	0	P

(1) According to the criteria of the Afep-Medef Code.
(2) On March 2nd, 2019

4.1.1.1.5 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.

Fiscal year 2018

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.

In line with this objective, the Board asked the General Shareholders' Meeting of May 18, 2018 to appoint Jean-Pierre Clamadieu and Ross McInnes to the Board. The following qualifications and experience motivated the Board's recommendation:

"Jean-Pierre Clamadieu brings his remarkable experience as an executive in an industrial company that is listed on the CAC40 and has a global presence in nearly sixty countries. In particular, he will be able to share his extensive expertise with the global industrial customers that ENGIE serves in the energy services segment, one of the major components of our growth. During his career, he has led major industrial transformations. His knowledge of Belgium will also be a vital asset with regard to the challenges facing the Group and its operations in this country. In addition, he has been deeply committed for many years to environmental and climate challenges, particularly through his chairmanship of the Medef Sustainable Development Commission and as an executive member of the World Business Council for Sustainable Development. Finally, he has proven experience in the separate governance of listed companies. The independence and availability of Jean-Pierre Clamadieu have been explained in the Board of Directors' report on page 46 of the notice of meeting.

As the non-executive Chairman of a CAC 40 company, Ross McInnes combines recognized, proven financial expertise, which will serve ENGIE through his membership on our Audit Committee, and a solid knowledge of the strategic challenges of the industry. For 20 years, he has served as CFO of industrial companies and has chaired several audit committees, including for Faurecia and IMI plc. in the United Kingdom and, currently, for Eutelsat. He also has experience with complex transformations. He holds dual French-Australian nationality, which gives him an understanding of multicultural challenges, particularly in Anglo-Saxon environments. He is a member of the High Committee on Corporate Governance and will bring his knowledge about best governance practices." (excerpt from the notice of meeting for the General Shareholders' Meeting of May 18, 2018, page 19).

The Board has developed a skills map, shown below, detailing the mix of skills, expertise and experience it needs in order to develop a comprehensive and integrated vision to meet all the challenges it currently faces, as well as the number of members who have, as at February 27, 2019, the skills, expertise and experience so identified.

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 27, 2019 is 46%.

As of February 27, 2019, the Board includes five foreign nationalities.

Finally, in terms of age, the Board has two members who are more than 70 years of age. 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.

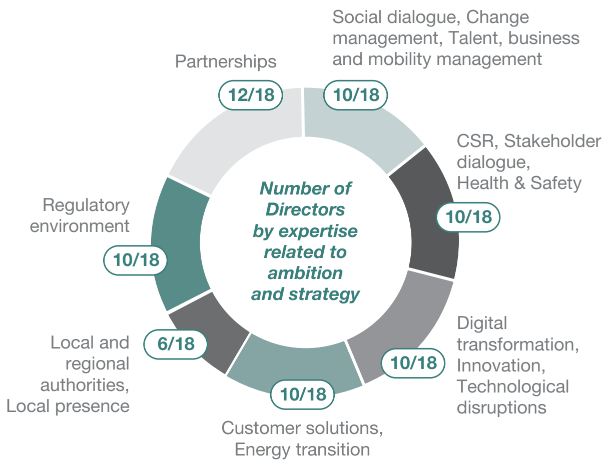
Fiscal year 2019

The terms of office of nine members expire at the next General Shareholders' Meeting.

On this occasion, and given the wish expressed by some directors not to seek a new term and the loss of independent status by other members, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee and the Chairman of the Board, has made it a priority to reduce the size of the Board. A holdover from the merger between Gaz de France and Suez in 2008, the number of directors of the Group is still well above the number observed in companies of the same size.

This first step towards downsizing will be evaluated at the end of fiscal year 2019 and will be adapted, if necessary, based on the implementation of the new strategic plan. This first step will aim to preserve the overall diversity balances.

It should also be noted that, pursuant to Article 13.1 of the bylaws, the Board includes three directors representing the employees, and one director representing employee shareholders. In addition, a number of seats on the Board are reserved for the French State in proportion to its stake in the capital, pursuant to Articles 4 and 6 of Ordinance 2014-948 of August 20, 2014 concerning governance and equity operations of companies with a public shareholder.



4.1.1.2 Operating procedures of the Board of Directors

4.1.1.2.1 Operating rules

Powers of the Board of Directors

Pursuant to legal and regulatory provisions and Article 15.1 of the Company bylaws, the Board of Directors determines the Company's business strategy and oversees its implementation. Subject to the powers expressly granted to the Shareholders' Meetings and within the limit of the Company's corporate purpose, the Board deals with all matters concerning the smooth running of the Company and, through its decisions, manages the Company's business. It works to promote long-term value creation by the company by taking into consideration the social and environmental challenges of its activities. The Board ensures 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. The Board of Directors performs any checks and verifications it considers appropriate.

In addition to issues reserved for the authority of the Board pursuant to applicable laws and regulations, the Chief Executive Officer must obtain, pursuant to the Internal Regulations (Article 2.2), prior authorization from the Board for the following decisions:

- 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 any 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 any supply, works or service contract (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 any agreement, settlement or arbitration decision for an amount exceeding €200 million;
- entering into any long-term energy purchasing plan 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 any significant transaction beyond the scope of the Company's stated strategy,
- entering into any real estate acquisition or disposal transaction for an amount exceeding €200 million;

- entering into any of 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.

Each year, the Board of Directors authorizes the Chief Executive Officer to issue guarantees and other securities for an amount that it determines.

In addition, the Chief Executive Officer must obtain the prior opinion of the Board to enter into significant agreements with the French government 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.

Finally, at least once a year, the Board reviews the budget, the Group's industrial strategy, its financial strategy, market trends, the competitive context and principal challenges, including the area of the Group's social and environmental responsibility, and the Company's policy on professional equality and equal pay.

Organization and operating procedures of the Board of Directors

The operating procedures of the Board of Directors are defined by 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 in accordance with the conditions and procedures set out in the Internal Regulations.

Board meetings are also attended by the Government's Commissioner and the representative of the Company Works Council, Mohamed Boutarfa, who have an advisory role, as well as the Executive Vice-President – General Secretary, the Executive Vice President – Chief Financial Officer, and the Secretary of the Board of Directors.

Article 1.3.1 of the Internal Regulations stipulates that the Chairman organizes and directs the work of the Board, and reports on this to the Shareholders' Meeting. He/she chairs the Board's meetings, oversees deliberations and ensures compliance with the Internal Regulations. He/she may at any time suspend the meeting. The Chairman upholds the quality of dialogue and ensures that the Board's decisions are made on a collective basis. The Chairman 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. The Chairman pays particular attention to ensuring that the issues raised according to the agenda receive an appropriate response.

If the Chairman is absent, he/she is replaced by one of the Vice-Chairmen or, failing this, by the Chief Executive Officer if he or she is a Director, or, failing this, by another Director chosen by the Board at the beginning of the meeting.

The Chairman ensures that the Board and its Committees function properly, assisting them and submitting questions to them for opinions, and ensures that the principles of good governance are applied. He/she also ensures that Directors have the information they need to carry out their duties, sufficiently in advance and in a clear and appropriate form.

The Board may assign information or consultation missions to the Chairman on specific subjects within the Board's purview.

The Chairman 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.

The Chairman works in coordination with the CEO, who has sole 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 CEO on any matter relating to the conduct of the business.

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. The Chairman represents the Group at a high level with national and international bodies in the interest of the Group. If necessary, the CEO 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.

The Chairman devotes his/her best efforts to promoting the Group's values and image in all circumstances.

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.

The Chairman keeps the members of the Board informed, as necessary, between two meetings.

Only the Chairman is authorized to speak and act on the Board's behalf.

The Chairman 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, relating, if applicable, to 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.

The Chairman participates in the organization of the periodic self-assessment of the Board conducted by the Appointments, Compensation and Governance Committee, as well as discussions on governance issues relating to the Board's operating procedures.

Once a year, the Board of Directors carries out a self-assessment under the guidance of the Appointments, Compensation and Governance Committee.

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. However, 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. Patrick van der Beken is the current Board Secretary.

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 Appointments, Compensation and Governance Committee, 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 the Shareholders' Meeting called in 2020 to approve the financial statements for the year ended December 31, 2019, or within 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, to the Director representing the French State, the Directors representing the employees or to the Director representing employee shareholders (the number of shares personally owned by the Directors is provided in Section 4.1.1.1.1 above).

The Internal Regulations were amended on May 18 and July 26, 2018 and February 27, 2019, in order to implement the elements proposed to improve governance and comply with the Afep-Medef Code revised in June 2018. The amendments made on May 18, 2018 raised the maximum number of Audit Committee members to 7, and the amendments made on July 26, 2018 covered the Board's policy on diversity, the promotion of long-term value creation taking into consideration the social and environmental challenges of ENGIE's activities, the duties of the Chairman of the Board, the decisions of the Chief Executive Officer subject to prior authorization or opinion of the Board, the missions of the Strategy, Investment and Technology Committee, the Appointments, Compensation and Governance Committee and the Ethics, Environment and Sustainable Development Committee. On February 27, 2019, the Internal Regulations included the measure stipulated in the previous paragraph on the minimum number of shares to be held by Board members, and a clarification concerning the role of the Board in the area of climate change.

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 sets out 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 4.1.1.2.5 "Attendance by Directors at meetings of the Board of Directors and its Committees in 2018" 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.

The principal provisions of the Company's bylaws and the Board's Internal Regulations are presented in Section 7.1 below.

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.

4.1.1.2.2 Work of the Board of Directors

The Board of Directors of ENGIE met 14 times in 2018, with an average attendance rate of 94%. 14 of the 22 directors serving over the year attended all meetings of the Board, and four directors missed only one meeting. The average individual attendance rates at meetings of the Board of Directors and the committees for 2018 is indicated, for each director, in Section 4.1.1.2.5 "Attendance by Directors at meetings of the Board of Directors and its Committees in 2018."

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 business, and closes, in principle, with a meeting of the directors who do not hold executive positions in the Company.

In 2018, the ENGIE Board of Directors reviewed and deliberated on the following matters in particular:

Finance, audit and risks

The Board of Directors approved the annual and half-year parent company and consolidated financial statements as well as the related draft press releases, after hearing the report given by the Chairman of the Audit Committee and the Statutory Auditors. The Board also learned, through the year, about the work of the Audit Committee; it approved the budget and the medium-term business plan; analyzed the Group's risk review; approved the provisional management documents and the interim dividend for 2018; reviewed the appropriateness of the cash aggregates used by the Group; and renewed the annual authorizations given to the Chief Executive Officer to issue bonds and to deliver sureties, guarantees and pledges. It also adopted a policy on financial communication and reviewed the refinancing of the 2014 syndicated loan for €5 billion and regulated agreements and commitments.

Group strategic planning and monitoring of its operations

The Board of Directors continued its review of the challenges facing a number of BUs and BtoT, BtoB and BtoC business lines, renewable energies, thermal power generation, nuclear power generation, natural gas and infrastructures, the new business models, and the industrial and commercial plan for the deployment of biomethane and synthetic gas in France by 2030. It also reviewed the Group's activities in Research and Technology, storage regulation in France, and the French policy on energy and climate, the geographic footprint and the monitoring of the work of the Strategy, Investment and Technology Committee (SITC). It examined the relationship with Suez and the achievements of the 2016-2018 transformation plan. Finally, it reviewed different issues related to the Group's nuclear operations.

As it does every year, the Board of Directors met for two days as part of a strategic planning seminar. During this seminar, the directors discussed the assessment of the Group's transformation during the last three years, underlying trends and the Group's environment between now and 2030. Proposals were presented to the Board by management to prepare for the drafting of the new strategic plan to be presented to the market ("*Capital Markets Day* ") during the reporting of the 2018 annual results.

Investment and divestment

The Board of Directors, following input from the SITC, reviewed a series of investment and divestment projects, such as the proposed disposals of the LNG upstream and midstream business, Glow (listed ENGIE subsidiary in Thailand), and coal-fired plants in the Netherlands and in Germany. Various acquisition and development projects were presented to the Board in the wind (Brazil and Great Britain), solar (United States), electricity infrastructure (Brazil) and services (Canada) sectors. The Board also decided on the creation of a single ENGIE Campus site which would bring together the majority of the teams from the Paris region.

Governance, appointments and compensation

Thanks to the work of the Appointments, Compensation and Governance Committee (ACGC), the Board of Directors ensured the

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continuity of the Group's governance and the implementation of the succession plan in the context of the replacement of Gérard Mestrallet. On the recommendation of the ACGC, as an extension of the studies initiated before the summer of 2017, which also addressed the issue of the Board's composition and balance in terms of experience and independence, the Board asked the General Shareholders' Meeting to appoint Jean-Pierre Clamadieu to replace Gérard Mestrallet, who was named Honorary Chairman.

The Board reviewed and established the different components of the Chief Executive Officer's variable compensation for the fiscal year 2017, the compensation of the corporate officers for 2018, the pension and health care plan for the Chairman of the Board and the LTI allocation plan for 2018.

It made a range of amendments to its Internal Regulations, reviewed the "Link 2018" offering reserved for employees, and prepared for the Combined General Shareholders' Meeting on May 18, 2018.

Corporate Social Responsibility

In the context of approving investment projects, the Board systematically examines the appropriateness of the projects in terms of each of the Group's CSR criteria.

The Board of Directors learned, throughout the year, of the work of the Committee for Ethics, Environment and Sustainable Development (EESDC). It discussed the policy of professional and salary equality and the declaration on modern slavery stipulated by British regulations. It reviewed the annual Health and Safety assessment and, finally, it studied the overall (non-financial) performance of the Group and read the internal reports devoted to CSR.

4.1.1.2.3 Standing committees

Article 15.2 of the bylaws provides that, to assist in its deliberations, the Board of Directors may create internal standing committees whose work will provide a basis for its decisions. Under Article 3 of the Internal Regulations, the chairmanship of each committee is assumed by an independent director. Pursuant to Article 15.2 of the bylaws and Article 3 of the Internal Regulations, these committees are tasked with studying matters of concern to the Company 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 any issue that falls 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.

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 Board of Directors is assisted by four standing committees: the Audit Committee, the Strategy, Investment and Technology Committee, the Appointments, Compensation and Governance Committee and the Ethics, Environment and Sustainable Development Committee. The General Secretariat provides secretarial services to the Board Committees.

The Audit Committee

The Audit Committee has seven members: Marie-José Nadeau [1] (Chair), Edmond Alphandéry [1], Christophe Aubert, Aldo Cardoso, Françoise Malrieu [1], Ross McInnes (since May 18, 2018) [1] and Lucie Muniesa (until October 30, 2018).

Operating procedures

Article 3.1 of the Internal Regulations sets out the rules and operating procedures of the Audit Committee, pursuant to the applicable regulations and to the Afep-Medef Corporate Governance Code for listed companies.

The missions of the Audit Committee are in particular as follows:

- 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; examination of the financial statements must be accompanied by a presentation by the Statutory Auditors and by the Chief Financial Officer;
- to interview, whenever it deems this to be necessary, the Statutory Auditors, General Management, Financial Management, Internal Audit and any other management personnel; if appropriate, these interviews may take place without the presence of members of the Executive Board;
- to examine major financial press releases before they are released, which include periodic communications regarding the annual and interim financial statements, and the quarterly financial information, as well as press releases relating to dividends and financial guidances;
- to guide the selection procedure for the Statutory Auditors, and submit a recommendation to the Board on the appointment or reappointment of the Statutory Auditors pursuant to the applicable legislation, and to issue a recommendation to the Board if one or more Statutory Auditors are reappointed;
- to hear from the Statutory Auditors about their assignments and to take account of the observations and conclusions of the Haut Conseil du Commissariat aux Comptes (the French auditors supervisory board) after the audits are conducted;
- to ensure that the Statutory Auditors comply with the conditions of independence and take the necessary measures pursuant to the applicable legislation;
- to approve the provision by the Statutory Auditors of services other than the auditing of the financial statements that are not on the list of prohibited services, and to oversee the application of rules for the capping of fees relating to these services;
- to review each year with the Statutory Auditors the auditing fees paid by the Company and its Group to the networks to which the Statutory Auditors belong, their auditing plans and results of audits, as well as subsequent recommendations and follow-up
- to monitor the Group's internal control and auditing systems and procedures, with regard to procedures for preparing and processing accounting and financial data, without prejudice to its independence;
- 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, without the presence of members of the Executive Board, if appropriate;

(1) Independent Director.

- to monitor the Group's risk management systems and procedures, with regard to procedures for preparing and processing accounting and financial data, without prejudice to its independence;
- to regularly obtain updates on the Group's financial position, cash position and significant commitments and risks.

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.

The Audit Committee met eleven times in 2018, with an average attendance rate of 96%. The Statutory Auditors attended all of these meetings.

Activities

In 2018, the Audit Committee covered the following issues, among others: the closing of the parent company and consolidated accounts at December 31, 2017 and June 30, 2018; the financial information for the first and third quarters of 2018 and their press releases; the annual and interim options, assumptions and forecasts; the provisional management documents, the interim dividend for fiscal year 2018, and the renewal of the authorizations to issue bonds and sureties, endorsements and guarantees; the refinancing of the 2014 syndicated loan for €5 billion; the quarterly activity reports from the internal audit and the follow-up of the audit recommendations; the 2018 annual internal audit plan and the approach and priorities for the 2019 annual internal audit plan; the review of the Group's internal control, including the control process applicable to its nuclear facilities in Belgium; the presentation and rendering of the operating accounts of the Chairman and the Board of Directors and the Board's report on corporate governance; a review of the financial resolutions submitted to the General Shareholders' Meeting; the procedure for pre-approval of the non-audit missions of the Statutory Auditors, prior approval of any work assigned to the Statutory Auditors that falls outside their audit mission and the monitoring of these missions; the report on the 2017 fees of the Statutory Auditors, their independence and their 2018 work program.

The Committee also reviewed the Group's risk and insurance; it examined the monitoring and governance of subsidiaries and equity associates, the draft registration document, the draft financial communication policy, the impact of the unavailability of nuclear power plants, relations with the AMF, the report on extractive industries, the cash aggregates, the priority industrial safety risks (excluding nuclear power) and Industrial Projects, the 2018 cash flow plan and the feedback from roadshows.

The Strategy, Investment and Technology Committee

The Strategy, Investment and Technology Committee has seven members: Edmond Alphandéry (Chairman) [(1)], Aldo Cardoso, Patrice Durand, Catherine Guillouard, Philippe Lepage, Lucie Muniesa (until October 30, 2018) and Marie-José Nadeau [(1)].

Operating procedures

Article 3.2 of the Internal Regulations sets out the rules and operating procedures for the Strategy, Investment and Technology Committee.

The mission of this Committee is to provide the Board of Directors with its opinion on the Company's main strategic aims, particularly with regard to strategy. It issues its opinion on all external and internal growth projects, disposals, strategic agreements, alliances or partnerships, that are submitted to the Board. The Committee also addresses 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.

The Chairman of the Board of Directors and Chief Executive Officer attend the meetings of the Strategy, Investment and Technology Committee.

The Strategy, Investment and Technology Committee met eleven times in 2018, with an average attendance rate of 82%.

Activities

In 2018, the Committee considered: the challenges facing the GRDF, Storengy, GRTgaz and Elengy BUs, Research and Technology in the Group, the regulation of storage in France, the French policy on energy and climate, the relationship with Suez, the main exit points of the 2016-2018 transformation plan, the activities of the different Métiers, renewable energies, thermal power generation, nuclear power generation, natural gas and infrastructures, the deployment of biomethane and synthetic gas in France by 2030, the new business models, the safety of the nuclear power plants, and the preparation for and follow-up measures from the Board's annual strategic seminar.

The Committee also reviewed a series of investment and divestment projects requiring approval by the Board of Directors.

The work on the budget and medium-term business plan was reviewed during a joint meeting of the Strategy, Investment and Technology Committee and the Audit Committee; these two committees also jointly considered the policy to remunerate Group shareholders.

The Appointments, Compensation and Governance Committee

The Appointments, Compensation and Governance Committee has five members: Françoise Malrieu (Chair) [(1)], Alain Beullier, Fabrice Brégier [(1)], Lucie Muniesa (until October 30, 2018) and Lord Ricketts of Shortlands [(1)].

Operating procedures

Article 3.3 of the Internal Regulations of ENGIE sets out the rules and operating procedures for the Appointments, Compensation and Governance Committee. The Committee's role is to review 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 or Chairman, taking into consideration their skills, experience, diversity and profile. It makes recommendations to the Board with regard to the succession of the Company's Chairman and Chief Executive Officer, to ensure that the executive corporate officers are implementing a policy of non-discrimination and diversity, particularly for a balanced representation of men and women on the executive bodies, leads the process for the annual evaluation of the Board's work, assesses, with the Chairman, the proper operation of governance bodies, reviews the succession plan for the Company's senior executives in an advisory capacity, and stays informed about the CEO's plans regarding the appointment and compensation of Executive Committee members. It also reviews and makes recommendations to the Board of Directors on

(1) Independent Director.

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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. It reviews all nominations of the Chairman and the Chief Executive Officer for any corporate office in a listed company outside the Group, in order to inform the Board's opinion on this candidature.

It gives an opinion on maintaining the benefit of bonus share allocations for members of the Executive Committee when these are normally lost by their holders when they leave the Group.

The Chairman and the Chief Executive Officer attend meetings of the Appointments, Compensation and Governance Committee, unless the meetings address matters that concern them.

The Appointments, Compensation and Governance Committee met nine times in 2018, with an average attendance rate of 95%.

Activities

In 2018, the Appointments, Compensation and Governance Committee examined, among other items, the succession for the Chairman of the Board, an assessment of the operations of the Board of Directors, the nomination of an independent director (Ross McInnes), the independence of the directors, the variable compensation of the Chief Executive Officer for 2017 and 2018, the compensation of the Chairman of the Board, the verification of the success rate of the 2014 performance share and unit plans, the proposed resolutions for the Shareholders' Meeting under its jurisdiction, the Board's report on these resolutions, the drafts of Sections 4.1 "Report of the Board of Directors on corporate governance" and 4.6 "Compensation and benefits paid to members of corporate governance bodies" in the 2017 Registration Document, the attendance rate of Board members, the compensation of employee directors, the career management and succession plan for the main senior managers, changes to the Internal Regulations, the composition of the Board, the benefit and healthcare plan coverage for the Chairman of the Board, the Link project for a capital increase reserved for employees, the confidentiality of the work of the Board and its committees, the performance share plan for 2018, the governance for financial communications and the rules for director's fees for the directors of ENGIE.

The Ethics, Environment and Sustainable Development Committee

The Ethics, Environment and Sustainable Development Committee has five members: Ann-Kristin Achleitner [(1)] (Chair), Christophe Agogué (since May 18, 2018), Mari-Noëlle Jégo-Laveissière, Barbara Kux [(1)], Françoise Malrieu [(1)] and Olivier Marquer (until May 18, 2018).

Operating procedures

Article 3.4 of the Internal Regulations of defines the rules and operating procedures for the Ethics, Environment and Sustainable Development Committee. This committee ensures the Group has the right level of commitment with regard to ethics, non-financial compliance, and corporate, social and environmental responsibility. Its mission is to review the Group's policies, standards and charters in these areas, review human resources policies, examine how the corresponding risks are monitored, ensure, as applicable, the implementation of a process to prevent and detect corruption and influence-peddling, to examine the risk and opportunities associated with climate change and, more generally, to ensure that the Group takes non-financial challenges and the long-term outlook into consideration, primarily by setting non-financial objectives.

The Committee met four times in 2018, with an average attendance rate of 95%.

Activities

In the area of ethics and compliance, as is the case every year, the Committee was presented with the ethical incidents report and the report of the Group Compliance Officer. It also reviewed the Group's policies (changes in policies on embargoes, due diligence in the context of investment projects, sponsorship and whistleblowers), certification of the anti-corruption process, the declaration on modern slavery stipulated by British regulations, and guidelines on "weak signals" and personal data protection.

In the area of environmental and societal responsibility, the Committee reviewed the CSR performance of the Group and the Statutory Auditors' report on CSR. The integrated report was submitted to the Committee. It also reviewed the different ESG ratings, the organization of the CSR function, the CSR 2030 vision, the recommendations on transparency from the Task Force on Climate-related Financial Disclosure (TCFD) as to the financial impacts of the climate risk and the biodiversity challenges for humanity, as well as the biodiversity approach initiated within the Group. It receives internal CSR Reporting on all salient facts that impact ENGIE, external news, peer actions and any controversies. The reporting is communicated to all Board members.

From the standpoint of employer social responsibility, the Committee assesses the progress of the Group's transformation on a regular basis. The priority risk related to the HR challenges of the transformation plan was specifically examined, along with measures to prevent, detect, and respond to situations that pose risks to well-being in the workplace. The policy on professional and salary equality, the health and safety assessment and the fatal accidents report were reviewed, as they are every year.

4.1.1.2.4 Assessment of the operations of the Board of Directors

The assessment of the operations of the Board of Directors and its Committees in 2018 was led by the Appointments, Compensation and Governance Committee. This was a lean assessment essentially to measure changes in relation to the recommendations resulting from the assessment carried out the previous year; it should be noted that Jean-Pierre Clamadieu succeeded Gérard Mestrallet as Chairman of the Board of Directors on May 18, 2018. A draft questionnaire was approved by the Appointments, Compensation and Governance Committee. The questionnaire included both closed questions for statistical tracking of responses, and open questions allowing directors to clarify their responses, make observations and propose changes. The questions related primarily to strategy and performance, the strategic seminar, knowledge of the Group's businesses, relationships with management, risk management and control, organization, conduct and logistics of the Board's meetings, and committee operating procedures. The report on the work conducted under the aegis of the Chair of the Appointments, Compensation and Governance Committee was given to this committee on February 5, 2019 and to the Board of Directors on February 27, 2019.

(1) Independant Director.

Generally, ratings remain high. They reflect the Board's satisfaction with the resources and information made available to it. The progress reported was primarily found in the changes made by the new governance to the dynamic and organization of the Board's work: a format for the strategic seminar that is more structured, in both form and substance, distribution of the written reports on the work of the committees before Board meetings, regular discussions outside the presence of management, a first meeting devoted to the issue of nuclear power. In a context of accelerated changes in the markets, the analysis of the performance and strategy of competitors focuses expectations. Requests for simplifications were made for operational reporting and operational segmentation. There is a desire for the Board to go even further with regard to the attention it pays to human resources, R&D, digital, artificial intelligence, CSR, and geopolitical risks. The establishment of regular thematic information meetings was suggested.

The Board of Directors duly noted the recommendations from its assessment work and will take necessary action on them. The attendance rate of each Director at Board and Committee meetings in 2018 is made public for the second time (see Section 4.1.1.2.5 below).

4.1.1.2.5 Attendance by Directors at meetings of the Board of Directors and its Committees in 2018

	Board of Directors	Audit Committee	SITC	ACGC	EESDC
Gérard Mestrallet (1)	100%				
Jean-Pierre Clamadieu	100%				
Isabelle Kocher	100%				
Ann-Kristin Achleitner	100%				100%
Edmond Alphandéry	93%	91%	100%		
Fabrice Brégier	93%			78%	
Aldo Cardoso	86%	100%	91%		
Barbara Kux	93%				100%
Françoise Malrieu	100%	91%		100%	100%
Ross McInnes (2)	100%	100%			
Marie-José Nadeau	100%	100%	100%		
Lord Ricketts of Shortlands	100%			100%	
Patrice Durand	79%		82%		
Catherine Guillouard	71%		36%		
Stéphane Pallez (1)	67%				
Mari-Noëlle Jégo-Laveissière	93%				75%
Lucie Muniesa (3)	100%	100%	78%	100%	
Christophe Agogué (4)	100%				100%
Alain Beullier	100%			100%	
Philippe Lepage	100%		100%		
Olivier Marquer (1)	100%				100%
Christophe Aubert	100%	100%			
OVERALL ATTENDANCE RATE	**94%**	**96%**	**82%**	**95%**	**95%**

(1) Until May 18, 2018
(2) Appointed member of the Audit Committee by the Board at its meeting of May 18, 2018
(3) Until October 30, 2018
(4) Appointed member of the Ethics, Environment and Sustainable Development Committee by the Board at its meeting of May 18, 2018

4.1.1.3 Government Commissioner

The role of Government Commissioner is described in Section 7.1.2 "Corporate governance bodies."

This position is held by Laurent Michel, appointed by ministerial order dated November 13, 2014. Anne-Florie Coron was appointed Substitute Government Commissioner by ministerial order dated May 5, 2017.

4.1.2 Appointment and renewal of directors submitted to the Shareholders' Meeting of May 17, 2019

At its meeting of February 27, 2019, the Board of Directors resolved to convene a Combined Ordinary and Extraordinary Shareholders' Meeting on May 17, 2019.

The terms of Ann-Kristin Achleitner, Edmond Alphandéry, Aldo Cardoso, Patrice Durand, Catherine Guillouard, Barbara Kux, Mari-Noëlle Jégo-Laveissière, Françoise Malrieu, and Marie-José Nadeau will expire at the end of this Shareholders' Meeting.

Given the wish expressed by some directors not to seek a new term and the loss of independent status by other members, on the recommendations of the Appointments, Compensation and Governance Committee, it is proposed to re-elect, for a term of four years, Françoise Malrieu and Marie-José Nadeau as independent directors, and to re-elect Patrice Durand and Mari-Noëlle Jégo-Laveissière as directors proposed by the French State in accordance with Article 6 of Ordinance No. 2014-948 of August 20, 2014 concerning governance and equity operations of companies with a public shareholder.

At the close of the Shareholders' Meeting, subject to a favorable vote on these resolutions and given the appointment by decree of the director representing the French State in accordance with Article 4 of the aforementioned ordinance [1], the Board of Directors will be composed of 14 members. Resulting from the merger in 2008 of Gaz de France and SUEZ, the size of the Group Board of Directors is currently above the size generally seen in CAC40 companies. This reduction meets an expectation regularly expressed by the shareholders. This first step towards downsizing will be evaluated at the end of fiscal year 2019 and will be adapted, if necessary, based on the implementation of the new strategic plan. This first step aims to preserve the overall diversity balances.

The reduction in the number of Board members from 19 to 14 includes the decrease from 4 to 3 in the number of seats reserved for members who may be appointed or proposed by the French State under Articles 4 and 6 of the aforementioned ordinance. The proportion of Independent Directors would be 60%[2] and the Board members would represent four nationalities.

4.1.3 General Management

General Management of the Company is assumed by Isabelle Kocher. Invested with the broadest powers to act in all circumstances on behalf of the Company, Isabelle Kocher exercises her functions within the limits of the corporate purpose and subject to the powers that the law expressly attributes to Shareholders' Meetings and the Board of Directors. According to the internal rules, the respective powers and duties of the Chairman of the Board and the Chief Executive Officer are determined by the Board of Directors and the Internal Regulations of the Board (see Section 4.1.1.2.1 "Powers of the Board of Directors").

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. It meets, in principle, every week.

The composition of the Executive Committee is based on the principle of bringing together the functional and operational responsibilities shared between its various members, with a cross-disciplinary approach that breaks down silos and establishes collective responsibility.

At the date of this document, the Executive Committee has the following 11 members, representing six nationalities:

- Chief Executive Officer: Isabelle Kocher;
- Executive Vice-Presidents:
  - Paulo Almirante, Chief Operating Officer, in charge of the Europe Generation; Brazil; Northern, Southern and Eastern Europe; Middle East, South and Central Asia, and Turkey BUs and Corporate Societal and Environmental Responsibility,
  - Franck Bruel, in charge of the France BtoB and Renewable Hydrogen BUs,
  - Ana Busto, in charge of Brand and Communications,
  - Pierre Chareyre, in charge of the Global Energy Management and Latin America BUs, and the chairmanship of the Commodities Risk Committee,
  - Pierre Deheunynck, in charge of Group Human Resources, Global Business Support, Transformation, Global Care and Group Real Estate,
  - Judith Hartmann, in charge of Finance and the UK and North America BUs,
  - Didier Holleaux, in charge of the Elengy, GRDF, GRTgaz, Storengy, Asia-Pacific, China and GTT BUs, Strategic Sourcing & Supply, Industrial Projects, Nuclear Development and Risk Management,
  - Shankar Krishnamoorthy, in charge of Strategy, Business Development Oversight, Research & Technology, Innovation, the 5 Métiers, Tractebel and ENGIE Solar,
  - Yves Le Gélard, in charge of Digital and Group Information Systems,
  - Pierre Mongin, Group General Secretary, in charge of the BU Africa, Benelux, France Renewable Energy, France Networks and France BtoC, and of the coordination of Nuclear Security.

(1) Following the resignation of Lucie Muniesa on October 30, 2018, it is specified that the position of the Director representing the French State remains vacant at the date of this Registration Document.

(2) Percentage calculated pursuant to the Afep-Medef Code which stipulates that the directors representing employees and employee shareholders are not taken into account when calculating the proportion of the independent directors.

The Operational Management Committee, known as ENGIE 50, is in charge of operational activities, and is composed of the Executive Vice-Presidents, the CEOs of the BUs, the directors of the five Métiers and the managers of the main functional departments. It is chaired by the Chief Executive Officer. The Operational Management Committee implements ENGIE's strategic decisions; it is also in charge of taking the Group's transformation closer to the regions. It meets, in principle, every month.

In accordance with Article 225-37-4 para. 6 of the French Commercial Code supplemented by French Act No. 2018-771 of September 5, 2018, 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 Executive Board 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 Executive Board 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 70 countries for a total of 160,000 employees, it seems more appropriate to consider the Group as a whole with regard to the spirit of the law. Furthermore, the Group has approximately 500 senior managers across all the territories in which it is present whose role is to deliver the Group's strategy.

The Executive Committee consists of 11 members, including 3 women, of 6 nationalities, and ENGIE 50 is composed of 53 members, including 10 women, and comprises 10 nationalities.

ENGIE therefore considers that the relevant scope to use for the 10% of positions with higher responsibility is that of ENGIE 50.

For several years, the Group's policy in terms of appointment has consisted of strengthening diversity: over the past two years, five women have joined ENGIE 50.

Indeed, the Group seeks to develop mixed talent pools, in particular pools of senior managers, that contribute in this respect to increasing female representation in the two bodies mentioned above, namely the Executive Committee and ENGIE 50. Therefore, for key positions in the Group, the final appointment decision is taken from a list of candidates systematically including men and women.

These actions aim to change career paths and talent development, opening them up to various profiles, so as to eventually form governance bodies that embody the Group's diversity policy.

4.1.4 Compensation and benefits paid to members of corporate governance and management bodies

4.1.4.1 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. It is subject to a presentation and binding votes ("Say on Pay") at the Annual Shareholders' Meeting in accordance with Articles L. 225-37-2 and L. 225-100 of the French Commercial Code.

The compensation policy is reviewed annually by the Appointments, Compensation and Governance Committee and is based in particular on specific studies carried out by an external firm specializing in this area.

In its recommendations to the Board of Directors, the Appointments, Compensation and Governance Committee seeks to propose a compensation policy that is in line with 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.

Stringent quantifiable and qualitative performance criteria are set both for the variable portion of compensation and for long-term incentive plans, helping to maintain a link between the Group's performance and the compensation of its directors in the short, medium and long term.

Compensation of the executive corporate officers includes:

- a fixed portion (see Section 4.1.4.1.1); this fixed amount remains unchanged unless the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee, decides otherwise;
- a variable portion, balanced relative to total compensation, the purpose of which is to reflect the executive's personal contribution to the Group's development and results (see Section 4.1.4.1.2); and
- a deferred variable portion in the form of Performance Units (see Section 4.1.4.1.3), subject to performance conditions.

The compensation policies applicable as from March 2, 2019 for the Chairman of the Board of Directors and as from January 1, 2019 for the Chief Executive Officer can be found in Section 4.1.4.1.9.

4.1.4.1.1 Fixed compensation

Fixed compensation in 2018

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, received no compensation in respect of his office for the period in question.

Jean-Pierre Clamadieu, Chairman of the Board of Directors since May 18, 2018, received compensation of €217,339 for the period from May 18 to December 31, 2018, corresponding to fixed annual compensation of €350,000.

The fixed annual compensation of Isabelle Kocher, Chief Executive Officer, was set at €1,000,000, to which was added a benefit in kind of €6,012 for the period in question.

Fixed compensation in 2019

Please refer to Section 4.1.4.1.9.

4.1.4.1.2 Variable compensation

Variable compensation in 2017

Gérard Mestrallet, Chairman of the Board of Directors, received no compensation in respect of his office for the period in question.

With regard to Isabelle Kocher, the target variable compensation for fiscal year 2017 also remained unchanged at €700,000, corresponding to 70% of her fixed compensation and capped at €840,000, i.e. 120% of the target variable compensation. Variable compensation in 2017 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%).

For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE (return on capital employed) and net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2017 were based on the Group's budget as presented to the Board of Directors on March 1, 2017.

For the qualitative component, the criteria used were as follows:

- Leading the transformation plan (60%):
  a) Step up the deployment of the Group's strategy,
  b) Innovation: Leverage additional growth drivers in the medium term,
  c) Digital: Speed up the Group's digital transformation (digital operations),
  d) Performance: Continue to improve the operational efficiency of industrial assets, accelerate the deployment of Lean 2018, and continue restructuring at Corporate level,
  e) Adaptation of the Group and leadership;
- Risk preparedness and management (10%): Refine the methodology and resources used to anticipate, identify and address risks affecting or likely to affect the Group's activities;
- Management of difficult cases (10%);
- Communications (10%): Position ENGIE as a Group in tune with the expectations of its customers and stakeholders. Pay particular attention to market, investor and external stakeholders' understanding of the Group's strategy;
- Corporate, societal and environmental responsibility (10%): Ensure that the Group develops in line with the 2016-2020 non-financial targets, with particular attention paid to health and safety. As part of a continuous improvement process, closely monitor on the Group's non-financial ratings and reputation.

At its meeting of March 7, 2018, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee:

- noted that the success rate of the quantifiable criteria was 105.31%[1]
- set the success rate of the qualitative criteria at 111.50%.

Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 107.79%.

The variable component for 2017 was €754,530. It was paid in 2018 following the approval of the Shareholders' Meeting of May 18, 2018.

Variable compensation in 2018

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, received no compensation in respect of his office for the period in question.

Jean-Pierre Clamadieu, Chairman of the Board of Directors as of May 18, 2018, received no variable compensation in respect of his office.

With regard to Isabelle Kocher, the structure of the target variable compensation that will be paid in 2019 for fiscal year 2018 also remains unchanged at €700,000, corresponding to 70% of her fixed compensation and capped at €840,000, i.e. 120% of the target variable compensation. Variable compensation in 2018 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%).

For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE (return on capital employed) and net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2018 were based on the Group's budget as presented to the Board of Directors on March 7, 2018.

For the qualitative component, the criteria used were as follows:

- Develop long-term growth drivers (40%):
  - pursue and strengthen organic growth via existing offerings and by developing new skills and customer solutions.
  - contribute to growth through acquisitions in the BtoB, BtoT and high-tech business lines;
- Prepare post-2025 options in Belgium (20%);
- CSR, emphasizing employer social responsibility (20%):
  - make employee engagement and commitment one of the main levers for the Group's transformation and performance (employee survey),
  - continue to adapt internal skills to meet organizational and customer solutions needs,
  - embed new management practices and the concept of organizational agility within the Group's culture;
- Develop the Digital & Innovation road map (10%):
  - define the strategy for the three-year plan and the 2030 targets,
  - adapt the internal organization and partnerships based on the objectives set;
- Make the customer's perception of the brand and the image a key element in the Group's transformation and performance (10%):
  - continue to bring the commercial offerings into line with the Group's strategy,
  - develop a communication program and build brand awareness,
  - develop Know Your Customer (KYC) and make customer satisfaction a driver of cultural change (NPS: net promoter score).

At its meeting of February 27, 2019, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee:

(1) *For the quantifiable component (representing 60% of the variable compensation), the results achieved were: Net recurring income Group share, per share (1/2): 107.94%; ROCE (1/6): 91.50%; Free cash flow (1/6): 116.51%; Net debt (1/6) : 100.02%*

- noted that the success rate for the quantifiable criteria was 85.46% [(1)]
- set the success rate of the qualitative criteria at 101.00%.

Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 91.68%.

The variable component for 2018 was thus €641,760. It will only be paid to Isabelle Kocher if approved by the shareholders at the Shareholders' Meeting of May 17, 2019.

Variable compensation in 2019

Please refer to Section 4.1.4.1.9.

4.1.4.1.3 Long-term incentive compensation (Performance Units)

The Appointments, Compensation and Governance Committee, 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 officer 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. On December 6, 2011, the Board of Directors decided that the long-term incentive may not exceed 40% of the total compensation of the executive corporate officers.

The Appointments, Compensation and Governance Committee proposed a long-term incentive plan to the Board of Directors in the form of Performance Units (PUs).

Performance Units for 2018

Gérard Mestrallet and Jean-Pierre Clamadieu were not awarded any PUs for 2018.

On the recommendation of the Appointments, Compensation and Governance Committee, the Board of Directors, at its meeting of March 7, 2018, voted to award 120,000 PUs to Isabelle Kocher for 2018.

These Performance Units are subject to the following conditions and criteria:

- the award takes effect on March 7, 2018 and the PUs will be fully vested on March 15, 2022, after which Isabelle Kocher has three years to exercise them (fractional shares may be exercised);
- final vesting depends on a triple performance condition, with each criterion accounting for one-third of the total [(2)];
- upon exercise, Performance Units are valued based on the first weighted average daily price published after the request is submitted. This method reduces the effects of volatility inherent in a closing or opening price;
- obligation to reinvest in ENGIE shares 2/3 of the income from the exercise of the PUs net of tax and social security withholding until the shareholding target (equal to two years' fixed compensation for executive corporate officers) has been met;
- the lock-up periods associated with performance shares will apply;
- In the event of departure from the Group, the same conditions as those applied to other performance share plans will apply. This would create a regime identical to that of other beneficiaries of long-term incentives in the Group:
  - maintenance of rights in the event of death, retirement [(3)], disability (2nd or 3rd category under Article L. 341-4 of the French Social Security Code),
  - in the event of death, the performance conditions would be deemed fully satisfied and the estate would have a period of six months from the date of death to exercise the PUs, after which the PUs will become null and void;
- in case of termination of office or employment contract for any other reason, the rights will lapse, unless otherwise decided by the Board of Directors.

The PU awarded for 2018 was valued at €6.58 per unit at the time of allocation.

Performance Units for 2019

Jean-Pierre Clamadieu was not awarded any PUs for 2019, 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 of February 27, 2019, voted to award 120,000 Performance Units to Isabelle Kocher for 2019.

The PUs are subject to the following conditions and criteria:

- the award takes effect on February 27, 2019 and the PUs will be fully vested on March 15, 2023, after which Isabelle Kocher has three years to exercise them (fractional shares may be exercised);

(1) For the quantifiable component (representing 60% of the variable compensation), the results achieved were: Net recurring income Group share, per share (1/2): 82.52%; ROCE (1/6): 94.06%; Free cash flow (1/6): 105.51%; Net debt (1/6) : 65.63%

(2) The sum of the success rate for (a), (b) and (c) is divided by three to obtain an overall success rate. Performance conditions: (a) an internal condition related to net recurring income, Group share, for 2020 and 2021 vs. the target net recurring income, Group share set in the medium-term businessplan (MTBP) reviewed by the Board of Directors (pro forma); (b) an internal condition related to ROCE for 2020 and 2021 vs. the target ROCE set inthe MTBP reviewed by the Board of Directors (pro forma); (c) an external condition related to the TSR (total shareholder return) of the ENGIE stock compared with the TSR of a reference panel. The reference panel is composed of EDF, EDP, E.ON, Innogy, RWE, ENEL, Iberdrola, Gas Natural, Spie and Uniper (hereinafter referred to as the "Panel"), with each company weighted equally, with the exception of E.ON, Innogy, RWE and Uniper, which count for 50% for weighting purposes. To smooth the possible effects of volatility (gain or loss), the TSR will be calculated by taking the average of the ENGIE TSR and that of the Panel companies over two months, ending at least a month before the expected delivery date of the relevant performance shares. A single performance slope is applied to each of the following three criteria:
• ENGIE performance ≤ 80% of the target level: 0% success rate;
• ENGIE performance ≥ 100% of the target level: 100% success rate;
• proportional and linear progression for intermediate results. The arithmetic mean of the three success rates in a), b) and c) above represents the percentage of UP that will vest.

(3) Including expiry of a term of office due to the age limit set by the Company's bylaws.

- final vesting depends on a triple performance condition, with each criterion accounting for one-third of the total [(1)];
- upon exercise, Performance Units are valued based on the first weighted average daily price published after the request is submitted. This method reduces the effects of volatility inherent in a closing or opening price;
- obligation to reinvest in ENGIE shares 2/3 of the income from the exercise of the Performance Units net of tax and social security withholding until the shareholding target (equal to two years' fixed compensation for executive corporate officers) has been met;
- the lock-up periods associated with performance shares will apply;
- in the event of departure from the Group, the same conditions as those applied to other performance share plans will apply. This would create a regime identical to that of other beneficiaries of long-term incentives in the Group:
  - maintenance of rights in the event of death, retirement [(2)], disability (2nd or 3rd category under Article L. 341-4 of the French Social Security Code),
  - in the event of death, the performance conditions would be deemed fully satisfied and the estate would have a period of six months from the date of death to exercise the PUs, after which the Performance Units will become null and void;
- in case of termination of office or employment contract for any other reason, the rights will lapse, unless otherwise decided by the Board of Directors.

The PU awarded for 2019 was valued at €7.84 per unit at the time of allocation.

4.1.4.1.4 Pension plans

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, is not covered by an individual pension plan. In addition to mandatory pension plans, he benefits from the supplementary collective defined benefit (Article 39) and defined contribution (Article 83) pension plans for employees of the ex-SUEZ group, which he joined in 1984. Gérard Mestrallet was reappointed as Chairman and Chief Executive Officer on April 23, 2012. As a result, in accordance with the Afep-Medef Code, he voluntarily terminated his employment contract, which had been automatically suspended since his appointment as an executive corporate officer. He requested the liquidation of his pension rights under the general retirement plan with CNAV, the mandatory plans with ARRCO and AGIRC, and the supplementary collective pension plans which are described in detail in the Company's Registration Documents and were approved by the Shareholders' Meeting under the "Say on Pay" rules. These collective plans are described in the following paragraphs. For the duration of his service as Chairman and Chief Executive Officer, Gérard Mestrallet had waived the right to collect any annuity payments resulting from supplementary collective pension plans. No rights were vested during the period. The annuity that Gérard Mestrallet will receive from the collective pension plans after May 4, 2016, the date on which he stepped down from his duties as Chief Executive Officer, amounts to €831,641 per year before tax and social security deductions, which represents 28% of his compensation in 2012 (the reference year for calculating his pension benefits).

Jean-Pierre Clamadieu, Chairman of the Board of Directors since May 18, 2018, is not covered by any supplementary pension plan in respect of his duties as Chairman of the Board of Directors.

In addition to mandatory pension plans, until December 31, 2014, Isabelle Kocher benefited from the supplementary collective pension plans of the former SUEZ group (which she joined in 2002), consisting of a defined contribution plan and a defined benefit plan.

The defined contribution plan (Article 83) is based on her gross annual compensation and the following contribution rates: 5% tranche A (equivalent to the annual social security limit), 8% tranche B (between one and four times the annual social security limit), 8% tranche C (between four and eight times the annual social security limit).

The defined benefit plan (Article 39) is governed by Article L. 137-11 of the French Social Security Code. It is managed by ENGIE Management Company, a wholly owned French subsidiary of ENGIE. The beneficiaries of this plan are the executives and corporate officers of ENGIE Management Company who are registered with the French social security system and meet the following three conditions: (i) they received gross compensation above the limit for tranche B contributions to the AGIRC executive supplementary pension plan, i.e. over four times the annual social security limit, (ii) they were working for a Group company when they retired, and (iii) they have wound up at least one basic pension plan. The annuity is calculated on the gross compensation received during the year in question, capped at 50 times the social security limit. The amount of compensation is that which is used to calculate social security contributions as defined in Article L. 242-1 paragraph 1 of the French Social Security Code.

(1) The sum of the success rate for (a), (b) and (c) is divided by three to obtain an overall success rate. Performance conditions: (a) an internal condition related to net recurring income, Group share, for 2021 and 2022 vs. the target net recurring income, Group share set in the MTBP reviewed by the Board of Directors (pro forma); (b) an internal condition related to ROCE for 2021 and 2022 vs. the target ROCE set in the MTBP reviewed by the Board of Directors (pro forma); (c) an external condition related to the TSR of the ENGIE stock compared with the TSR of a reference panel. The reference panel is composed of EDF, EDP, E.ON, Innogy, RWE, ENEL, Iberdrola, Naturgy (previously Gas Natural), Spie and Uniper (hereinafter referred to as the "Panel"), with each company weighted equally, with the exception of E.ON, Innogy, RWE and Uniper, which count for 50% forweighting purposes. To smooth the possible effects of volatility (gain or loss), the TSR will be calculated by taking the average of the ENGIE TSR and that of the Panel companies over two months, ending at least a month before the expected delivery date of the relevant performance shares. A single performance slope is applied to each of the following three criteria:
• ENGIE performance ≤ 80% of the target level: 0% success rate;
• ENGIE performance ≥ 100% of the target level: 100% success rate;
• proportional and linear progression for intermediate results. The arithmetic mean of the three success rates in a), b) and c) above represents thepercentage of UP that will vest.

(2) Including expiry of a term of office due to the age limit set by the Company's bylaws.

This plan provides for the payment of an annuity equal to the sum of the annual pension components calculated on 2% of the portion of gross annual compensation between four and eight times the social security limit (designated tranche C) and 4% of the portion of gross annual compensation between eight and fifty times the social security limit (designated tranche D), minus the abovementioned defined contribution plan calculated on tranche C of the compensation. If the plan beneficiary has continuous service of at least 10 years, the total annuity cannot be less than 20% of tranche C of average compensation for the last five years plus 30% of tranche D for the same compensation, nor more than 30% of tranche C plus 40% of tranche D. If their continuous service is less than 10 years, the corresponding rights are calculated pro rata on the basis of actual time worked.

The rights under the defined benefit plan are "not guaranteed" since they require the employee to be employed by the Group at the time his or her pension is claimed under a mandatory for pension insurance plan.

ENGIE Management Company is responsible for financing this plan and pays premiums to a third-party insurance company which it has contracted to manage the pensions, calculate the actuarial provisions for the annuities, and manage the payments. The corresponding social security costs borne by the Company amount to 24%.

In accordance with the decisions of the Board of Directors on March 10, 2016, Isabelle Kocher's rights to the supplementary collective defined contribution and defined benefit pension plans were frozen on suspension of her employment contract, i.e. at December 31, 2014.

The rights accumulated from 2002 to 2014 under the collective defined benefit plan would result, subject to the condition of continuous service in the Group, in an annual annuity, estimated at year-end 2015, at the end of her career aged 65, of €145,456, before tax and social security deductions.

At its meeting on March 10, 2016, the Board of Directors also decided to set up a new supplementary pension plan for Isabelle Kocher whereby the company no longer guarantees the amount of 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 payments made into this new 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 also depends on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results. In setting the conditions of this mechanism, the Board of Directors wanted to ensure that Isabelle Kocher's new position would not result in any gains or losses in respect of her current position. Accordingly, the Board of Directors decided to pay an employer contribution of €366,091 for the 2015 fiscal year. This employer contribution is subject to social contributions without any limit according to the applicable rules.

Without prejudice to her rights accrued under the collective plans corresponding to her employment prior to the suspension of her employment contract, which have been frozen and preserved, this system will provide Isabelle Kocher with a dedicated pension plan, reflecting the significance of her position as Chief Executive Officer. It is intended that this policy will be applied to all executive officers who are promoted to the position of the executive corporate officer leading the Group when their employment contract is suspended.

At its meeting of May 3, 2016, the Board of Directors voted to carry forward the decisions made regarding Isabelle Kocher at its meeting of March 10, 2016, when she was Chief Operating Officer. Consequently, the benefits accrued by Isabelle Kocher in respect of the supplementary collective pension plans for corporate offers for the period prior to the suspension of her employment contract on December 31, 2014 will remain frozen and preserved, which entails keeping her employment contract suspended. The arrangement for the employer pension plan contribution and conditions related thereto were also confirmed. For 2016, the employer contribution was €406,762. For 2017, the employer contribution was €438,632. For 2018, the employer contribution was €410,440. It will only be paid to Isabelle Kocher if approved by the shareholders at the Shareholders' Meeting of May 17, 2019.

4.1.4.1.5 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
Gérard Mestrallet *Chairman (until May 18, 2018)*	no	see 4.1.4.1.4	no	no
Jean-Pierre Clamadieu *Chairman (since May 18, 2018)*	no	no	no	no
Isabelle Kocher *Chief Executive Officer*	yes (suspended)	see 4.1.4.1.4	See below	no

Isabelle Kocher's employment contract has been suspended since January 1, 2015. This suspended employment contract does not provide specifically for non-compete or severance compensation. As part of the Company's human resources policies, all employees of ENGIE Management Company receive severance compensation when their employment contract is terminated. Compensation due under said policies amounts to 3/5 of the monthly salary per year of service in the company or Group and is capped at 18 months' salary. "Monthly salary" is understood to mean one-twelfth of the fixed compensation of the current year plus the last variable component that was paid. Isabelle Kocher's length of service at the time of her appointment as Chief Executive Officer on May 3, 2016 was 13 years and seven months. Note that there is no system of hiring bonuses or golden parachutes in place for executive corporate officers at ENGIE and that no compensation is provided in respect of non-compete clauses.

4.1.4.1.6 Summary of compensation of each executive corporate officer

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, received no compensation in respect of his office. His retirement benefits are described in Section 4.1.4.1.4

	2018		2017	
In euros	Amount due in 2018	Amount paid in 2018	Amount due in 2017	Amount paid in 2017
Jean-Pierre Clamadieu *Chairman (since May 18, 2018)*				
Fixed compensation	217,339	217,339	0	0
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	**217,339**	**217,339**	**0**	**0**

	2018		2017	
In euros	Amount due in 2018	Amount paid in 2018	Amount due in 2017	Amount paid in 2017
Isabelle Kocher *Chief Executive Officer*				
Fixed compensation	1,000,000	1,000,000	1,000,000	1,000,000
Variable compensation	641,760	754,530	754,530	661,187
Employer contribution to retirement plan	410,440	438,632	438,632	406,762
Extraordinary compensation	0	0	0	0
Directors' fees	0	0	0	0
Benefits in kind	6,012	6,012	6,012	6,012
TOTAL	**2,058,212**	**2,199,174**	**2,199,174**	**2,073,961**

4.1.4.1.7 Summary of compensation for each executive corporate officer

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, received no compensation in respect of his office.

In euros	2018	2017
Jean-Pierre Clamadieu *Chairman (since May 18, 2018)*		
Compensation due for the fiscal year (detailed in the preceding table)	217,339	0
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	**217,339**	**0**

In euros	2018	2017
Isabelle Kocher *Chief Executive Officer*		
Compensation due for the fiscal year (detailed in the preceding table)	2,058,212	2,199,174
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	789,600	730,880
TOTAL	**2,847,812**	**2,929,974**

The valuation of Performance Units, 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 estimated life of four and a half 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 and €7.84 for the 2019 award.

This valuation is theoretical, to the extent that the final vesting of Performance Units (several years after the grant date) depends on the achievement of strict and demanding performance conditions.

4.1.4.1.8 Compensation components due or awarded for 2018 to each executive corporate officer of the Company, subject to shareholder approval

In accordance with Article L. 225-100 II of the French Commercial Code, the Shareholders' Meeting of May 17, 2019 will vote on the fixed, variable and extraordinary components of total compensation and benefits in kind paid or awarded to Jean-Pierre Clamadieu, Chairman of the Board of Directors, and Isabelle Kocher, Chief Executive Officer, for 2018.

Under Article R. 225-29-1 of the French Commercial Code, the components of total compensation and benefits of any kind are as follows:

- directors' fees;
- annual fixed compensation;
- annual variable compensation;
- multi-annual variable compensation;
- stock subscription or purchase option awards;
- bonus share awards;
- extraordinary compensation;
- compensation or benefits due or likely to be due on commencement of function;
- the commitments mentioned in the first and sixth paragraphs of Article L. 225-42-1 of the French Commercial Code;
- compensation components and benefits of any kind due or likely to be due to one of the persons mentioned in the first paragraph of Article L. 225-37-2 of the French Commercial Code, by virtue of the agreements entered into, directly or through an intermediary, because of the person's office, with the company in which the office is held, any company controlled by it within the meaning of Article L. 233-16 of the French Commercial Code, any company that controls it, within the meaning of that same Article, or any company placed under the same control as it, within the meaning of that Article;
- any other compensation component that can be awarded by virtue of the office;
- benefits of any kind.

The variable or extraordinary compensation components, the payment of which was subject to approval by an Ordinary General Shareholders' Meeting, may only be paid after the compensation components of the person concerned have been approved by a Shareholders' Meeting.

As a reminder, Gérard Mestrallet, Chairman of the Board until May 18, 2018, received no compensation in respect of his office in 2018.

COMPENSATION COMPONENTS DUE OR AWARDED IN 2018 TO JEAN-PIERRE CLAMADIEU, CHAIRMAN OF THE BOARD

Compensation components	Amount	Details
Fixed compensation	€217,339	The fixed compensation of Jean-Pierre Clamadieu amounts to €350,000 for a complete year, i.e. €217,339 for the period from May 18, 2018 to December 31, 2018.
Annual variable compensation	None	Jean-Pierre Clamadieu receives no annual variable compensation
Employer contribution to retirement plan	None	Jean-Pierre Clamadieu receives no employer pension contribution.
Multi-annual variable compensation	None	Jean-Pierre Clamadieu receives no multi-annual variable compensation.
Directors' fees	None	Jean-Pierre Clamadieu receives no directors' fees.
Extraordinary compensation	None	Jean-Pierre Clamadieu receives no extraordinary compensation.
Allocation of stock options, Performance Shares and any other long-term compensation	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	Jean-Pierre Clamadieu receives no compensation associated with the commencement or termination of duties.
Supplementary pension plan	None	Jean-Pierre Clamadieu is not a beneficiary of any supplementary pension plan
Benefits in kind	None	Jean-Pierre Clamadieu did not benefit from the use of a company vehicle.

COMPENSATION COMPONENTS DUE OR AWARDED FOR 2018 TO ISABELLE KOCHER, CHIEF EXECUTIVE OFFICER

Compensation components	Amount	Details
Fixed compensation	€1,000,000	The fixed remuneration of Isabelle Kocher was set at €1,000,000.
Annual variable compensation	€641,760	Isabelle Kocher's variable compensation for 2018 to be paid in 2019 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%). For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE (return on capital employed) and net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2018 were based on the Group's projected budget as presented to the Board of Directors on March 7, 2018. For the qualitative component, the criteria used were as follows: 1- Develop long-term growth drivers (40%) • Pursue and strengthen organic growth via existing offerings and by developing new skills and customer solutions. • Contribute to growth through acquisitions in the BtoB, BtoT and high-tech business lines. 2- Prepare post-2025 options in Belgium (20%) 3- CSR, emphasizing the employer's social responsibility (20%) • Make employee engagement and commitment one of the main levers for the Group's transformation and performance (employee survey). • Continue to adapt internal skills to meet organizational and customer solutions needs. • Embed new management practices and the concept of organizational agility within the Group's culture. 4- Develop the Digital & Innovation road map (10%) • Define the strategy for the three-year plan and the 2030 targets. • Adapt the internal organization and partnerships based on the objectives set. 5- Make the customer's perception of the brand and the image a key element in the Group's transformation and performance (10%) • Continue to bring the commercial offerings into line with the Group's strategy. • Develop a communication program and build brand awareness. • Develop Know Your Customer (KYC) and make customer satisfaction a driver of cultural change (NPS: net promoter score). At its meeting of February 27, 2019, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee: • noted that the success rate of the quantifiable criteria was 85.46% (1); • set the success rate of the qualitative criteria at 101.00%. Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 91.68%. The variable component for 2018 is therefore €641,760. It will only be paid to Isabelle Kocher if approved by the shareholders at the Shareholders' Meeting of May 17, 2019.
Employer contribution to retirement plan	€410,440	At its meeting of May 3, 2016, the Board of Directors voted to maintain the employer contribution arrangement from which Isabelle Kocher benefited when she was Chief Operating Officer. Under this supplementary pension plan system, the Company does not guarantee the amount of 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 new 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 also depends on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results. For 2018, this employer contribution is €410,440, paid subject to shareholder approval at the Shareholders' Meeting of May 17, 2019.

(1) *For the quantitative component (representing 60% of the variable compensation), the results achieved were: Net recurring income Group share, per share (1/2): 82.52%; ROCE (1/6): 94.06%; Free cash flow (1/6): 105.51%; Net debt (1/6) : 65.63%*

Compensation components	Amount	Details
Multi-annual variable compensation	None	Isabelle Kocher receives no multi-annual variable compensation.
Directors' fees	None	Isabelle Kocher receives no directors' fees.
Extraordinary compensation	None	Isabelle Kocher receives no extraordinary compensation.
Allocation of stock options, Performance Shares and any other long-term compensation	Valuation (1): €789,600	On the recommendation of the Appointments, Compensation and Governance Committee, the Board of Directors, at its meeting of March 7, 2018, voted to award 120,000 Performance Units to Isabelle Kocher for 2018. On December 6, 2011, the Board of Directors decided that the value of this element of compensation should not exceed 40% of the total compensation.
Compensation associated with the commencement or termination of duties	None	Isabelle Kocher's employment contract has been suspended since January 1, 2015. The Afep-Medef Code recommends that when an employee becomes an executive corporate officer, their employment contract with the company should be terminated. While this recommendation does not apply to deputy CEOs, it does apply to Chief Executive Officers. When Isabelle Kocher was appointed Chief Executive Officer after serving as Chief Operating Officer, the Board of Directors nevertheless deemed it appropriate to maintain the suspension of her employment contract. The Board decided that the rights accrued by Isabelle Kocher in respect of the supplementary collective pension plans for executive officers up until December 31, 2014, which is the period prior to the suspension of her employment contract, would remain frozen and preserved, which implied keeping her employment contract suspended. ENGIE's internal promotion policy assigns corporate officer positions to experienced executives with in-depth knowledge of the industry and markets in which ENGIE operates and who have had successful career paths within the Group. For these executives, the loss of rights associated with their employment contract and length of service would be a hindrance and counterproductive. The suspended employment contract of Isabelle Kocher does not provide for specific compensation under a no-compete or golden parachute clause. As part of the Company's human resources policies, all employees of ENGIE Management Company receive severance compensation when their employment contract is terminated. Compensation due under said policies amounts to 3/5 of the monthly salary per year of service in the company or Group and is capped at 18 months' salary. "Monthly salary" is understood to mean one-twelfth of the annual fixed compensation of the current year plus the last variable component that was paid. Isabelle Kocher's length of service at the time of her appointment as Chief Executive Officer on May 3, 2016 was 13 years and seven months. Note that there is no system of hiring bonuses or golden parachutes in place for executive corporate officers at ENGIE and that no compensation is provided in respect of non-compete clauses.

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(1) See note about this theoretical valuation in Section 4.1.4.1.7

Compensation components	Amount	Details
Supplementary pension plan	None	In addition to mandatory pension plans, until December 31, 2014, Isabelle Kocher benefited from the supplementary collective pension plans of the former SUEZ group (which she joined in 2002), consisting of a defined contribution plan and a defined benefit plan. The defined contribution plan (Article 83) is based on her gross annual compensation and the following contribution rates: 5% tranche A (equivalent to the annual social security limit), 8% tranche B (between one and four times the social security limit), 8% tranche C (between four and eight times the social security limit). The defined benefit plan (Article 39) is governed by Article L. 137-11 of the French Social Security Code. It is managed by ENGIE Management Company, a wholly owned French subsidiary of ENGIE. The beneficiaries of this plan are the executives and corporate officers of ENGIE Management Company who are registered with the French social security system and meet the following three conditions: (i) they received gross compensation above the limit for tranche B contributions to the AGIRC executive supplementary pension plan, i.e. over four times the annual social security limit, (ii) they were working for a Group company when they retired, and (iii) they have wound up at least one basic pension plan. The annuity is calculated on the gross compensation received during the year in question, capped at 50 times the social security limit. The amount of compensation is that which is used to calculate social security contributions as defined in Article L. 242-1 paragraph 1 of the French Social Security Code. This plan provides for the payment of an annuity equal to the sum of the annual pension components calculated on 2% of the portion of gross annual compensation between four and eight times the social security limit (designated tranche C) and 4% of the portion of gross annual compensation between eight and fifty times the social security limit (designated tranche D), minus the above defined contribution plan calculated on tranche C of the compensation. If the plan beneficiary has continuous service of at least 10 years, the total annuity cannot be less than 20% of bracket C of average compensation for the last five years plus 30% of bracket D for the same compensation, nor more than 30% of bracket C plus 40% of bracket D. If their continuous service is less than 10 years, the corresponding rights are calculated pro rata on the basis of actual time worked. The rights under the defined benefit plan are "not guaranteed" since they require the employee to be employed by the Group at the time his or her pension is claimed under a mandatory for pension insurance plan. ENGIE Management Company is responsible for financing these plans and pays premiums to a third-party insurance company which it has contracted to manage the pensions, calculate the actuarial provisions for the annuities, and manage the payments. The corresponding social security costs borne by the Company amount to 24%. In accordance with the decisions of the Board of Directors on March 10 and May 3, 2016, Isabelle Kocher's entitlement to the supplementary collective defined contribution and defined benefit pension plans were frozen on suspension of her employment contract, i.e. at December 31, 2014. The rights accumulated from 2002 to 2014 under the collective defined benefit plan would result, subject to the condition of continuous service in the Group, in an annual annuity, estimated at year-end 2015, at the end of her career aged 65, of €145,456, before tax and social security deductions.
Benefits in kind	€6,012	Isabelle Kocher benefits from the use of a company vehicle.

It should be noted that Isabelle Kocher was awarded 61,121 Performance Units for the fiscal year 2015. At its meeting of February 27, 2019, the Board of Directors noted that the success rate for the performance conditions for these Performance Units was 33.33%[1], i.e. 20,374 Performance Units. As of March 15, 2019, the share price of the underlying ENGIE share amounts to €13.26 per share. Isabelle Kocher will have a period of three years, until March 14, 2022, in which to exercise these Performance Units. If she exercises them, she must reinvest in ENGIE shares two-thirds of the income from the exercise of the PUs, net of tax and social security withholding, until the shareholding target for ENGIE shares is equal to two years of her fixed compensation.

(1) Final vesting depended on a triple performance condition, with each criterion accounting for one-third of the total: • TSR (Total Shareholder Return) of the ENGIE share price compared with those of the companies on the Eurostoxx Utilities (Eurozone) sectoral indexfor the period December 2018-January 2019 compared with November 2014-December 2015, • RNRPG (net recurring income, Group share) for 2017 and 2018, compared with the target RNRPG set in the budget for the same years (pro forma), • 2018 ROCE compared with the target 2018 ROCE in the MTBP presented to the Board of Directors on February 24, 2016. Only the criterion on RNRPG was achieved, resulting in a success rate of 33.33%.

4.1.4.1.9 Principles and criteria for determining, structuring and awarding the fixed, variable and extraordinary components of total compensation and benefits in kind attributable to the executive corporate officers commensurate with their office

Compensation of the Chairman of the Board for 2019

As recommended by the Appointments, Compensation and Governance Committee, the Board of Directors, at its meeting of February 27, 2019, approved the principles and criteria for determining, structuring and awarding the fixed, variable and exceptional components of the total compensation and benefits of any kind attributable to the Chairman of the Board of Directors in respect of his mandate for the 2019 financial year.

The compensation of the Chairman of the Board of Directors includes a fixed annual salary. It does not include any annual or multi-year variable compensation or long-term incentive plans.

The Board of Directors decided to increase the fixed annual compensation from €350,000 to €450,000 prorata temporis as from March 2, 2019, when Jean-Pierre Clamadieu's duties as an executive corporate officer at another company come to an end.

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 benefit coverage and, as from March 4, 2019, healthcare coverage.

He may benefit from the use of a company vehicle.

Compensation of the Chief Executive Officer for 2019

As recommended by the Appointments, Compensation and Governance Committee, the Board of Directors, at its meeting of February 27, 2019, decided to maintain unchanged the various components of the compensation policy for the Chief Executive Officer.

This policy will be submitted for shareholder approval at the Ordinary Shareholders' Meeting to be held on May 17, 2019 in accordance with Article L. 225-37-2 of the French Commercial Code.

The policy, which is reviewed annually by the Appointments, Compensation and Governance Committee, is based in particular on specific studies carried out by an external firm specializing in this area.

In its recommendations to the Board of Directors, the Appointments, Compensation and Governance Committee seeks to propose a compensation policy in line with 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, Eurostoxx 50 (excluding companies in the financial sector) and Eurostoxx Utilities indices.

Specific, stringent quantifiable and qualitative performance criteria are set both for the variable portion of compensation and for long-term incentive plans, helping to maintain a link between the Group's performance and the compensation of the Chief Executive Officer in the short, medium and long term.

The Chief Executive Officer's compensation includes a fixed component, a variable annual component and a long-term incentive component.

The fixed component is reviewed annually. It does not change unless the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee, 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. It also includes criteria aligned with the assessment, conducted annually, of the Chief Executive Officer's performance and with the Company's strategy. Sixty percent of its criteria are quantifiable, to reward economic performance, and 40% are qualitative. The qualitative criteria include at least one corporate, societal and environmental responsibility target. The quantifiable and qualitative targets have sub-weightings.

The long-term incentive component takes the form of Performance Units that are subject to performance conditions comparable to those of the performance share plans for which Company executive corporate officers are not eligible. The performance conditions are quantitative only and include at least one external condition relating to the relative change in total shareholder return and an internal condition relating to value creation. 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 40% of the executive's total compensation at the initial award. When Performance Units are exercised, the Chief Executive Officer is required to reinvest a portion of the income for the year in Company shares until said officer's share portfolio is equal to two years' fixed compensation.

The payment of the variable and extraordinary compensation components for 2019 is contingent on the approval of shareholders at the 2020 Ordinary Shareholders' Meeting. This applies to the annual variable component and the employer contribution to the pension plan of the Chief Executive Officer for 2020, payment of which will only occur following approval at the aforementioned Shareholders' Meeting.

Lastly, the Chief Executive Officer will continue to benefit from a supplementary pension plan system, 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 already includes the variable portion linked to the Group's results. The Chief Executive Officer will also continue to be eligible for the collective pension and health care plan for executive officers in order to ensure that they are compensated under terms that are in line with market conditions.

The Chief Executive Officer is a member of the Board of Directors but does not receive any directors' fees in this regard.

Pursuant to these principles, the Chief Executive Officer's fixed compensation in 2019 remains unchanged at €1,000,000.

The target variable compensation that will be paid in 2020 for fiscal year 2019 also remains unchanged at €700,000 corresponding to 70% of their fixed compensation, capped at €840,000, which is 120% of the target variable compensation. Variable compensation in 2019 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%). For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE and economic net debt (each counting for one-sixth of the overall total) (50%). Compared with 2018, the "financial net debt" criterion has been replaced by the "economic net debt" criterion within the group of quantifiable criteria that make up the annual variable portion.

The quantifiable targets for 2019 were based on the Group's budget as presented to the Board of Directors on February 27, 2019. At its meeting of February 27, 2019, the Board also approved and weighted the qualitative targets for 2019. Since these may contain sensitive information regarding the Group's strategy, they will not be made public until 2020.

Lastly, the Board of Directors approved a long-term incentive component in the form of 120,000 Performance Units to be awarded in respect of fiscal year 2019. Performance Units will be fully vested after four years on March 15, 2023, after which the Chief Executive Officer will have three years to exercise them (fractional shares may be exercised). The vesting of these Performance Units in 2023 will depend on the achievement of a triple performance condition, each criterion accounting for one third of the total: an internal condition related to net recurring income, Group share, for 2021 and 2022, an internal condition related to ROCE for 2021 and 2022, and an external condition related to the total shareholder return of ENGIE stock compared with that of a reference panel. The internal conditions are matched to targets set in the MTBP.

The reference panel consists of EDF, EDP, E.ON, Innogy, RWE, ENEL, Iberdrola, Naturgy (previously Gas Natural), Spie and Uniper (the "Panel"), with each company weighted equally, with the exception of E.ON, Innogy, RWE and Uniper, which count for 50% for weighting purposes.

The scoring of performance conditions for the Performance Units will be as follows: for a result equal to or less than 80% of target, the success rate will be equal to zero. For a result equal to or greater than 100% of the target, the success rate will be equal to 100%. The increase between the two limits will be linear.

The Chief Executive Officer will furthermore continue to benefit from a supplementary defined contribution pension plan under the terms mentioned above, as well as from collective pension and health care plan protection for executive officers.

It should also be noted that Isabelle Kocher's employment contract has been suspended since January 1, 2015. The Afep-Medef Code recommends that when an employee becomes an executive corporate officer, their employment contract with the company should be terminated. When Isabelle Kocher was appointed Chief Executive Officer after serving as Chief Operating Officer, the Board of Directors nevertheless deemed it appropriate to maintain the suspension of her employment contract. The Board decided that the rights accrued by Isabelle Kocher in respect of the supplementary collective pension plans for executive officers up until December 31, 2014, which is the period prior to the suspension of her employment contract, would remain frozen and preserved, which implied keeping her employment contract suspended. ENGIE's internal promotion policy assigns corporate officer positions to experienced executives with in-depth knowledge of the industry and markets in which ENGIE operates and who have had successful career paths within the Group. For these executives, the loss of rights associated with their employment contract and length of service would be a hindrance and counterproductive.

The suspended employment contract of Isabelle Kocher does not provide for specific compensation under a no-compete or golden parachute clause. As part of the Company's human resources policies, all employees of ENGIE Management Company receive severance compensation when their employment contract is terminated. Compensation due under said policies amounts to 3/5 of the monthly salary per year of service in the company or Group and is capped at 18 months' salary. "Monthly salary" is understood to mean one-twelfth of the annual fixed compensation of the current year plus the last variable component that was paid. Isabelle Kocher's length of service at the time of her appointment as Chief Executive Officer on May 3, 2016 was 13 years and seven months.

Note that there is no system of hiring bonuses or golden parachutes in place for executive corporate officers at ENGIE.

Lastly, the Chief Executive Officer benefits from the use of a company vehicle.

4.1.4.2 Compensation of executives who are not corporate officers (members of the Executive Committee) (1)

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 2018 for 2017 and paid in 2017 for 2016.

65% of the variable portion paid in 2019 for fiscal year 2018 was calculated based on economic criteria (net recurring income, Group share), and 35% on qualitative criteria, which focused on the success of the Group's transformation.

SUMMARY TABLE OF GROSS COMPENSATION, INCLUDING BENEFITS IN KIND, FOR EXECUTIVES WHO ARE NOT CORPORATE OFFICERS (EXECUTIVE COMMITTEE MEMBERS)

In euros	**2018**	**2017**
Fixed	5,490,771	5,371,720
Variable	6,469,559	4,255,522
TOTAL	**11,960,330**	**9,627,242**
Number of members	11	11

(1) Compensation is calculated excluding severance pay and taking into account actual time worked during the year in question.

4.1.4.3 Retirement provision

The total amount of pension obligations for members of the Executive Committee was €29.1 million at December 31, 2018. This is an estimated amount, as these obligations are, in principle, not made at an individual level.

The Group has a policy of funding pension obligations via plan assets without these being specifically dedicated to the pension obligations of a specific population.

4.1.4.4 Compensation of executives who are not corporate officers

4.1.4.4.1 Directors appointed by the Shareholders' Meeting

On the recommendation of the Board of Directors, the Shareholders' Meeting sets the total annual amount of directors' fees 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, established the rules for distributing the total annual amount of directors' fees, set by the Gaz de France Shareholders' Meeting of July 16, 2008 at €1.4 million, in line with an individual distribution system of directors' fees, combining a fixed portion with a predominant variable portion based on the attendance of Directors at Board and Committee meetings, in accordance with the recommendation of Article 20.1 of the Afep-Medef Code.

The distribution rules are indicated below (the executive corporate officers receive no directors' fees for their participation in meetings of the Board of Directors).

DISTRIBUTION OF DIRECTORS' FEES TO NON-EXECUTIVE DIRECTORS APPOINTED BY THE SHAREHOLDERS' MEETING

Director		Fixed fee	€15,000 per year
		Variable fee, dependent on attendance	€50,000 if 100% attendance
Audit Committee	Chairman	Fixed fee	€15,000 per year
		Variable fee, dependent on attendance	€40,000 if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€20,000 if 100% attendance
SITC	Chairman	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€25,000 if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€15,000 if 100% attendance
EESDC	Chairman	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€20,000 if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€15,000 if 100% attendance
ACGC	Chairman	Fixed fee	5 000 euros per year
		Variable fee, dependent on attendance	€20,000 if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€15,000 if 100% attendance

On the basis of the above, the executives who are not corporate officers received the compensation shown in the table below for fiscal year 2018.

Unless otherwise indicated, no other compensation was paid to these officers by the Company or by its subsidiaries for the said fiscal year.

TOTAL COMPENSATION PAID TO NON-EXECUTIVE DIRECTORS APPOINTED BY THE SHAREHOLDERS' MEETING

In euros	Fiscal year 2018 [1]	Fiscal year 2017 [1]
Ann-Kristin Achleitner	90,000 [2]	83,000 [2]
Edmond Alphandéry	119,429 [3]	125,000 [3]
Fabrice Brégier	78,095 [3]	60,950 [3]
Aldo Cardoso	96,944 [2] [7]	128,450 [2]
Patrice Durand	60,825 [3] [5]	24,500 [3] [5]
Catherine Guillouard	0	14,508 [3] [6]
Mari-Noëlle Jégo-Laveissière	66,027 [3] [5]	22,200 [3] [5]
Barbara Kux	81,429 [2]	77,750 [2]
Françoise Malrieu	133,182 [3]	135,000 [3]
Ross McInnes	60,000 [4]	0
Marie-José Nadeau	140,000 [2]	110,000 [2]
Lord Ricketts of Shortlands	85,000 [2]	85,000 [2]
TOTAL	**1,010,931**	**866,358**

(1) Directors' fees due for a given fiscal year are paid during the fiscal year concerned
(2) Before deduction of withholding tax levied on directors' fees paid to Directors residing outside France
(3) Before deduction of withholding tax relating to tax and social contributions
(4) Director elected by the Shareholders' Meeting of May 18, 2018
(5) Director elected from the private sector by the Shareholders' Meeting on the proposal of the French State
(6) Director elected from the private sector by the Shareholders' Meeting on the proposal of the French State, until her appointment as Chairman and CEO of RATP on August 2, 2017
(7) In his capacity as Chairman of the Board of Directors since June 15, 2018 of Société Monégasque de l'Électricité et du Gaz (SMEG), a subsidiary 63.9% owned by ENGIE, Aldo Cardoso received €14,827 in directors' fees from SMEG

4.1.4.4.2 Director representing the French State and the Directors elected by the Shareholders' Meeting on the proposal of the French State

The Director representing the French State and the Directors from the public sector appointed by the Shareholders' Meeting on the proposal of the French State – Lucie Muniesa (until October 30, 2018), Catherine Guillouard and Stéphane Pallez (until May 18, 2018), respectively – have not personally received any compensation (directors' fees or other) from the Company or from companies controlled thereby in consideration for their service as directors in 2018. 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.

In respect of the foregoing, the balance of the directors' fees corresponding to these offices (€209,242) was paid directly to the Public Treasury in compliance with regulations.

4.1.4.4.3 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 (since May 18, 2018), Alain Beullier, Christophe Aubert, Philippe Lepage and Olivier Marquer (until May 18, 2018).

4.1.4.5 Information on the award of bonus shares or Performance Shares[1]

4.1.4.5.1 Availability of Performance Shares

Article L. 225-197-1 places 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.

(1) It is reminded that there is no more ENGIE stock options since November 9, 2017.

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 executive corporate officers, 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 two-thirds of the vested Performance Shares and reinvest in ENGIE shares two-thirds of the income from the exercise of the PUs net of tax and social security withholding until the shareholding target (equal to two years' fixed compensation) referred to above is met.

4.1.4.5.2 Bonus share or Performance Share plans implemented during fiscal year 2018

Authorization of the Shareholders' Meeting of May 12, 2017

The seventeenth resolution of the ENGIE Ordinary and Extraordinary Shareholders' Meeting of May 12, 2017 authorized the Board of Directors to award bonus shares to employees and/or corporate officers of the Company and/or 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[1]. It should also be noted that the Shareholders' Meeting was not asked to grant an authorization for stock options.

Performance Share Plan for 2017 (Board meeting of March 7, 2018)

Under the authorization given by the Shareholders' Meeting of May 12, 2017, the Board of Directors, at its meeting of March 7, 2018, 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 2017 are listed on pages 152 et seq. of the 2017 Registration Document filed with the AMF on March 28, 2018.

Authorization of the Shareholders' Meeting of May 18, 2018

The twenty ninth resolution of the ENGIE Ordinary and Extraordinary Shareholders' Meeting of May 18, 2018 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 [1]. It should also be noted that the Shareholders' Meeting was not asked to grant an authorization for stock options.

(1) A ceiling of 0.75% in common with the sixteenth resolution, applying both to bonus share allocations to all of the Group's employees, and an allocation (equivalent to a matching contribution) to employees taking part in a Group international employee sharholding plan.

Performance Share plans for 2018 (Board meetings of December 11, 2018 and February 27, 2019)

Under the authorization granted by the Shareholders' Meeting of May 18, 2018, the Board of Directors, at its meeting of December 11, 2018, decided to implement Performance Share Plans for certain employees of ENGIE and its subsidiaries (excluding executive corporate officers of ENGIE). As part of the Group's transformation, the Board of Directors decided to maintain the current number of beneficiaries in order to secure the buy-in of key Group stakeholders in the success of this transformation. The plan is based on existing shares with no dilutive effect for shareholders. The main features of this plan, which involves 5,022,060 shares for 6,989 people, are as follows:

Vesting period	12/11/2018 to 03/14/2022 (2023 for senior executives outside France and Belgium)
Continuous service condition(Current employment contract with a Group company at these dates, except in cases of retirement, death, disability or exceptional decision)	03/14/2022 (2023 for senior executives outside France and Belgium)
Vesting date	March 15, 2022 (2023 for senior executives outside France and Belgium)
Holding period *(mandatory, except in the case of death or disability)*	No holding period except for senior executives in France and Belgium for whom the holding period runs from March 15, 2022 to March 14, 2023 (no holding if vesting occurs in 2023)
Transferable from	On or after March 15, 2022, and for senior executives, on or after March 15, 2023
Performance conditions	With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: a) One-third of the calculation is based on the net recurring income, Group share for 2020 and 2021 compared to the budgeted net recurring income, Group share for those years (pro forma); and b) One-third is based on ROCE for 2020 and 2021 compared to the budgeted ROCE for the same years (pro forma); and c) One-third is based on ENGIE's TSR (total shareholder return) compared with the TSR of a panel of companies composed of EDF, E.ON, Enel, EDP, Gas Natural, Iberdrola, Innogy, Spie, Uniper and RWE (1) for the period December 2021 to January 2022 versus November to December 2018 (2). A single performance slope is applied to each of the three criteria: • ENGIE performance ≤ 75% of the target level: 0% success rate • ENGIE performance ≥ 100% of the target level: 100% success rate • Proportional and linear progression for intermediate results *The arithmetic mean of the three success rates in a), b) and c) above represents the percentage of shares that will vest.* This condition applies to all Performance Shares awarded to the Group's senior executives and the first tranche of 150 shares awarded to all other beneficiaries.

(1) Each company in the reference panel receives an identical weighting, apart from E.ON, Uniper, RWE and Innogy, which are accounted for at 50% each for weighting purposes.

(2) To smooth the possible effects of volatility (gain or loss), the TSR will be calculated by taking the average of ENGIE's TSR and the TSR of the panel companies over two months, namely December 2021 to January 2022, versus November to December 2018.

In addition, under the authorization given by the Shareholders' Meeting of May 18, 2018, the Board of Directors, at its meeting of February 27, 2019, 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 82 people within the Trading business, for a total of 187,674 ENGIE Performance Shares. The Board of Directors set the following schedule and general conditions for the plan:

Vesting period	02/27/2019 to 03/14/2021 for around half the shares 02/27/2019 to 03/14/2022 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)*	03/14/2021 for around half the shares 03/14/2022 for the remaining shares
Vesting date	03/15/2021 for around half the shares 03/15/2022 for the remaining shares
Holding period	No holding period
Transferable from	From 03/15/2021 for around half the shares From 03/15/2022 for the remaining shares
Performance conditions	• Based on the Trading business's profit before tax for fiscal year 2020 for around half the shares • Based on the Trading business's profit before tax for fiscal year 2021 for the remaining shares

4.1.4.6 Performance Shares awarded to and available for sale by each executive corporate officer – Summary of current plans

4.1.4.6.1 ENGIE Performance Shares awarded to each ENGIE executive corporate officer by ENGIE and all other companies of the ENGIE Group in 2018

None.

4.1.4.6.2 ENGIE Performance Shares that became available for sale by each executive corporate officer of ENGIE in fiscal year 2018

None.

4.1.4.6.3 Summary of current ENGIE Performance Share plans

	2013	2014		2015	
For year:	**2013 Plan**	**2014 Plan**	**2014 Traders' Plan**	**2015 Plan**	**2015 Traders' Plan**
Date of authorization from the General Shareholders' Meeting	04/23/2013	04/28/2014	04/28/2014	04/28/2015	04/28/2014
Date of Board decision	12/11/2013	12/10/2014	02/25/2015	12/16/2015	02/24/2016
Share price in euros(1)	7.6	12.1	14.7	9.8	10.2
Start of vesting period(2)	12/11/2013	12/10/2014	02/25/2015	12/16/2015	02/24/2016
End of vesting period	03/14/2017 (3)	03/14/2018 (6)	03/14/2017 (5) 03/14/2018 (5)	03/14/2019 (9)	03/14/2018 (5) 03/14/2019 (5)
Start of holding period	03/15/2017 (3)	03/15/2018 (6)	03/15/2019 (5) 03/15/2020 (5)	03/15/2019 (9)	03/15/2020 (5) 03/15/2021 (5)
End of holding period	03/15/2019(3)	03/15/2020(6)	03/15/2019 (5) 03/15/2020 (5)	03/15/2021(9)	03/15/2020 (5) 03/15/2021 (5)
Related conditions	(4)	(7)	(8)	(10)	(11)
Shares vested as at 12/31/2017	128,069	3,253,825	65,732	3,257,555	132,529
Shares vested from 01/01/2018 to 12/31/2018	127,515	1,118,579	64,310	4,410	62,498
Shares canceled from 01/01/2018 to 12/31/2018	554	1,673,006	1,422	94,580	8,653
Balance of shares as at 12/31/2018	0	462,240	0	3,158,565	61,378

(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 France, Belgium and Spain, with holding period from 03/15/2017 to 03/14/2019 inclusive and transferable from 3/15/2019; for other countries, vesting on 03/14/2018 with no holding period
(4) For 519 beneficiaries, there is a dual condition: 50% based on 2015 and 2016 net recurring income, Group share and 50% based on the TSR of ENGIE stock compared with the TSR of the Eurostoxx Utilities Eurozone companies – 42.61% of condition met; for 6,356 beneficiaries, single condition based on the TSR of ENGIE stock compared with the TSR of Eurostoxx Utilities Eurozone companies – 0% of condition met
(5) For 50% of shares
(6) For France, Belgium and Spain, with holding period from 03/15/2018 to 3/14/2020 inclusive and transferable from 03/15/2020; for other countries, vesting on 03/14/2019 with no holding period
(7) For all beneficiaries, there is a dual condition: 50% based on net recurring income, Group share for 2016 and 2017 and 50% based on the TSR of ENGIE stock compared with the TSR of the Eurostoxx Utilities (Eurozone) companies. 50% of the dual condition met
(8) 50% based on 2016 ENGIE Global Markets (formerly GDF SUEZ Trading) profit before tax (met in full) and 50% based on 2017 ENGIE Global Markets profit before tax (met in full
(9) For France and Belgium, with holding period from March 15, 2019 to March 14, 2021 inclusive and transferable from March 15, 2021; for other countries, vesting on March 14, 2020 with no holding period
(10) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: 50% based on net recurring income, Group share for 2017 and 2018 and 50% based on the TSR of ENGIE stock compared with the TSR of the Eurostoxx Utilities (Eurozone) companies
(11) 50% based on 2017 ENGIE Global Markets (formerly GDF SUEZ Trading) profit before tax (met in full) and 50% based on 2018 ENGIE Global Markets profit before tax
(12) For all beneficiaries except senior executives outside France and Belgium for whom the vesting period ends on March 14, 2021 with no holding period

2016		2017		2018	
2016 Plan	**2016 Traders' Plan**	**2017 Plan**	**2017 Traders' Plan**	**2018 Plan**	**2018 Traders' Plan**
05/03/2016	05/03/2016	05/12/2017	05/12/2017	05/18/2018	05/18/2018
12/14/2016	03/01/2017	12/13/2017	03/07/2018	12/11/2018	02/27/2019
8.44	9.89	11.64	10.79	9.36	11.41
12/14/2016	03/01/2017	12/13/2017	03/01/2018	12/11/2018	02/27/2019
03/14/2020 (12)	03/14/2019 (5) 03/14/2020 (5)	03/14/2021 (16)	03/14/2020 (5) 03/14/2021 (5)	03/14/2022 (21)	03/14/2022 (5) 03/14/2023 (5)
None (13)	None	None (17)	None	None (22)	None
None (13)	None	None (18)	None	None (23)	None
(14)	(15)	(19)	(20)	(24)	(25)
5,210,610	148,679	5,278,045	135,583	None	None
5,200	0	3,650	None	None	None
100,330	13,739	136,180	2,398	0	None
5,105,080	134,940	5,138,215	133,185	5,022,660	

(13) For senior executives in France and Belgium, a holding period from March 15, 2020 to March 14, 2021, inclusive, applies

(14) 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 of ENGIE stock compared with the TSR of a panel composed of EDF, E.ON, Enel, Gas Natural, Iberdrola and RWE

(15) 50% based on 2018 ENGIE Global Markets (formerly GDF SUEZ Trading) profit before tax and 50% based on 2019 ENGIE Global Markets profit before tax

(16) March 14, 2022 for senior executives outside France and Belgium

(17) March 15, 2021 for senior executives in France and Belgium

(18) March 15, 2022 for senior executives in France and Belgium

(19) 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 of ENGIE stock compared with the TSR of a panel composed of EDF, E.ON, Uniper, Innogy, Enel, Gas Natural, Iberdrola and RWE. Each of these companies is assigned an identical weighting, with the exception of E.ON and Uniper, and RWE and Innogy, respectively, which are accounted for as single companies (50% each) for weighting purposes. 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.

(20) 50% based on 2019 ENGIE Global Markets profit before tax and 50% based on 2020 ENGIE Global Markets profit before tax

(21) 03/14/2023 for senior executives outside France and Belgium

(22) 03/15/2022 for senior executives in France and Belgium

(23) 03/15/2023 for senior executives in France and Belgium

(24) 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 of ENGIE stock compared with the TSR of a panel composed of EDF, EDP, ENEL, E.ON, Uniper, Innogy, RWE, Gas Natural, Iberdrola, and Spie. Each of these companies is assigned an identical weighting, with the exception of E.ON, Uniper, RWE, and Innogy, which are accounted for at 50% each for weighting purposes. 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

(25) 50% based on 2020 ENGIE Global Markets profit before tax and 50% based on 2021 ENGIE Global Markets profit before tax

4.1.4.6.4 Summary of Bonus and Performance Shares held by Gérard Mestrallet at December 31, 2018

Plan	ENGIE 02/13/2006	ENGIE 02/12/2007	ENGIE 07/16/2007	ENGIE 06/01/2008	ENGIE 11/12/2008	ENGIE 01/13/2011
Conditions	2007 ROCE	2008 ROCE	None (1)	None (1)	2010 EBITDA	2013 EBITDA (1/3) TSR (1/3) 2013 ROCE (1/3)
Vesting date (2)	03/15/2008	03/15/2009 (3)	07/16/2009	06/01/2010	03/15/2011 (3)	03/15/2014 (3)
Vesting shares	0	0	0	0	0	0
Vested shares	2,000 (4)	3,186 (5)	15	10	3,469 (6)	12,711 (6)
Transferable from	03/15/2010	03/15/2011	07/16/2011	06/01/2012	03/15/2013	03/15/2016

(1) Worldwide plans for all employees
(2) Subject to a dual condition of performance and continuous service
(3) Vested shares are covered by the "Balladur" holding policy (see Section 4.1.4.5.1)
(4) These 2,000 SUEZ shares became, following the distribution of 65% of SUEZ Environnement Company and the merger with Gaz de France: 1,890 ENGIE shares; 500 SUEZ Environnement Company shares; and 20 SUEZ ("fractional") shares giving entitlement to ENGIE shares (compensated in August 2010 in accordance with the merger prospectus between SUEZ and Gaz de France)
(5) Condition met
(6) Condition partially met

4.1.4.6.5 Summary of Bonus and Performance Shares held by Isabelle Kocher at December 31, 2018

Plan	ENGIE 02/13/2006	ENGIE 02/12/2007	ENGIE 07/16/2007 (1)	ENGIE 11/14/2007	ENGIE 06/01/2008 (1)	ENGIE 11/12/2008	ENGIE 07/08/2009 (1)
Conditions	2007 ROCE	2008 ROCE	2008 ROCE	2009 EBITDA	2009 EBITDA	2010 EBITDA	None
Vesting date	03/15/2008 (2)	03/15/2009 (2)	07/16/2009 (2)	03/15/2010 (2)	06/01/2010 (2)	03/15/2011 (2)	07/08/2011
Vesting shares	0	0	0	0	0	0	0
Vested shares	1,428	2,124	15	1,493	10	786	20
Transferable from	03/15/2010	03/15/2011	07/16/2011	03/15/2012	06/01/2012	03/15/2013	07/08/2013

(1) Worldwide plans for all employees
(2) Subject to a dual condition of performance and continuous service

Plan	ENGIE 11/10/2009	SUEZ 12/16/2010	ENGIE 06/22/2011 (1)	ENGIE 12/06/2011	ENGIE 12/05/2012	ENGIE 12/11/2013	ENGIE 12/10/2014
Conditions	2010 EBITDA	Net profit 2010-2014 and share performance	None	TSR and net recurring income, Group share	TSR and net recurring income, Group share	TSR and net recurring income, Group share	TSR and net recurring income, Group share
Vesting date	03/15/2012 (2)	12/16/2014 (2)	06/24/2013	None	03/15/2016 (3)	03/15/2017 (3)	03/15/2018 (3)
Vesting shares	0	0	0	0	0	17,000	0
Vested shares	770	2,100	10	0	10,625	7,244 (5)	17,500 (4)
Transferable from	03/15/2014	12/16/2016	06/24/2015	None	03/15/2018	03/15/2019	03/15/2020

(1) Worldwide plans for all employees
(2) The dual performance condition was not met and 15,000 rights to vesting shares were canceled on March 14, 2015
(3) Subject to a dual condition of performance and continuous service
(4) For her role as Executive Vice President, Chief Financial Officer in 2014
(5) 42.61% of performance condition met

Note that the executive corporate officers have made a formal undertaking not to make use of hedging instruments in respect of Performance Shares.

4.1.4.7 Performance shares granted in fiscal year 2018 by ENGIE and by all companies included in the ENGIE performance share scope to the ten non-executive 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
520,000	8.95	ENGIE	12/11/2018

(1) *Weighted average price, according to the method used for the consolidated financial statements*

4.1.4.8 Summary of transactions disclosed by executives management and corporate officers in fiscal year 2018

	Date of transaction	Type of transaction	Financial instrument	Quantity	Unit price *(in euros)*	Transaction price *(in euros)*
Gérard Mestrallet	March 15, 2018	Acquisition	Performance Units (1)	50,000	(2)	(2)
Isabelle Kocher	March 15, 2018	Acquisition	Shares (3)	17,500	(4)	(4)
Pierre Chareyre	March 15, 2018	Acquisition	Shares (3)	4,000	(4)	(4)
Shankar Krishnamoorthy	March 15, 2018	Acquisition	Shares (5)	2,812	(4)	(4)
Didier Holleaux	March 15, 2018	Acquisition	Shares (3)	4,000	(4)	(4)
French State	July 31, 2018	Sale	Equity investments	11,111,111	13.65	151,666,665
Paulo Almirante	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	25,750 (7)
Pierre Chareyre	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	25,000 (7)
Pierre Deheunynck	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	24,850 (7)
Judith Hartmann	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	21,150 (7)
Didier Holleaux	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	10,450 (7)
Shankar Krishnamoorthy	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	20,000 (7)
Yves Le Gélard	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	35,850 (7)
Pierre Mongin	August 02, 2018	Subscription	Units of employer-sponsored mutual funds (6)	-	(7)	21,150 (7)

(1) *Vesting of Performance Units allocated for the fiscal year 2014*
(2) *As soon as the Performance Units are exercisable their gross value is correlated to the price of the ENGIE share. At March 15, 2018, the ENGIE share price was €13.38*
(3) *Participation to Link 2018 employee shareholding plan*
(4) *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 a discount should be applied due to the two-year lock-up period to March 15, 2020. At March 15, 2018, the ENGIE share price was €13.38*
(5) *Vesting of Performance Shares allocated for 2013*
(6) *Vesting of Performance Shares allocated for 2014*
(7) *Units of employer-sponsored mutual funds invested in ENGIE shares. The reference price of ENGIE shares before the discount was €13.65 per share. For investment formulas with a lock-up period of five years, the price after a 20% discount was €10.92 per share. For investment formulas with a lock-up period of 10 years, the price after a 30% discount was €9.56 per share. The investment amounts mentioned include, where applicable, the matching contribution paid by the company*

4.1.5 Additional information concerning corporate governance

4.1.5.1 Regulated agreements and undertakings and related-party transactions

The special report of the statutory auditors on regulated agreements and undertakings referred to in Article L225-38 et seq. of the French Commercial Code for fiscal year 2018 is provided in Section 4.1.7 of this chapter.

Details of transactions with related parties as specified by the regulations adopted under EC regulation 1606/2002, are provided in Note 25 to the Consolidated Financial Statements (Section 6.2).

4.1.5.2 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.

4.1.5.3 Authorizations relating to share capital and share equivalents and their utilization

At the Combined Shareholders' Meeting of May 18, 2018, the Company's shareholders delegated the following powers and authorizations in relation to financial matters to the Board of Directors:

Resolution	Type of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
7th	Authorization to trade in the Company's shares	18 months (until November 17, 2019)	Maximum purchase price: €30. Maximum shareholding: 10% of the share capital. Aggregate amount of purchases: ≤ €7.3 billion	ENGIE held 0.98% of its share capital as of December 31, 2018	9.02% of the share capital
13th	Issue, with preferential subscription rights, of ordinary shares and/or any marketable securities giving access to the capital of the Company and/or its subsidiaries, and/or issue of marketable securities giving entitlement to the allocation of debt securities (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for securities (1) representing debt	None	Full amount of the authorization
14th	Issue, without preemptive subscription rights, by public offering, of ordinary shares and/or any marketable securities giving access to the capital of the Company and/or its subsidiaries, and/or issue of marketable securities giving entitlement to the allocation of debt securities (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for securities (1) representing debt	None	Full amount of the authorization
15th	Issue, in the context of a private placement for qualified investors or for a limited circle of investors, without preemptive subscription rights, of ordinary shares or any other marketable securities giving access to the capital of the Company, in the context of an offering described in Article L. 411-2 II of the French Monetary and Financial Code (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for securities (1) representing debt	None	Full amount of the authorization
16th	Increase in the number of shares or marketable securities to be issued in the event of a securities issue executed pursuant to the 13th, 14th and 15th Resolutions, up to a limit of 15% of the initial issue, with or without preemptive subscription rights, through a public offering or a private placement (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	Maximum of 15% of the initial issue (1) (2)	None	Full amount of the authorization
17th	Issue of ordinary shares and/or marketable securities in consideration for contributions of securities made, up to a limit of 10% of the share capital (to be used outside public tender offer periods only).	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for securities (1) representing debt	None	Full amount of the authorization

Resolution	Type of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
24th	Capital increase by incorporation of premiums, reserves, profits or other (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	Aggregate amount that may be capitalized	None	Full amount of the authorization
25th	Authorization to reduce the share capital by canceling treasury stock	26 months (until July 17, 2020)	10% of the share capital per 24 month period	Reduction by cancellation of 6,036,166 treasury shares in connection with Link 2018 as of August 2, 2018	9,752% of the share capital
26th	Capital increase reserved for members of the Group Employee Savings Plan	26 months (until July 17, 2020)	2% of the share capital (2) (3)	None	Full amount of the authorization
27th	Capital increase reserved for any entity formed as part of the implementation of the international employee shareholding plan offered by the Group	18 months (until November 17, 2019)	0.5% of the share capital (2) (3)	None	Full amount of the authorization
28th	Authorization to award bonus shares (i) to employees and/or officers of Group companies (with the exception of corporate officers of the Company) and (ii) to employees participating in a Group international employee shareholding plan	38 months (until July 17, 2021)	0.75% of the share capital (4)	None	Full amount of the authorization
29th	Authorization to award bonus shares to certain employees and officers of Group companies (with the exception of corporate officers of the Company)	38 months (until July 17, 2021)	0.75% of the share capital (4)	Allocation on December 11, 2017 of 5,022,660 Performance Shares, i.e. 0.21% of the share capital at December 31, 2018, and on February 27, 2019 of 187,674 Performance Shares, representing a total allocation of 0.2139% of the share capital at February 27, 2019	0.536% of the share capital

(1) This is a common ceiling set by the Combined Shareholders' Meeting of May 18, 2018 for the issues approved under the 13th, 14th, 15th, 16th and 17th resolutions

(2) The total maximum nominal amount of the issues approved under the 13th, 14th, 15th, 16th, 17th, 26th and 27th resolutions is set at €265 million by the 23rd resolution of the Combined Shareholders' Meeting of May 18, 2018

(3) The nominal amount of the issues decided under the 27th resolution will be charged against the ceiling of 2% of the share capital stipulated in the 26th resolution

(4) This is a common ceiling set by the Combined Shareholders' Meeting of May 18, 2018 for the awards approved under the 28th and 29th resolutions

4.1.5.4 Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings

The Company bylaws stipulate that all shareholders are entitled to attend Shareholders' Meetings on condition that their shares are fully paid up. Each share entitles the holder to representation at Shareholders' Meetings, in accordance with current law and the bylaws. Ownership of one share entails automatic acceptance of these bylaws and of all decisions of the Shareholders' Meetings of the Company. 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. 225-123 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 terms and conditions for the participation of shareholders at Shareholders' Meetings are detailed in Section 7.1.5 "Shareholders' Meetings". Provisions relating to procedures for shareholders' attendance at Shareholders' Meetings and shareholders' voting rights are set out in Section 7.1.3 "Rights, privileges and restrictions attached to shares" and in the bylaws (Articles 10, 11, 12 and 20).

4.1.5.5 Information on elements that could have an impact on Takeover Bids or Public Exchange Offers

Pursuant to Article L. 225-37-5 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", 4.1.1 "Board of Directors: Composition – Terms of office – Information – Independence", 4.1.1.2 "Board of Directors: Powers – Operating Procedures – Activities", 4.1.4 "Compensation and Benefits Paid to Members of Corporate Governance Bodies", 4.1.5.2 "Authorizations relating to share capital and share equivalents and their utilization", 5.2.2 "Breakdown of share capital", 5.2.3 "Statutory disclosure thresholds", 5.2.4 "Golden Share" and 7.1 "Specific statutory provisions and bylaws".

4.1.5.6 Statutory Auditors

Statutory Auditors

Deloitte & Associés

Company represented by Patrick Suissa and Olivier Broissand.

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 April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019.

Ernst & Young et Autres

Company represented by Charles-Emmanuel Chosson and Stéphane Pédron.

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 April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019. Previously, ERNST & YOUNG Audit was an auditor between 1995 and 2007.

Alternate Statutory Auditors

AUDITEX (for Ernst & Young et Autres)

1/2 place des Saisons, 92400 Courbevoie – Paris La Défense 1, France

Auditex has been an alternate Statutory Auditor for the Company since May 19, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019.

BEAS (for Deloitte & Associés)

6 place de la Pyramide, 92908 Paris-La Défense Cedex, France

BEAS has been an alternate Statutory Auditor for the Company since July 16, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019.

4.1.6 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 June 2018).

The following table sets out the Company's explanations for the non-application of some recommendations of the Afep-Medef Code.

Article of Afep-Medef Code	Explanation
Article 21 (termination of the employment contract in the event of appointment to corporate office)	Isabelle Kocher's employment contract has been suspended since January 1, 2015. The Afep-Medef Code recommends that when an employee becomes an executive. Having appointed Isabelle Kocher Chief Executive Officer at its meeting of May 3, 2016, the Board of Directors determined that it was appropriate to keep her employment contract suspended. The Board decided that the rights accrued by Isabelle Kocher in respect of the supplementary collective pension plans for executive officers up until December 31, 2014, which is the period prior to the suspension of her employment contract, would remain frozen and preserved, which implied keeping her employment contract suspended. ENGIE's internal promotion policy assigns corporate officer positions to experienced executives with in-depth knowledge of the industry and markets in which ENGIE operates and who have had successful career paths within the Group. For these executives, the loss of rights associated with their employment contract and length of service would be a hindrance and counterproductive.

4.1.7 Statutory Auditors' special report on regulated agreements and commitments

Shareholders' Meeting to approve the financial statements for the year ending December 31, 2018

To the ENGIE Shareholders' Meeting,

In our capacity as statutory auditors of your Company, we hereby report to you on regulated agreements and commitments.

It is our responsibility to report to shareholders, on the basis of the information provided to us, on the characteristics and main terms and conditions of the agreements and commitments brought to our attention or which we may have identified in the course of our audit, including the reasons justifying the Company's interest therein. We are not required to comment as to whether they are beneficial or appropriate or to ascertain the existence of other agreements and commitments. It is your responsibility, in accordance with Article R.225-31 of the French Commercial Code (*Code de Commerce*), to evaluate the benefits of these agreements and commitments prior to their approval.

It is our responsibility to report to shareholders, where applicable and as stipulated in Article R.225-31 of the French Commercial Code, on the implementation during the past year of the agreements and commitments already approved by the Shareholders' Meeting.

We have performed those procedures which we considered necessary to comply with professional guidance issued by the French national auditing body (Compagnie Nationale des Commissaires aux Comptes) for this type of engagement. These procedures consisted in verifying the consistency of the information provided to us with the relevant source documents.

A. Agreements and commitments submitted for approval by the Shareholders' Meeting

Agreements and commitments authorized and signed during the past year

Pursuant to Article L.225-40 of the French Commercial Code, we have been informed of the following agreements and commitments concluded during the past year which were subject to the prior approval of your Board of Directors.

Benefit and healthcare plans for M. Clamadieu, Chairman of the Board of Directors of ENGIE

a) Nature, purpose, terms and reasons: Benefit plan for M. Clamadieu

The Board of Directors, at its meeting of June 19, 2018 approved benefit plan equivalent to the policy for all ENGIE executives in France, granted through a group insurance policy taken out by ENGIE. This policy will provide life insurance and disability insurance.

Your Board justified this agreement as follows: these measures allow the Group to offer its Chairman of the Board social protections in line with the market.

b) Nature, purpose, terms and reasons: Healthcare plan for M. Clamadieu

The 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 ENGIE. This policy will cover the standard coverage items for reimbursement of medical costs for the insured and his beneficiaries as of March 4, 2019.

Your Board justified this agreement as follows: these measures allow the Group to offer its Chairman of the Board social protections in line with the market.

B. Agreements and commitments already approved by the Shareholders' Meeting

B.1 Agreements and commitments approved in previous years

B.1.1 That continued to be implemented during the past year

Pursuant to Article R.225-30 of the French Commercial Code, we have been informed that the following agreements and commitments, already approved by the Shareholders' Meeting in previous years, continued to be implemented during the past year.

Relations with the French State

Persons concerned

Ms Muniesa, ENGIE board member representing the French State, and M. Durand and Ms Guillouard, Ms Jégo-Laveissière and M. Pallez, board members elected by the Shareholders' Meeting recommendation of the French government.

Nature, purpose and terms: Agreement on the future buyback of ENGIE shares from the French state for the purpose of offering them to employees

At its meeting of December 13, 2017, the Board of Directors authorized the Chief Executive Officer, subject to a favorable opinion from the French Privatization Board (*Commission des participations et des transferts*) to sign the agreement for the forward buyback of ENGIE shares related to the sale by the French State of its 4.1% stake in ENGIE on January 10, 2017. Pursuant to Decree 2014-948 of August 20, 2014 regarding the governance and capital transactions of state-owned enterprises, the French State is required to offer for sale 10% of the shares that it sells on the market to the employees of the companies in which it holds an interest, either directly or through a sale to the company, which must then offer the shares to employees within one year. This second option was selected by ENGIE and the State, within the framework of a forward buyback by ENGIE and based on requests made by employees in the offering closed on August 2, 2018 for the benefit of employees.

As a result, the agreement stipulated the specific conditions for completion of the buyback: ENGIE agreed to purchase a maximum of 11,111,111 shares just before the execution of the offering to the employees, i.e. in July 2018, on the basis of the timetable for the offering. In addition, the agreed price was the same as the reference price in the employee offering, corresponding to the volume-weighted average price of the ENGIE share over the twenty trading days preceding the decision that set the dates for the revocation period under the employee offering. In July 2018, ENGIE purchased 11,111,111 shares from the French State at the unit price of €13.65.

With Ms Kocher, ENGIE board member and Chief Executive Officer

a) Nature, purpose and terms: Supplementary defined contribution pension plan

The Board of Directors, meeting on May 3, 2016, voted to maintain the plan established for Ms. Kocher when she was Chief Operating Officer, which was a supplementary defined-contribution retirement plan in which ENGIE no longer guarantees the level of retirement benefit, but makes an annual employer contribution, half of which consists of contributions paid to a third-party organization under a defined contribution pension plan (Article 82) and the other half a cash sum, taking into account the immediate taxation on commencement of this new 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 also depends on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results.

Accordingly, the Board of Directors decided on March 7, 2018 to pay, in 2018, a contribution of €438,632 for fiscal year 2017.

b) Nature, purpose and terms: Group benefit and healthcare plans

At its meeting of May 3, 2016, the Board of Directors also voted to keep Isabelle Kocher on the same system as when she was Chief Operating Officer, namely the Group benefit and healthcare plans for executives from which she benefited before her employment contract was suspended.

With Suez Environnement Company, now known as SUEZ

Persons concerned

M. Mestrallet, Chairman of the ENGIE Board of Directors until the end of the Combined Shareholders' Meeting of May 18, 2018, and Chairman of the SUEZ Board of Directors, and Ms Kocher, ENGIE Chief Executive Officer, member of the ENGIE Board and member of the SUEZ Board.

Nature, terms and purpose: Agreement relating to the settlement of disputes in Argentina

In connection with the spinoff-distribution of the Suez Environment Division (now ENGIE), ENGIE and SUEZ (formerly Suez Environnement) had entered into a 20-year agreement on the economic transfer, to SUEZ, of the rights and obligations related to the equity interests held by SUEZ (now ENGIE) in the Argentine companies Aguas Argentinas and Aguas Provinciales de Santa Fé, relating thereto or arising therefrom (the "Argentine Rights").

This agreement, which continued to be implemented during the year, had been expressly authorized by the Board of Directors at its meeting of June 4, 2008 and signed on June 5, 2008.

However, SUEZ did not reinvoice any legal or advising fees to ENGIE in 2018.

B.1.2 That were not implemented during the past year

In addition, we have been notified that the following commitments and agreements, previously approved by Shareholders' Meetings of prior years, were not implemented during the past fiscal year.

With Ms Kocher, ENGIE Chief Executive Officer

Nature, purpose and terms: Supplementary defined benefit pension plan

Having appointed Ms Kocher to the position of Chief Executive Officer at its meeting of May 3, 2016, the Board of Directors voted to renew the decisions it had made regarding the supplementary pension plan at its meeting of March 10, 2016, when Ms. Kocher was Chief Operating Officer.

As a result, the rights vested by Ms. Kocher under the supplementary collective pension plans for executives for the period prior to the suspension of her employment contract on December 31, 2014, amounting to €145,456 before tax and social security deductions, will remain frozen and preserved, as long as she remains in the Group until the end of her career. This necessitates maintaining the suspension of her employment contract.

With companies in the ENGIE Group and members of the ENGIE Alliance EIG

Person concerned

Ms Kocher, ENGIE Chief Executive Officer, ENGIE Board member and Chairman of the Board of Directors of ELECTRABEL

Nature, purpose and terms: Membership in the ENGIE Alliance EIG

At its meeting of July 4, 2001, the Board of Directors of SUEZ, which merged with Gaz de France to form ENGIE, authorized the creation of a special-purpose financing vehicle, the ENGIE Alliance EIG, and approved the guarantee granted by SUEZ to the other members of the EIG, which are subsidiaries of SUEZ.

Consequently, in its capacity as parent company of the Group, ENGIE is the ultimate guarantor for the other members, including ELECTRABEL, for any debt incurred by a member that may exceed their proportionate share.

This agreement had no impact on fiscal year 2018.

Paris-La Défense, 15th March 2019

The Statutory Auditors

DELOITTE & ASSOCIES	ERNST & YOUNG et Autres
Patrick E. Suissa Olivier Broissand	Charles-Emmanuel Chosson Stéphane Pédron

4.2 Ethics, compliance and privacy

The Group's senior executives, particularly the Chief Executive Officer, the General Secretary and all other members of the Executive Committee, drive and oversee the Group's ethics and compliance policy and ensure that it is properly applied.

A strong message of "zero tolerance" with respect to all forms of fraud and corruption is regularly communicated by the Chief Executive Officer. The same message is conveyed by all managers at all Group levels.

ENGIE's principles of action are based on international standards, in particular those aimed at combating corruption and fraud, protecting human rights and protecting personal data.

The Group has taken a proactive stance in the fight against corruption by joining the United Nations Global Compact – the tenth principle of which relates to combating corruption – and the French chapter of the NGO Transparency International.

ENGIE implements an ethics and compliance program structured around the following pillars:

4.2.1 Organization and structure

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. Chaired by the Group's General Secretary, the Committee consists of the Group Internal Audit Director, the Group Internal Control Director, the Group Legal Director, and the Group Ethics, Compliance and Privacy Director.

Within the General Secretariat, the Group Ethics, Compliance and Privacy Department manages the integration of ethics into the Group's strategy, management and practices. It proposes ethics and compliance policies and procedures for the Group and works with all organizational levels to help implement them. Since 2018, the Group Ethics, Compliance & Privacy Department has expanded its scope of intervention to become the competent department for all issues requiring the establishment of a compliance procedure. The Group Ethics, Compliance and Privacy Department is thus responsible for personal data protection, export controls and embargoes, interest representation and trade secrets. It coordinates the implementation of the Group's vigilance plan (see Section 4.3) and deals with whistleblower reports arising under the Group procedure which it manages. The Ethics, Compliance and Privacy Department leads the network of Ethics & Compliance Officers and Data Protection Managers throughout the Group.

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4.2.2 Risk assessment

The assessment of ethical risk is included in the Group's risk analysis process (Enterprise Risk Management or ERM) (see Section 2.3.4). 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 the risk related to the handling of personal data and the risk of non-compliance with the GDPR (General Data Protection Regulation).

The process for assessing corruption risks, human rights violation risks and data privacy risks uses a common analysis methodology for all BUs (a self-diagnostic scorecard on corruption risk, a checklist regarding human rights violations risk and guidelines on the assessment of the risk of personal data breaches).

4.2.3 Reference texts

ENGIE's ethics and compliance policy aims to develop an ethics culture and practice based on:

- the Ethics Charter[1], which establishes the general framework for the professional conduct of every employee and specifies ENGIE's four fundamental ethical principles. It also describes the Group's ethics and compliance organization;
- the Practical Guide to Ethics[1] relating to the day-to-day application of ethics. It includes the Group's decision to refrain from any financing of political activities, including in countries where such funding is authorized and regulated by law.

These two documents apply to all Group employees and are shared with external stakeholders.

The "Integrity" referential is a collection of policies and procedures for preventing fraud, corruption and influence peddling (covering business consultants, gifts and invitations, ethics due diligence on stakeholders, conflicts of interest, etc.).

The "Human Rights" referential and policy comprise ENGIE's commitments to respect internationally-recognized human rights and specify the operational processes for analyzing and managing risks so that the Group can be vigilant about the impact of its activities on the human rights of all individuals. The referential and policy are the cornerstones of the human rights component of the Group's vigilance plan.

(1) These documents are available online at www.engie.com

The "Ethics Compliance" referential sets out how the Group implements the Group ethics and compliance programs and measures compliance (see Sections 4.2.4 and 4.2.6). It also includes the Group's procedures for complying with rules on embargoes and export controls, competition law and personal data protection. Pursuant to European Regulation 2016/679 on personal data protection, the Group rolled out its personal data protection policy and continued to implement its GDPR compliance program in 2018. In 2018, the Group also updated its existing processes for handling personal data protection from the earliest stages of projects (privacy by design, privacy by default, data protection impact assessment) and for dealing with security failures in relation to these data (data breach management).

In 2018, the main policies were updated or new policies were issued in order to respond to new national and international requirements: embargoes/export controls; due diligence for investment projects, patronage sponsorship and suppliers subcontractors; whistleblowers; business consultants.

Codes of conduct are used to apply ENGIE's ethics commitments to business practices and operations. The codes of conduct include, for example, the "Ethics of Business Relationships: Governing Principles", the "Code of Conduct in Supplier Relations," and the "Code of Conduct on Lobbying". Finally, with regard to interest representation, the Group has since 2017 a simple reporting procedure and tool so that all of the entities concerned can comply with their legal obligations, particularly with regard to the reporting obligation to France's High Authority for Transparency in Public Life, pursuant to the law on "transparency, the fight against corruption and the modernization of economic life" (Sapin 2 law).

4.2.4 Whistleblowing and reporting of ethics incidents

The Group's new policy on whistleblowers was set up in 2017. It incorporates the statutory requirements of Sapin 2 and those of the law on the duty of vigilance, and resulted in the implementation in 2018 of a new procedure for collecting alerts via the email address *ethics@engie.com* and a dedicated telephone number, both of which are outsourced to an external service provider in charge of the two whistleblowing channels. The Group's whistleblowing system is an addition to the Group's other reporting routes, which enable any employee, as well as any person outside the Group, to report suspicions of or actual breaches of ethics rules.

Ethical failures are monitored using the INFORM'ethics reporting tool, which has been rolled out in the BUs as well as at NewCorp and in GBS. 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 data privacy.

4.2.5 Training and awareness

The Group conducts a series of awareness campaigns and training programs, including a mandatory awareness seminar on fraud and corruption risk for senior managers. At the end of 2018, 91% of these executives had gone through the course, which is also mandatory for the BUs' Executive Committee members. In addition, there is a mandatory training program for members of the ethics and compliance network, mandatory training for purchasers from the purchasing line (see also Section 3.7 "Purchasing, subcontractors and suppliers"), training courses in competition law, training for data protection managers, and training in human rights.

New e-learning courses and scribings (gifts and hospitality, corruption, whistleblowing, human rights, conflicts of interest) were rolled out and are accessible for all of the Group's employees. The Group also provides all BUs, entities, métiers and NewCorp functions with training modules that can be tailored to employees based on their exposure to ethical risks, particularly the employees most exposed to corruption risk. An automatic reporting system for the training carried out is being deployed throughout the Group.

4.2.6 Controls and certifications

The monitoring of the implementation of the ethics and compliance policy is based on an annual compliance procedure and a dashboard of some 15 indicators (including the dissemination of ethics documentation, training, and the implementation of ethics policies). At each organizational level, the Ethics & Compliance Officers produce an annual report on the work and progress accomplished by their entity in this area. This report is submitted to the relevant supervising entity and accompanied by a compliance letter from the manager certifying his or her commitment to the application of the ethics and compliance program within the organization for which he or she is responsible. At the start of the year, a bilateral assessment of the activities and risks of each BU 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.

Key controls aimed at ensuring compliance with the Group's ethics and compliance reference texts are incorporated into the INCOME internal control program.

Internal audits are performed to assess the effective implementation of the policies and of the GDPR compliance program and, where applicable, define areas for improvement.

The Group is also engaged in external audits of its ethics and compliance framework. In 2015, the Group was awarded anti-corruption certification by Mazars, an accounting and auditing firm, and ADIT, a business intelligence firm. In 2018, the Group obtained ISO 37001 certification for its anti-corruption management systems. This certification was delivered by ETHIC Intelligence, a certification agency specializing in the certification of corruption prevention programs which abides by the requirements of the ISO/IEC 17021-1 & 9 standard. . The certification audit was carried out at the ENGIE Group level and at several operating entities, a scope representing all of the Group's activities, both geographically and in terms of the métiers.

4.3 Vigilance plan

This section provides a summary of the vigilance plan[1] of the ENGIE Group and the report on its operational implementation (the elements of this report for 2018 are identified and included in each sub-section of this document). In addition, the Group has developed an online site dedicated[2] to more detailed and regular information about its vigilance plan and its implementation.

The vigilance plan covers all the measures established by ENGIE SA to prevent for its activities and those of its controlled subsidiaries serious violations of human rights and fundamental freedoms, the health and safety of individuals and the environment according to its ethical and social responsibility commitments. The Group's adherence to international standards on human rights, including the health and safety of persons and the environment is the foundation of the commitments that the Group intends to apply wherever it operates.

The plan is based on the different processes to identify and prevent the Group's risks specific to each issue or scope of vigilance, and which have already been deployed over several years, and on a common alert system[2]. Completely backed by the ethics organization, it benefits from steering, governance and dedicated monitoring [3].

4.3.1 Identification and management of the risks of serious harm to individuals and the environment

The Group exercises vigilance through different policies that cover all the issues described in the plan, and regular procedures to identify and assess risks, determine goals and follow-up processes and evaluate their effectiveness.

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 (health and safety at work, freedom of association, non-discrimination, interdiction of forced labor and child labor, working hours, housing conditions for workers), the rights of local communities (consequences for health and living conditions of local communities, displacement and rehousing of populations), the security of employees and sites (practices of private and public security forces, safety of employees in at-risk countries) and the practices of partners and suppliers (as conditions of energy supply or practices of commercial partners in the projects).

In 2018 questions relating to risk factors (such as the country, type of workforce, presence of vulnerable populations) were added as part of the annual review of the Group's "human rights infringement" risk. This strengthening of the annual risk review process should allow entities to better identify their own specific risks and target actions to control and monitor risks.

The Group's human rights policy, adopted in 2014, sets up a due diligence process in order to identify and manage the risks for individuals related to the Group's operations. It specifies the Group's commitments and provides for regular processes to identify and manage risks so that each entity ensures compliance in their activities and commercial relations [3]. The requirements of this human rights policy are fully incorporated into the Group's centralized ethics compliance processes[4].

In 2018, the ethics and vigilance clause, which is intended to be inserted in all contracts, was updated in 2018, along with all policies on due diligence (investment projects, corporate patronage, charitable giving, suppliers and subcontractors, commercial consultants) to include the challenges related to the duty of vigilance. The revision of the human rights policy was initiated, after three years of application, as well as the updating of face-to-face and e-learning training modules.

Prevent and manage the risks related to the health, safety and security of individuals

The health, safety and security risks mapping includes, on the one hand, the risks of damage to the health, safety and security of individuals working for the Group, employees, temporary workers and subcontractors and, on the other hand, the risks related to the Group's industrial assets or those which the Group maintains and/or operates on behalf of customers, which could generate risks for individuals working for the Group or for residents living near these industrial assets.

The Group's health and safety policy,[5] a specific agreement signed with all employee representatives, is completed by specific Group health and safety rules and by five-year action plans (currently 2016-2020). The Group Rules on health and safety are implemented at the operational level by the Business Units (BUs) and subsidiaries of the Group. The identification of the risks induced by the activities, their evaluation as well as the follow-up of the action plans of treatment are the subject of annual reviews. The ENGIE Group has developed control processes to ensure the implementation of actions and the achievement of objectives[6] and a comprehensive health and safety report is presented annually to the Executive Committee and the Ethics, Environment and Sustainable Development Committee of the Board of Directors (EESDC).

In 2018, actions aimed at reducing the Lost-Time Injury Frequency Rate were continued. A specific "No Life At Risk" program was deployed within the Group to strengthen the culture of safety among employees and subcontractors, and the commitment to implement the Group's

(1) Compliance with the law n ° 2017-399 of March 27th, 2017 concerning the duty of vigilance of parent companies and ordering companies

(2) https://engie/ethique-compliance/plan-vigilance

(3) Such as the annual review of activities, the assesment of new projects, due diligence regarding commercial partners, the incorporation of human rights-rights-related criteria into the purchasing process, the implementation of grievance mechanism, etc.

(4) See Section 4.2.6 "Controls and certifications"

(5) See Section 3.5.6 "Health and safety policy"

(6) Such as health and safety discussions held at each Comex meeting, a reporting system of indicators dedicated to the health and safety of its employees and that of the subcontractors working on its sites, annual performance reviews with the Groupe's various BUs

basic rules intended to prevent serious or fatal accidents, particularly compliance with the Group's Life-Saving Rules, the identification and control of risks, the identification and treatment of situations and events with high potential severity, work shutdowns if safety conditions are not met. During this same year, a specific action plan designed to prevent accidents in which subcontractors may be the victims, particularly the most serious accidents, was defined and implemented by the BUs under the joint leadership of the "Purchasing" and "Global Care (health-safety-security)" Group functional lines.

The Group has a policy to protect individuals from malicious acts, whether they are employees or subcontractors at the sites at which they normally work, or employees on a mission or expatriates. The prevention and protection measures are adopted on the basis of the criticality of the geographic region in which the individual is located. This criticality is continually assessed in collaboration with local authorities.

Prevent and manage environmental risks

The environmental risks analyzed by the Group are Water (scarcity of the resource and pollution in the event of discharge), Biodiversity (degradation of ecosystems), Air (emission of atmospheric pollutants), Soil (soil pollution) and Waste (pollution and waste treatment). These local environmental risks are identified annually at the sites level and allow to establish a list of sites "at risk". In addition to these local risks, ENGIE has taken into account global risks related to climate risk. The social risks analyzed are the activities' impact on local communities, and the social consequences of closing any facilities.

The Group's CSR Policy[1] directs the vigilance process with regard to environmental and social matters. Environmental and social risks are analyzed periodically at every level of the company. CSR analysis criteria make it possible to identify risks, such as climate change, biodiversity, air, water, and soil and take them into account before starting projects. In collaboration with the local stakeholders, each industrial site identified as being "at risk" draws up an action plan that includes all of these environmental aspects. The social risks analyzed are the activities' impact on local communities, and the social consequences of closing any facilities. The Group's CSR policy aims to institute action plans at various levels to avoid, reduce, and if necessary, offset the environmental and social impacts of the Group's activities. This policy is deployed in each BU, 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 social vigilance, are properly satisfied.

In 2018, the monitoring of the implementation of the action plans at sites presenting a potential environmental risk was included in the environmental reporting. The BUs that have industrial sites all contributed. Approximately 20% of the sites are covered by action plans.

Prevent and manage risks related to energy supply

The social and environmental risks related to the Group's energy supply (coal, biomass, natural gas and LNG) have been identified as a specific issue of vigilance for the Group. They are managed directly by the Global Energy Management (GEM) BU, which has partially identified the risks specific to each of its activities (by energy source, by country, etc.) as well as the relevant players and the responses to address these risks, particularly through existing sector initiatives. A CSR strategy was formalized to meet these challenges, with specific action plans per energy source.

Within the GEM BU, the governance structure was strengthened in 2018 to ensure that the duty of vigilance is included in decision-making processes and the supply chain risk assessment approach was systematized. A new strategy focused on the social and environmental aspects was also developed.

Prevent and manage the risks related to non-energy purchases

At the beginning of 2018, each purchasing category and each of the Group's 250 preferred suppliers were evaluated (low, medium or high risk) by the *category managers* of the Group Strategic Sourcing and Purchasing department compared to the intrinsic risks related to seven aspects of CSR (Organization & Governance, environment, social, human rights, development & human resources, hygiene, Health & Safety, ethics & anti-corruption). These risk mapping made it possible to establish that six purchasing categories were as high risk, all areas combined: engineering and turnkey installation, wind power, lighting, construction and civil engineering, industrial piping and steel structure, mechanical equipment and services. This exercise facilitated the definition of selection criteria for new preferred suppliers and the assessment of existing suppliers. At the end of the year, an evaluation with an external service provider (ECOVADIS) was initiated to validate and amend this internal assessment.

Through the implementation of three operational processes, "Manage Purchasing categories", "Buy & Supply" and "Manage the supplier panel", the management system[2] of the non-energy purchases incorporates the requirements related to human rights, health and safety at work, ethics and the environment. The prevention plan under the duty of vigilance is implemented through the Purchasing Process by following the following key steps:

- analysis of risks and opportunities by Purchasing category and by country (prioritization);
- related mitigation plan (qualification and selection criteria for preferred suppliers, need for an audit, due diligence, supplier data accessible via the Procurement Information Center, etc.);
- inclusion of contract clauses on ethics, GDPR, etc.;
- measurement of the performance delivered by the suppliers and related improvement plans.

(1) see Section 3.6 " Societal information"

(2) The Group Purchasing Policy applies to suppliers with whom ENGIE has a direct contractual relationship (see Section 3.7 "Purchasing, Subcontracting and suppliers").

4.3.2 Alert mechanism and collection

In the context of the application of the Sapin 2 law and the law on the duty of vigilance, in 2018 the Group deployed a new alert system common to the entire Group and defined a new policy on whistleblowers. This system is open to all employees, both permanent and temporary, and to all its external stakeholders, and covers all the challenges of vigilance. An alert can be issued, anonymously or not, via email or a free telephone call. It is received by an external service provider that transmits the report anonymously to ENGIE for processing.

At the end of 2018, information about this alert system was specifically communicated to all employees via a mailing, videoscribing and poster campaign, with particular visibility on the Group's website, and was presented to the employee representative bodies via the existing committees at Group level, such as the European Works Council. In addition to the website, external stakeholders will be informed about the system through specific communications (in particular posters) at work sites and around Group sites.

4.3.3 Steering, governance and follow-up of deployment of the plan

Steering and follow-up at the highest corporate level

While the contents of the vigilance plan are a compilation of different risk prevention policies, each with its own commitments, governance and process, the Group wanted to establish follow-up and comprehensive coordination at the highest corporate level to ensure an effective and coordinated response to the objectives of the law. The Group's vigilance plan was validated by the Group's Executive Committee on January 22, 2018, which entrusted management to the Ethics, Compliance & Privacy department, under the responsibility of the General Secretary. A report on the effective implementation of the plan is presented annually to the EESDC of the Board of Directors. Coordination and deployment of the plan is monitored by a specific, groupwide committee[1] whose mission is to ensure an effective ENGIE SA process for the Group, to successfully disseminate the plan and to increase awareness among the entities, as well as to facilitate the feedback of information for the legal reporting requirement.

In 2018 each entities were expressly asked to contribute, at their level and within their direct and indirect subsidiaries, to the ownership, dissemination and implementation of the vigilance plan. The monitoring of these actions by the entities is included in the annual compliance report.

Stakeholder relations

The plan and the progress made in its implementation were presented in 2018 and will be regularly presented to the employee representative bodies via the existing committees at Group level, such as the European Works Council, the EESDC, and the Board of Directors. The entities were also specifically asked to present the vigilance plan and the legal obligations to their employee representative organizations.

At the local level, ENGIE has set a goal for "100% of the Group's industrial operations to be covered by an appropriate stakeholder dialogue mechanism by 2020" [2]. In addition to this Group goal, the Group's policy of "dialogue with stakeholders", a component of the CSR policy, includes a self-assessment by the BUs, a tool box, a training program and operational support from the CSR Department. In 2018, 53% of industrial activities were covered by an appropriate mechanism for dialogue with stakeholders. And in collaboration with the departments responsible for major projects and training, the CSR Department trained business developers and project managers of 6 entities/business units to its methodology of dialogue with the stakeholders in their activities. In addition, the CSR Department supports the operational teams in their dialogue processes on a daily basis.

(1) The monitoring committee is composed of the four main sectors concerned by the operational implementation of the plan: Ethics, Compliance and Privacy Departement and the Corporate Social Responsibility Departement, which co-chair the committee, as well as the Global Care Departement and the Sourcing Strategy and Purchasing Departement; Support functions relating to the compliance process include: Internal, Internal Audit and the Legal Departement; operationnel BUs considered to be the greatest risk with regard vigilance: MESCAT BU, Asia-Pacific BU, Latin America BU, GEM BU and UK BU

(2) See https://www.engie.com/en/analysts/engie-and-society/stakeholder-engagements//

5 Information on the share capital and shareholding

5.1 Information on the share capital and non-equity instruments

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 NYSE Euronext Paris, and are eligible for the Deferred Settlement Service (SRD). ENGIE is also listed on the following indices: BEL 20 (until March 15, 2019), Euro STOXX 50, STOXX Europe 600, MSCI Europe, Euronext 100, FTSE Eurotop 100, Euro STOXX Utilities, STOXX Europe 600 Utilities, Euronext Vigeo (Europe 120, Eurozone 120, France 20), and DJSI (World, Europe).

As of December 31, 2018, 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 € million	Total Value	2019	2020	2021	2022	2023	2024 to 2028	> 2028	Account Total	Corresponding %
Intangible assets	5	-	-	-	-	-	-	5	6,718	0
Property, plant and equipment	1,298	19	15	630	16	12	20	586	48,917	2.7
Equity investments	3,260	61	1	21	-	3	808	2,365	8,954	36.4
Bank accounts	133	85	8	16	-	-	24	-	8,700	1.5
Other assets	187	2	-	18	-	8	110	49	37,585	0.5
TOTAL	**4,883**	**167**	**24**	**685**	**16**	**23**	**963**	**3,005**	**110,874**	**4.4**

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. 225-123 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. Pursuant to the provisions of Article L.123-14 of this Code, this increase is capped at 0.5% of the shared capital for a single shareholder.

On December 31, 2018, the Company had 2,435,285,011 shares corresponding to 3,124,555,878 theoretical voting rights.

Pursuant to the French Energy Code and Act No. 2014-384 of March 29, 2014, the French government is required to hold more than one-third of the Company's capital or voting rights, and its stake may only fall below this threshold if it returns to the required ownership threshold for capital or voting rights within two years.

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 5.2.4 "Golden share").

5.1.2 Potential capital and share equivalents

As of December 31, 2018, 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 euro)*
11/12/2014	Increase of the share capital resulting from the subscription of 20,307,623 shares under the capital increase reserved for participants in an employee savings plan offered by the Group	20,307,623	277,808,282.64	2,433,131,712	2,433,131,712	1.00
11/12/2014	Increase of the share capital resulting from 328,639 free shares issued by deduction from the additional paid-in capital under the capital increase reserved for participants in an employee savings plan offered by the Group	328,639	(328,639.00)	2,433,460,351	2,433,460,351	1.00
11/12/2014	Increase of the share capital resulting from the subscription of 1,824,660 shares following the capital increases reserved for any entity constituted in the course of the implementation of the international employee shareholding plan offered by the Group	1,824,660	24,961,348.80	2,435,285,011	2,435,285,011	1.00
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 seventh resolution of the Combined Shareholders' Meeting of May 18, 2018 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.

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 2018.

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.

Between January 1 and December 31, 2018, the Company purchased 12,858,493 shares, for a total value of €172.2 million (or €13.39 per share) under the liquidity agreement. Over the same period, and also under this agreement, ENGIE sold 12,858,493 shares for a total price of €172.6 million (or €13.42 per share).

In addition, between January 1 and December 31, 2018, ENGIE purchased 11,111,111 shares for a total price of €151.7 million (or €13.65 per share) to cover its commitments to the beneficiaries of stock options, free shares and company savings plans.

Between January 1 and February 28, 2019, ENGIE purchased 1,471,756 shares for a total value of €20.3 million (or €13.79 per share) under the liquidity agreement. Over the same period, and also under this agreement, ENGIE sold 1,471,756 shares for a total price of €20.4 million (or €13.86 per share).

Furthermore, between January 1 and February 28, 2019, ENGIE did not purchase any shares to cover its commitments to the beneficiaries of stock options, free shares, and company savings plans.

On February 28, 2019, the Company held 0.98% of its share capital, or 23,891,178 shares to cover its commitments to the beneficiaries of stock options, free shares, and company savings plans.

5.1.4.2 Description of the stock repurchase program to be submitted to the Combined Shareholders' Meeting of May 17, 2019

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 Combined Shareholders' Meeting to be held on May 17, 2019.

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%;
- 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 General 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 28, 2019, ENGIE directly held 23,891,170 shares, i.e. 0.98% of the share capital.

Therefore, based on the estimated share capital on the date of the Meeting, the stock repurchase program could cover 219 million shares, representing 9.02% of the share capital, for a maximum amount of €6.5 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 November 16, 2020.

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 "Parent Company financial statements," and in Section 5.1.3. "Five-year summary of changes in the share capital."

5.1.5 Non-equity securities

5.1.5.1 Deeply subordinated securities

On January 16, 2018, ENGIE executed a new issue of €1 billion in deeply subordinated perpetual notes in addition to the issues of July 2013 and May 2014. On July 10, 2018, ENGIE exercised its redemption option on the €600 million in deeply subordinated perpetual notes, with a coupon of 3.875%, which were issued on July 10, 2013 (FR0011531714). Finally, in December 2018 ENGIE notified the holders of its £300 million (FR0011531722) bond of its decision to exercise its redemption option on January 10, 2019, pursuant to the terms of the bond. Following these transactions, as of December 31, 2018, the outstanding amount of the deeply subordinated perpetual bonds issued by the Group was the following:

Issuer	Currency	Coupon rate	Issue date	Maturity	First option for redemption	Amount issued *(in stated currency) (in millions)*	Exchange	ISIN Code
ENGIE	GBP	4.625%	07/10/2013	Perpetual	01/10/2019	300	Paris	FR0011531722
ENGIE	EUR	4.750%	07/10/2013	Perpetual	07/10/2021	750	Paris	FR0011531730
ENGIE	EUR	3.000%	06/02/2014	Perpetual	06/02/2019	1000	Paris	FR0011942226
ENGIE	EUR	3.875%	06/02/2014	Perpetual	06/02/2024	1000	Paris	FR0011942283
ENGIE	EUR	1.375%	01/16/2018	Perpetual	04/16/2023	1000	Paris	FR0013310505

All of the above securities are rated Baa1 by Moody's and BBB by Standard & Poor's.

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 Section 6.2 "Consolidated financial statements" – Note 19.2.1).

5.1.5.2 Euro Medium Term Note (EMTN) Program

ENGIE has a €25 billion EMTN program. This program was updated on December 13, 2018 and approved by the AMF under reference number 18-562.

5.1.5.3 Bond issues

The main features of the bond issues outstanding as of December 31, 2018 by the Company are detailed in Section 6.4 "Parent company financial statements" – Note 11.

5.1.5.4 Green Bonds

5.1.5.4.1 Description of the bond

To support its development plan in renewable energy sources, energy efficiency services and the preservation of natural resources, ENGIE issued in January 2019 a fifth Green Bond for €1 billion, following the one of January 2018 for €1 billion. The total amount issued by ENGIE in Green Bonds reached €6.25 billion at the end of 2018, and €7.25 billion taking into account the issuance made in January 2019. In this way, ENGIE confirms its leadership and its commitment to playing a leading role in the energy transition while supporting the development of green finance.

The Green Bonds meet the terms of the Green Bond Framework that ENGIE has defined for its Green Bond issuances and which is available on its website. The main principles are summarized below:

- The funds raised by these bonds are allocated to projects that meet environmental, social and societal criteria, so-called "eligible" (hereinafter referred to as "Eligible Projects") as defined in the "use of proceeds" clause in the final terms of the Green Bond issue;
- Until the funds raised are entirely allocated to Eligible Projects (or after, in case of a substantial change in allocations), ENGIE is committed to providing information in its Registration Document on the fund allocations made during the period concerned.

As part of the Green Bond Framework, ENGIE is committed to fulfilling the following conditions:

- Eligible Projects must respect the eligibility criteria determined by ENGIE in conjunction with Vigeo Eiris. Eligible Projects include new projects made during the year of the issuance, or the year before, and meeting the eligibility criteria. The amounts allocated are calculated after deduction of any funding already dedicated to these projects;
- As of 31 December of each year, the Group must hold cash (or cash equivalents) of an amount at least equal to the funds raised by the Green Bond, less amounts allocated to fund Eligible Projects as of that date.

When, for a given year, several Green Bonds are not fully allocated to Eligible Projects, the allocation for the year will be made successively by priority to the oldest, until it is fully allocated.

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: (i) use of proceeds; (ii) existing processes to evaluate and select Eligible Projects; (iii) management of proceeds; and (iv) reporting.

5.1.5.4.2 Projects and CSR Eligibility criteria

The categories of projects covered by the Green Bonds are described below.

Project category	Description
Renewable energy	This category of projects includes the financing of, or investments in, the design, construction and installation of renewable energy production or transport units. It covers energy produced from renewable non-fossil sources. It includes hydro, geothermal, wind, solar, biogas, biomass and any other renewable energy source.
Energy efficiency	This category of projects includes the financing of, or investments in, projects that contribute to a reduction of energy consumption per unit of output, such as – for instance – heating and cooling network, optimization of buildings or plant efficiency, systems for energy management (Smart Grids, Smart Metering).
Protection of resources	This category of projects includes the financing of, or investments in, projects that contribute to a reduction in consumption of natural resources, such as water and/or waste management.

The eligibility criteria are described below and are also available in the dedicated Sustainable Development section of the ENGIE website. These criteria were drawn up together with Vigeo Eiris and were used to select the projects funded in the period from January 1, 2017 to December 31, 2018.

Criteria	
Fight against climate change and/or contribution to the preservation of natural resources	The project is not linked to energy production by fossil fuels or nuclear sources and contributes to the reduction in greenhouse gas (GHG) emissions and/or to the reduction of natural resources consumption and waste
Environmental management [1]	The project has an environmental impact assessment and remedial measures for such impacts, for the construction and operation phases.
Biodiversity and natural resources [2]	The project, located near protected natural sites or areas, has an impact assessment on biodiversity and natural resources and remedial measures for such impacts, during both the construction and operation phases
Dialogue with stakeholders and community involvement [3]	The project involves consultation, dialogue or cooperation with local stakeholders, comprising action plans that may include social impact studies, or, at a minimum, satisfaction surveys for low-impact projects
Promotion of business ethics	The project or acquisition has trained its senior managers in business ethics (responsibilities, competition rules and anti-corruption measures)
	The project or acquisition promotes ethical practices with its main suppliers and subcontractors through an ethics clause in its contracts
	In the case of a minority stake, ENGIE is committed to providing its partners with the Group's Ethics Charter and Practical Guide to Ethics
Responsible procurement	The project or acquisition ensures the traceability of its procurement processes, based on tender procedures (if a call for tenders is required) and takes CSR criteria into account in the qualification of the project’s main suppliers
Human rights and labor rights	The project or acquisition has put systems in place to verify compliance with international human rights and labor rights standards, in particular the Universal Declaration of Human Rights, its associated commitments, and the International Labor Organization Conventions
Health and safety	Factors related to health and safety as well as those related to industrial safety are taken into consideration in all phases of the project life cycle
	The project has the necessary health and safety resources during the phases of the project life cycle (e.g. construction phase, etc.)

(1) Applicable only to renewable energy and natural resource protection projects.
(2) Applicable only to renewable energy projects and natural resource protection projects at sites located near protected natural zones or areas.
(3) Not applicable for an acquisition.

In 2017, a dedicated committee was established, the Green Bond Committee. This Committee meets regularly to discuss market developments, the eligibility criteria and the allocation processes. It is co-led by the CSR Department and the Finance Department and brings together the Strategic Sourcing and Procurement Department, the Global Care Department and the main BUs concerned.

5.1.5.4.3 Eligible Projects

The main Eligible Projects financed in 2018 by the September 2017 and January 2018 Green Bond issues that meet the aforementioned conditions were as follows:

Green Bond of september 2017

Type of project	Technology	Region	Projects' name	Country	CAPEX *(in millions euros)*
Renewables	Wind	Europe	Projects of ENGIE Green on shore, CN'Air, ENGIE Green offshore [1]	France	480
			Seamade	Belgium	
			LANGA	France	
		North America	Infinity	USA	
			Live Oak, Solomon Forks	USA	
		Latin America	Tres Mesas 3 et 4	Mexico	
		Asia Pacific	Sainshand, Willogoleche [1]	Mongolia, Australia	
	Solar	Europe	Projets de ENGIE Green, Solaire Direct, CN'Air	France	387
			LANGA	France	
		Latin America	Intipampa, Villa Ahumada, Abril, Calpulalpan, Trompezon, Akin	Mexico, Peru	
		Africa	Kathu	South Africa	
			Fenix	Uganda	
		Latin America	Paracatu [1]	Brazil	
	Biomass	Europe	GNVert, DSP Macon [1]	France	51
			Sisslerfeld [1]	Switzerland	
	Transport	Latin America	TEN	Chile	48
	Geothermal	Asia Pacific	Muara Laboh	Indonesia	12
			Global capex in millions euros for renewable energy projects		978
Energy efficiency	Clean Mobility[2]	Europe	EV-BOX	Nederland's	85
	Energy storage	World	Electro Power System (EPS)	World	57
	District cooling	Europe	Climespace [1]	France	4
	Energy efficiency	Europe	Keepmoat [1]	UK	126
			Energy efficiency Projects - C13	France	
			Smart Grid (GAZPAR) [1]	France	
			Global capex in millions euros for energy efficiency projets		272
Total			**Global capex in million euros**		**1250**

(1) Eligible projects having received an allocation in the Green Bond of March 2017

(2) Projects evaluated on the criteria of energy efficiency but which will subsequently be integrated and evaluated according to the "clean mobility" projects included in the Group's Green Bond Framework in January 2019

Green Bond of January 2018

Type of project	Technology	Region	Projects' name	Country	CAPEX *(in millions euros)*
Renewables	Wind	North America	East Forks	USA	53
		Europe	Seamade, Wind4Wallonia, Wind4Flanders,	Belgium	
		Europe	Goya, Thor	Spain, Norway	
		North America	Socore	USA	49
	Solar	Latin America	Floresta [1]	Brazil	
Energy efficiency	Clean mobility[2]	Latin America	Transantiago	Chile	22
Total			**Global capex in million euros**		**124**

(1) Eligible projects having received an allocation in the Green Bond of March 2017

(2) Projects evaluated on the criteria of energy efficiency but which will subsequently be integrated and evaluated according to the "clean mobility" project category included in the Group's Green Bond Framework in January 2019

It should be restated that the 2014 Green Bond issue was fully allocated on the basis of capital expenditures between 2013 and 2016 (for details on the Eligible Projects and the corresponding allocations, see the registration documents for the years 2013 to 2016). The March 2017 Green Bond issue was fully allocated on the basis of capital expenditures between 2016 and 2017. Details of the Eligible Projects and corresponding allocations were published for pages 173 to 177 of the 2016 Registration Document 2016 and pages 176 to 179 of the 2017 Registration Document.

Total funds allocated to Eligible Projects in 2017 and 2018 amounted to €170 million and €1204 million, respectively. These amounts make it possible to allocate €250 million, i.e. the totality of the Green Bond issued in September 2017. In line with the Group's commitments, a more detailed description of the projects, their impact in terms of avoided emissions and the related methodology is available on the Sustainable Development page of the Group's website (*https://www.engie.com/en/csr-experts-area/*).

The Green Bond contributes to the funding or acquisition of Eligible Projects in (i) renewable energy (wind, solar, hydropower and/or biomass), (ii) energy efficiency, (iii) resource protection.

1) Renewable energy

The energy transition and the development of renewable energy on a global scale are among ENGIE's strategic priorities. The Group is the world's leading independent power producer with installed capacity of 104.3 gigawatts(GW), including 23.7% (24.8GW) in renewables (hydroelectricity, wind, solar, geothermal, biomass, etc.). The Group is targeting a 25% share of renewable energy in its generation portfolio by 2020. In 2018, ENGIE continued to expand its portfolio of renewable assets in wind, solar and geothermal by developing new projects or acquiring new companies. These low-carbon resources play an essential role in the energy transition and the fight against climate change.

At the end of December 2018, a total of €978million had been allocated to Eligible Projects in the field of renewable energy sources in the September 2017 green bond. When fully operational, these projects should contribute to avoiding greenhouse gas emissions by a minimum of 3.01 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 carbon emissions rates per kWh of the generation mix were drawn from data available through Enerdata. The technologies' LCA data is derived from work performed by the IPCC (Intergovernmental Panel on Climate Change). For CDM projects registered and approved by the United Nations, the resulting contribution to avoided emissions are derived from the underlying methodologies.

2) Energy efficiency

Another of the Group's strategic priorities is to develop services and solutions that enable our customers to reduce their energy consumption and consequently their carbon footprint. As part of its 2016-2018 transformation plan, the Group is committed to increasing the contribution of customer solutions to EBITDA by 50%.

As of December 31, 2018, a total amount of €272 million had been allocated to the September 2017 Green Bond for Eligible Projects developed in the field of energy efficiency. In full operational mode, these projects should contribute to reducing greenhouse gas emissions by a minimum of 0.15 million metric tons of CO_2 eq. per year.

For the calculation of the reduced emissions related to the energy efficiency project, ENGIE evaluates them by multiplying the energy savings contributed by the project by the emissions of the mix of the country in question. The contribution to reduced 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) Protecting natural resources

No natural resource protection projects were allocated to the Green Bond in 2018.

4) Results of the Green Bond issued in September 2017

The main geographic areas concerned by the projects allocated to the September 2017 Green Bond are Europe and North and South America, which respectively accounted for 53.3%, 15.3% and 18.5% of the total amount invested. With regard to the technologies used, wind, solar and energy efficiency projects account for 38.4% 30.9 and 10.1%, respectively.

Region	Allocated funds %
Europe	53,3%
Latin America	18,5%
North America	15,3%
Africa	10,5%
Asia Pacific	2,4%

Technology	Allocated funds %
Wind	38,4%
Solar	30,9%
Energy efficiency	10,1%
Clean mobility	6,8%
Energy storage	4,6%
Biomass	4,1%
Transmission	3,8%
Geothermal	1,0%
District cooling	0,3%

In full operational mode, these projects should contribute to avoided or reducing greenhouse gas emissions by a minimum of 3,16 million metric tons of CO_2 eq. per year.

5.1.5.4.4 Attestation from one of the Statutory Auditors of ENGIE SA on the information related to the allocation, as of December 31, 2018, of funds raised through the Green Bonds issued on September 19, 2017 and January 10, 2018

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, 2018, of funds raised through the Green Bonds issued on September 19, 2017 and January 10, 2018 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, 2018, of funds raised through the Green Bonds issued on September 19, 2017 and January 10, 2018 (the "Issues"), for €1.25 and € 1 billion respectively, contained in the attached document "Green Bonds", and prepared pursuant to the use of proceeds of the final terms, signed on September 28, 2017 and January 16, 2018 (the "Final Terms").

This document, prepared for the purposes of informing the Green Bond debt securities holders, presents an allocation of the funds raised from the Issues to eligible projects ("Eligible Projects"), over the period from January 1, 2017 to December 31, 2018, for a total amount of €1,374 million.

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, 2017 and December 31, 2018.

Our role is to report on:

- the compliance, in all material respects, of the Eligible Projects referred to in the attached document, with the eligibility criteria defined and approved jointly by both the Company and Vigeo Eiris, referred to in the attached document and in the appendices to the Final Terms (the "Eligibility Criteria");
- the consistency of the amount raised from the Issues allocated to Eligible Projects, as of December 31, 2018, with data underlying the accounting records;
- the consistency with the consolidated financial statements for the year ended December 31, 2018, of an amount of cash, cash equivalent and money market instruments higher than the remaining balance of net proceeds not allocated to Eligible Projects.

However, we have no responsibility for:

- challenging the Eligibility Criteria, and, in particular, we give no interpretation on the Final Terms;
- forming an opinion on the use of the funds allocated to 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, 2017 and December 31, 2018. 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, 2018, which have not yet been approved by the Shareholders' Meeting, have been audited and our report thereon is dated March 8, 2019.

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;
- verifying the compliance, in all material respects, of the Eligible Projects referred to in the attached document with the Eligibility Criteria;
- verifying the consistency of the amount raised from the Issues allocated to Eligible Projects with data underlying the accounting records;
- verifying that the cash, cash equivalent and money market instruments balance as in the consolidated financial statements for the year ended December 31, 2018 is higher than the remaining balance of net proceeds not allocated to Eligible Projects, as of December 31, 2018.

On the basis of our work, we have no matters to report on:

- the compliance, in all material respects, of the Eligible Projects with the Eligibility Criteria;
- the consistency of the amount raised from the Issues allocated to Eligible Projects as of December 31, 2018 with data underlying the accounting records;
- the consistency with the consolidated financial statements for the year ended December 31, 2018, of an amount of cash, cash equivalent and money market instruments higher than the remaining balance of net proceeds not allocated to Eligible Projects, as of December 31, 2018.

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.

Paris-La Défense, March 19, 2019

One of the Statutory Auditors

Deloitte & Associés

Patrick E. Suissa Olivier Broissand

5.2 Shareholding

5.2.1 Stock exchange quotation

TRADING VOLUMES AND HIGH AND LOW PRICES OF ENGIE SHARES IN PARIS

2018	High (1) *(in euros)*	Low (1) *(in euros)*	Trading volume (2)
January	14.690	13.895	5,830,642
February	13.840	12.495	7,784,900
March	13.565	12.270	8,017,964
April	14.550	13.665	4,982,305
May	14.770	13.535	5,657,930
June	13.920	13.025	6,394,799
July	14.150	13.150	4,978,627
August	13.540	12.630	4,202,454
September	12.665	12.170	6,826,921
October	12.810	11.440	7,071,930
November	12.670	11.910	6,258,507
December	12.905	11.990	6,463,489

(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.

5.2.2 Breakdown of share capital

As of December 31, 2018, the Company held 2,435,285,011 shares, including 23,891,170 in treasury stock.

During fiscal year 2018, the capital of the Company did not change; it is specified that the capital increase of 6,036,166 shares on August 2, 2018 in the context of the Link 2018 employee shareholding operations was immediately followed by the cancellation of 6,036,166 treasury shares.

MAJOR CHANGES IN ENGIE SHAREHOLDINGS DURING THE PAST THREE FISCAL YEARS

	December 31, 2018			December 31, 2017		December 31, 2016	
	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)
French State	575,693,307	23.64	33.84	24.10	28.08	32.76	35.61
BlackRock	122,302,340 (2)	5.02 (2)	3.99 (2)	5.09 (2)	4.50 (2)	-	-
Employee shareholding	98,781,850	3.97	4.65	2.66	3.97	2.75	2.97
CDC Group	44,644,091	1.83	1.75	1.88	2.01	1.88	2.03
CNP Assurances	24,217,937	0.99	0.78	0.99	0.87	1.02	0.90
Treasury stock	23,891,170	0.98	0.76	1.92	1.68	1.54	1.36
Management	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
Public		63.57	54.23	63.36	58.89	60.05	57.13
TOTAL	**-**	**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, 2018 (Data on December 27, 2018 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, two known shareholders (the French State and BlackRock) held 5% or more of the share capital or voting rights at the end of fiscal 2018.

5.2.3 Disclosure thresholds

Declarer	Date	Movement	% of share capital	% of voting rights	AMF opinion no.
BlackRock	12/04/2018	Decrease	4.97	3.95	218C1931
BlackRock	12/27/2018	Increase	5.02	3.99	218C2058
BlackRock	01/10/2019	Decrease	4.97	3.97	219C0068
BlackRock	01/17/2019	Increase	5.08	3.96	219C0126
BlackRock	01/22/2019	Decrease	4.94	3.85	219C0151

BlackRock has crossed the legal threshold of one-twentieth (5%) of ENGIE's share capital on five occasions. On three occasions (December 4, 2018, and January 10 and 22, 2019), BlackRock dropped below the threshold. On two occasions (December 27, 2018 and January 17, 2019), BlackRock crossed above the threshold.

To the Company's knowledge, as of the date of this Registration Document, only the French State and BlackRock hold share capital and/or voting rights in ENGIE that exceed one of the legal thresholds.

5.2.4 Golden share

Pursuant to Article L. 111-68 of the French Energy Code and Article 7 of Act No. 2014-384 of March 29, 2014, the French government is required to hold more than one-third of the Company's capital or voting rights, and its stake may only fall below this threshold if it returns to the required ownership threshold for capital or voting rights within two years.

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. 2015-1482 of December 16, 2015 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 Registration Document, to ENGIE's knowledge, there is no agreement relating to an option 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.

5.2.5 Dividend distribution policy

ENGIE seeks to pursue a dynamic and attractive dividend distribution policy. 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 objectives described in Section 6.1.1.1.3 "2019 Financial targets" do not constitute under any circumstances a commitment by the Company, and future dividends will be assessed on a year-by-year basis depending on the Company's performance, financial position and any other factor considered relevant by the Board of Directors in preparing its proposals to the Shareholders' Meeting.

The Board of Directors will propose to the Shareholders' Meeting of May 17, 2019 the payment of a full dividend for fiscal year 2018 of €1.12 per share, including the €0.37 per share interim dividend already paid on October 12, 2018; the dividend will then be increased by €0.112 per share for shares entitled to the increased dividend.

This dividend of €1.12 per share comprises an ordinary dividend of €0.75 per share in accordance with the Group's objective announced on March 8, 2018 and an extraordinary dividend of €0.37 per share aimed at offsetting the impact on shareholders of the discontinuation of the interim dividend payment traditionally made in October, as of fiscal year 2019. The final dividend and the extraordinary dividend are scheduled to be paid on May 23, 2019.

Looking forward, ENGIE is announcing a new medium-term dividend policy, within a range of 65% to 75% of the distribution ratio, based on net recurring income (Group share). For fiscal year 2019, ENGIE is targeting a dividend at the top of this range.

Dividend per share

ENGIE DIVIDENDS OVER THE LAST FIVE YEARS

Fiscal year *(fully paid up shares)*	**Net dividend per share** *(in euro)*
2013	1.50
2014	1.00
2015	1.00
2016	1.00
2017	0.70

After a period of five years, unclaimed dividends are automatically paid to the French Treasury.

5.3 Financial reporting schedule

Publication of annual earnings 2018	February 28, 2019
Publication of Q1 results 2019	May 14, 2019
Annual Shareholders' Meeting	May 17, 2019
Publication of the 2019 half-year results	July 30, 2019

6 Financial information

6.1 Review of the financial position

6.1.1 Management report

6.1.1.1 ENGIE 2018 results

The previously published financial data presented hereafter have been restated to take into account (i) impacts resulting from the application of the new standards IFRS 9 – Financial Instruments and IFRS 15 – Revenue from Contracts with Customers; and (ii) the presentation in the financial statements at December 31, 2017 (for the income statement, statement of comprehensive income and statement of cash flows) of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 as "Discontinued operations", as they represent a separate major line of business under IFRS 5 – Noncurrent 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 2017 comparative data" to the consolidated financial statements.

Main 2018 financial milestones

2018 results in line with targets: net recurring income Group share at €2.5 billion, net debt/EBITDA ratio at 2.3x.

Stable EBITDA demonstrates ENGIE's robust business model, with positive underlying momentum in growth segments offsetting the unfavorable impacts of unscheduled maintenance at Belgian nuclear plants, negative foreign exchange effects and dilution from disposals.

Solid organic [(1)] growth in EBITDA (5%), led by progress in the Group's key growth drivers: in particular Renewables and BtoB and BtoT Solutions.

Net debt reduction (€1.4 billion vs. end 2017), due to a robust operating cash flow [(2)] and disposals. The Group's financial structure is solid, as confirmed by the rating agencies which position ENGIE as an industry leader in that respect.

Recap of 2016-2018 strategic delivery: a reconfigured asset portfolio, reduced commodity exposure, lower carbon intensity, and an improved growth profile. Transformation driven by portfolio rotation (€16.5 billion [(3)] of disposals nearly closed), strategic investments (€14.3 billion [(4)] of growth capex reinvested), efficiency (€1.3 billion of cost savings since 2015), customer-centric commercial capability development and accelerating momentum in Renewables.

Consistent with the strategic repositioning initiated in 2016, ENGIE continued to develop its privileged businesses. **It strengthened its positions in Client Solutions through** (i) **targeted acquisitions** in Latin America, the United States, Germany and Singapore, (ii) **new contracts** in high-growth business segments (mobility, campus management and cooling networks), (iii) **order book growth** in installation activities, and (iv) an increase in the **sale of electricity and gas market offer contracts** in France. In **Infrastructures**, storage regulation has been implemented in France, the number of smart gas meters installed in France has reached 2.5 million, and our Latin American businesses continued to grow. In **Renewables**, 1.1 GW of wind and solar capacity were added in 2018. In **Thermal contracted**, new long-term contracts were signed.

For 2019, ENGIE expects growth in net recurring income Group share to a level between €2.5 and €2.7 billion [(5)]. Looking ahead, ENGIE announces a new medium-term dividend policy, which provides for a 65%-75% targeted NRIgs payout ratio range. For the fiscal year 2019, it is ENGIE's current intention to target a dividend payout towards the upper end of this range.

(1) Gross variation without scope and foreign exchange impacts.

(2) Cash generated from operations before income tax and working capital requirement.

(3) Cumulative impacts from January 1, 2016 to December 31, 2018.

(4) Cumulative impacts from January 1, 2016 to December 31, 2018, net of DBpSO (Develop, Build, partial Sell & Operate) proceeds; excluding Capex related to E&P and upstream / midstream LNG and Corporate Capex.

(5) These targets and this indication assume average weather conditions in France, full pass through of supply costs in French regulated gas tariffs, no significant accounting changes except for IFRS 16, no major regulatory and macro-economic changes, commodity price assumptions based on market conditions as of December 31, 2018 for the non-hedged part of the production, average foreign exchange rates as follows for 2019: €/USD: 1.16; €/BRL: 4.42, and without significant impacts from disposals not already announced.

FINANCIAL DATA AT DECEMBER 31, 2018

In billions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	60.6	59.6	+1.7%	+1.7%
EBITDA	9.2	9.2	+0.4%	+4.7%
Current operating income after share in net income of entities accounted for using the equity method	5.1	5.2	-0.9%	+5.1%
Net recurring income relating to continued operations, Group share	2.5	2.2	+10.1%	+17.3%
Net income, Group share	1.0	1.3	-21.7%	-
Cash Flow From Operations (CFFO)	7.3	8.5	-€1.2 bn	-
Net debt	21.1	22.5	-€1.4 bn	-

6.1.1.1.1 Analysis of 2018 financial data

Revenues: €60.6 billion

Revenues were €60.6 billion in 2018, up 1.7% on both a reported and organic basis versus 2017.

Reported revenue growth was impacted by an adverse foreign exchange effect (€929 million), mainly due to the depreciation of the Brazilian real and US dollar against the euro, offset by an aggregate positive scope effect (€955 million). Changes to the scope of consolidation primarily included acquisitions in Client Solutions (Keepmoat Regeneration in the United Kingdom, MCI in France, and Talen and Unity in the United States), as well as two new hydro power concessions acquired in Brazil. These positive impacts were partly offset by the disposal of thermal generation businesses in the United Kingdom and Poland in 2017 and of the Loy Yang B coal-fired power plant in Australia in early 2018.

Organic revenue growth was primarily driven by tariff increases and new power supply contracts in Latin America, growth in hydro power sales in France and Brazil, higher retail power sales in France, higher energy sales in the United Kingdom, Romania and Australia, and improved business volumes in BtoB and BtoT Solutions in France and the rest of Europe. Revenue growth was partly offset by the new accounting treatment of long-term gas supply contracts in Europe since the end of 2017 (no impact on EBITDA), as well as a decrease in gas sales in France.

EBITDA: €9.2 billion

EBITDA was €9.2 billion, up 0.4% on a reported basis and up 4.7% on an organic basis versus 2017.

Reported EBITDA growth includes an adverse foreign exchange effect (€258 million), mainly due to the depreciation of the Brazilian real and, to a lesser extent, the US dollar against the euro, and a negative scope effect (€113 million). This scope effect stems chiefly from the sale of the Loy Yang B coal-fired power plant in Australia in early 2018 and of thermal generation assets in the United Kingdom at the end of 2017, partly offset by two hydro concessions acquired in Brazil in late 2017 and by various acquisitions in BtoB and BtoT Solutions, mainly in the United States and the Middle East.

Organic EBITDA growth was mainly driven by revenue-related developments. Additional contributions have come from energy management activities (due to favorable European markets and a new management model for certain long term contracts), the *Lean* 2018 performance program and the positive impact of new French gas storage regulation. These more than offset the negative impact of major unscheduled maintenance operations and a decrease in captured prices in the Belgian nuclear business.

Organic EBITDA performance by segment:

In billions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
North America	0.2	0.2	+0.1%	-7.5%
Latin America	1.8	1.7	+3.8%	+11.1%
Africa/Asia	1.1	1.3	-11.7%	+6.0%
Benelux	(0.2)	0.5	-133.7%	-133.5%
France	1.7	1.5	+14.2%	+14.2%
Europe excluding France & Benelux	0.7	0.6	+4.6%	+6.5%
Infrastructures Europe	3.5	3.4	+3.3%	+3.3%
GEM	0.2	(0.2)	NA	NA
Other	0.2	0.1	+56.6%	NA
TOTAL	**9.2**	**9.2**	**+0.4%**	**+4.7%**

- **North America** reported a 7.5% organic reduction in EBITDA due to 2017 and 2018 one-offs creating tough comparison and an increase in the cost of wind and solar development platforms expected to contribute as of 2019. These negative impacts were partly offset by growth in thermal and renewable power generation activities due to favorable climate conditions in the United States and Canada and to the contribution of the Holman solar farm in Texas commissioned in the second half of 2017.
- **Latin America** delivered strong 11.1% organic EBITDA growth, driven mainly by an improvement in power generation in Brazil (better hydrology and commissioning of new windfarms), tariff increases in gas infrastructures in Mexico and Argentina and new long-term power purchase agreements (PPA) in Chile, partly offset by the expiration of long term PPAs in Peru at the end of 2017.
- **Africa/Asia** reported buoyant 6.0% organic growth in EBITDA, driven mainly by the solar business in India and gas distribution business in Thailand.
- **Benelux** reported a very significant 134% organic decrease in EBITDA, mainly due to nuclear activities which were severely affected by unscheduled outages, leading to a very low availability rate in 2018 (52%), and by a decrease in captured prices.
- **France** delivered strong 14.2% organic EBITDA growth, driven primarily by a sharp increase in renewable hydro power generation, significant gains on partial disposals of wind and solar assets, and an increase in margins on BtoB and BtoT Solutions. These positive impacts were partly offset by declining margins in the retail gas market.
- **Europe excluding France & Benelux** reported 6.5% organic EBITDA growth, due mainly to improved performance in Client Solutions in the United Kingdom, Romania and Spain.
- **Infrastructures Europe** delivered 3.3% organic EBITDA growth following the introduction of gas storage regulation on January 1, 2018.
- **GEM (Global Energy Management)** delivered very strong organic EBITDA growth, driven by excellent performance in a favorable market environment (versus a weaker early 2017 comparable due to supply difficulties in southern France) and by a change of management model for some long-term contracts.
- In the **Other segment**, strong organic growth in EBITDA was driven by corporate cost savings under the Lean 2018 performance program and positive one-off items in the thermal generation business in Europe (favorable outcome of litigations), which offset the less favorable market conditions in 2018 compared with 2017.

EBITDA performance by activity:

In billions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Client Solutions	2.4	2.2	+9%	+5%
Of which BtoC	*0.7*	*0.7*	*-1%*	*+0%*
Of which BtoB and BtoT	*1.7*	*1.5*	*+13%*	*+7%*
Infrastructures	3.9	3.8	+4%	+5%
Renewables and Thermal contracted	2.8	2.5	+9%	+15%
Of which Renewables	*1.6*	*1.4*	*+17%*	*+25%*
Of which Thermal contracted	*1.1*	*1.1*	*-1%*	*+4%*
Merchant	0.5	0.8	-29%	-29%
Of which Nuclear	*(0.5)*	*0.1*	*NA*	*NA*
Of which Merchant excluding Nuclear	*1.1*	*0.6*	*+76%*	*+77%*
Others [1]	(0.4)	(0.1)	NA	NA
TOTAL	**9.2**	**9.2**	**+0.4%**	**+4.7%**

(1) Including activities sold or in the process of being sold.

Apart from Nuclear, all activities delivered reported and organic growth, despite a significant adverse foreign exchange effect.

- In **Client Solutions**, 9% reported EBITDA growth was driven by a strong overall performance in BtoB and BtoT Solutions and a stable performance in BtoC. BtoB and BtoT Solutions delivered 13% reported EBITDA growth, driven mainly by contributions from new acquisitions, good services volume and margin performance in Europe, and from gas and electricity sales to businesses in Europe and Latin America. BtoC was stable compared with 2017, with a decrease in gas volumes and margins in France offset by an increase in the electricity client portfolio in France and Australia and by positive one-offs in Europe.
- **Infrastructure** delivered 5% organic EBITDA growth despite an unfavorable temperature effect in France. Growth was driven primarily by the implementation of the French gas storage regulation on January 1, 2018, Mexican gas transportation tariff increases and gas distribution activities in Argentina and Thailand. These positive impacts were partly offset by the introduction of new contractual provisions in gas transportation business for low calorific gas conversion in the north of France.

- **Renewables and Thermal contracted** delivered 9% reported EBITDA growth and a strong 15% organic growth. The negative impact of the depreciation of the Brazilian real and, to a lesser extent, of the US dollar against the euro was partly offset by the contribution of the two hydro concessions in Brazil acquired at the end of 2017. Renewable power generation delivered strong 25% organic growth, driven primarily by a large number of wind and solar farm partial disposals in 2018 (DBpSO [1] model) and by growth in hydro power generation in France. **Thermal Contracted** power delivered 4% organic growth even though there were more significant positive one-offs in 2017 than in 2018. Growth was driven by new long-term PPAs obtained in Chile and the commissioning of the Safi power plant in Morocco, which more than offset the expiration of long-term PPAs in Peru.
- The **Nuclear** business reported a very significant decrease due to unscheduled outages leading to a very low availability rate of 52% in 2018 and due to a decrease in captured prices.
- **Merchant business excluding Nuclear** delivered very strong 76% growth in reported EBITDA and 77% organically, driven mainly by a good performance from Global Energy Management (GEM) and thermal power generation in Europe.

Current operating income after share in net income of entities accounted for using the equity method: €5.1 billion

Current operating income after share in net income of entities accounted for using the equity method amounted to €5.1 billion, down 0.9% on a reported basis and up 5.1% on an organic basis compared with 2017, in line with EBITDA growth.

Net recurring income relating to continued operations, Group share of €2.5 billion and Net income Group share of €1.0 billion

Net recurring income Group share relating to continued operations amounted to €2.5 billion in 2018, a sharp increase of 10.1% compared with the previous year, driven by the continued improvement in current operating income after share in net income of entities accounted for using the equity method, coupled with an improvement in the recurring effective tax rate.

Net income Group share amounted to €1.0 billion compared with €1.3 billion in 2017. It includes mainly impairment losses, partially offset by the gain on disposal of the upstream LNG business ("Discontinued operations").

Net financial debt: €21.1 billion

Net financial debt stood at €21.1 billion, down €1.4 billion compared with December 31, 2017. This variation is mainly due to (i) cash flow from operations (€7.3 billion), (ii) the impacts of the portfolio rotation program (€4.4 billion, including the closing of the sale of the exploration-production and upstream LNG businesses, the Loy Yang B coal-fired power plant in Australia and the distribution business in Hungary, as well as the classification of Glow, a power plant operator in the Asia-Pacific region, as "Assets classified as held for sale"). These items were partially offset by (i) gross capital expenditure over the period (€7.6 billion [2]), and (ii) dividends paid to ENGIE SA shareholders (€1.7 billion) and to non-controlling interests (€0.8 billion).

Cash flow from operations (CFFO) amounted to €7.3 billion, down €1.2 billion compared with 2017. The decrease stems chiefly from the return to a normal level in working capital (€1.5 billion negative impact) and from a decrease in financial cash flows, partly offset by an increase in operating cash flow and lower tax expense.

At end December 2018, **net financial debt to EBIDTA ratio** amounted to 2.3x, below the target of less than or equal to 2.5x. The average cost of gross debt was 2.68%, up very slightly compared with 2017.

Economic net debt [3] to EBITDA ratio stood at 3.85x, stable compared with end 2017. Taking into account the future impact of IFRS 16 at EBITDA[4] level, the ratio stands at 3,66x.

(1) Develop, Build, partial Sell & Operate.

(2) Net of disposal proceeds from DBpSO operations.

(3) Net economic debt amounted to €35.6 billion at the end of December 2018 (compared with €36.4 billion at the end of December 2017); it includes in particular nuclear provisions and post-employement benefits; details of its calculation are provided in the notes to the consolidaed financial statements (see Note 6.7).

(4) Lease commitments included in economic net debt are restated in EBITDA (for approximately €0.5 million), reflecting the implementation of IFRS 16 from 2019 onwards.

6.1.1.1.2 Successful strategic repositioning for ENGIE

ENGIE successfully continued its strategic repositioning and reached the targets set in 2016:

- the disposal of its interest in Glow in Asia-Pacific (announced in June 2018) will reduce ENGIE's consolidated net debt by €3.2 billion. It will enable the Group to **complete its portfolio rotation program** initiated three years ago. To date €16.5 billion [1] of disposals were announced, of which €14.0 billion already booked.
- the **capital expenditure program** has also been completed, with €14.3 billion [2] of growth investments since 2016, mainly in Renewables and Thermal contracted (48%), but also in Client Solutions (33%) and Infrastructure (15%);
- the **Lean 2018 performance program** achieved €1.3 billion in net gains at EBITDA level at the end of 2018, versus an initial cost reduction target of €1.0 billion.

In addition, this successful strategic repositioning also led to an improvement in the Group's capital efficiency and profitability, with in particular an increase in ROCEp [3] of more than 90 bps over the period 2016-2018 and an increase in Client Solutions current operating income margins of 30bps in 2018.

6.1.1.1.3 2019 financial targets

ENGIE anticipates for 2019 **a net recurring income Group share between €2.5 and €2.7 billion**. This guidance is based on an indicative range for EBITDA of €9.9 to 10.3 billion, after IFRS 16 – *Leases* [4] implementation.

For 2019, ENGIE anticipates:

- a net financial debt/EBITDA ratio below or equal to 2.5x; and
- an "A" category credit rating.

In order to monitor and communicate performance of this objective, segment information will be complemented from 2019 onwards. In accordance with the project, internal organization will need to be adapted, which will be announced shortly.

6.1.1.1.4 Dividend policy

For **fiscal year 2018**, ENGIE confirms the payment of a **0.75 euro per share dividend, payable in cash**.

From 2020 [5], the annual dividend will be paid in one time, at the end of the Ordinary General Meeting (OGM) approving the annual accounts.

In order to offset the impact of this transition on shareholders in 2019, ENGIE will submit for shareholder approval at its OGM on May 17, an exceptional dividend of €0.37 per share, which will bring the total distribution decided by this General Meeting to €1.12 per share.

Looking ahead, ENGIE announces a **new medium-term dividend policy, in the range of 65 to 75% NRIgs payout ratio**. For the fiscal year 2019, ENGIE is aiming for a dividend at the upper end of this range.

(1) Cumulative impacts from January 1, 2016 to December 31, 2018.

(2) Cumulative impacts from January 1, 2016 to December 31, 2018, net of DBpSO proceeds; excluding Capex related to E&P and upstream/midstream LNG and Corporate Capex.

(3) Return on Productive Capital Employed, excluding non-productive capital employed and with NOPAT restated for share of entities accounted for using the equity method in non-recurring items.

(4) Impact of around €0.5 billion (without any impact on NRIgs).

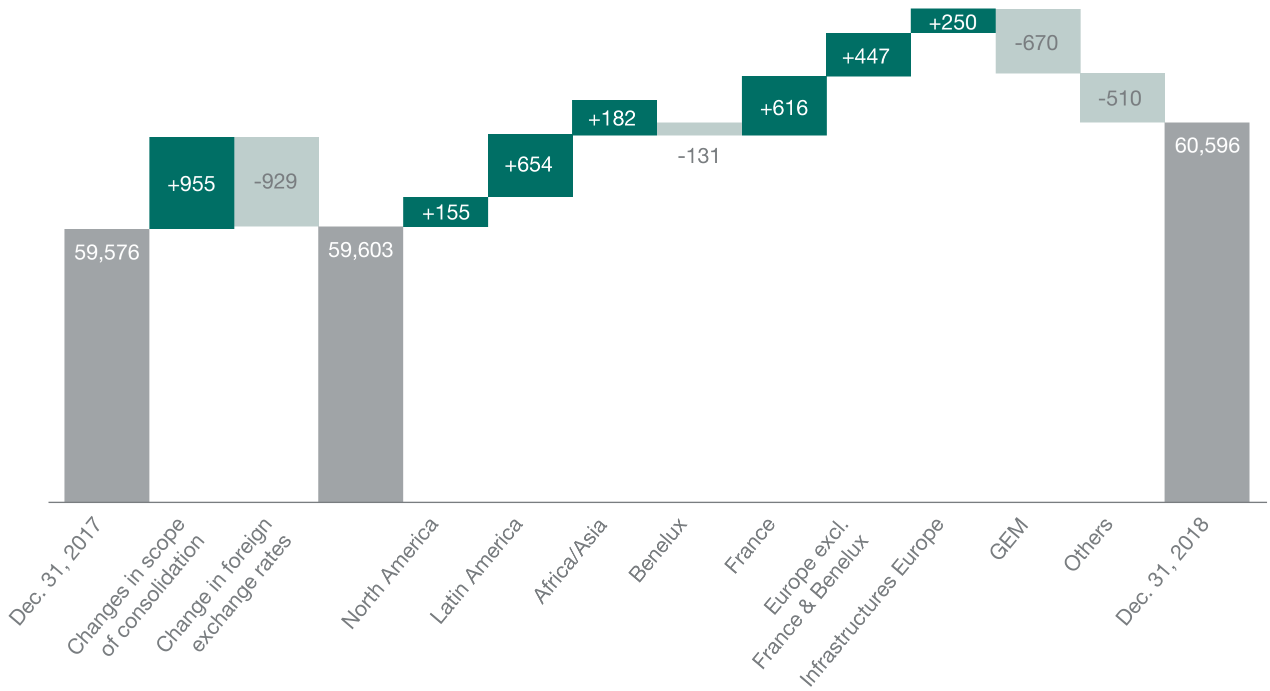
(5) Based on the distributable amount for the year ended December 31, 2019 for the dividend paid in 2020.

6.1.1.2 Reportable segment business trends

In millions of euros	Dec. 31, 2018	Dec 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**60,596**	**59,576**	**+1.7%**	**+1.7%**
EBITDA	**9,236**	**9,199**	**+0.4%**	**+4.7%**
Net depreciation and amortization/Other	(4,110)	(4,027)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,126**	**5,172**	**-0.9%**	**+5.1%**

REVENUE TRENDS

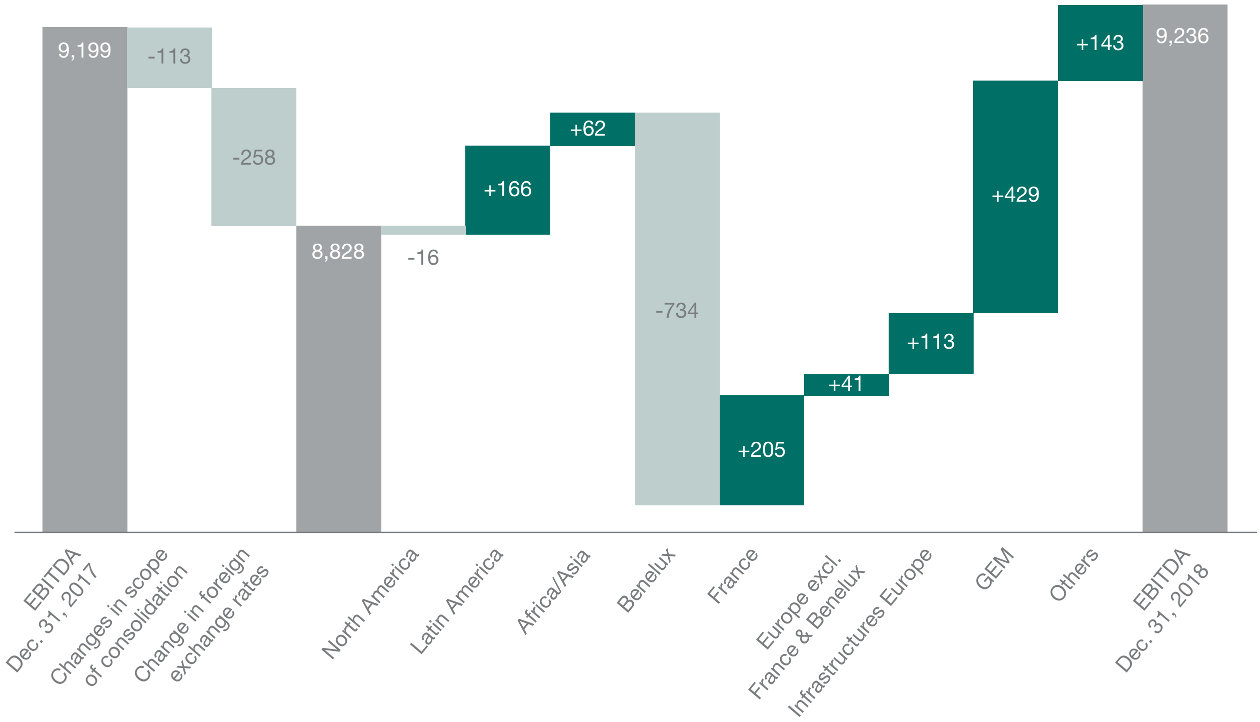
in millions of euros



6

EBITDA TRENDS

In millions of euros



6.1.1.2.1 North America

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**3,383**	**2,964**	**+14.1%**	**+5.5%**
EBITDA	**224**	**224**	**+0.1%**	**-7.5%**
Net depreciation and amortization/Other	(73)	(50)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**151**	**174**	**-13.1%**	**-20.1%**

Revenues for the North America segment totaled €3,383 million, up 14.1%. The negative foreign exchange effect was more than offset by positive scope effects mainly arising from the acquisition of the service activities of Talen in September 2017, Unity in March 2018 and Donnelly in August 2018. On an organic basis, the 5.5% revenue increase was mainly driven by higher prices and volumes achieved by the residual LNG activity.

EBITDA totaled €224 million, stable compared with 2017 but down 7.5% organically adjusted for the contribution of new acquisitions. Growth in thermal and renewable generation activities was mainly attributable to favorable weather conditions in the Northeast region of the United States and in Canada, and to the commissioning of Holman solar assets in the second half of 2017. These effects were more than offset by significant non-recurring items in 2018 and by an increase in the costs of wind and solar projects, the largest of which are expected to make a contribution in 2019.

Current operating income after share in net income of entities accounted for using the equity method amounted to €151 million, down 20% on an organic basis, due to the one-off positive effect on net depreciation and amortization charges recorded in 2017.

6.1.1.2.2 Latin America

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**4,639**	**4,383**	**+5.8%**	**+17.1%**
EBITDA	**1,775**	**1,709**	**+3.8%**	**+11.1%**
Net depreciation and amortization/Other	(419)	(433)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**1,355**	**1,277**	**+6.2%**	**+12.9%**

Revenues for the Latin America segment totaled €4,639 million, up 5.8% on a reported basis and 17.1% organically. Reported revenues were negatively impacted by the strong depreciation of the Brazilian real (-16%) and, to a lesser extent, the US dollar (-4%), but these negative effects were more than offset by the scope effect of the new hydro concessions in Brazil (Jaguara and Miranda) acquired at the end of 2017 and by the organic revenue increase. In Brazil, organic growth was mainly driven by higher hydro sales in the spot market and the commissioning of new wind farms. In Mexico and Argentina, revenues benefited from price increases in gas distribution activities. In Chile, business was positively impacted by the start of new PPAs with distribution companies, while in Peru it was affected by the end of some high margin PPAs in 2017.

Electricity sales increased by 3.3 TWh to 62.6 TWh and gas sales increased by 5.4 TWh to 34.3 TWh.

EBITDA totaled €1,775 million, up 11.1% on an organic basis, mainly due to the above change in revenues.

Current operating income after share in net income of entities accounted for using the equity method amounted to €1,355 million, up 12.9% on an organic basis in line with the change in EBITDA.

6.1.1.2.3 Africa/Asia

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**4,014**	**3,939**	**+1.9%**	**+5.0%**
EBITDA	**1,122**	**1,272**	**-11.7%**	**+6.0%**
Net depreciation and amortization/Other	(229)	(256)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**893**	**1,016**	**-12.1%**	**+6.0%**

Revenues for the Africa/Asia region totaled €4,014 million, up 1.9% on a reported basis and up 5.0% organically. On a reported basis, revenues were impacted by the negative exchange rate effect relating to the US dollar, the Australian dollar and the Turkish lira. The net scope effect was slightly positive, as the negative impact of the sale of the Loy Yang B coal-fired power plant in Australia in January 2018 was more than offset by the positive contribution from several acquisitions in Client Solutions in South Africa, Morocco, Ivory Coast, Uganda, Zambia and Australia. The organic increase mainly reflects higher sales in retail activities in Australia and higher volumes of thermal contracted power generation in Thailand. These effects were partially offset by the impacts of the closure of the Hazelwood coal-fired power plant in Australia in March 2017.

Electricity sales decreased by 9.7 TWh to 35.2 TWh, with reduced volumes mostly due to the Hazelwood closure and the sale of Loy Yang B.

EBITDA totaled €1,122 million, down 11.7% on a reported basis but up 6.0% organically. Reported EBITDA was negatively impacted by the foreign exchange effects mentioned above and by the sale of Loy Yang B, partly offset by the positive contribution from Tabreed (cooling networks) in the United Arab Emirates. Organic growth was driven mainly by a higher contribution from the solar business in India and PTT NGD's gas distribution business in Thailand.

Current operating income after share in net income of entities accounted for using the equity method amounted to €893 million, up 6% on an organic basis primarily for the same reasons as those given above for EBITDA, although the lower depreciation charges following the classification of the thermal generation business in Thailand as “Discontinued operations” only partially offset the impact of impairment charges related to equity-accounted entities.

6.1.1.2.4 Benelux

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**6,690**	**6,771**	**-1.2%**	**-1.9%**
EBITDA	**(186)**	**550**	**-133.7%**	**-133.5%**
Net depreciation and amortization/Other	(579)	(561)	-	-
CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**(765)**	**(11)**	**NA**	**NA**

Revenues for the Benelux segment amounted to €6,690 million, down 1.2% on a reported basis compared with 2017. This decrease is due to nuclear power generation activities, which are affected both by a decline in volumes due to more shutdowns in 2018 than in 2017 (in particular at Doel 3 from September 22, 2017 until August 5, 2018 and Tihange 3 since March 31, 2018) and by a decrease in captured prices. These negative impacts were partially offset by the positive volume impacts recorded in energy retail activities and by the contribution from 2018 of revenues from the Cozie service activities.

In Belgium and Luxembourg, power generation amounts to 27.5 TWh, representing a decrease of 10.5 TWh. In the Netherlands, electricity sales amounted to 10.7 TWh, representing an increase of 0.9 TWh.

Natural gas sales in Benelux totaled 52 TWh, representing an increase of 2.5 TWh compared with 2017, due to a favorable climate effect in the first quarter of 2018 and net customer gains.

EBITDA was down by €736 million to a negative €186 million due to the nuclear power business which was severely affected by unscheduled outages leading to a very low availability rate of 52% in 2018, and by a decrease in captured prices.

Current operating income/(loss) after share in net income of entities accounted for using the equity method amounted to a negative €765 million, down €754 million compared with 2017 in line with the change in EBITDA.

6.1.1.2.5 France

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**15,183**	**14,157**	**+7.2%**	**+4.4%**
EBITDA	**1,669**	**1,461**	**+14.2%**	**+14.2%**
Net depreciation and amortization/Other	(635)	(592)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**1,034**	**869**	**+19.0%**	**+18.3%**

VOLUMES SOLD

In TWh	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)
Gas sales	88.3	94.7	-6.8%
Electricity sales	39.0	34.3	+14.0%

FRANCE CLIMATIC ADJUSTMENT

In TWh	Dec. 31, 2018	Dec. 31, 2017	Total change in TWh
Climate adjustment volumes (negative figure = warm climate, positive figure = cold climate)	(3.0)	(0.3)	(2.7)

Revenues for the France segment totaled €15,183 million, up 7.2% on a reported basis and 4.4% on an organic basis. Reported growth includes the impact of the acquisition of several service companies in the BtoB segment (MCI at end-December 2017, Icomera in June 2017, CNN MCO in September 2017 and Eras in March 2018). Organic growth was driven primarily by a sharp increase in hydro power generation thanks to better runoff in 2018, growth in retail electricity sales and buoyant business in BtoB and BtoT services.

Natural gas sales fell by 6.4 TWh following the loss of retail customers due to competitive pressure (3.7 TWh) and an unfavorable temperature effect (2.7 TWh). Electricity sales were up 4.8 TWh thanks to the continued development of retail offers (up 2.9 TWh) and growth in sales of hydro power (up 1.9 TWh).

EBITDA amounted to €1,669 million, up 14.2% on an organic basis, driven primarily by a large number of wind and solar farm disposals in 2018 (mainly the Compagnie du Vent facilities and offshore wind projects at Yeu-Noirmoutiers and Dieppe-Le Tréport), growth in hydro power generation, and improved margins in service activities.

Current operating income after share in net income of entities accounted for using the equity method amounted to €1,034 million, up 18.3% on an organic basis in line with the change in EBITDA.

6.1.1.2.6 Europe excluding France & Benelux

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**9,527**	**8,831**	**+7.9%**	**+5.1%**
EBITDA	**679**	**650**	**+4.6%**	**+6.5%**
Net depreciation and amortization/Other	(207)	(216)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**473**	**434**	**+9.0%**	**+11.6%**

Revenues for the Europe excluding France & Benelux segment amounted to €9,527 million, up 7.9% on a reported basis and 5.1% on an organic basis, driven mainly by Client Solutions. Reported growth includes the impact of the acquisition of housing regeneration company Keepmoat Regeneration in the United Kingdom in April 2017. The 5.1% organic growth was driven by the start-up of the retail energy business in the United Kingdom in June 2017, the development of Keepmoat over a nine-month period, a positive price effect in the gas and electricity retail business in Romania, and growth in service activities in Spain.

Ele ctricity sales amounted to 29 TWh, representing a decrease of 1.1 TWh compared to 2017, mainly in the BtoB segment in Germany. Gas sales were down 0.4 TWh to 70.6 TWh.

EBITDA totaled €679 million, representing an increase of 6.5% on an organic basis, mainly for the same reasons as given above for revenues, coupled with good hydrological conditions in Spain. These items were partly offset by a lower performance in hydro power generation in the United Kingdom due to regulatory and market conditions.

Current operating income after share in net income of entities accounted for using the equity method amounted to €473 million, up 11.6% on an organic basis, slightly higher than EBITDA growth due to the improvement in the contribution from equity-accounted entities in Germany.

6.1.1.2.7 Infrastructures Europe

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**5,694**	**5,446**	**+4.6%**	**+4.6%**
Total revenues (incl. intra-group transactions)	**6,859**	**6,712**	**+2.2%**	**-**
EBITDA	**3,499**	**3,386**	**+3.3%**	**+3.3%**
Net depreciation and amortization/Other	(1,482)	(1,444)	-	-
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**2,016**	**1,941**	**+3.9%**	**+3.8%**

Revenues for the Infrastructures Europe segment amounted to €5,694 million, up 4.6% on a reported basis compared with 2017. The increase was mainly due to price increases in the transportation networks in France, LNG terminal business, which delivered a strong commercial performance, and the development of own account storage sales in the United Kingdom. Growth was partly offset by negative temperature effect of 8.1 TWh, representing €51.8 million.

EBITDA amounted to €3,499 million, up 3.3% driven mainly by the introduction of gas storage regulation on January 1, 2018 in France, partly offset by the introduction of new contractual provisions for L-gas conversion in Northern France at GRTgaz.

Current operating income after share in net income of entities accounted for using the equity method amounted to €2,016 million for the period, an increase of 3.9% in line with EBITDA growth.

6.1.1.2.8 GEM

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**6,968**	**7,638**	**-8.8%**	**-8.8%**
EBITDA	**240**	**(188)**	**NA**	**NA**
Net depreciation and amortization/Other	(41)	(40)	-	-
CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**199**	**(229)**	**NA**	**NA**

Revenues for the GEM segment amounted to €6,968 million, down 8.8% compared with 2017. The decrease was mainly due to the change of accounting treatment for long-term gas supply contracts and transport and storage capacity contracts [(1)].

EBITDA amounted to €240 million, up sharply compared with the prior-year period, driven by an excellent performance from the energy management activities in favorable market conditions in 2018 (whereas the first quarter of 2017 had suffered from supply difficulties in the south of France), coupled with the positive impact on EBITDA of the change of management model for certain long term contracts.

Current operating income after share in net income of entities accounted for using the equity method amounted to €199 million in 2018, representing growth on both a reported and an organic basis, in line with EBITDA trends.

6.1.1.2.9 Other

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	% change (reported basis)	% change (organic basis)
Revenues	**4,498**	**5,445**	**-17.4%**	**-10.2%**
EBITDA	**213**	**136**	**+56.6%**	**NA**
Net depreciation and amortization/Other	(444)	(436)	-	-
CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**(232)**	**(300)**	**+22.8%**	**+37.1%**

VOLUMES SOLD

In TWh	Dec. 31, 2018	Dec 31, 2017	% change (reported basis)
Gas sales in France	36.9	42.4	-12.9%
Electricity sales	34.9	46.1	-24.9%

FRANCE CLIMATIC ADJUSTMENT

In TWh	Dec. 31, 2018	Dec. 31, 2017	Total change in TWh
Climate adjustment volumes	(0.7)	(0.1)	(0.6)
(negative figure = warm climate, positive figure = cold climate)			

The Other segment mainly comprises the activities of the Generation Europe, Tractebel and GTT business units, the *Entreprises & Collectivités* activities, and the Group's holding and corporate activities, which notably include the entities centralizing the Group's financing requirements and the equity-accounted contribution of SUEZ.

Revenues amounted to €4,498 million, down 17.4% on a reported basis and 10.2% on an organic basis. The reported decrease mainly reflects the 2017 disposal of the thermal power generation business in the United Kingdom and Poland. The organic decrease mainly reflects lower downstream gas sales in France and less favorable market conditions for power generation in Europe.

Gas sales fell by 5.4 TWh as a result of strong competitive pressure, with a slightly negative climate effect. ENGIE's share of the BtoB market was 18% compared with 21% at end-2017.

Electricity sales totaled 34.9 TWh, representing a decrease of 11.2 TWh compared with 2017. The decrease was mainly due to the disposal of thermal generation assets in the United Kingdom and Poland, and the end of the Rosen power station contract in Italy.

EBITDA totaled €213 million, up on both a reported and organic basis compared with 2017, mainly due to one-off positive items in the thermal power generation business in Europe (mainly the favorable outcome of certain disputes), the development of ancillary activities, and the contribution from the Lean 2018 program, which more than offset the less favorable market conditions in 2018.

Current operating loss after share in net income/(loss) of entities accounted for using the equity method amounted to a negative €232 million for the period, representing an increase on both a reported and an organic basis in line with EBITDA.

(1) Since October 1, 2017, these contracts have been managed individually based on market conditions rather than as part of a portfolio. As a result, fair value accounting is mostly applied. The segment's results therefore include the realized and unrealized gains and losses relating to these contracts, which are now measured at fair value through profit or loss and included in the net margin presented in revenues.

6.1.1.3 Other income statement items

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)	% change (reported basis)
Current operating income after share in net income of entities accounted for using the equity method	**5,126**	**5,172**	**-0.9%**
Mark to market on commodity contracts other than trading instruments	(223)	29	-
Impairment losses	(1,798)	(1,298)	-
Restructuring costs	(162)	(669)	-
Changes in scope of consolidation	(150)	752	-
Other non-recurring items	(147)	(1,252)	-
Income/(loss) from operating activities	**2,645**	**2,735**	**-3.3%**
Net financial income/(loss)	(1,381)	(1,388)	
Income tax benefit/(expense)	(704)	395	
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	**560**	**1,741**	
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**1,069**	**366**	
NET INCOME/(LOSS)	**1,629**	**2,108**	**-22.7%**
Net income/(loss) Group share	**1,033**	**1,320**	**-**
Of which Net income/(loss) relating to continued operations, Group share	*(12)*	*1,047*	-
Of which Net income/(loss) relating to discontinued operations, Group share	*1,045*	*273*	-
Non-controlling interests	**595**	**788**	**-**
Of which Non-controlling interests relating to continued operations	*572*	*695*	-
Of which Non-controlling interests relating to discontinued operations	*24*	*93*	-

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

Income from operating activities amounted to €2,645 million in 2018, representing a decrease compared with 2017, mainly due to (i) losses on asset disposals, (ii) higher impairment losses in 2018, (iii) the negative impact of fair value adjustments to commodity hedges, and (iv) the decrease in current operating income after share in net income of companies accounted for using the equity method, partly offset by (v) the non-recurring charge recognized in 2017 related to the change in the accounting treatment of long-term gas supply contracts and transport and storage contracts implemented by the GEM business unit, and (vi) lower restructuring costs.

Income from operating activities was also affected by:

- changes in the fair value of commodity derivatives relating to operating items, which had a negative impact of €223 million (reflecting transactions not eligible for hedge accounting), compared with a positive impact of €29 million in 2017. The impact for the period results chiefly from negative overall price effects on these positions, combined with the net negative impact of unwinding positions with a positive market value at December 31, 2017;
- net impairment losses of €1,798 million, compared with €1,298 million the previous year.

  At December 31, 2018, the Group recognized net impairment losses of €14 million against goodwill, €1,576 million against property, plant and equipment and intangible assets, and €209 million against financial assets and investments in entities accounted for using the equity method. These impairment losses related mainly to the Benelux, Other (primarily the Generation Europe business unit), Africa/Asia, Infrastructures and Latin America reportable segments. 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 2018 amounts to €1,540 million. These impairment losses are described in Note 10.2 "Impairment losses" to the consolidated financial statements. In 2017, the Group recognized net impairment losses of €481 million against goodwill, €787 million against property, plant and equipment and intangible assets, and €30 million against financial assets and investments in entities accounted for using the equity method. These impairment losses related mainly to the Infrastructures (storage), and Other (primarily the Generation Europe business unit) reportable segments;
- restructuring costs of €162 million (compared with €669 million the previous year) including notably costs related to decisions to shut down operations and close some entities and sites, as well as costs related to various staff reduction plans;
- negative scope effects of €150 million, mainly comprising a €87 million loss on the sale of the Loy Yang B thermal power plant in Australia, primarily in respect of items of other comprehensive income recycled to the income statement;

- other non-recurring items totaling a negative €147 million, mainly including asset scrapping and costs related to site closures.

The **net financial loss** was stable and amounted to €1,381 million in 2018, compared with €1,388 million the previous year (*see Note 11*).

The **income tax** charge for 2018 amounted to €704 million (versus a €395 million benefit in 2017). It includes an income tax benefit of €125 million arising on non-recurring operating and financial income/(loss) (versus €1,462 million in 2017), mainly comprising non-recurring taxable charges in France and deferred tax assets on impairment losses in Germany and Latin America. In 2017, non-recurring items included the reduction in the tax rate in France pursuant to the 2018 Finance Act and the refund of the 3% tax on dividends previously paid by French companies. Adjusted for these non-recurring items, the effective recurring tax rate was 23.7%, lower than the 2017 rate of 29.6% due mainly to the recognition of deferred tax assets in several countries where the Group's prospects have improved.

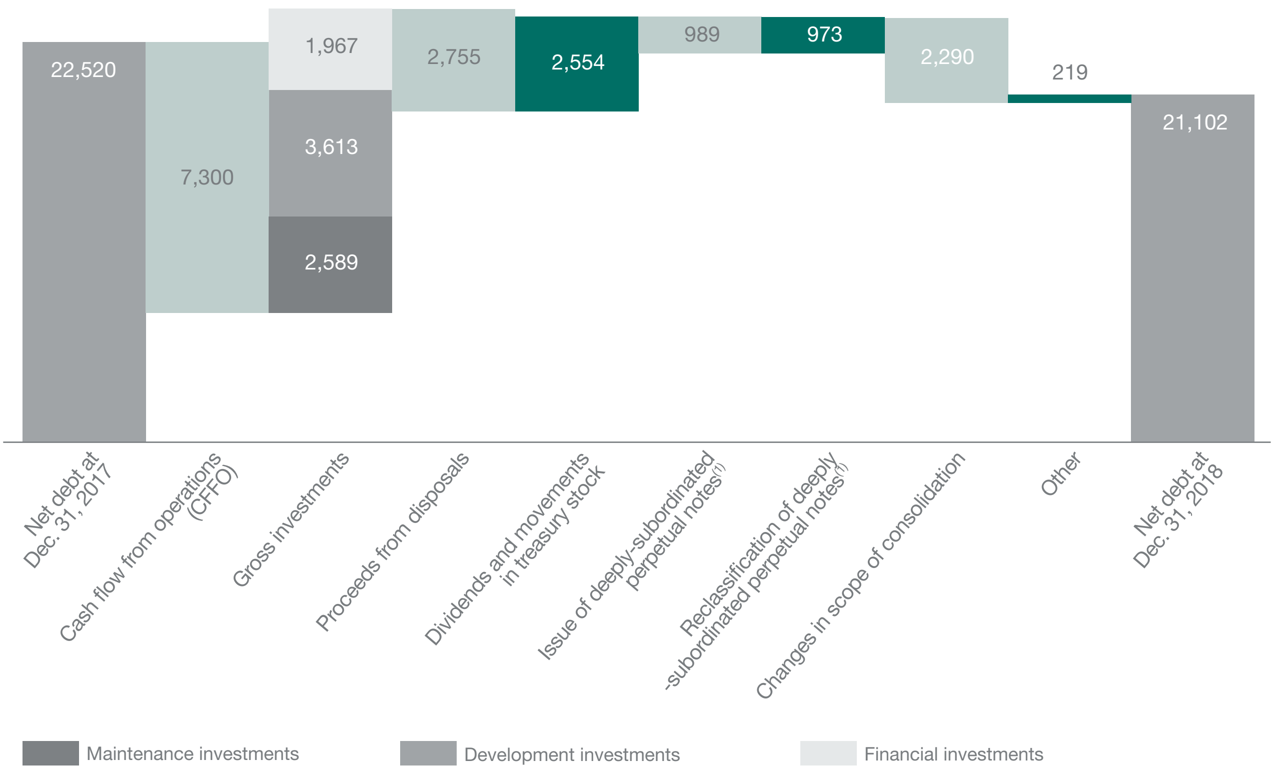
Net income relating to continued operations attributable to non-controlling interests amounted to €572 million, compared with €695 million in 2017. The decrease was mainly due to the change in impairment losses, coupled with the sale of the Loy Yang B coal-fired power plant.

6.1.1.4 Changes in net debt

Net financial debt stood at €21.1 billion, down €1.4 billion compared with December 31, 2017. This variation is mainly due to (i) cash flow from operations (€7.3 billion), (ii) the impacts of the portfolio rotation program (€4.4 billion, including the closing of the sale of the exploration-production and upstream LNG businesses, the Loy Yang B coal-fired power plant in Australia and the distribution business in Hungary, as well as the classification of Glow, a power plant operator in the Asia-Pacific region, as "Assets classified as held for sale"). These items were partially offset by (i) gross capital expenditure over the period (€7.6 billion [1]), and (ii) dividends paid to ENGIE SA shareholders (€1.7 billion) and to non-controlling interests (€0.8 billion).

Changes in net debt break down as follows:

In millions of euros



(1) See Note 19.2.1 "Issuance of deeply-subordinated perpetual notes".

(1) *Net of DBSO proceeds.*

The net debt (excluding internal debt of discontinued operations) to EBITDA ratio came out at 2.28 at December 31, 2018.

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Net debt (excluding internal debt of discontinued operations)	21,102	20,788
EBITDA	9,236	9,199
NET DEBT/EBITDA RATIO	**2.28**	**2.26**

The economic net debt (excluding internal debt of discontinued operations) to EBITDA ratio stood at 3.85 at December 31, 2018.

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Economic net debt (excluding internal debt of discontinued operations)	35,590	35,127
EBITDA	9,236	9,199
ECONOMIC NET DEBT/EBITDA RATIO (1)	**3.85**	**3.82**

(1) The 2018 ratio comes to 3.7 once lease payments relating to operating lease commitments included in economic net debt have been restated for EBITDA (around €0.5 billion), thus reflecting expected impacts as from 2019 of the application of IFRS 16 – Leases.

6.1.1.4.1 Cash flow from operations (CFFO)

Cash flow from operations (CFFO) amounted to €7.3 billion, down €1.2 billion compared with 2017. The decrease stems chiefly from the return to a normal level in working capital (€1.5 billion negative impact) and from a decrease in financial cash flows, partly offset by an increase in operating cash flow and lower tax expense.

6.1.1.4.2 Net investments

Gross investments during the period amounted to €8,169 million and included:

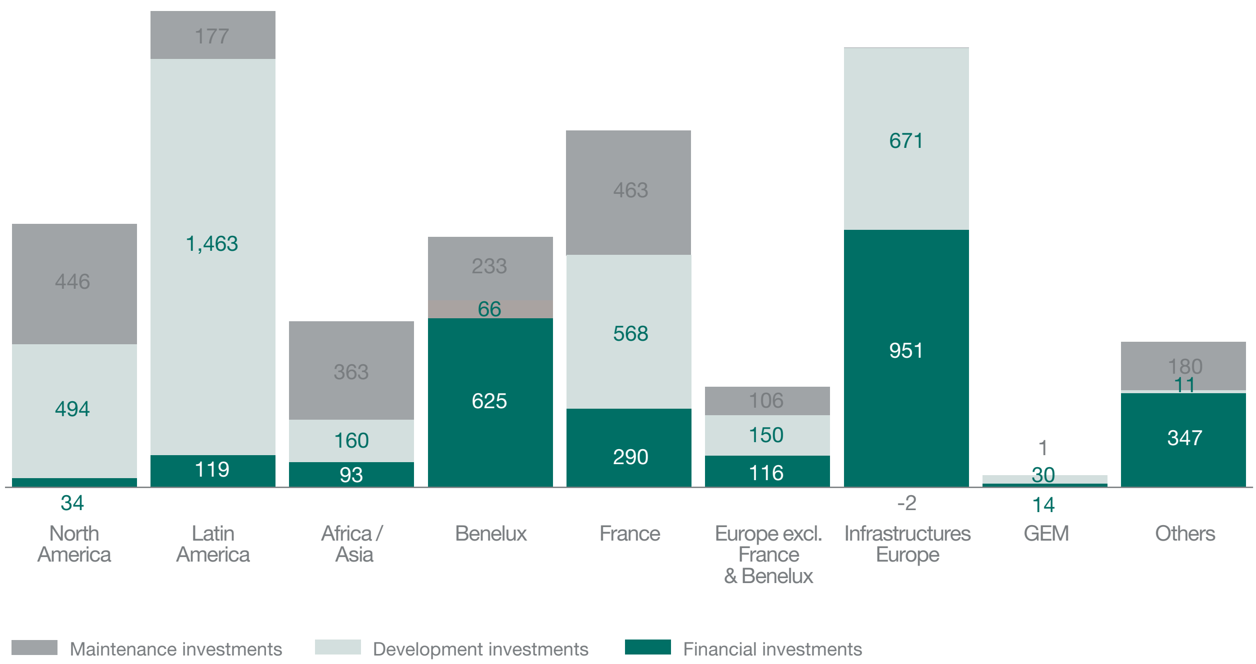
- financial investments for €1,967 million, relating primarily to (i) the acquisition of renewable energy companies (wind and solar) and services companies (micro-power grid, heating and cooling network) in North America (€446 million), wind power and service companies in Africa (€193 million) and the Langa group in France (€174 million), (ii) financing of the construction of the Safi thermal power plant in Morocco (€149 million), and (iii) a €188 million increase in Synatom investments;
- development investments totaling €3,613 million, including (i) €1,463 million invested in the Latin America segment to build thermal power plants and develop wind and photovoltaic farms in Brazil and Chile, (ii) €671 million invested in the Infrastructures Europe segment (blending projects and development of the natural gas distribution and transportation network in France), (iii) €494 million invested in the North America segment (mainly to develop wind power projects), and (iv) €568 million invested in the France segment (mainly in renewable projects);
- maintenance investments for an amount of €2,589 million.

Disposals represented a cash inflow of €2,755 million and mainly included the Group's divestment of its LNG activities, its 70% holding in its subsidiary ENGIE E&P International (EPI), the Loy Yang B coal-fired power plant in Australia and the gas distribution business in Hungary.

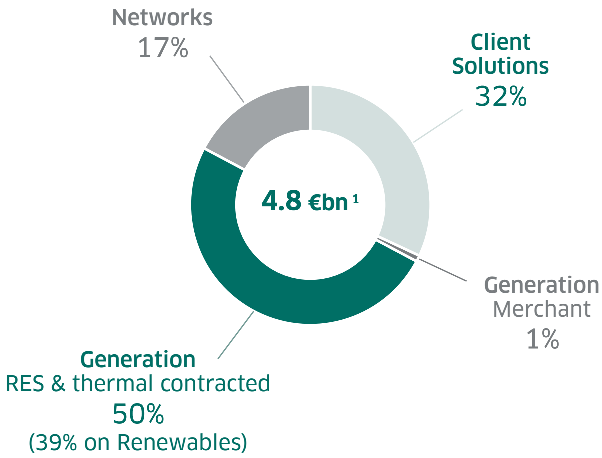
Taking into account changes in the scope of consolidation for the period relating to acquisitions and disposals of subsidiaries (€2,290 million negative impact), the impact on net debt of investments net of proceeds from disposals amounted to €3,124 million.

Capital expenditures break down as follows by segment:

In millions of euros



Growth capital expenditures break down as follows by activity:



MAIN PROJECTS

Low CO_2	
Brazil - wind (Campo Largo, Umburranas) & solar	0.7
North America - Wind (including Infinity platform)	0.5
Latin America - Mexican wind & solar projects	0.2
France - Langa group acquisition	0.2
Australia - Willogoleche (wind)	0.1

Networks	
GRDF	0.4
GRTgaz	0.2

Client Solutions	
North America - client solutions acquisitions (including Donnelly, Unity, Socore, Plymouth & Longwood)	0.4
Electro Power Systems	0.1
Europe excluding France & Benelux - Priora acquisition	0.1
Latin America - CAM, Transantigo acquisitions	0.1
France BtoB - tuck-in acquisitions	0.1

(1) Net of partial disposals under DBSO operations, excluding Corporate, and Synatom reallocated to maintenance expenditure.

6.1.1.4.3 Dividends and movements in treasury stock

Dividends and movements in treasury stock during the period amounted to €2,554 million and included:

- €1,739 million in dividends paid by ENGIE SA to its shareholders, which corresponds to the balance of the 2017 dividend (€0.35 per share for shares with rights to an ordinary dividend or €0.42 per share for shares with rights to a dividend mark-up) paid in May 2018 and to an interim dividend (€0.37 per share) paid in October 2018;
- dividends paid by various subsidiaries to their non-controlling shareholders in an amount of €796 million, the payment of interest on hybrid debt for €123 million and movements in treasury stock.

6.1.1.4.4 Net debt at December 31, 2018

Excluding amortized cost but including the impact of foreign currency derivatives, at December 31, 2018 a total of 75% of net debt was denominated in euros and 18% in US dollars.

Including the impact of financial instruments, 81% of net debt is at fixed rates.

The average maturity of the Group's net debt is 10.9 years.

At December 31, 2018, the Group had total undrawn confirmed credit lines of €13.2 billion.

6.1.1.5 Other items in the statement of financial position

In millions of euros	Dec. 31, 2018	Dec. 31, 2017	Net change
Non-current assets	**91,716**	**92,412**	**(696)**
Of which goodwill	*17,809*	*17,285*	*525*
Of which property, plant and equipment and intangible assets, net	*55,635*	*57,566*	*(1,931)*
Of which investments in entities accounted for using the equity method	*7,846*	*7,606*	*240*
Current assets	**61,986**	**57,729**	**4,257**
Of which assets classified as held for sale	*3,798*	*6,687*	*(2,889)*
Total equity	**40,941**	**42,122**	**(1,181)**
Provisions	21,813	21,715	98
Borrowings	32,178	33,467	(1,289)
Other liabilities	58,769	52,836	5,933
Of which liabilities directly associated with assets classified as held for sale	*2,130*	*3,371*	*(1,241)*

The carrying amount of **property, plant and equipment and intangible assets** was €55.6 billion, down €1.9 billion compared with December 31, 2017. The decrease was primarily the result of the classification of Glow in Thailand, some of Langa's solar farms in France, and renewable energy assets in Mexico as “Assets classified as held for sale” (€2.6 billion negative impact) (*see Note 5.2*), depreciation and amortization charges (€3.8 billion negative impact), impairment losses (€1.6 billion negative impact) and translation adjustments (€0.1 billion negative impact), partly offset by capital expenditure during the period (€6.3 billion positive impact).

Goodwill increased by €0.5 billion to €17.8 billion, mainly due to acquisitions made by the North America business unit (€0.2 billion positive impact) and the France Renewable business unit (€0.2 billion positive impact), offset by the goodwill on the holding in Thai company Glow and Langa's operating assets following their classification as "Assets classified as held for sale" (€0.2 billion negative impact).

Total equity amounted to €40.9 billion, a decrease of €0.5 billion compared with December 31, 2017. The decrease stemmed mainly from the payment of the cash dividend (€2.6 billion negative impact, including €1.7 billion of dividends paid by ENGIE SA to its shareholders and €0.9 billion paid to non-controlling interests), partly offset by net income for the period (€1.6 billion positive impact).

Provisions amounted to €21.8 billion, stable compared with December 31, 2017.

At December 31, 2018, assets and liabilities reclassified to “**Assets classified as held for sale**” and “**Liabilities directly associated with assets classified as held for sale**” correspond to Glow in Thailand, some of Langa's solar farms in France and renewable energy assets in Mexico, and at December 31, 2017, to the exploration-production activities and the Loy Yang B power plant in Australia (*see Note 5.1*).

6.1.1.6 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 2018 totaled €27,833 million, driven mainly by positive price and volume effects on sales to other gas operators.

The net operating loss was €1,058 million, relatively stable compared with a loss of €1,358 million in 2017. Revenue growth (€7,248 million) was offset by an increase in gas purchase costs (€7,471 million). The electricity business was up slightly from €4,602 million in 2017 to €4, 683 million in 2018, representing an increase of 2% driven by new electricity customers (approximately 450,000 new customers), partly offset by an increase in supply costs.

Net financial income amounted to €3,718 million compared with €3,849 million in 2017.

Non-recurring items represented a loss of €2,107 million, mainly comprising impairment of equity investments.

The income tax benefit amounted to €549 million compared to a benefit of €1,001 million in 2017, mainly comprising a tax consolidation benefit of €343 million, a net tax provision reversal of €124 million and various other net tax credits of €82 million. The 2017 figure included a €422 million refund by the French State of the 3% tax on dividends, which was held unconstitutional by the French Constitutional Court.

Net income for the year came out at €1,102 million.

Shareholders’ equity amounted to €36,616 million at end-2018 compared with €37,191 million at end-2017. The €575 million decrease was due in large part to the difference in net income between 2017 and 2018 (negative €319 million) and the appropriation of 2017 net income (negative €333 million).

At December 31, 2018, net debt stood at €36,080 million, and cash and cash equivalents totaled €8,032 million (of which €5,216 relating to subsidiaries’ current accounts).

Information relating to payment deadlines

Pursuant to the application of Article D.441-4 of the French Commercial Code, companies whose annual financial statements are certified by a Statutory Auditor must publish information regarding supplier and customer payment deadlines. The purpose is to demonstrate that there is no significant failure to respect settlement deadlines.

INFORMATION RELATING TO SUPPLIER AND CUSTOMER PAYMENT DEADLINES 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	-	-	-	-	-	18,871	-	-	-	-	-	548,749
Aggregate invoice amount (incl. VAT)	-	448.3	40.3	0.5	113.8	602.9	-	602.5	32.6	14.9	177.4	917.3
Percentage of total amount of purchases (incl. VAT) for the period	-	1.34%	0.12%	0.00%	0.34%	1.81%						-
Percentage of total revenues (incl. VAT) for the period			-		-	-	-	2.11%	0.10%	0.05%	0.54%	2.79%
(B) Invoices excluded from (A) relating to disputed or unrecognized receivables and payables												
Number of excluded invoices						226						-
Aggregate amount of excluded invoices						9.9						-
(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						-						Contractual payment terms: 14 days
						Legal payment terms: 30 days						Legal payment terms: 30 days

6.1.2 Cash and shareholders' equity

6.1.2.1 Borrowing conditions and financial structure applicable to the issuer

Debt structure

Gross debt (excluding bank overdrafts, amortized cost and financial derivative instruments) amounted to €30.7 billion at the end of 2018, down from year-end 2017, and was primarily composed of €22.6 billion in bond issues and €5.0 billion in bank loans (including finance leases). Other loans and drawdowns on credit lines accounted for a total of €0.2 billion. Short-term loans (commercial paper/short-term marketable securities) accounted for 9% of total gross debt at the end of 2018.

A total of 83% of the gross debt was issued on financial markets (bond issues and commercial paper/short-term marketable securities).

Net debt, excluding amortized costs, the effect of financial derivative instruments and cash collateral, came to €21.3 billion at the end of 2018.

At the end of 2018, net debt was 75% denominated in euros, 18% in US dollars and 6% in Brazilian reals, excluding amortized cost but after the foreign exchange impact of derivatives.

After the impact of derivatives, 81% of the net debt was at a fixed rate. The average cost of gross debt was 2.68%. The average maturity of net debt was 10.9 years at the end of 2018.

The principal contracts are carried by ENGIE SA and are described in Section 6.4 "Parent Company financial statements" Note 11 - 11.2.1 & 11.2.2.

Main transactions in 2018

The principal transactions performed in 2018 affecting financial debt are described in Note 17.3.3 of Section 6.2 "Consolidated financial statements." The centralized syndicated line of credit for €5 billion was renegotiated in order to improve the terms and to give it an environmental objective by linking a portion of the margin to the achievement of climate and energy transition targets. In addition, its maturity was set at 12/13/2023, i.e. an initial extension of two years and eight months if the two options for a one-year extension contained in the line are exercised. The annual update of the prospectus for ENGIE's €25 billion EMTN program received approval No. 18-562 from the AMF, dated December 13, 2018.

Ratings

ENGIE is rated by Standard & Poor's, Moody's and Fitch.

In April 2018, S&P confirmed its A-/A-2 rating and revised the outlook from negative to stable. It updated its analysis in July 2018 and maintained its rating.

Moody's updated its analysis in December 2018 and confirmed its A2/P-1 rating, with a stable outlook.

Fitch updated its analysis in September 2018 and confirmed its A/F1 rating, with a stable outlook.

6.1.2.2 Restrictions on the use of capital

On December 31, 2018, the Group had total undrawn confirmed credit lines (usable, among other things, as back-up lines for the commercial paper/short-term marketable securities programs) of €13.2 billion. A total of 95% 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 2018.

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, 2018, 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 €1.8 billion in financing that matures in 2019 (excluding the maturity of €2.9 billion in commercial paper/short-term marketable securities). In addition, at December 31, 2018, it had €9.5 billion in cash (net of bank overdrafts) and a total of €13.2 billion in available lines (not net of the amount of commercial paper/short-term marketable securities), including €0.8 billion expiring in 2019.

6.2 Consolidated financial statements

6.2.1 Consolidated financial statements

Income statement

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017 [(1)]
Revenues from contracts with customers	8	56,388	53,073
Revenues from other contracts	-	4,208	6,503
REVENUES	-	**60,596**	**59,576**
Purchases	-	(32,190)	(31,465)
Personnel costs	9.1	(10,624)	(10,051)
Depreciation, amortization and provisions	9.2	(3,586)	(3,787)
Other operating expenses	-	(10,981)	(10,978)
Other operating income	-	1,550	1,455
CURRENT OPERATING INCOME	-	**4,765**	**4,750**
Share in net income of entities accounted for using the equity method	4	361	422
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	10	**5,126**	**5,172**
Mark-to-market on commodity contracts other than trading instruments	10.1	(223)	29
Impairment losses	10.2	(1,798)	(1,298)
Restructuring costs	10.3	(162)	(669)
Changes in scope of consolidation	10.4	(150)	752
Other non-recurring items	10.5	(147)	(1,252)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	10	**2,645**	**2,735**
Financial expenses	-	(1,981)	(2,127)
Financial income	-	600	739
NET FINANCIAL INCOME/(LOSS)	11	**(1,381)**	**(1,388)**
Income tax benefit/(expense)	12	(704)	395
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	-	**560**	**1,741**
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	-	**1,069**	**366**
NET INCOME/(LOSS)	-	**1,629**	**2,108**
Net income/(loss) Group share	-	**1,033**	**1,320**
Of which Net income/(loss) relating to continued operations, Group share	-	*(12)*	*1,047*
Of which Net income/(loss) relating to discontinued operations, Group share	-	*1,045*	*273*
Non-controlling interests	-	**595**	**788**
Of which Non-controlling interests relating to continued operations	-	*572*	*695*
Of which Non-controlling interests relating to discontinued operations	-	*24*	*93*
BASIC EARNINGS/(LOSS) PER SHARE (EUROS)	13	**0.37**	**0.49**
Of which Basic earnings/(loss) relating to continued operations per share	-	*(0.07)*	*0.38*
Of which Basic earnings/(loss) relating to discontinued operations per share	-	*0.44*	*0.11*
DILUTED EARNINGS/(LOSS) PER SHARE (EUROS)	13	**0.37**	**0.49**
Of which Diluted earnings/(loss) relating to continued operations per share	-	*(0.07)*	*0.38*
Of which Diluted earnings/(loss) relating to discontinued operations per share	-	*0.43*	*0.11*

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 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, 2018	Dec. 31, 2018 Owners of the parent	Dec. 31, 2018 Non-controlling interests	Dec. 31, 2017 (1)	Dec. 31, 2017 Owners of the parent (1)	Dec. 31, 2017 Non-controlling interests (1)
NET INCOME/(LOSS)		**1,629**	**1,033**	**595**	**2,108**	**1,320**	**788**
Debt instruments (2)	17	29	29		(406)	(406)	
Net investment hedges	18	7	7		327	327	
Cash flow hedges (excl. commodity instruments)	18	(175)	(184)	9	441	422	19
Commodity cash flow hedges	18	(18)	7	(26)	(136)	(126)	(11)
Deferred tax on items above	12	48	43	5	(161)	(159)	(2)
Share of entities accounted for using the equity method in recyclable items, net of tax		201	201		74	74	
Translation adjustments		22	(54)	77	(2,516)	(2,155)	(361)
Recyclable items relating todiscontinued operations, net of tax		36	39	(3)	(121)	(68)	(53)
TOTAL RECYCLABLE ITEMS		**150**	**88**	**62**	**(2,498)**	**(2,091)**	**(407)**
Equity instruments	17	42	42		3	3	
Actuarial gains and losses	21	(245)	(247)	1	96	93	2
Deferred tax on items above	12	58	58		(97)	(92)	(4)
Share of entities accounted for using the equity method in non-recyclable items from actuarial gains and losses, net of tax		(43)	(45)	2	32	32	
Non-recyclable items relating to discontinued operations, net of tax		(3)	(1)	(2)	5	3	2
TOTAL NON-RECYCLABLE ITEMS		**(192)**	**(193)**	**2**	**39**	**39**	
TOTAL COMPREHENSIVE INCOME/(LOSS)		**1,586**	**928**	**659**	**(351)**	**(732)**	**381**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

(2) Comparative data at December 31, 2017 of debt instruments integrate variations of available-for-sale financial assets, within the meaning of IAS 39.

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, 2018	Dec. 31, 2017 [1]	Jan. 1, 2017 [1]
Non-current assets	-	-	-	-
Goodwill	14	17,809	17,285	17,372
Intangible assets, net	15	6,718	6,504	6,640
Property, plant and equipment, net	16	48,917	51,061	57,775
Other financial assets	17	6,193	5,586	5,243
Derivative instruments	17	2,693	2,949	3,603
Investments in entities accounted for using the equity method	4	7,846	7,606	6,815
Other non-current assets	27	474	566	430
Deferred tax assets	12	1,066	854	1,297
TOTAL NON-CURRENT ASSETS	-	**91,716**	**92,412**	**99,175**
Current assets	-	-	-	-
Other financial assets	17	2,290	2,010	1,746
Derivative instruments	17	10,679	7,378	9,047
Trade and other receivables, net	8	15,613	13,127	14,160
Assets from contracts with customers	8	7,411	6,930	6,529
Inventories	27	4,158	4,161	3,663
Other current assets	27	9,337	8,508	10,697
Cash and cash equivalents	17	8,700	8,929	9,810
Assets classified as held for sale	5	3,798	6,687	3,506
TOTAL CURRENT ASSETS	-	**61,986**	**57,729**	**59,157**
TOTAL ASSETS		**153,702**	**150,141**	**158,332**

(1) Comparative data at December 31, 2017 and at January 1, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 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.

LIABILITIES

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017 [(1)]	Jan. 1, 2017 [(1)]
Shareholders' equity	-	35,551	36,283	39,253
Non-controlling interests	3	5,391	5,840	5,784
TOTAL EQUITY	**19**	**40,941**	**42,122**	**45,037**
Non-current liabilities	-	-	-	-
Provisions	20	19,194	18,434	19,466
Long-term borrowings	17	26,434	25,292	24,405
Derivative instruments	17	2,785	2,980	3,410
Other financial liabilities	17	46	32	200
Liabilities from contracts with customers	8	36	258	265
Other non-current liabilities	27	960	1,007	1,180
Deferred tax liabilities	12	5,415	5,215	6,782
TOTAL NON-CURRENT LIABILITIES	-	**54,869**	**53,218**	**55,709**
Current liabilities	-	-	-	-
Provisions	20	2,620	3,281	2,693
Short-term borrowings	17	5,745	8,175	12,544
Derivative instruments	17	11,510	8,720	9,228
Trade and other payables	17	19,759	16,404	17,042
Liabilities from contracts with customers	8	3,598	3,317	2,545
Other current liabilities	27	12,529	11,531	13,233
Liabilities directly associated with assets classified as held for sale	5	2,130	3,371	300
TOTAL CURRENT LIABILITIES	-	**57,891**	**54,800**	**57,586**
TOTAL EQUITY AND LIABILITIES	-	**153,702**	**150,141**	**158,332**

(1) Comparative data at December 31, 2017 and at January 1, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 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.

6

Statement of changes in equity

In millions of euros	Number of shares	Share capital	Additional paid-in capital	Consolidated reserves	Deeply-subordinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Shareholders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2016	**2,435,285,011**	**2,435**	**32,506**	**1,967**	**3,273**	**(1,137)**	**1,296**	**(761)**	**39,578**	**5,870**	**45,447**
IFRS 9 & 15 impact (*see Note 2*)				(20)		(305)			(325)	(86)	(411)
EQUITY AT JANUARY 1, 2017 (1)	**2,435,285,011**	**2,435**	**32,506**	**1,947**	**3,273**	**(1,442)**	**1,296**	**(761)**	**39,253**	**5,784**	**45,037**
Net income/(loss)				1,320	-	-	-	-	1,320	788	2,108
Other comprehensive income/(loss)				39	-	257	(2,349)	-	(2,052)	(407)	(2,459)
TOTAL COMPREHENSIVE INCOME/(LOSS)				**1,359**		**257**	**(2,349)**		**(732)**	**381**	**(351)**
Employee share issues and share-based payment				37	-	-	-	-	37		37
Dividends paid in cash				(2,049)	-	-	-	-	(2,049)	(680)	(2,729)
Purchase/disposal of treasury stock				(19)	-			(122)	(140)		(140)
Coupons of deeply-subordinated perpetual notes				-	(144)	-	-	-	(144)		(144)
Transactions between owners				60	-	-	-	-	60	131	191
Transactions with impacts on non-controlling interests				(3)	-	-	-	-	(3)	(1)	(4)
Transactions between owners within entities accounted for using the equity method				(1)	-	-	-	-	(1)		(1)
Share capital increases subscribed by non-controlling interests				-	-	-	-	-		226	226
Other changes				2	-	-	-	-	2	(3)	(1)
EQUITY AT DECEMBER 31, 2017 (1)	**2,435,285,011**	**2,435**	**32,506**	**1,333**	**3,129**	**(1,184)**	**(1,053)**	**(883)**	**36,282**	**5,840**	**42,122**

(1) Comparative data at January 1, 2017 and December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 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.

In millions of euros	Number of shares	Share capital	Additional paid-in capital	Consolidated reserves	Deeply-subordinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Shareholders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2017	**2,435,285,011**	**2,435**	**32,506**	**1,455**	**3,129**	**(915)**	**(1,088)**	**(883)**	**36,639**	**5,938**	**42,577**
IFRS 9 & 15 impact (*see Note 2*)				(122)		(270)	36		(357)	(99)	(455)
Reclassification of premiums and coupons relating deeply-subordinated perpetual notes [1]				(570)	570						
EQUITY AT JANUARY 1, 2018 [2]	**2,435,285,011**	**2,435**	**32,506**	**763**	**3,699**	**(1,184)**	**(1,053)**	**(883)**	**36,282**	**5,840**	**42,122**
Net income/(loss)			-	1,033	-	-	-	-	1,033	595	1,629
Other comprehensive income/(loss)			-	(193)		165	(78)	-	(106)	63	(42)
TOTAL COMPREHENSIVE INCOME/(LOSS)			**-**	**840**		**165**	**(78)**		**928**	**659**	**1,586**
Employee share issues and share-based payment		6	60	80	-	-	-	-	146	1	146
Cancellation of treasury stock		(6)		(75)	-	-	-	81			
Dividends paid in cash				(1,739)	-	-	-	-	(1,739)	(882)	(2,621)
Purchase/disposal of treasury stock				(236)	-	-	-	342	105		105
Deeply-subordinated perpetual notes [1]				(11)	1,000	-	-	-	989		989
Reclassification under debt of deeply-subordinated perpetual notes [1]				(24)	(949)	-	-	-	(973)		(973)
Interest on deeply-subordinated perpetual notes				(123)		-	-	-	(123)		(123)
Transactions between owners				(34)	-	-	-	-	(34)	10	(24)
Transactions with impact on non-controlling interests [3]					-	-	-		--	(229)	(229)
Share capital increases and decreases subscribed by non-controlling interests				-	-	-	-	-		(6)	(6)
Other changes				(29)			-	-	(29)	(2)	(31)
EQUITY AT DECEMBER. 31, 2018	**2,435,285,011**	**2,435**	**32,565**	**(590)**	**3,750**	**(1,019)**	**(1,130)**	**(460)**	**35,551**	**5,391**	**40,941**

(1) For clarity's sake, it has been decided to present deeply-subordinated perpetual notes for their nominal value instead of their net value (premiums and coupons deducted). This reclassification has no impact on equity. Transactions for the period are presented in Note 19.2.1 "Deeply-subordinated perpetual notes".

(2) Comparative data at January 1, 2017 and December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

(3) Mainly relating to the deconsolidation of the ENGIE E&P International following its disposal (see Note 5.1.2) and the change in consolidation method of Hazelwood (see Note 3.1).

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, 2018	Dec. 31, 2017 (1)
NET INCOME/(LOSS)	-	**1,629**	**2,108**
- Net income/(loss) relating to discontinued operations	-	1,069	366
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	-	**560**	**1,741**
- Share in net income of entities accounted for using the equity method	-	(361)	(422)
+ Dividends received from entities accounted for using the equity method	-	572	466
- Net depreciation, amortization, impairment and provisions	-	5,077	6,217
- Impact of changes in scope of consolidation and other non-recurring items	-	198	(858)
- Mark-to-market on commodity contracts other than trading instruments	-	223	(29)
- Other items with no cash impact	-	105	43
- Income tax expense	-	704	(395)
- Net financial income/(loss)	-	1,387	1,387
Cash generated from operations before income tax and working capital requirements	-	**8,464**	**8,150**
+ Tax paid	-	(757)	(905)
Change in working capital requirements	**26.1**	**149**	**1,613**
CASH FLOW FROM OPERATING ACTIVITIES RELATING TO CONTINUED OPERATIONS		**7,857**	**8,858**
CASH FLOW FROM OPERATING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS		**17**	**476**
CASH FLOW FROM OPERATING ACTIVITIES		**7,873**	**9,335**
Acquisitions of property, plant and equipment and intangible assets	6.5	(6,202)	(5,778)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	6.5	(983)	(692)
Acquisitions of investments in entities accounted for using the equity method and joint operations	6.5	(338)	(1,311)
Acquisitions of equity and debt instruments	6.5	(283)	(247)
Disposals of property, plant and equipment, and intangible assets	-	114	90
Loss of controlling interests in entities, net of cash and cash equivalents sold	-	2,865	3,211
Disposals of investments in entities accounted for using the equity method and joint operations	-	2	283
Disposals of equity and debt instruments	-	186	126
Interest received on financial assets	-	26	75
Dividends received on equity instruments	-	52	171
Change in loans and receivables originated by the Group and other	6.5	(251)	(856)
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES RELATING TO CONTINUED OPERATIONS		**(4,813)**	**(4,928)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS		**(1,282)**	**(242)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES		**(6,095)**	**(5,171)**
Dividends paid (2)	-	(2,659)	(2,871)
Recovery from the French State of the 3% tax on dividends	-		389
Repayment of borrowings and debt	-	(5,328)	(7,738)
Change in financial assets held for investment and financing purposes	-	(289)	(197)
Interest paid	-	(727)	(744)
Interest received on cash and cash equivalents	-	79	107
Cash flow on derivatives qualifying as net investment hedges and compensation payments on derivatives and on early buyback of borrowings	-	(152)	(156)
Increase in borrowings	-	4,724	6,356
Increase/decrease in capital	-	70	486
Hybrid issue of subordinated perpetual notes	-	989	
Purchase and/or sale of treasury stock	-	104	(140)
Changes in ownership interests in controlled entities	6.5	(18)	1
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES RELATING TO CONTINUED OPERATIONS		**(3,207)**	**(4,506)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS		**1,279**	**(228)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES		**(1,928)**	**(4,734)**
Effects of changes in exchange rates and other relating to continued operations	-	(78)	(286)
Effects of changes in exchange rates and other relating to discontinued operations	-	(1)	(11)
TOTAL CASH FLOW FOR THE PERIOD		**(229)**	**(867)**
Reclassification of cash and cash equivalents relating to discontinued operations	-		(16)
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	-	**8,929**	**9,813**
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**8,700**	**8,929**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

(2) The line "Dividends paid" includes the coupons paid to owners of the deeply subordinated perpetual notes for an amount of €123 million at December 31, 2018 and €144 million at December 31, 2017.

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 27, 2019, the Group's Board of Directors approved and authorized for issue the consolidated financial statements of the Group for the year ended December 31, 2018.

NOTE 1 Accounting framework and basis for preparing the consolidated financial statements

1.1 Accounting standards

Pursuant to European Regulation (EC) 809/2004 on prospectuses dated April 29, 2004, 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, 2017 and 2018). 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, 2018 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, 2018 are consistent with the policies used to prepare the consolidated financial statements for the year ended December 31, 2017, except for those described in §1.1.1 below.

1.1.1 IFRS Standards, amendments or IFRIC Interpretations applicable in 2018

- IFRS 9 – *Financial instruments*

In accordance with the transition principles of IFRS 9, the new standard is applied retrospectively for the classification and measurement of financial assets and liabilities as well as for impairment losses, and prospectively for hedge accounting with the exception of the provisions relating to the recognition of the time value of derivative instruments. For these, as from January 1, 2017, the Group has decided to recognize changes in the fair value of the time component in other comprehensive income, for hedging relationships in which only the 'spot' element had previously been designated as hedging instrument.

For further details on the impact of IFRS 9 on the consolidated financial statements, please refer to Notes 2, 17 and 18;

- IFRS 15 – *Revenue from Contracts with Customers*

The first-time application has been implemented under the full retrospective method requiring comparative information to be restated at the date of initial application. In addition, ENGIE has decided to apply the practical expedients provided for by the standard regarding completed contracts or contracts modified as at January 1, 2017.

For further details on the impact of IFRS 15 on the consolidated financial statements, please refer to Notes 2 and 18;

- amendments to IFRS 2 – *Share-based payment: Classification and measurement of share-based payment transactions*;
- IFRIC 22 – *Foreign Currency Transactions and Advance Consideration*;
- annual Improvements to IFRS Standards 2014-2016 Cycle [(2)].

The impact of the application of IFRS 9 and IFRS 15 is presented in the Notes mentioned above.

The other amendments, interpretations and improvements have no significant impact on the Group's consolidated financial statements.

1.1.2 IFRS Standards, amendments or IFRIC Interpretations effective in 2019 and that the Group has elected not to early adopt

- IFRS 16 - *Leases*

In January 2016, the IASB has issued a new standard on leases. Under the new standard, all lease commitments will be recognized on the face of the statement of financial position, without distinguishing between operating leases and finance leases.

The main impact we expect on the consolidated statement of financial position is an increase in the "right-of-use assets" on the assets side and an increase of the lease liabilities on the liabilities side, regarding leases where the Group acts as lessee and which are currently qualified as operating leases. They concern mainly real estate and vehicles. In the consolidated income statement, reversal of the rental expenses of these operating leases will lead to an increase in EBITDA and in depreciation and financial expenses.

Having concluded the stage of identifying leases throughout the Group, their analyzes under the criteria of the new standard have been realized (identifying a lease, assessing the term of the lease, measuring and determining the discount rates, etc.). They are now identified on an ongoing basis so as to update the Group database The IT tool able to deal with processing a large number of leases, has been deployed throughout the Group.

Transition

Analyzing the impact of the transition under the modified retrospective approach is being finalized. The Group has elected to apply some of the transition options of the new standard as at January 1, 2019. Amongst others, it has elected to include in the Group database the leases for which the lease term ends within 12 months of the transition date, to

(1) Available on the European Commission's website: http://ec.europa.eu/internal_market/accounting/ias/index_en.htm.

(2) The improvements of this cycle relating to IFRS 1 and IAS 28 are applicable as from 2018.

adjust the "right-of-use assets" by the amount of the provisions for onerous leases recognized in the statement of financial position as at December 31, 2018 (instead of impairing them) and to apply the grand-fathering clause.

Commitments relating to operating leases are presented in Note 23.1 "Operating leases for which ENGIE acts as lessee" (please refer to Note 22 for finance leases). Consistently with the amount of these off-balance sheet commitments, these leases are expected to have an impact amounting from €2.1 billion to €2.3 billion on the Group's debt as from 2019;

- amendments to IFRS 9 – *Financial Instruments: Prepayment features with negative compensation*;
- amendments to IAS 28 – *Investments in Associates and Joint Ventures: Long-term interests in Associates and Joint Ventures* (1);
- amendments to IAS 19 – *Employee benefits: Plan Amendment, Curtailment or Settlement* (1);
- IFRIC 23 – *Uncertainty over income tax treatment*;
- annual Improvements to IFRS Standards 2015-2017 Cycle (1).

The impact of the application of these other amendments, interpretations and improvements is currently being assessed.

1.1.3 IFRS Standards, amendments or IFRIC Interpretations effective after 2019

- IFRS 17 – *Insurance contracts* (1);
- amendments to IFRS 3 – *Business Combinations: Definition of a Business* (1);
- amendments to IAS 1 – *Presentation of Financial Statements* and IAS 8 – *Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Material* (1).

The impact of the application of these standards and amendments is currently being assessed.

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 effect 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 statement of income 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) These standards and amendments have not yet been adopted by the European Union.

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.

1.2.4 Use of estimates and judgments

1.2.4.1 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 prompted the Group to step up its risk oversight procedures and include an assessment of these risks in measuring financial instruments and performing impairment tests. The Group's estimates used in business plans and determination of discount rates used in impairment tests and for calculating provisions, take into account the environment and the important market volatility.

Accounting estimates are made in a context which remains sensitive to energy market developments, therefore making it difficult to apprehend medium-term economic prospects.

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 fair value of assets acquired and liabilities assumed in a business combination *(see Note 5)*;
- measurement of revenue not yet metered, so called un-metered revenue *(see Note 8)*;
- measurement of recognized tax loss carry-forwards *(see Note 12)*;
- measurement of the recoverable amount of goodwill *(see Note 14)*, other intangible assets (see *Note 15)* and property, plant and equipment *(see Note 16)*;
- financial instruments *(see Notes 17 and 18)*;
- measurement of provisions, particularly for back-end of nuclear fuel cycle, dismantling obligations, disputes, pensions and other employee benefits *(see Notes 20 and 21)*.

1.2.4.2 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 effective IFRS Standards and IFRIC Interpretations do not specifically deal with the related accounting issues.

In particular, the Group exercised its judgment in assessing:

- the type of control (*see Note 3*);
- the performance obligations of sales contracts (see *Note 8*);
- how revenue is recognized for distribution or transmission services invoiced to clients (see *Note 8*);
- the identification of "own use contracts" as defined by IFRS 9 within non-financial purchase and sales contracts (electricity, gas, etc.) (see *Note 18*);
- the classification of arrangements which contain a lease (*see Notes 22 and 23*).

Entities for which judgment on the nature of control has been exercised are listed in Note 3 "Main subsidiaries at December 31, 2018" and Note 4 "Investments in entities accounted for using the equity method".

Accounting standards

From now on, accounting standards are presented above the Notes to which they relate in order to improve the clarity of these consolidated financial statements.

NOTE 2 Restatement of 2017 comparative data

The previously published financial statements presented hereafter have been restated to take into account:

- impacts resulting from the application of the new standards IFRS 9 – *Financial Instruments* and IFRS 15 – *Revenue from Contracts with Customers*; and
- the presentation in the financial statements at December 31, 2017 (the income statement, statement of comprehensive income and statement of cash flows) as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018, as they represent a separate major line of business under IFRS 5 – *Noncurrent Assets Held for Sale and Discontinued Operations*.

It should be noted that the exploration-production activities (ENGIE E&P International) were already classified as discontinued operations in the consolidated financial statements at December 31, 2017.

2.1 Impacts of applying IFRS 9 and IFRS 15 to the comparative 2017 financial statements

2.1.1 Impacts on the statement of financial position at December 31, 2017

2.1.1.1 Summary of the main impacts

In millions of euros	Dec. 31, 2017 reclassified	IFRS 9 impacts	IFRS 15 impacts	Dec. 31, 2017 restated
Other financial assets	7,632	(35)		7,596
Investments in entities accounted for using the equity method	7,702	(79)	(16)	7,606
Trade and other receivables, net	13,247	(126)	4	13,126
Assets from contracts with customers	6,946	(16)		6,930
Other current and non-current assets	114,761	37	83	114,882
TOTAL ASSETS	**150,287**	**(217)**	**70**	**150,140**
Shareholders' equity	36,639	(224)	(132)	36,283
Non-controlling interests	5,938	(11)	(87)	5,840
TOTAL EQUITY	**42,577**	**(235)**	**(219)**	**42,122**
Provisions	21,720	3	(8)	21,715
Liabilities from contracts with customers	3,278		298	3,575
Other current and non-current liabilities	82,712	15	(1)	82,727
TOTAL EQUITY AND LIABILITIES	**150,287**	**(217)**	**70**	**150,140**

2.1.1.2 Reclassifications to adapt the presentation of the statement of financial position following the pplication of the two new standards

The main impacts concern, for IFRS 9, the reclassification of financial assets that were previously classified as "Availablefor-sale securities" and measured at fair value through other comprehensive income, and, for IFRS 15, the separate presentation of contract assets and contract liabilities.

In millions of euros	Dec. 31, 2017 published	Reclassifications										Dec. 31, 2017 reclassified
Assets												
Available-for-sale securities	2,656	(2,656)	-	-	-	-	-	-	-	-	-	
Loans and receivables at amortized cost	3,576	-	(3,576)	-	-	-	-	-	-	-	-	
Other financial assets		2,656	3,576	85	(293)	-	-	-	1,608	-	-	7,632
Equity instruments at fair value through other comprehensive income		*745*	-	-	-	-	-	-	-	-	-	*745*
Equity instruments at fair value through income		*379*	-	-	-	-	-	-	-	-	-	*379*
Debt instruments at fair value through other comprehensive income		*882*	-	-	-	-	-	-	*901*	-	-	*1,783*
Debt instruments at fair value through income		*650*	-	-	-	-	-	-	*213*	-	-	*863*
Loans and receivables at amortized cost		-	*3,576*	*85*	*(293)*	-	-	-	*494*	-	-	*3,861*
Investments in entities accounted for using the equity method	7,409	-	-	-	293	-	-	-	-	-	-	7,702
Other current and non-current assets	9,059	-	-	-	-	22	-	-	-	-	-	9,081
Trade and other receivables, net	20,311	-	-	(74)	-	-	(46)	(6,951)	-	-	7	13,247
Assets from contracts with customers		-	-	(4)	-	-	-	6,951	-	-	-	6,947
Financial assets at fair value through income	1,608	-	-	-	-	-	-	-	(1,608)	-	-	
Cash and cash equivalents	8,931	-	-	(7)	-	-	-	-	-	-	-	8,924
Liabilities												
Provisions	21,768	-	-	-	-	-	(48)	-	-	-	-	21,720
Trade and other payables,net	16,432	-	-	-	-	-	-	-	-	(7)	(18)	16,408
Liabilities from contracts with customers		-	-	-	-	-	2	-	-	3,276	-	3,278
Other current and non-current liabilities	15,765	-	-	-	-	22	-	-	-	(3,269)	25	12,542

2.1.1.3 IFRS 9 – Financial Instruments: impacts on the statement of financial position at December 31, 2017

The main impacts of the first-time application of IFRS 9 on the statement of financial position are summarized below for each of the three phases of the new standard.

- Classification and measurement of financial assets and liabilities

IFRS 9 requires financial assets to be classified and measured based on their type, their contractual cash flow characteristics and their business model. The new standard does not significantly change how financial liabilities are classified and measured.

For the Group, the main impact concerns the reclassification of financial assets which were previously presented as "Available-for-sale securities" and measured at fair value through other comprehensive income. A summary of the reclassifications is shown in the table above (*see Note 2.1.1.2*).

- Impairment

IFRS 9 rules regarding impairment require the recognition of expected credit losses on initial recognition of receivables, or as from the time when loans are granted or financial guarantees given.

The first-time application of IFRS 9 resulted in an increase in impairment. The increase mainly concerns trade receivables and assets from contracts with customers (increase in impairment of €134 million at end-2017 out of a total gross amount of €20 billion), as well as long-term receivables (increase in impairment of €26 million at end-2017 out of a total gross amount of €4 billion).

The impacts of changes in impairment following the first-time application of IFRS 9 are summarized in the table below.

in millions of euros	Dec. 31, 2017 reclassified	IFRS 9 impacts	Dec. 31, 2017 restated before IFRS 15 impacts
Other financial assets	**7,632**	**(35)**	**7,596**
Equity instruments at fair value through other comprehensive income	**745**	**(12)**	**733**
Gross	*578*	*(3)*	*575*
Fair value	*167*	*(9)*	*158*
Equity instruments at fair value through income	**379**	**14**	**393**
Gross	*466*	*(2)*	*464*
Fair value	*(87)*	*16*	*(71)*
Debt instruments at fair value through other comprehensive income	**1,783**	**3**	**1,786**
Gross	*1,741*		*1,741*
Fair value	*42*	*4*	*46*
Debt instruments at fair value through income	**863**	**(6)**	**857**
Gross	*908*	*(2)*	*906*
Fair value	*(46)*	*(3)*	*(49)*
Loans and receivables at amortized cost	**3,861**	**(35)**	**3,826**
Gross	*4,084*	*(8)*	*4,076*
Fair value	*19*		*19*
Impairment	*(242)*	*(26)*	*(269)*
Trade and other receivables, net	**13,247**	**(126)**	**13,122**
Gross	*14,221*		*14,221*
Impairment	*(973)*	*(126)*	*(1,099)*
Assets from contracts with customers	**6,946**	**(16)**	**6,930**
Gross	*6,950*	*(8)*	*6,943*
Impairment	*(4)*	*(8)*	*(12)*

- Hedge accounting

  The new standard aims to better align hedge accounting with risk management, without substantially changing hedge accounting principles.

  The Group, which applies hedge accounting primarily to hedge net debt risk, did not observe any material impact as a result of the transition in this respect.

For the three phases, the first-time application of IFRS 9 had a total negative €235 million impact on consolidated equity at December 31, 2017 (including a negative €79 million impact on the measurement of the share in net assets of entities accounted for using the equity method).

2.1.1.4 IFRS 15 – Revenue from Contracts with Customers: impacts on the statement of financial position at December 31, 2017

The main impacts of the first-time application of IFRS 15 on the Group's statement of financial position concern:

- the separate presentation of contract assets and contract liabilities, which results in certain trade receivables being reclassified as contract assets and certain other current liabilities as contract liabilities (see summary table of reclassifications in section 2.1.1.2 above);
- the measurement of the revenues to be recognized, for which more explicit rules are set out in the new standard, notably depending on how the performance obligations identified are satisfied, and has modified the timing of revenue recognition and the margin profile for certain contracts.

The second point, this mainly affects contracts for the operation and maintenance of power plants or the provision of production capacities, with a potential increase in contract liabilities reflecting the delay between the price received and the completion of the services.

As a consequence, applying IFRS 15 had a negative €219 million impact on equity at December 31, 2017 whereas the impact on the rhythm of revenue recognition in the income statement for these contracts was not material, given their term.

2.1.2 Impacts on income statement at December 31, 2017

2.1.2.1 Summary of the main impacts

In millions of euros	Dec. 31, 2017 published	IFRS 9 impacts	IFRS 15 impacts	Dec. 31, 2017 restated excluding IFRS 5 impacts relating to LNG
Revenues from contracts with customers	64,280		(9,898)	54,381
Revenues from other contracts	749		5,805	6,555
REVENUES	**65,029**		**(4,093)**	**60,936**
Purchases	(36,740)		3,980	(32,760)
Other operating income and expenses	(9,636)		78	(9,558)
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,273**	**(23)**	**(39)**	**5,211**
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**2,819**	**(27)**	**(39)**	**2,752**
NET FINANCIAL INCOME/(LOSS)	**(1,296)**	**(100)**	**(11)**	**(1,407)**
Income tax expense	425	37	11	473
NET INCOME/(LOSS)	**2,238**	**(92)**	**(38)**	**2,108**

2.1.2.2 IFRS 9 – Financial instruments: impacts on income statement at December 31, 2017

The impact of the application of IFRS 9 on net income Group share amounted to a negative €92 million (negative €129 million before tax) at December 31, 2017.

The impact on net income was primarily due to a one-off transition effect resulting from the application of IFRS 9, paragraph 7.2.1, which requires assets that were derecognized in 2017, particularly trade receivables, to continue to be accounted for under IAS 39 rather than IFRS 9. As a result, the recognition of expected credit losses on the initial recognition of new receivables (mainly trade receivables) in 2017 had a one-off negative impact of €113 million on gross income for the period, presented in non-recurring income.

It should be noted that after transition, recurring income may be impacted primarily by significant changes in the credit rating of our counterparties, for example in the event of a financial crisis.

2.1.2.3 IFRS 15 – Revenue from Contracts with Customers: impacts on income statement at December 31, 2017

The main impacts on the Group's consolidated revenues are related to presentation. The impact of the new standard on current operating income is not material.

The three main issues concerning the Group are presented below. The first two, which represent €9,526 million are related to presentation and have no impact on the Group's current operating income:

- in certain countries where the Group acts as energy provider without being in charge of energy distribution, the analysis under IFRS 15 May lead to recognizing only energy sales as revenues. In some situations, the accounting treatment under IFRS 15 leads to a decrease in revenues corresponding to distribution without any impact on the energy margin, since the related expenses are decreased accordingly. At December 31, 2017, the related revenue restatement amounted to a negative €3,803 million, with operating expenses decreasing by the same amount.

  The countries that are most concerned are Belgium (for the distribution of gas and electricity as well as for the transportation of electricity) and France (for the distribution of electricity). Even if there is no impact at Group level for gas in France, there is an impact on the revenue breakdown by reportable segment: under IFRS 15, the revenues on gas distribution are no longer recognized by the provider (in the France reportable segment) but by the distributor (in the Europe Infrastructures reportable segment). At December 31, 2017, these revenues amounted to €1,957 million;
- commodities sales transactions which are within the scope of IFRS 9 – *Financial Instruments*, are outside the scope of IFRS 15. The sales under the related contracts that result in a physical delivery are therefore presented on a separate line from IFRS 15 revenues. At December 31, 2017, these sales amounted to €5,723 million;
- the new standard has modified the timing of revenue recognition for certain types of activities (such as operation and maintenance of power plants or provision of production capacities). However, this did not have a material impact on income at December 31, 2017.

2.2 Classification of upstream liquefied natural gas (LNG) activities as "Discontinued operations"

On July 13, 2018, the Group finalized the disposal of its upstream liquefied natural gas (LNG) activities to Total (*see Note 5.1.4 "Disposal of ENGIE's liquefied natural gas (LNG) activities"*).

In accordance with IFRS 5, the upstream LNG activities are presented as "Discontinued operations" in the Group’s income statement, statement of comprehensive income and statement of cash flows at December 31, 2017.

Other assets held for sale at December 31, 2018 do not meet the definition of "Discontinued operations" and therefore have not been restated.

2.3 2017 comparative financial statements

2.3.1 Income statement at December 31, 2017

In millions of euros	Dec. 31, 2017 published	IFRS 9 impacts	IFRS 15 impacts	IFRS 5 - LNG	Dec. 31, 2017 restated
Revenues from contracts with customers	64,280		(9,898)	(1,308)	53,073
Revenues from other contracts	749		5,805	(52)	6,503
REVENUES	**65,029**		**(4,093)**	**(1,360)**	**59,576**
Purchases	(36,740)		3,980	1,296	(31,465)
Personnel costs	(10,082)			31	(10,051)
Depreciation, amortization and provisions	(3,736)	(14)	(3)	(35)	(3,787)
Other operating expenses	(11,077)		61	37	(10,978)
Other operating income	1,441		16	(2)	1,455
CURRENT OPERATING INCOME	**4,835**	**(13)**	**(39)**	**(33)**	**4,750**
Share in net income of entities accounted for using the equity method	437	(10)		(6)	422
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,273**	**(23)**	**(39)**	**(39)**	**5,172**
Mark-to-market on commodity contracts other than trading instruments	(307)	(32)		368	29
Impairment losses	(1,317)	18		1	(1,298)
Restructuring costs	(671)			2	(669)
Changes in scope of consolidation	752				752
Other non-recurring items	(911)	9		(350)	(1,252)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**2,819**	**(27)**	**(39)**	**(17)**	**2,735**
NET FINANCIAL INCOME/(LOSS)	**(1,296)**	**(100)**	**(11)**	**19**	**(1,388)**
Income tax expense	425	37	11	(79)	395
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	**1,948**	**(91)**	**(38)**	**(77)**	**1,741**
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**290**	**(1)**		**77**	**366**
NET INCOME/(LOSS)	**2,238**	**(92)**	**(38)**		**2,108**
Net income/(loss) Group share	**1,423**	**(80)**	**(23)**	**-**	**1,320**
of which Net income/(loss) relating to continued operations, Group share	*1,226*	*(80)*	*(23)*	*(77)*	*1,047*
of which Net income/(loss) relating to discontinued operations, Group share	*196*			*77*	*273*
Non-controlling interests	**815**	**(11)**	**(16)**	**-**	**788**
of which Non-controlling interests relating to continued operations	*722*	*(11)*	*(16)*		*695*
of which Non-controlling interests relating to discontinued operations	*93*				*93*
BASIC EARNINGS/(LOSS) PER SHARE (EUROS)	**0.53**	**(0.03)**	**(0.01)**		**0.49**
of which Basic earnings/(loss) relating to continued operations per share	*0.45*	*(0.03)*	*(0.01)*	*(0.03)*	*0.38*
of which Basic earnings/(loss) relating to discontinued operations per share	*0.08*			*0.03*	*0.11*
DILUTED EARNINGS/(LOSS) PER SHARE (EUROS)	**0.53**	**(0.03)**	**(0.01)**		**0.49**
of which Diluted earnings/(loss) relating to continued operations per share	*0.45*	*(0.03)*	*(0.01)*	*(0.03)*	*0.38*
of which Diluted earnings/(loss) relating to discontinued operations per share	*0.08*			*0.03*	*0.11*

2.3.2 Statement of comprehensive income at December 31, 2017

In millions of euros	**Published figures of Déc. 31, 2017**	**Impact of IFRS 9**	**Impact of IFRS 15**	**IFRS 5 - LNG**	**Restated figures of Dec. 31, 2017**
NET INCOME/(LOSS)	**2,238**	**(92)**	**(38)**		**2,108**
Equity instruments	(379)	(27)			(406)
Net investment hedges	327				327
Cash flow hedges (excl. commodity instruments)	419	22			441
Commodity cash flow hedges	(20)	14		(131)	(136)
Deferred tax on items above	(184)	(24)		47	(161)
Share of entities accounted for using the equity method in recyclable items, net of tax	13	51		10	74
Translation adjustments	(2,583)	21	27	19	(2,516)
Recyclable items relating to discontinued operations, net of tax	(177)	1		55	(121)
TOTAL RECYCLABLE ITEMS	**(2,583)**	**58**	**27**		**(2,498)**
Equity instruments		3			3
Actuarial gains and losses	96				96
Deferred tax on items above	(97)	(2)		2	(97)
Share of entities accounted for using the equity method in non-recyclable items from actuarial gains and losses, net of tax	32				32
Non-recyclable items relating to discontinued operations, net of tax	7			(2)	5
TOTAL NON-RECYCLABLE ITEMS	**38**	**1**			**39**
TOTAL COMPREHENSIVE INCOME/(LOSS)	**(307)**	**(32)**	**(11)**		**(351)**
Of which owners of the parent	*(701)*	*(22)*	*(7)*		*(732)*
Of which non-controlling interests	*394*	*(9)*	*(4)*		*381*

2.3.3 Statement of financial position at January 1, 2017

In millions of euros	Jan 1, 2017 published	IFRS 9 & IFRS 15 classification	Jan 1, 2017 reclassified	IFRS 9 impacts	IFRS 15 impacts	Jan 1, 2017 restated
Non-current assets						
Goodwill	17,372	-	17,372	-	-	17,372
Intangible assets, net	6,639	1	6,640	-		6,640
Property, plant and equipment, net	57,739	-	57,739	(3)	39	57,775
Available-for-sale securities	2,997	(2,997)	-			-
Loans and receivables at amortized cost	2,250	(2,250)	-			-
Other financial assets		5,249	5,249	(6)	-	5,243
Derivative instruments	3,603	-	3,603	-	-	3,603
Assets from contracts with customers		-	-	-	-	-
Investments in entities accounted for using the equity method	6,624	348	6,972	(141)	(16)	6,815
Other non-current assets	431	(1)	430	-		430
Deferred tax assets	1,250	-	1,250	7	40	1,297
TOTAL NON-CURRENT ASSETS	**98,905**	**351**	**99,255**	**(143)**	**62**	**99,175**
Current assets						
Loans and receivables at amortized cost	595	(595)	-	-	-	-
Other financial assets		1,768	1,768	(22)	-	1,746
Derivative instruments	9,047	-	9,047	-	-	9,047
Trade and other receivables, net	20,835	(6,666)	14,169	(19)	10	14,160
Assets from contracts with customers		6,536	6,536	(6)	(1)	6,529
Inventories	3,656	-	3,656	-	7	3,663
Other current assets	10,692	5	10,697	1	(1)	10,697
Financial assets at fair value through income	1,439	(1,439)	-		-	-
Cash and cash equivalents	9,825	(7)	9,819	(9)		9,810
Assets classified as held for sale	3,506	-	3,506	-	-	3,506
TOTAL CURRENT ASSETS	**59,595**	**(397)**	**59,198**	**(55)**	**15**	**59,157**
TOTAL ASSETS	**158,499**	**(47)**	**158,453**	**(198)**	**77**	**158,332**
Shareholders' equity	39,578		39,578	(203)	(122)	39,253
Non-controlling interests	5,870		5,870	(2)	(83)	5,784
TOTAL EQUITY	**45,447**		**45,447**	**(206)**	**(205)**	**45,037**
Non-current liabilities						
Provisions	19,461	-	19,461	5	-	19,466
Long-term borrowings	24,411	(6)	24,405	-	-	24,405
Derivative instruments	3,410	-	3,410	-	-	3,410
Other financial liabilities	200		200	-	-	200
Liabilities from contracts with customers		53	53		212	265
Other non-current liabilities	1,203	(23)	1,180	-	-	1,180
Deferred tax liabilities	6,775	-	6,775		7	6,782
TOTAL NON-CURRENT LIABILITIES	**55,461**	**23**	**55,484**	**5**	**220**	**55,709**
Current liabilities						
Provisions	2,747	(49)	2,698	-	(5)	2,693
Short-term borrowings	12,539	6	12,544	-	-	12,544
Derivative instruments	9,228		9,228	-	-	9,228
Trade and other payables, net	17,075	(24)	17,051	-	(9)	17,042
Liabilities from contracts with customers		2,454	2,454	(2)	94	2,545
Other current liabilities	15,702	(2,456)	13,246	4	(17)	13,233
Liabilities directly associated with assets classified as held for sale	300	-	300	-	-	300
TOTAL CURRENT LIABILITIES	**57,591**	**(70)**	**57,521**	**2**	**62**	**57,586**
TOTAL EQUITY AND LIABILITIES	**158,499**	**(47)**	**158,453**	**(198)**	**77**	**158,332**

2.3.4 Statement of financial position at December 31, 2017

In millions of euros	Dec. 31, 2017 published	IFRS 9 & IFRS 15 classification	Dec. 31, 2017 reclassified	IFRS 9 impacts	IFRS 15 impacts	Dec. 31, 2017 restated
Non-current assets						
Goodwill	17,285		17,285	-	-	17,285
Intangible assets, net	6,504	1	6,504	-		6,504
Property, plant and equipment, net	51,024	-	51,024	-	38	51,061
Available-for-sale securities	2,656	(2,656)	-			-
Loans and receivables at amortized cost	2,976	(2,976)	-			-
Other financial assets		5,598	5,598	(12)		5,586
Derivative instruments	2,948	(2)	2,946	3	-	2,949
Assets from contracts with customers		-	-		-	
Investments in entities accounted for using the equity method	7,409	293	7,702	(79)	(16)	7,606
Other non-current assets	567	(1)	566			566
Deferred tax assets	803	(21)	782	27	45	854
TOTAL NON-CURRENT ASSETS	**92,171**	**236**	**92,407**	**(61)**	**66**	**92,412**
Current assets						
Loans and receivables at amortized cost	599	(599)	-	-	-	-
Other financial assets		2,033	2,033	(23)	-	2,010
Derivative instruments	7,378	(4)	7,374	4	-	7,378
Trade and other receivables, net	20,311	(7,064)	13,247	(126)	4	13,126
Assets from contracts with customers		6,946	6,946	(16)		6,930
Inventories	4,155		4,155	-	7	4,161
Other current assets	8,492	23	8,515	(1)	(6)	8,508
Financial assets at fair value through income	1,608	(1,608)	-		-	-
Cash and cash equivalents	8,931	(7)	8,924	5		8,929
Assets classified as held for sale	6,687		6,687	-	-	6,687
TOTAL CURRENT ASSETS	**58,161**	**(280)**	**57,881**	**(157)**	**4**	**57,728**
TOTAL ASSETS	**150,332**	**(45)**	**150,287**	**(218)**	**70**	**150,140**
Shareholders' equity	36,639		36,639	(224)	(132)	36,283
Non-controlling interests	5,938		5,938	(11)	(87)	5,840
TOTAL EQUITY	**42,577**		**42,577**	**(235)**	**(219)**	**42,122**
Non-current liabilities						
Provisions	18,428	1	18,429	5	-	18,434
Long-term borrowings	25,292		25,292	-	-	25,292
Derivative instruments	2,980	-	2,980	-	-	2,980
Other financial liabilities	32		32	-	-	32
Liabilities from contracts with customers		33	33		225	258
Other non-current liabilities	1,009	(3)	1,006	-	2	1,007
Deferred tax liabilities	5,220	(27)	5,193	14	8	5,215
TOTAL NON-CURRENT LIABILITIES	**52,960**	**4**	**52,964**	**19**	**235**	**53,218**
Current liabilities						
Provisions	3,340	(49)	3,291	(2)	(8)	3,281
Short-term borrowings	8,176		8,175	-	-	8,175
Derivative instruments	8,720	-	8,720	-	-	8,720
Trade and other payables, net	16,432	(24)	16,408	-	(4)	16,404
Liabilities from contracts with customers		3,245	3,245		72	3,317
Other current liabilities	14,756	(3,220)	11,536	1	(7)	11,530
Liabilities directly associated with assets classified as held for sale	3,371	-	3,371	-	-	3,371
TOTAL CURRENT LIABILITIES	**54,795**	**(49)**	**54,746**	**(1)**	**55**	**54,799**
TOTAL EQUITY AND LIABILITIES	**150,332**	**(45)**	**150,287**	**(217)**	**70**	**150,140**

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2.3.5 Statement of cash flows at December 31, 2017

In millions of euros	Dec. 31, 2017 published	IFRS 9 impacts	IFRS 15 impacts	IFRS 5 - LNG	Dec. 31, 2017 restated
NET INCOME/(LOSS)	**2,238**	**(92)**	**(38)**		**2,108**
- Net income/(loss) relating to discontinued operations	290	(1)		77	366
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	**1,948**	**(91)**	**(38)**	**(77)**	**1,741**
- Share in net income of entities accounted for using the equity method	(437)	10		6	(422)
+ Dividends received from entities accounted for using the equity method	466				466
- Net depreciation, amortization, impairment and provisions	6,203	(19)	(2)	35	6,217
- Impact of changes in scope of consolidation and other non-recurring items	(1,096)	(111)		350	(858)
- Mark-to-market on commodity contracts other than trading instruments	307	32		(368)	(29)
- Other items with no cash impact	44				43
- Income tax expense	(425)	(37)	(11)	79	(395)
- Net financial income/(loss)	1,296	99	11	(19)	1,387
Cash generated from operations before income tax and working capital requirements	**8,305**	**(117)**	**(41)**	**5**	**8,150**
+ Tax paid	(894)			(11)	(905)
Change in working capital requirements	**1,251**	**121**	**63**	**177**	**1,613**
CASH FLOW FROM OPERATING ACTIVITIES RELATING TO CONTINUED OPERATIONS	**8,662**	**4**	**22**	**171**	**8,858**
CASH FLOW FROM OPERATING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS	**647**			**(171)**	**476**
CASH FLOW FROM OPERATING ACTIVITIES	**9,309**	**4**	**22**		**9,335**
Acquisitions of property, plant and equipment and intangible assets	(5,779)		(3)	5	(5,778)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	(690)	(2)		1	(692)
Acquisitions of investments in entities accounted for using the equity method and joint operations	(1,446)			135	(1,311)
Acquisitions of equity and debt instruments	(258)	10			(247)
Disposals of property, plant and equipment and intangible assets	90				90
Loss of controlling interests in entities, net of cash and cash equivalents sold	3,203	8			3,211
Disposals of investments in entities accounted for using the equity method and joint operations	283				283
Disposals of equity and debt instruments	538			(412)	126
Interest received on financial assets	83	2	(11)	1	75
Dividends received on equity instruments	170				171
Change in loans and receivables originated by the Group and other	(838)	(10)	(8)		(856)
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES RELATING TO CONTINUED OPERATIONS	**(4,645)**	**9**	**(22)**	**(270)**	**(4,928)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS	**(512)**			**270**	**(242)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES	**(5,157)**	**9**	**(22)**		**(5,171)**
Dividends paid	(2,871)				(2,871)
Recovery from the French State of the 3% tax on dividends	389				389
Repayment of borrowings and debt	(7,738)				(7,738)
Change in financial assets held for investment and financing purposes	(181)	(16)			(197)
Interest paid	(745)			1	(744)
Interest received on cash and cash equivalents	100	7			107
Cash flow on derivatives qualifying as net investment hedges and compensation payments on derivatives and on early buyback of borrowings	(156)				(156)
Increase in borrowings	6,356				6,356
Increase/decrease in capital	224			262	486
Purchase and/or sale of treasury stock	(140)				(140)
Changes in ownership interests in controlled entities	1				1
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES RELATING TO CONTINUED OPERATIONS	**(4,761)**	**(9)**		**263**	**(4,506)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS	**36**			**(263)**	**(228)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES	**(4,725)**	**(9)**			**(4,734)**
Effects of changes in exchange rates and other relating to continued operations	(294)	7			(286)
Effects of changes in exchange rates and other relating to discontinued operations	(10)			(1)	(11)
TOTAL CASH FLOW FOR THE PERIOD	**(877)**	**11**		**(1)**	**(867)**
Reclassification of cash and cash equivalents relating to discontinued operations	(16)				(16)
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	**9,825**	**(13)**			**9,813**
CASH AND CASH EQUIVALENTS AT END OF PERIOD	**8,931**	**(2)**			**8,929**

2.3.6 Impacts on key indicators

In millions of euros	Dec. 31, 2017 published	IFRS 9 impacts	IFRS 15 impacts	IFRS 5 - LNG	Dec. 31, 2017 restated
EBITDA	**9,316**	**(25)**	**(39)**	**(54)**	**9,199**
NET RECURRING INCOME	**3,550**	**(120)**	**(38)**		**3,392**
Net recurring income/(loss) relating to ontinued operations	3,135	(127)	(38)	10	2,979
Net recurring income/(loss) relating to discontinued operations	415	8		(10)	413
NET RECURRING INCOME/(LOSS), GROUP SHARE	**2,662**	**(122)**	**(23)**		**2,518**
Net recurring income/(loss) relating to continued operations, Group share	2,372	(127)	(23)	11	2,233
Net recurring income/(loss) relating to discontinued operations, Group share	291	5		(11)	285
NET RECURRING INCOME/(LOSS) ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	**887**	**2**	**(16)**		**874**
Net recurring income/(loss) relating to continued operations attributable to non-controlling interests	762		(16)		746
Net recurring income/(loss) relating to discontinued operations attributable to non-controlling interests	125	3			128
CASH FLOW FROM OPERATIONS (CFFO)	**8,311**	**6**	**11**	**181**	**8,509**

NOTE 3 Main subsidiaries at December 31, 2018

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, 2018

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 accounts 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 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 entities accounted for using the equity method".

"FC" indicates the full consolidation method.

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.

NORTH AMERICA

			% interest		Consolidation method	
Company name	**Activity**	**Country**	**Dec. 31, 2018**	**Dec. 31, 2017**	**Dec. 31, 2018**	**Dec. 31, 2017**
ENGIE North America	Electricity distribution and generation/Natural gas/LNG/Energy services	United States	100.0	100.0	FC	FC
ENGIE Holding Inc.	Holding - parent company	United States	100.0	100.0	FC	FC
Distrigas of Massachussetts	LNG terminals	United States		100.0	-	FC
ENGIE Gas & LNG LLC	Natural gas/LNG	United States	-	100.0	-	FC
ENGIE Infinity Renewables (1)	Electricity distribution and generation	United States	100.0		FC	-
SoCore Energy LLC (2)	Electricity distribution and generation	United States	100.0		FC	-
ENGIE Resources Inc.	Energy sales	United States	100.0	100.0	FC	FC
ENGIE Insight Service	Energy services	United States	100.0	100.0	FC	FC

(1) *Acquisition on February 20, 2018.*
(2) *Acquisition on April 16, 2018.*

LATIN AMERICA

Company name	Activity	Country	% interest Dec. 31, 2018	% interest Dec. 31, 2017	Consolidation method Dec. 31, 2018	Consolidation method Dec. 31, 2017
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	52.8	52.8	FC	FC
ENGIE Energía Perú	Electricity distribution and generation	Peru	61.8	61.8	FC	FC
ENGIE Brasil Energia Group	Electricity distribution and generation	Brazil	68.7	68.7	FC	FC

AFRICA/ASIA

Company name	Activity	Country	% interest Dec. 31, 2018	% interest Dec. 31, 2017	Consolidation method Dec. 31, 2018	Consolidation method Dec. 31, 2017
Glow Group (1)	Electricity distribution and generation	Thailand	69.1	69.1	FC	FC
Hazelwood Power Partnership (2)	Electricity generation	Australia	72.0	72.0	Joint Operation	FC
Loy Yang B Group (3)	Electricity generation	Australia		70.0	FC	FC
Simply Energy	Energy sales	Australia	72.0	72.0	FC	FC
Baymina Enerji A.S.	Electricity generation	Turkey	95.0	95.0	FC	FC

(1) Assets classified as "Assets held for sale" on December 31, 2018 (see Note 5 "Main change in Group structure").
(2) Change in consolidation method in 2018 further to the implementation of a new governance as part of the dismantling of the site.
(3) The Loy Yang B coal-fired power plant in Australia was sold on January 15, 2018 (see Note 5 "Main changes in Group structure").

BENELUX

Company name	Activity	Country	% interest Dec. 31, 2018	% interest Dec. 31, 2017	Consolidation method Dec. 31, 2018	Consolidation method Dec. 31, 2017
Electrabel SA*	Electricity generation/Energy sales	Belgium	100.0	100.0	FC	FC
Synatom	Managing provisions relating to power plants and nuclear fuel	Belgium	100.0	100.0	FC	FC
Cofely Fabricom SA	Systems, facilities and maintenance services	Belgium	100.0	100.0	FC	FC
ENGIE Energie Nederland N.V.*	Energy sales	Netherlands	100.0	100.0	FC	FC
ENGIE Services Nederland N.V.	Energy services	Netherlands	100.0	100.0	FC	FC

FRANCE

Company name	Activity	Country	% interest Dec. 31, 2018	% interest Dec. 31, 2017	Consolidation method Dec. 31, 2018	Consolidation method Dec. 31, 2017
ENGIE SA*	Energy sales	France	100.0	100.0	FC	FC
ENGIE Energie Services SA*	Energy services/Networks	France	100.0	100.0	FC	FC
Axima Concept	Systems, facilities and maintenance services	France	100.0	100.0	FC	FC
Endel Group	Systems, facilities and maintenance services	France	100.0	100.0	FC	FC
INEO Group	Systems, facilities and maintenance services	France	100.0	100.0	FC	FC
Compagnie Nationale du Rhône	Electricity distribution and generation	France	49.9	49.9	FC	FC
ENGIE Green	Electricity distribution and generation	France	100.0	100.0	FC	FC
CPCU	Urban heating networks	France	66.5	64.4	FC	FC

EUROPE EXCLUDING FRANCE & BENELUX

Company name	Activity	Country	% interest		Consolidation method	
			Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
ENGIE Energielösungen GmbH	Energy services	Germany	100.0	100.0	FC	FC
ENGIE Deutschland GmbH	Energy services	Germany	100.0	100.0	FC	FC
ENGIE Italia S.p.A*	Energy sales	Italy	100.0	100.0	FC	FC
ENGIE Servizi S.p.A	Energy services	Italy	100.0	100.0	FC	FC
ENGIE Romania	Natural gas distribution/Energy sales	Romania	51.0	51.0	FC	FC
ENGIE Supply Holding UK Limited	Energy sales	United Kingdom	100.0	100.0	FC	FC
ENGIE Retail Investment UK Limited	Holding	United Kingdom	100.0	100.0	FC	FC
First Hydro Holdings Company	Electricity generation	United Kingdom	75.0	75.0	FC	FC
Keepmoat Regeneration	Energy services	United Kingdom	100.0	100.0	FC	FC
ENGIE Services Holding UK Ltd	Energy services	United Kingdom	100.0	100.0	FC	FC
ENGIE Services Limited	Energy services	United Kingdom	100.0	100.0	FC	FC

INFRASTRUCTURES EUROPE

Company name	Activity	Country	% interest		Consolidation method	
			Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
GRDF	Natural gas distribution	France	100.0	100.0	FC	FC
GRTgaz Group (excluding Elengy)	Natural gas transportation	France	74.6	74.8	FC	FC
Elengy	Natural gas/LNG	France	74.6	74.8	FC	FC
Fosmax LNG	Natural gas/LNG	France	54.1	54.2	FC	FC
Storengy Deutschland GmbH	Underground natural gas storage	Germany	100.0	100.0	FC	FC
Storengy SA	Underground natural gas storage	France	100.0	100.0	FC	FC

GEM (2018) / GEM & LNG (2017) (1)

Company name	Activity	Country	% interest		Consolidation method	
			Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
Electrabel SA*	Energy management trading	France/ Belgium	100.0	100.0	FC	FC
ENGIE Global Markets	Energy management trading	France/ Belgium/ Singapore	100.0	100.0	FC	FC
ENGIE Energy Management*	Energy management trading	France/ Belgium/ Italy/United Kingdom	100.0	100.0	FC	FC
ENGIE Energy Management Holding Switzerland AG	Holding	Switzerland	100.0	100.0	FC	FC
ENGIE SA*	Energy management trading/ Energy sales/LNG	France	100.0	100.0	FC	FC

(1) *The disposal of upstream LNG activities was completed on July 13, 2018. As a result, the reportable segment "GEM & LNG" has been renamed "GEM" and from now on only includes the activities of the GEM Business Unit.*

E&P [(1)]

Company name	Activity	Country	% interest Dec. 31, 2018	% interest Dec. 31, 2017	Consolidation method Dec. 31, 2018	Consolidation method Dec. 31, 2017
ENGIE E&P International Group	Exploration-production	France and other countries	-	70.0	-	FC
ENGIE E&P International	Holding - parent company	France	-	70.0	-	FC
ENGIE E&P Nederland B.V.	Exploration-production	Netherlands	-	70.0	-	FC
ENGIE E&P Deutschland GmbH	Exploration-production	Germany	-	70.0	-	FC
ENGIE E&P Norge AS	Exploration-production	Norway	-	70.0	-	FC
ENGIE E&P UK Ltd.	Exploration-production	United Kingdom	-	70.0	-	FC

(1) The disposal of ENGIE E&P International was completed on February 15, 2018 (see Note 5 "Main changes in Group structure").

OTHERS

Company name	Activity	Country	% interest Dec. 31, 2018	% interest Dec. 31, 2017	Consolidation method Dec. 31, 2018	Consolidation method Dec. 31, 2017
ENGIE SA*	Holding - parent company	France	100.0	100.0	FC	FC
Electrabel SA*	Holding/Electricity generation	Belgium	100.0	100.0	FC	FC
ENGIE Energie Services SA*	Holding	France	100.0	100.0	FC	FC
International Power Limited	Holding	United Kingdom	100.0	100.0	FC	FC
ENGIE CC	Financial subsidiaries/Central functions	Belgium	100.0	100.0	FC	FC
ENGIE FINANCE SA	Financial subsidiaries	France	100.0	100.0	FC	FC
ENGIE Solar	Solar EPC	France	100.0	100.0	FC	FC
ENGIE Energie Nederland N.V.*	Electricity generation	Netherlands	100.0	100.0	FC	FC
ENGIE Cartagena	Electricity generation	Spain	100.0	100.0	FC	FC
ENGIE Deutschland AG*	Electricity generation	Germany	100.0	100.0	FC	FC
ENGIE Kraftwerk Wilhelmshaven GmbH & Co. KG	Electricity generation	Germany	57.0	57.0	FC	FC
ENGIE Thermique France	Electricity generation	France	100.0	100.0	FC	FC
Gaztransport & Technigaz (GTT)	Engineering	France	40.4	40.4	FC	FC
Tractebel Engineering	Engineering	Belgium	100.0	100.0	FC	FC

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;
- whether substantive or protective rights are granted to shareholders, particularly in relation to the entity's relevant activities;
- the consequences of a "deadlock" clause;
- 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 (Intrastructures Europe): 74.6%

In addition to the analysis of the shareholder agreement with Société d'Infrastructures Gazières, a subsidiary of *Caisse des Dépôts et Consignations* (CDC), which owns 24.8% of the share capital of GRTgaz, the Group also assessed 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) of 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 exercises control over GRTgaz and its subsidiaries (including Elengy) in view of its 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 are Compagnie Nationale du Rhône (49.98%) and Gaztransport & Technigaz (40.4%).

Compagnie Nationale du Rhône ("CNR" – France): 49.98%

The Group holds 49.98% of the share capital of CNR, with CDC holding 33.2%, and the balance (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.

Gaztransport & Technigaz ("GTT" – Others): 40.4%

Since GTT's initial public offering in February 2014, ENGIE has been the largest shareholder in the company with a 40.4% stake, the free float representing around 49% of the share capital. The Group holds the majority of the voting rights exercised at shareholders' meetings in view of the widely dispersed shareholding structure and the absence of evidence of minority shareholders acting in concert. ENGIE also holds the majority of the seats on the Board of Directors. The Group considers that it exercises *de facto* control over GTT, based on an IFRS 10 criteria.

3.3 Subsidiaries with material 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 net income at December 31, 2018 and December 31, 2017, as well as the dividends paid to non-controlling interests of these significant subsidiaries:

Corporate name	Activity	Percentage interest of non-controlling interests		Net income/(loss) of non-controlling interests		Equity of non-controlling interests		Dividends paid to non-controlling interests	
In millions of euros		Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
GRTgaz Group (Infrastructures Europe, France)	Regulated gas transportation activities and management of LNG terminals	25.4	25.2	99	99	1,133	981	158	97
ENGIE Energía Chile Group (Latin America, Chile) (1)	Electricity distribution and generation - thermal power plants	47.2	47.2	49	45	913	842	25	27
Glow Group (Africa/Asia, Thailand) (2)	Electricity distribution and generation - hydroelectric, wind and thermal power plants	30.9	30.9	96	87	512	465	75	87
ENGIE Brasil Energia Group (Latin America, Brazil) (1)	Electricity distribution and generation	31.3	31.3	170	174	473	563	206	154
ENGIE Romania Group (Europe excluding France & Benelux, Romania)	Distribution of natural gas/Energy sales	49.0	49.0	43	36	512	491	18	12
ENGIE E&P International Group (E&P, France and other countries) (3)	Portfolio of exploration-production assets and oil and gas field operation assets	NA	30.0	24	93	NA	363	38	
ENGIE Energía Perú (Latin America, Peru) (1)	Electricity distribution and generation - thermal and hydroelectric power plants	38.2	38.2	34	45	376	337	11	17
Gaztransport & Technigaz (Other, France) (1)	Naval engineering, cryogenic membrane containment systems for LNG transportation	59.6	59.6	63	47	339	335	59	59
Other subsidiaries with non-controlling interests				18	162	1,131	1,464	294	227
TOTAL				**595**	**788**	**5,391**	**5,840**	**882**	**680**

(1) The ENGIE Energía Chile, ENGIE Energia Brasil and Glow groups, as well as Gaztransport & Technigaz and ENGIE Energía Perú are listed on the stock markets in their respective countries.

(2) Assets classified as "Assets held for sale" at December 31, 2018 (see Note 5 "Main changes in Group structure").

(3) The disposal of ENGIE E&P International group was finalized on Februarys 15, 2018 (see Note 5 "Main changes in Group structure").

3.3.1 Condensed financial information on subsidiaries with material 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		Glow Group [(1)]		ENGIE Brasil Energia Group	
In millions of euros	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
Income statement								
Revenues	2,298	2,266	1,028	895	1,354	1,287	2,017	1,935
Net income/(loss)	389	461	94	85	262	225	544	555
Net income/(loss) Group share	283	342	45	40	165	138	374	381
Other comprehensive income/(loss) – Owners of the parent	(13)	(4)	49	(122)	41	(51)	(119)	(178)
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**270**	**339**	**94**	**(82)**	**206**	**87**	**255**	**203**
Statement of financial position								
Current assets	918	777	364	343	3,278	584	1,045	998
Non-current assets	10,404	10,481	2,700	2,562	(257)	2,330	4,232	3,895
Current liabilities	(921)	(885)	(271)	(303)	(950)	(359)	(907)	(1,460)
Non-current liabilities	(6,198)	(5,910)	(910)	(871)	(835)	(1,363)	(2,983)	(1,759)
TOTAL EQUITY	**4,204**	**4,462**	**1,882**	**1,732**	**1,237**	**1,191**	**1,388**	**1,673**
TOTAL NON-CONTROLLING INTERESTS	**1,133**	**1,196**	**913**	**842**	**512**	**465**	**473**	**563**
Statement of cash flows								
Cash flow from operating activities	1,213	1,074	249	190	421	487	875	797
Cash flow from (used in) investing activities	(493)	(915)	(248)	(428)	(132)	(142)	(851)	(1,551)
Cash flow from (used in) financing activities	(740)	(149)	(15)	55	(534)	(316)	89	770
TOTAL CASH FLOW FOR THE PERIOD [(2)]	**(20)**	**10**	**(14)**	**(183)**	**(245)**	**29**	**113**	**16**

(1) Assets classified as "Assets held for sales" at December 31, 2018 (see Note 5 "Main changes in Group structure").
(2) Excluding effects of changes in exchange rates and other.

In millions of euros	ENGIE Romania Group Dec. 31, 2018	ENGIE Romania Group Dec. 31, 2017	ENGIE Energía Perú Dec. 31, 2018	ENGIE Energía Perú Dec. 31, 2017	Gaztransport & Technigaz Dec. 31, 2018	Gaztransport & Technigaz Dec. 31, 2017
Income statement						
Revenues	1,231	1,051	427	502	246	237
Net income/(loss)	87	74	88	117	106	78
Net income/(loss) Group share	44	38	55	72	43	32
Other comprehensive income/(loss) – Owners of the parent	(3)	(13)	27	(66)		
TOTAL COMPREHENSIVE INCOME/ (LOSS) – OWNERS OF THE PARENT	**41**	**25**	**81**	**6**	**43**	**32**
Statement of financial position						
Current assets	626	517	255	224	319	232
Non-current assets	787	769	1,728	1,678	491	530
Current liabilities	(312)	(240)	(174)	(259)	(166)	(122)
Non-current liabilities	(64)	(57)	(824)	(764)	(74)	(79)
TOTAL EQUITY	**1,037**	**989**	**985**	**879**	**570**	**562**
TOTAL NON-CONTROLLING INTERESTS	**512**	**491**	**376**	**337**	**339**	**335**
Statement of cash flows						
Cash flow from operating activities	109	120	195	323	168	116
Cash flow from (used in) investing activities	(58)	(38)	(19)	(73)	(9)	(6)
Cash flow from (used in) financing activities	(54)	(67)	(144)	(242)	(94)	(95)
TOTAL CASH FLOW FOR THE PERIOD [(1)]	**(3)**	**15**	**33**	**8**	**66**	**14**

(1) Excluding effects of changes in exchange rates and other.

NOTE 4 Investments in entities accounted for using the equity method

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, 2018 and December 31, 2017 are as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 [(1)]
Statement of financial position		
Investments in associates	4,590	5,118
Investments in joint ventures	3,256	2,488
INVESTMENTS IN ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**7,846**	**7,606**
Income statement		
Share in net income/(loss) of associates	88	263
Share in net income/(loss) of joint ventures	273	159
SHARE IN NET INCOME/(LOSS) OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**361**	**422**
Statement of comprehensive income		
Share of associates in "Other comprehensive income/(loss)"	132	113
Share of joint ventures in "Other comprehensive income/(loss)"	26	(7)
SHARE OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD IN "OTHER COMPREHENSIVE INCOME/(LOSS)"	**158**	**106**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

6

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;
- whether substantive or protective rights are granted to shareholders, particularly in relation 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 decision-making analysis relates to the relevant residual activities of the entity (those that significantly affect the variable returns of the entity);
- the consequences of a "deadlock" clause;
- 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 concerned 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 has 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.

SUEZ Group (32.06%)

With effect from July 22, 2013, the date on which the SUEZ shareholders' agreement expired, ENGIE no longer controls SUEZ but exercises significant influence over the company. In particular, this is because: (i) the Group does not have a majority of members on SUEZ's Board of Directors, (ii) at Shareholders' Meetings, although SUEZ's shareholder base is fragmented and ENGIE holds a large interest, past voting shows that ENGIE alone did not have the majority at Ordinary and Extraordinary Shareholders' Meetings between 2010 and 2018 and (iii) the operational transition agreements (essentially relating to a framework agreement governing purchases and IT) were entered into on an arm's length basis.

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.

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, 2018.

4.1 Investments in associates

4.1.1 Contribution of material associates and of associates that are not material to the Group 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 companies accounted for using the equity method" 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.

Corporate name	Activity	Capacity	Percentage interest 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			Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
SUEZ Group (Other)	Water and waste processing		32.06	31.96	1,968	2,083	55	100	21	99	130	119
Energia Sustentável Do Brasil (Latin America, Brazil)	Hydro power plant	3,750 MW	40.00	40.00	646	784	(57)	(23)	-	-	-	-
Project management entities in the Middle East (Africa/Asia, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Oman, Kuwait) (1)	Gas-fired power plants and seawater desalination facilities		-	-	1,004	868	97	157	96	(16)	97	96
GASAG (Europe excluding France & Benelux, Germany)	Gas and heat networks		31.57	31.57	261	247	18	14	1	4	4	2
Other investments in associates that are not material taken individually			-	-	710	1,136	(25)	14	14	26	104	60
INVESTMENTS IN ASSOCIATES			**-**	**-**	**4,590**	**5,118**	**88**	**263**	**132**	**113**	**334**	**278**

(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 28,020 MW (at 100%) and a further 1,507 MW (at 100%) in capacity under construction.*
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 IFRIC 4 and IAS 17. 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 a net non-recurring loss for a total amount of €155 million in 2018 (compared to a net non-recurring loss of €43 million in 2017), mainly including changes in the fair value of derivative instruments and disposal gains and losses, net of tax *(see Note 6.2 "Net recurring income Group share")*.

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 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 millions of euros	Revenues	Net income/ (loss)	Other comprehensive income/ (loss)	Total comprehensive income/ (loss)	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Total equity	% interest of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2018											
SUEZ Group [(1)]	17,331	335	(103)	232	10,872	22,681	11,664	12,896	8,993	32.06	1,968
Energia Sustentável Do Brasil	564	(142)	-	(142)	199	4,388	544	2,428	1,615	40.00	646
Project management entities in the Middle East	4,254	467	406	873	2,572	21,401	3,775	16,263	3,934		1,004
GASAG	1,196	56	3	59	798	1,733	1,508	196	827	31.57	261
AT DECEMBER 31, 2017											
SUEZ Group [(1)]	15,783	296	(195)	101	10,314	22,517	10,920	12,889	9,022	31.96	2,083
Energia Sustentável Do Brasil	789	(58)	(1)	(58)	269	4,976	591	2,695	1,960	40.00	784
Project management entities in the Middle East	4,147	633	87	720	2,512	20,958	3,979	16,219	3,272		868
GASAG	1,106	46	12	58	780	1,676	1,500	173	782	31.58	247

(1) The data indicated in the table for SUEZ correspond to financial information published by SUEZ. Total SUEZ equity attributable to the Group amounts to €6,392 million based on the published financial statements of SUEZ and €6,139 million based on the financial statements of ENGIE. The difference in these amounts mainly reflects the non-inclusion of the share in deeply-subordinated perpetual notes issued by SUEZ in total equity attributable to ENGIE, partly offset by the fair value measurement of the assets and liabilities of SUEZ at the date the Group changed its consolidation method (July 22, 2013).

SUEZ is the only material listed associate. Based on the closing share price at December 31, 2018, the market value of this interest was €2,297 million.

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 2018 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 an dother payables	Borrowings and debt
Project management entities in the Middle East		237	(3)	33	69	4	
Contassur [(1)]				167	2		
Energia Sustentável Do Brasil	126				76	10	
Other	29	4	8	17	182	2	1
AT DECEMBER 31, 2018	**154**	**241**	**4**	**217**	**329**	**16**	**1**

(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 €168 million at December 31, 2018 (€159 million at December 31, 2017).

4.2 Investments in joint ventures

4.2.1 Contribution of material joint ventures and of joint ventures that are not material to the Group taken individually

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 entities accounted for using the equity method" 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 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.

Corporate name	Activity	Capacity	Percentage interest of investments in joint ventures		Carrying amount of investments in joint ventures		Share in net income/(loss) of joint ventures		Other comprehensive income/(loss) of joint ventures		Dividends received from joint ventures	
In millions of euros			Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
National Central Cooling Company "Tabreed" (Africa/Asia, Abu Dhabi)	District cooling networks		40.00	40.00	710	656	40	13	-	-	39	-
EcoÉlectrica (North America, Puerto Rico)	Combined-cycle gas-fired power plant and LNG terminal	507 MW	50.00	50.00	416	470	34	44	-	-	104	-
Portfolio of power generation assets in Portugal (Europe excluding France & Benelux, Portugal)	Electricity generation	2,895 MW	50.00	50.00	325	329	44	40	1	3	49	135
WSW Energie und Wasser AG (Europe excluding France & Benelux, Germany)	Electricity distribution and generation	229 MW	33.10	33.10	204	192	11	7	-	-	3	3
Tihama Power Generation Co (Africa/Asia, Saudi Arabia)	Electricity generation	1,599 MW	60.00	60.00	163	122	34	2	1	1	-	-
Ohio State Energy Partners (North America)	Services		50,00	50.00	129	117	5	3	5	(2)	4	1
Megal GmbH (Infrastuctures Europe, Germany)	Gas transmission network		49.00	49.00	91	98	6	4	-	-	13	12
Transmisora Eléctrica del Norte (Latin America, Chile)	Electricity transmission line		50.00	50.00	85	66	7	1	-	-	-	-
Other investments in joint ventures that are not material taken individually					1,134	438	92	44	18	(9)	31	36
INVESTMENTS IN JOINT VENTURES					**3,256**	**2,488**	**273**	**159**	**26**	**(7)**	**244**	**188**

The share in net income/(loss) of joint ventures includes non-recurring income of €6 million in 2018 (non-recurring income of €18 million in 2017), resulting chiefly from changes in the fair value of derivatives, impairment losses and disposal gains and losses, net of tax *(see Note 6.2 "Net recurring income Group share")*.

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 on intangible assets and property, plant and equipment	Net financial income/ (loss) [(1)]	Income tax expense	Net income/ (loss)	Other comprehensive income/ (loss)	Total comprehensive income/ (loss)
AT DECEMBER 31, 2018							
National Central Cooling Company "Tabreed"	335	(34)	(37)	-	100	-	100
EcoÉlectrica	280	(63)	2	(3)	68	-	68
Portfolio of power generation assets in Portugal	749	(65)	(31)	(37)	106	3	109
WSW Energie und Wasser AG	856	(11)	(3)	(19)	35	-	35
Tihama Power Generation Co	111	(5)	(24)	(8)	56	1	57
Ohio State Energy Partners	52	-	(33)	-	10	11	21
Megal GmbH	124	(63)	(4)	2	12	-	12
Transmisora Eléctrica del Norte	75	-	(33)	(5)	14	16	30
AT DECEMBER 31, 2017							
National Central Cooling Company "Tabreed" [(2)]	121	(12)	(15)	-	34	-	34
EcoÉlectrica	301	(72)	(2)	(4)	89	-	89
Portfolio of power generation assets in Portugal	760	(66)	(36)	(20)	100	12	112
WSW Energie und Wasser AG	879	(13)	(5)	(16)	21	1	23
Tihama Power Generation Co	120	(5)	(26)	(5)	3	2	4
Ohio State Energy Partners	27	-	(16)	-	6	(5)	1
Megal GmbH	115	(59)	(4)	2	9	-	9
Transmisora Eléctrica del Norte	7	-	4	(1)	3	(8)	(5)

(1) *Interest income is not material.*
(2) *These data correspond to the amount at 100% from the date acquisition by ENGIE (August 16, 2017).*

INFORMATION ON THE STATEMENT OF FINANCIAL POSITION

In millions of euros	Cash and cash equiva-lents	Other current assets	Non-current assets	Short-term borro-wings	Other current liabilities	Long-term borro-wings	Other non-current liabilities	Total equity	% interest of Group	Total equity attribu-table to ENGIE
AT DECEMBER 31, 2018										
National Central Cooling Company "Tabreed"	65	124	2,574	-	173	816	-	1,775	40.00	710
EcoÉlectrica	24	107	755	3	27	-	23	833	50.00	416
Portfolio of power generation assets in Portugal (1)	231	568	1,305	287	178	763	115	761	50.00	325
WSW Energie und Wasser AG (2)	12	148	778	55	84	101	103	596	33.10	204
Tihama Power Generation Co	129	140	488	61	40	370	15	271	60.00	163
Ohio State Energy Partners	16	8	1,039	(6)	7	804	-	257	50.00	129
Megal GmbH	-	13	752	10	55	446	70	185	49.00	91
Transmisora Eléctrica del Norte	66	30	773	75	3	621	-	170	50.00	85
AT DECEMBER 31, 2017										
National Central Cooling Company "Tabreed"	101	108	2,351	-	160	760	-	1,641	40.00	656
EcoÉlectrica	97	112	773	3	16	-	23	940	50.00	470
Portfolio of power generation assets in Portugal	245	741	1,275	315	168	886	130	762	50.00	329
WSW Energie und Wasser AG	13	117	769	40	98	105	97	560	33.10	192
WSW Energie und Wasser AG	77	20	626	50	52	404	14	204	60.00	122
Tihama Power Generation Co	25	0	931	717	1	6	-	234	50.00	117
Megal GmbH	5	6	765	4	50	446	77	200	49.00	98
Transmisora Eléctrica del Norte	21	103	849	2	5	836	-	131	50.00	66

(1) Equity Group share amounts to €649 million for the Portuguese sub-group. The share of this €649 million attributable to ENGIE is therefore €325 million.
(2) Equity Group share amounts to €586 million for the WSW Energie und Wasser AG sub-group. The share of this €586 million attributable to ENGIE is therefore €193 million. This amount is increased by an additional share of €11 million in respect of a non-controlling interest held directly by ENGIE in a subsidiary of this sub-group (and is therefore not included in the €586 million in equity attributable to the owners of the parent).

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 2018 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		123				23	
Portfolio of power generation assets in Portugal					128		
WSW Energie und Wasser AG	1	43		6			
Megal GmbH	65					5	
Futures Energies Investissements Holding	2	17	4		157		
Other	36	21	6	10	116	3	8
AT DECEMBER 31, 2018	**104**	**205**	**10**	**17**	**400**	**32**	**8**

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 €171 million in 2018 (€218 million in 2017). Unrecognized losses relating to fiscal year 2018 amounted to €18 million.

These unrecognized losses mainly correspond to (i) the negative fair value of derivative instruments designated as interest rate and commodity hedges ("Other comprehensive income/(loss)") contracted by associates in Asia Pacific in connection with the financing of construction projects for power generation plants and (ii) cumulative losses arising on the Tirreno Power joint venture.

4.3.2 Commitments and guarantees given by the Group in respect of entities accounted for using the equity method

At December 31, 2018, the main commitments and guarantees given by the Group in respect of entities accounted for using the equity method concern the following two companies and groups of companies:

- Energia Sustentável do Brasil ("Jirau"), for an aggregate amount of BRL 4,341 million (€975 million).

  At December 31, 2018, 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 10,852 million (€2,439 million). Each partner stands as guarantor for this debt to the extent of its ownership interest in the consortium;
- the project management entities in the Middle East and Africa, for an aggregate amount of €1,035 million.

  Commitments and guarantees given by the Group in respect of these project management entities chiefly correspond to:
  - an equity contribution commitment (capital/subordinated debt) for €147 million. These commitments only concern entities acting as holding companies for projects in the construction phase,
  - letters of credit to guarantee debt service reserve accounts for an aggregate amount of €237 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. 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 €261 million,
  - performance bonds and other guarantees for an amount of €390 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 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 the 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.

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 2018

As part of its transformation plan, on February 25, 2016, the Group presented a €15 billion asset disposal program in order to reduce its exposure to high CO_2 emitting activities and merchant activities over the 2016-2018 period.

The table below shows the impact of the main disposals and sale agreements of 2018 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 the Loy Yang B coal power plant (Australia)	471	330
Disposal of the exploration-production activities	921	1,913
Disposal of gas distribution activities (Hungary)	147	198
Disposal of LNG activities	1,202	1,144
Other disposals that are not material taken individually	285	353
Classification of Glow activities under "Assets held for sale" - Thaïland		723
Classification of Langa activities under "Assets held for sale" - France		270
TOTAL	**3,026**	**4,931**

The €4,931 million reduction in net debt at December 31, 2018 is in addition to the €8,976 million decrease previously recognized at December 31, 2017 as part of the asset disposal program, representing a total of €13,907 million to date. Additional disposals in the process of completion at December 31, 2018 are described in Note 5.2.

5.1.1 Disposal of the Loy Yang B coal-fired power plant (Australia)

On January 15, 2018, the Group completed the sale of the Loy Yang B coal-fired power plant in Australia, for which it received a payment of €471 million corresponding to the sale price of the entire interest in Loy Yang B. An amount corresponding to 30% of this price was paid to Mitsui in the form of dividends.

The transaction reduced the Group's net debt by €624 million (the impact of the derecognition of Loy Yang B's net debt totaling €294 million following its classification under "Assets held for sale" at December 31, 2017, plus the payment of €330 million received in 2018 for the 70% interest sold). The loss on disposal totaled €87 million for 2018, mainly corresponding to the reclassification from other comprehensive income to the income statement of translation adjustments and net investment hedges relating to the portfolio.

5.1.2 Disposal of the exploration-production business

On February 15, 2018, the Group completed the sale of its 70% interest in ENGIE E&P International (EPI) to Neptune Energy and received a payment of €921 million, corresponding to the sale price of all of its shares.

The combined effects of the transaction and of the cash generated by these activities since January 1, 2018 have reduced the Group's net debt by €1,913 million. The disposal gain before tax, recognized in "Net income/(loss) relating to discontinued operations" (*see Note 5.2.3*), amounted to €65 million in 2018.

Following the transaction, the Group still holds a residual 46% interest in ENGIE E&P Touat B.V. (Other sector), which holds a 65% stake in the Touat gas field under development in Algeria. This interest is now accounted for using the equity method.

(1) Develop, Build, Share and Operate.

5.1.3 Disposal of the gas distribution business (Hungary)

On January 11, 2018, following the success of the negotiations initiated in the second half of 2015 with the Hungarian State, the Group completed the sale of its entire interest in its Hungarian gas distribution subsidiary Égaz-Dégaz to Nemzeti Közmuvek Zártköruen Muködö Résvénytársaság (NKM) - a Hungarian state-owned company. The transaction reduced the Group's net debt by €198 million, with no material disposal gain.

5.1.4 Disposal of ENGIE's liquefied natural gas (LNG) activities

On July 13, 2018, the Group completed the sale of its upstream LNG activities to Total: liquefaction, shipping (including the Gazocéan subsidiary) and international LNG trading operations.

The combined effects of the transaction and of the cash generated by these LNG upstream activities since January 1, 2018 have reduced the Group's net debt by €1,144 million excluding any additional future payments to be received. The disposal gain before tax, recognized in "Net income/(loss) relating to discontinued operations" (*see Note 5.2.3*), amounted to €1,193 million at December 31, 2018.

5.2 Assets held for sale and discontinued operations

Total "Assets classified as held for sale" and total "Liabilities directly associated with assets classified as held for sale" amounted to €3,798 million and €2,130 million, respectively, at December 31, 2018.

In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**
Property, plant and equipment, net	2,661	5,307
Other assets	1,137	1,380
TOTAL ASSETS CLASSIFIED AS HELD FOR SALE	**3,798**	**6,687**
Of which Assets relating to discontinued operations		*5,471*
Borrowings and debt	1,019	418
Other liabilities	1,111	2,953
TOTAL LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE	**2,130**	**3,371**
Of which Liabilities directly associated with assets relating to discontinued operations		*2,705*

All assets classified as held for sale at December 31, 2017 (exploration-production activities and the Loy Yang B power plant in Australia) were sold in 2018 (*see Note 5.1, Disposals carried out in 2018*).

At December 31, 2018 these assets and liabilities related to Glow's activities in Thailand, the solar parks run by Langa group in France and renewable energy assets in Mexico.

5.2.1 Disposal of ENGIE's interest in Glow

On June 20, 2018, ENGIE signed a share purchase agreement with Thailand-based Global Power Synergy Public Company Ltd. (GPSC) for the sale of its 69.1% interest in Glow, an independent power producer listed on the Stock Exchange of Thailand (Africa/Asia segment) and the Group classified it as an asset held for sale at the same date. The transaction translates into net proceeds of €2.5 billion for ENGIE and is expected to result in a total €3.2 billion reduction in ENGIE's consolidated net debt.

This reclassification under "Assets held for sale" reduced the Group's net debt by €723 million at December 31, 2018. Given the expected capital gain from the sale, no value adjustments were made at December 31, 2018. Glow's contribution to "Net income/(loss) Group share" was €165 million for 2018 and €138 million for 2017.

The transaction is expected to be completed during first-half 2019. The disposal gain is expected to be in the range of €1.5 billion.

5.2.2 Langa group asset disposal program

On December 21, 2018, the Group signed a sale agreement with Predica for the solar parks operated or under construction by Langa (France segment) to FEIH2 (a joint venture 80%-owned by Predica and 20%-owned by the ENGIE Group).

At December 31, 2018, the Group considered that the sale of these assets was highly probable in view of the progress made in the divestiture process and, as a result, classified the assets under "Assets held for sale". In view of the expected disposal gain, no value adjustments were recorded at December 31, 2018.

This reclassification under "Assets held for sale" reduced the Group's net debt by €270 million at December 31, 2018. The assets' contribution to net income Group share in 2018 was marginal.

The transaction is expected to be completed in fourth-quarter 2019.

5.2.3 Financial information on discontinued operations

Income from discontinued operations

In millions of euros	Dec 31, 2018	Dec 31, 2017
Revenues from contracts with customers	2,163	5,021
Revenues from other contracts	65	52
REVENUES	**2,229**	**5,073**
Purchases	(2,102)	(3,326)
Personnel costs	(35)	(237)
Depreciation, amortization and provisions	(18)	(86)
Other operating expenses	(44)	(322)
Other operating income	(5)	16
CURRENT OPERATING INCOME	**25**	**1,119**
Share in net income of entities accounted for using the equity method	2	11
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**27**	**1,130**
Mark-to-market on commodity contracts other than trading instruments	(221)	(381)
Impairment losses	(1)	(138)
Restructuring costs		(3)
Changes in scope of consolidation	1,258	(15)
Other non-recurring items	(2)	369
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**1,062**	**961**
Financial expenses	(20)	(88)
Financial income	7	27
NET FINANCIAL INCOME/(LOSS)	**(14)**	**(61)**
Income tax expense	21	(533)
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**1,069**	**366**
Net income/(loss) relating to discontinued operations, Group share	*1,045*	*273*
Non-controlling interests relating to discontinued operations	*24*	*93*

Income from discontinued operations relates to ENGIE's upstream LNG activities (*see Note 5.1.4*) and to exploration production activities, including the disposal gain (*see Note 5.1.2*).

Revenues generated by discontinued operations (LNG and EPI) with ENGIE Group companies totaled €880 million in 2018 (versus €1,959 million in 2017).

As required by IFRS 5, ENGIE has no longer recognized any depreciation and amortization expense on the property, plant and equipment and intangible assets of LNG activities (as of April 1, 2018) and of EPI activities (as of May 11, 2017). The savings generated by this change amounted to €36 million before tax (primarily relating to EPI) in 2018.

Net income relating to discontinued operations also includes €22 million of costs incurred specifically in connection with the LNG transaction.

Comprehensive income from discontinued operations

In millions of euros	Dec. 31, 2018	Dec. 31, 2018 Owners of the parent	Dec. 31, 2018 Non-controlling interests	Dec. 31, 2017	Dec. 31, 2017 Owners of the parent	Dec. 31, 2017 Non-controlling interests
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**1,069**	**1,045**	**24**	**366**	**273**	**93**
Commodity cash flow hedges	80	52	28	246	211	34
Deferred tax on items above	(43)	(33)	(10)	(88)	(76)	(12)
Share of entities accounted for using the equity method in recyclable items, net of tax	46	46		(10)	(10)	
Translation adjustments	(43)	(23)	(19)	(268)	(193)	(75)
TOTAL RECYCLABLE ITEMS	**37**	**39**	**(3)**	**(121)**	**(68)**	**(53)**
Actuarial gains and losses	(2)		(2)	(2)	(2)	(1)
Deferred tax on items above	(1)	(1)		7	5	3
TOTAL NON-RECYCLABLE ITEMS	**(3)**	**(2)**	**(2)**	**5**	**3**	**2**
TOTAL COMPREHENSIVE INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**1,102**	**1,083**	**19**	**250**	**208**	**42**

Comprehensive income from discontinued operations relates to ENGIE's upstream LNG activities (*see Note 5.1.4*) and to exploration-production activities (*see Note 5.1.2*).

Cash flows from discontinued operations

In millions of euros	Dec 31, 2018	Dec 31, 2017
NET INCOME/(LOSS)	**1,069**	**366**
Cash generated from operations before income tax and working capital requirements	**42**	**1,224**
Tax paid	(53)	(460)
Change in working capital requirements	**28**	**(288)**
CASH FLOW FROM OPERATING ACTIVITIES	**17**	**476**
Acquisitions of property, plant and equipment and intangible assets	(51)	(601)
Loss of controlling interests in entities, net of cash and cash equivalent sold	(522)	
Disposals of equity and debt instruments		412
Other	(710)	(53)
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES	**(1,282)**	**(242)**
Cash flow from (used in) financing activities excluding intercompany transactions	1,284	(49)
Intercompany transactions with ENGIE on borrowings	(7)	(223)
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES	**1,278**	**(272)**
Effects of changes in exchange rates and other	3	(11)
TOTAL CASH FLOW FOR THE PERIOD	**15**	**(49)**
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	**15**	**65**
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**15**

Cash flows from discontinued operations relate to ENGIE's upstream LNG activities (*see Note 5.1.4*) and to exploration-production activities (*see Note 5.1.2*).

5.3 Acquisitions carried out in 2018

Various other acquisitions, equity transactions and disposals took place in 2018. They included the purchase of (i) companies in the renewable energy sector (wind and solar power) and in the services sector (microgrid, heating and cabling network) in the United States, (ii) the Langa group (an independent producer in solar, wind, biogas and biomass power in the renewable energy sector) as well as the purchase of a majority interest in Electro Power Systems (EPS, a company listed on Euronext which specializes in energy storage solutions and microgrids that enable intermittent renewable sources to be transformed into a stable power source) in France, and (iii) Priora FM SA (an airport services company) in Switzerland. In addition, on December 6, 2018, the Group finalized its acquisition of Compañía Americana de Multiservicios (CAM), the leading installation, operation and maintenance services provider in the electricity and telecommunications sectors in Latin America.

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 aggregates of the IFRS consolidated financial statements.

6.1 EBITDA

The reconciliation between EBITDA and current operating income after share in net income of entities accounted for using the equity method is as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,126**	**5,172**
Net depreciation and amortization/Other	3,882	3,966
Share-based payments (IFRS 2)	79	37
Non-recurring share in net income of entities accounted for using the equity method	149	24
EBITDA	**9,236**	**9,199**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

6.2 Net recurring income Group share

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.

This financial indicator therefore excludes:

- all items presented between the lines "Current operating income after share in net income of entities accounted for using the equity method" and "Income/(loss) from operating activities", i.e. "Mark-to-market on commodity contracts other than trading instruments", "Impairment losses", "Restructuring costs", "Changes in scope of consolidation" and "Other non-recurring items". These items are defined in Note 10 "Income/(loss) from operating activities";
- the following components of net financial income/(loss): the impact of debt restructuring, compensation payments on the early unwinding of derivative instruments net of the reversal of the fair value of these derivatives that were settled early, changes in the fair value of derivative instruments which do not qualify as hedges under IFRS 9 – *Financial Instruments: Recognition and Measurement,* as well as the ineffective portion of derivative instruments that qualify as hedges;
- the income tax impact of the items described above, determined using the statutory income tax rate applicable to the relevant tax entity;
- the recovery from the French State of the 3% tax on dividends in 2017 and the impact of tax rate changes in France and in the United States and other non-recurring measures in 2017 *(see Note 12.1.2)*;
- net non-recurring items included in "Share in net income of entities accounted for using the equity method". The excluded items correspond to the non-recurring items as defined above.

The reconciliation of net income/(loss) with net recurring income Group share is as follows:

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017 [(1)]
NET INCOME/(LOSS) GROUP SHARE		**1,033**	**1,320**
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS, GROUP SHARE		1,045	273
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS, GROUP SHARE		**(12)**	**1,047**
Non-controlling interests relating to continued operations		572	695
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS		**560**	**1,741**
Reconciliation items between CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD and INCOME/(LOSS) FROM OPERATING ACTIVITIES		**2,481**	**2,437**
Mark-to-market on commodity contracts other than trading instruments	*10*	*223*	*(29)*
Impairment losses	*10*	*1,798*	*1,298*
Restructuring costs	*10*	*162*	*669*
Changes in scope of consolidation	*10*	*150*	*(752)*
Other non-recurring items	*10*	*147*	*1,252*
Other adjusted items		**207**	**(1,198)**
Ineffective portion of derivatives qualified as fair value hedges	*11.3*	*3*	*2*
Gains/(losses) on debt restructuring and early unwinding of derivative financial instruments	*11.2*	*(7)*	*98*
Change in fair value of derivatives not qualified as hedges and ineffective portion of derivatives qualified as cash flow hedges	*11.3*	*183*	*187*
Non recurring income/(loss) from debt instruments and equity instruments	*11.3*	*26*	
Recovery from the French State of the 3% tax on dividends			*(408)*
Tax rate changes in France, in the United States and other non-recurring measures			*(479)*
Other adjusted tax impacts		*(147)*	*(622)*
Non-recurring income included in share in net income of entities accounted for using the equity method		*149*	*24*
NET RECURRING INCOME RELATING TO CONTINUED OPERATIONS		**3,248**	**2,980**
Net recurring income relating to continued operations attributable to non-controlling interests		790	746
NET RECURRING INCOME RELATING TO CONTINUED OPERATIONS, GROUP SHARE		**2,458**	**2,233**
Net recurring income relating to discontinued operations, Group share [(2)]		(33)	285
NET RECURRING INCOME GROUP SHARE		**2,425**	**2,518**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

(2) The reconciliation of "net income/(loss) relating to discontinued operations, Group share" with "net recurring income relating to discontinued operations, Group share" at December 31, 2018 is mainly due to the gain on the disposal of the exploration-production activities, to the MtM on commodity contracts other than trading instruments recorded by upstream LNG activities and to miscellaneous disposal costs.

6.3 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, 2018	Dec. 31, 2017 [1]
(+) Property, plant and equipment and intangible assets, net	55,635	57,566
(+) Goodwill	17,809	17,285
(-) Goodwill Gaz de France - SUEZ and International Power [2]	*(7,610)*	*(7,715)*
(+) IFRIC 4 and IFRIC 12 receivables	1,550	1,548
(+) Investments in entities accounted for using the equity method	7,846	7,606
(-) Goodwill arising on the International Power combination [2]	*(151)*	*(144)*
(+) Trade and other receivables, net	15,613	13,127
(-) Margin calls [2, 3]	*(1,669)*	*(1,110)*
(+) Inventories	4,158	4,161
(+) Assets from contracts with customers	7,411	6,930
(+) Other current and non-current assets	9,811	9,073
(+) Deferred tax	(4,349)	(4,361)
(+) Cancellation of deferred tax on other recyclable items [2]	*(247)*	*(236)*
(-) Provisions	(21,813)	(21,715)
(+) Actuarial gains and losses in shareholders' equity (net of deferred tax) [2]	*2,637*	*2,438*
(-) Trade and other payables	(19,759)	(16,404)
(+) Margin calls [2, 3]	*1,681*	*473*
(-) Liabilities from contracts with customers	(3,634)	(3,575)
(-) Other current and non-current liabilities	(13,507)	(12,579)
INDUSTRIAL CAPITAL EMPLOYED	**51,412**	**52,370**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 “Restatement of 2017 comparative data”).
(2) 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.
(3) 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 reduce its exposure to counterparty risk on commodity transactions.

6

6.4 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, 2018	Dec. 31, 2017 (1)
Cash generated from operations before income tax and working capital requirements	8,464	8,150
Tax paid	(757)	(905)
Change in working capital requirements	149	1,613
Interest received on non-current financial assets	26	75
Dividends received on non-current financial assets	52	171
Interest paid	(727)	(744)
Interest received on cash and cash equivalents	79	107
Change in financial assets at fair value through income	(289)	(197)
(+) Change in financial assets at fair value through income recorded in the statement of financial position and other	*303*	*238*
CASH FLOW FROM OPERATIONS (CFFO)	**7,300**	**8,509**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

6.5 Capital expenditures (CAPEX)

The reconciliation of capital expenditures (CAPEX) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Acquisitions of property, plant and equipment and intangible assets	6,202	5,778
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	983	692
(+) Cash and cash equivalents acquired	83	30
Acquisitions of investments in entities accounted for using the equity method and joint operations	338	1,311
Acquisitions of equity and debt instruments	283	247
Change in loans and receivables originated by the Group and other	251	856
(+) Other	11	3
Change in ownership interests in controlled entities	18	(1)
(+) Payments received in respect of the disposal of non-controlling interests		*222*
TOTAL CAPITAL EXPENDITURE (CAPEX)	**8,169**	**9,137**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

6.6 Net debt

Net debt is presented in Note 17.3 "Net debt".

6.7 Economic net debt

Economic net debt is as follows:

In millions of euros	Notes	Dec. 31, 2018	Dec. 31, 2017 (1)
NET DEBT	**17**	**21,102**	**22,520**
Internal debt of discontinued operations	17		1,732
NET DEBT (EXCLUDING INTERNAL DEBT OF DISCONTINUED OPERATIONS)		**21,102**	**20,788**
Future minimum operating lease payments	23	2,087	3,463
(-) Discontinued operations			*(1,132)*
Provisions for back-end of the nuclear fuel cycle	20	6,170	5,914
Provisions for dismantling of plant and equipment	20	6,081	5,728
Provisions for site rehabilitation	20	222	313
Post-employment benefit - Pension	21	1,970	1,763
(-) Discontinued operations		-	*(14)*
(-) Infrastructures regulated companies		*60*	*40*
Post-employment benefit - Reimbursement rights	21	(167)	(158)
Post-employment benefit - Others benefits	21	4,293	4,278
(-) Discontinued operations		-	*(34)*
(-) Infrastructures regulated companies		*(2,572)*	*(2,420)*
Deferred tax assets for pension and related obligations	12	(1,374)	(1,318)
(-) Discontinued operations		-	*11*
(-) Infrastructures regulated companies		*601*	*578*
Plan assets relating to nuclear provisions, inventories of uranium and a receivable of Electrabel towards EDF Belgium	17 & 27	(2,883)	(2,672)
ECONOMIC NET DEBT		**35,590**	**35,127**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

NOTE 7 Segment information

7.1 Operating segments and reportable segments

ENGIE is organized into 23 Business Units (BUs) or operating segments primarily based on a region-centered approach within a single country or group of countries. Each Business Unit corresponds to an "operating segment" whose operational and financial performance is regularly reviewed by the Group's Executive Committee, which is the Group's "chief operating decision maker" within the meaning of IFRS 8.

These operating segments are grouped into nine reportable segments to present the Group's segment information: North America, Latin America, Africa/Asia, Benelux, France, Europe excluding France & Benelux, Infrastructures Europe, GEM & LNG and Other.

Exploration & Production (E&P) and LNG have been sold (see Note 5 "*Main changes in Group structure*"). As a result, the reportable segment "GEM & LNG" has been renamed "GEM" and from now on only includes the activities of the GEM Business Unit.

7.1.1 Description of reportable segments

- North America: includes power generation, energy services and natural gas and electricity sales activities in the United States, Canada and Puerto Rico.
- Latin America: groups together the activities of (i) the Brazil BU and (ii) the Latin America BU (Argentina, Chile, Mexico and Peru). The subsidiaries concerned are involved in the centralized power generation and gas chain businesses, and energy services.
- Africa/Asia: groups together the activities of the following BUs: (i) Asia-Pacific (Australia, New Zealand, Thailand, Singapore, Indonesia and Laos), (ii) China, (iii) Africa (Morocco, South Africa) and (iv) the Middle East, South and Central Asia and Turkey (including India and Pakistan). In all of these regions, the Group is active in electricity generation and sales, gas distribution and sales, energy services and seawater desalination in the Arabian peninsula.
- Benelux: includes the Group's activities in Belgium, the Netherlands and Luxembourg: (i) power generation using its nuclear power plants and renewable power generation facilities, (ii) natural gas and electricity sales and (iii) energy services.

- **France:** groups together the activities of the following BUs: (i) France BtoB: energy sales and services for buildings and industry, cities and regions and major infrastructures, (ii) France BtoC: sales of energy and related services to individual and professional customers, (iii) France Renewable Energy: development, construction, financing, operation and maintenance of all renewable power generation assets in France, and (iv) France Networks, which designs, finances, builds and operates decentralized energy production and distribution facilities (heating and cooling networks).
- **Europe excluding France & Benelux:** groups together the activities of the following BUs: (i) United Kingdom (management of renewable power generation assets and the portfolio of distribution assets, supply of energy services and solutions, etc.) and (ii) North, South and Eastern Europe (sales of natural gas and electricity and related energy services and solutions, operation of renewable power generation assets, management of distribution networks).
- **Infrastructures Europe:** groups together the GRDF, GRTgaz, Elengy and Storengy BUs, which operate natural gas transportation, storage and distribution networks and facilities, and LNG terminals, mainly in France and Germany. They also sell access rights to these infrastructures to third parties.
- **GEM:** the aim of the GEM BU is to manage and optimize the Group's portfolios of physical and contractual assets (excluding gas infrastructures), particularly on the European market, on behalf of the BUs that hold power generation assets. It is also responsible for sales of energy to major pan-European and national industrial clients, and leverages its expertise in the energy-related financial markets to provide solutions to third parties.
- **Other:** includes the activities of the following BUs: (i) Generation Europe, comprising the Group's thermal power generation activities in Europe, (ii) Tractebel (engineering companies specializing in energy, hydraulics and infrastructures), (iii) GTT (specialized in the design of cryogenic membrane confinement systems for sea transportation and storage of LNG, both on land and at sea), as well as the Group's holding and corporate activities which include the entities centralizing the Group's financing requirements, energy sales to BtoB in France (*Entreprises & Collectivités*) and the contribution of the associate SUEZ.

The main commercial relationships between the reportable segments are as follows:

- relationships between the "Infrastructures Europe" reportable segment and the users of these infrastructures, i.e. the "GEM", "France" and "Other" (E&C) reportable segments: services relating to the use of the Group's gas infrastructures in France are billed based on regulated fees applicable to all network users;
- relationships between the "GEM" reportable segment and the "France", "Benelux" and "Europe excluding France & Benelux" reportable segments: the "GEM" reportable segment manages the Group's natural gas supply contracts and sells gas at market prices to commercial companies within the "Other" (E&C), "France", "Benelux" and "Europe excluding France & Benelux" reportable segments. As regards electricity, GEM manages and optimizes the power stations and sales portfolios on behalf of entities that hold power generation assets and deducts a percentage of the energy margin in return for providing these services. The revenues and margins related to power generation activities (minus the percentage deducted by GEM) are reported by the segments that hold power generation assets ("France", "Benelux", "Europe excluding France & Benelux" and "Generation Europe" within the "Other" reportable segment);
- relationships between the "Generation Europe" segment, which is part of the "Other" reportable segment, and the commercial entities in the "France", "Benelux" and "Europe excluding France & Benelux" reportable segments: a portion of the power generated by thermal assets within the "Generation Europe" BU is sold to commercial entities from these segments at market prices.

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.

7.2 Key indicators by reportable segment

Key indicators by reportable segments (except for 2017 industrial capital employed), presented hereafter, no longer take into account the contribution of activities classified as "Discontinued activities" in accordance with IFRS 5 (*see Note 5 "Main changes in Group structure"*). In addition, comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (*see Note 2 "Restatement of 2017 comparative data"*).

REVENUES

In millions of euros	Dec. 31, 2018 External revenues	Dec. 31, 2018 Intra-Group Revenues	Dec. 31, 2018 Total	Dec. 31, 2017 External revenues	Dec. 31, 2017 Intra-Group Revenues	Dec. 31, 2017 Total
North America	3,383	62	3,445	2,964	51	3,015
Latin America	4,639		4,639	4,383		4,383
Africa/Asia	4,014	1	4,016	3,939		3,940
Benelux	6,690	450	7,140	6,771	976	7,748
France	15,183	2	15,185	14,157	(86)	14,072
Europe excluding France & Benelux	9,527	128	9,655	8,831	155	8,986
Infrastructures Europe	5,694	1,166	6,859	5,446	1,267	6,712
GEM	6,968	6,077	13,045	7,638	7,128	14,766
Others	4,498	1,943	6,440	5,445	1,836	7,281
Elimination of internal transactions		(9,829)	(9,829)		(11,328)	(11,328)
TOTAL REVENUES	**60,596**		**60,596**	**59,576**		**59,576**

EBITDA

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
North America	224	224
Latin America	1,775	1,709
Africa/Asia	1,122	1,272
Benelux	(186)	550
France	1,669	1,461
Europe excluding France & Benelux	679	650
Infrastructures Europe	3,499	3,386
GEM	240	(188)
Others	213	136
TOTAL EBITDA	**9,236**	**9,199**

DEPRECIATION AND AMORTIZATION

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
North America	(72)	(53)
Latin America	(416)	(432)
Africa/Asia	(134)	(244)
Benelux	(576)	(558)
France	(628)	(606)
Europe excluding France & Benelux	(201)	(201)
Infrastructures Europe	(1,479)	(1,444)
GEM	(39)	(38)
Others	(337)	(391)
TOTAL DEPRECIATION AND AMORTIZATION	**(3,882)**	**(3,966)**

SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
North America	75	78
Latin America	(25)	(17)
Africa/Asia	166	191
Benelux	7	5
France	1	8
Europe excluding France & Benelux	45	36
Infrastructures Europe	12	9
GEM	(5)	(4)
Others	84	116
Of which share in net income of SUEZ	*55*	*100*
TOTAL SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**361**	**422**

Associates and joint ventures account for €88 million and €273 million respectively of share in net income of entities accounted for using the equity method at December 31, 2018 (compared to €263 million and €159 million at December 31, 2017).

CURRENT OPERATING INCOME/(LOSS) AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
North America	151	174
Latin America	1,355	1,277
Africa/Asia	893	1,016
Benelux	(765)	(11)
France	1,034	869
Europe excluding France & Benelux	473	434
Infrastructures Europe	2,016	1,941
GEM	199	(229)
Others	(232)	(300)
TOTAL CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,126**	**5,172**

INDUSTRIAL CAPITAL EMPLOYED

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
North America	2,494	1,718
Latin America	9,897	9,281
Africa/Asia	3,553	5,186
Benelux	(3,759)	(3,019)
France	6,300	5,890
Europe excluding France & Benelux	5,092	5,022
Infrastructures Europe	19,802	19,914
GEM (2018) / GEM & LNG (2017)	1,102	929
Others	6,930	7,447
Of which SUEZ equity value	*2,018*	*2,110*
TOTAL INDUSTRIAL CAPITAL EMPLOYED	**51,412**	**52,370**

CAPITAL EXPENDITURE (CAPEX)

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
North America	974	316
Latin America	1,758	2,241
Africa/Asia	616	887
Benelux	925	694
France	1,322	1,067
Europe excluding France & Benelux	372	636
Infrastructures Europe	1,619	1,718
GEM	45	346
Others	538	1,232
TOTAL CAPITAL EXPENDITURE (CAPEX)	**8,169**	**9,136**

7.3 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, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
France	24,983	25,251	30,542	30,310
Belgium	5,961	5,921	(3,254)	(2,233)
Other EU countries	15,448	14,583	7,188	7,250
Other European countries	820	1,100	386	425
North America	3,865	3,499	2,881	2,188
Asia, Middle East & Oceania	4,936	4,913	3,329	5,264
South America	4,197	4,040	9,523	9,091
Africa	385	271	816	74
TOTAL	**60,596**	**59,576**	**51,412**	**52,370**

NOTE 8 Revenues

8.1 Revenues

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Revenues from contracts with customers	56,388	53,073
Revenues from other contracts	4,208	6,503
REVENUES	**60,596**	**59,576**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

Realized but not yet metered revenues (so called un-metered revenues) mainly relate to France and Belgium for an amount of €3,108 million at December 31, 2018 (€3,034 at December 31, 2017).

8.1.1 Revenues from contracts with customers

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 frame is carried out to determine whether the distribution or transportation services invoiced to the customers have to be excluded from the revenue 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: who is primarily responsible for fulfillment of the distribution or transportation services? Has the energy provider 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

  Constructions and installations 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.

  O&M contracts generally require the Group to perform services ensuring the availability of assets generating energy. 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 great number of different services, outsourced by the customers. The consideration due to FM suppliers can either be fixed or variable depending on the number of hours or 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.

The table below shows a breakdown of revenues by type of accounting principles:

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	Revenues from contracts with customers	Revenues from other contracts	Dec. 31, 2018
North America	592	1,858		900	3,350	33	3,383
Latin America	461	3,522	322	197	4,501	138	4,639
Africa/Asia	452	2,605	31	806	3,894	121	4,014
Benelux	1,341	2,143	14	3,038	6,537	153	6,690
France	3,164	4,040	105	7,675	14,983	200	15,183
Europe excluding France & Benelux	1,901	3,425	233	3,798	9,357	170	9,527
Infrastructures Europe	155		5,092	200	5,447	247	5,694
GEM	2,938	1,135	113		4,186	2,782	6,968
Others	1,113	1,925	167	927	4,133	365	4,498
TOTAL REVENUES	**12,116**	**20,654**	**6,077**	**17,540**	**56,388**	**4,208**	**60,596**

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	Revenues from contracts with customers	Revenues from other contracts	Dec. 31, 2017 (1)
North America	411	1,913	1	604	2,928	36	2,964
Latin America	399	3,477	279	144	4,300	83	4,383
Africa/Asia	455	2,405	53	695	3,608	332	3,939
Benelux	1,210	1,984	33	2,935	6,162	609	6,771
France	3,296	3,302	91	7,177	13,866	292	14,157
Europe excluding France & Benelux	1,756	3,044	303	3,377	8,480	351	8,831
Infrastructures Europe	227		4,668	269	5,165	281	5,446
GEM	2,375	1,450	176	3	4,003	3,635	7,638
Others	1,422	2,085	85	971	4,562	883	5,445
TOTAL REVENUES	**11,551**	**19,659**	**5,688**	**16,176**	**53,073**	**6,503**	**59,576**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").*

8.1.2 Revenues from other contracts

Accounting standards

If it is not possible to conclude from the contractual analysis that the contract falls within the scope of IFRS 15, the revenues are then accounted for as non-IFRS 15 revenues.

Non-IFRS 15 revenues are presented on a separate line of the income statement. They include the following items:

- commodity sales transactions within the scope of IFRS 9 – *Financial Instruments* and give rise to a physical delivery;
- proprietary trading transactions and energy trading carried out on behalf of customers, shown on a net basis after netting sales and purchases;
- lease or concession income, as well as any financing component of operational services.

In 2018, commodities sales transactions within the scope of IFRS 9 and giving rise to physical deliveries amounted to €3,408 million (€5,712 million in 2017). Revenues generated on other transactions which are not in the scope of IFRS 15 were not material.

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 contract assets 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 contract assets, 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, assets and from contracts with customers

	Dec. 31, 2018			Dec. 31, 2017 (1)		
En millions d'euros	**Non-current**	**Current**	**Total**	**Non-current**	**Current**	**Total**
Trade and other receivables, net		15,613	15,613		13,127	13,127
of which IFRS 15		*7,552*	*7,552*		*7,009*	*7,009*
of which non-IFRS15		*8,060*	*8,060*		*6,118*	*6,118*
Assets from contracts with customers		7,411	7,411		6,930	6,930

(1) Comparative data at December 31, 2017 and at January 1, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

The table below shows expected credit losses on trade and other receivables and contract assets:

	Dec. 31, 2018			Dec. 31, 2017 (1)		
In millions of euros	**Gross**	**Allowances and expected credit losses**	**Net**	**Gross**	**Allowances and expected credit losses**	**Net**
Trade and other receivables, net	16,689	(1,076)	15,613	14,208	(1,081)	13,127
Assets from contracts with customers	7,419	(8)	7,411	6,943	(12)	6,930
TOTAL	**24,108**	**(1,085)**	**23,023**	**21,150**	**(1,094)**	**20,057**

(1) Comparative data at December 31, 2017 and at January 1, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

Expected impairment and credit losses on trade and other receivables and contract assets amounted to €1,085 million in 2018 (€1,094 million in 2017).

Information on the age of receivables past due but not impaired and on counterparty risk are provided in Note 18.2 "Counterparty risk".

Current assets from contracts with customers include accrued income and unbilled revenues (for €6,377 million at December 31, 2018) and delivered, un-metered and unbilled gas and electricity ("energy in the meter") (for €1,034 million at December 31, 2018, mainly in France, Benelux and Latin America, representing 1.7% of annual revenues). The reportable segments that reported the greatest amounts of contract assets at December 31, 2018 are France (€2,730 million), Europe excluding France & Benelux (€1,436 million), Benelux (€859 million) and GEM (€556 million).

For customers whose energy consumption is metered during the accounting period, particularly customers supplied with low-voltage electricity or low-pressure gas, 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 are 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") is 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.

8.2.2 Liabilities from contracts with customers

	Dec. 31, 2018			Dec. 31, 2017 (1)		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Liabilities from contracts with customers	36	3,598	3,634	258	3,317	3,575

(1) *Comparative data at December 31, 2017 and at January 1, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

Current liabilities from contracts with customers include advances and downpayments received for €1,713 million at December 31, 2018 and deferred revenues for €1,885 million.

The segments reporting the greatest amounts of contract liabilities are France (€2,048 million) – particularly BtoB (€1,172 million) – Europe excluding France & Benelux (€626 million) and Benelux (€387 million). These are the segments for which revenues are recognized over time, thereby generating a difference in timing between the payments received and the completion of the services.

The classification of Glow in Thailand under "assets held for sale" reduced contract liabilities by €291 million.

8.3 Revenues relating to performance obligations not yet satisfied

Revenues relating to performance obligations only partially satisfied at December 31, 2018 amounted to €10,886 million.

They mainly concern the United Kingdom (€6,102 million) and France BtoB (€2,902 million) BUs. These BUs handle a large number of construction, installation, maintenance and facility management contracts under which revenues are recognized over time. The Benelux, Tractebel Engineering and NECST BUs will also be recognizing revenues over the next three years for performance obligations satisfied over time.

NOTE 9 Operating expenses

9.1 Personnel costs

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Short-term benefits	(9,998)	(9,510)
Share-based payments (*see Note 24*)	(86)	(44)
Costs related to defined benefit plans (*see Note 21.3.4*)	(407)	(355)
Costs related to defined contribution plans (*see Note 21.4*)	(133)	(142)
PERSONNEL COSTS	**(10,624)**	**(10,051)**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").*

9.2 Depreciation, amortization and provisions

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Depreciation and amortization (*see Notes 15 and 16*)	(3,882)	(3,966)
Net change in write-downs of inventories, trade receivables and other assets		(67)
Net change in provisions (*see Note 20*)	296	245
DEPRECIATION, AMORTIZATION AND PROVISIONS	**(3,586)**	**(3,787)**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").*

At December 31, 2018, depreciation and amortization mainly break down as €837 million for intangible assets and €3,048 million for property, plant and equipment.

NOTE 10 From current operating income after share in net income of entities accounted for using the equity method to income/(loss) from operating activities

Accounting standards

Current operating income is an indicator used by the Group to present "a level of operational performance that can be used as part of an approach to forecast recurring performance" (this complies with ANC Recommendation 2013-03 on the format of financial statements of entities applying IFRS). Current operating income is a sub-total which helps in better understanding the Group's performance because it excludes items which are inherently difficult to predict due to their unusual, abnormal or non-recurring nature. For the Group, such items relate to mark-to-market on commodity contracts other than trading instruments, impairment losses, restructuring costs, scope effect transactions and other non-recurring items and are defined as follows:

- "mark-to-market on commodity contracts other than trading instruments" corresponds to the changes in the fair value (mark-to-market) of financial instruments related to commodities, such as gas and electricity, which do not qualify as either trading or hedging instruments. These contracts are used in economic hedges of operating transactions in the energy sector. The changes in the fair value of these instruments have to be recognized through profit or loss under IFRS 9. Since they can be material and difficult to predict, they are presented on a separate line of the consolidated income statement;
- "impairment losses" 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" 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 the current operating income as they are part of the recurring rotation of the Group's capital employed;
- "other non-recurring items" notably include gains and losses on disposals of non-current assets.

The transition from Current operating income after share in net income of entities accounted for using the equity method to Income/(loss) from operating activities is detailed hereunder:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,126**	**5,172**
Mark-to-market on commodity contracts other than trading instruments	(223)	29
Impairment losses	(1,798)	(1,298)
Restructuring costs	(162)	(669)
Changes in scope of consolidation	(150)	752
Other non-recurring items	(147)	(1,252)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**2,645**	**2,735**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").*

10.1 Mark-to-market on commodity contracts other than trading instruments

In 2018, this item represents a net expense of €223 million, compared with net income of €29 million in 2017. It mainly reflects the changes in the fair value of (i) electricity and natural gas sale and purchase contracts falling within the scope of IFRS 9 and (ii) financial instruments used as economic hedges but not eligible for hedge accounting.

This expense is due to (i) a negative price effect related to changes in the forward prices of the underlying commodities, notably in gas, coupled with (ii) the negative impact of the settlement of positions over the period with a positive fair value at December 31, 2017.

10.2 Impairment losses

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 [1]
Impairment losses:		
Goodwill (*see Note 14.1*)	(14)	(481)
Property, plant and equipment and other intangible assets (*see Notes 15 and 16*)	(1,609)	(952)
Investments in entities accounted for using the equity method and related provisions	(209)	(31)
TOTAL IMPAIRMENT LOSSES	**(1,831)**	**(1,463)**
Reversal of impairment losses:		
Property, plant and equipment and other intangible assets	33	165
Financial assets		1
TOTAL REVERSALS OF IMPAIRMENT LOSSES	**33**	**166**
TOTAL	**(1,798)**	**(1,298)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

Net impairment losses amounted to €1,798 million in 2018 and related primarily to property, plant and equipment. 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 2018 amounted to €1,540 million.

Impairment tests are performed in accordance with the conditions described in Note 14.3.

10.2.1 Impairment losses recognized in 2018

Net impairment losses amounted to €1,798 million in 2018 and mainly concerned:

- Generation Europe CGU assets

  In 2018, the Group recognized €646 million in net impairment losses against thermal power generation assets in Europe, owing to the downward revision of cash flow projections for certain portfolio assets in an unfavorable economic environment. The main assumptions and key estimates used to determine the value of assets are discount rates, estimated demand for electricity and changes in the price of CO_2, fuel and electricity beyond the liquidity period, in addition to the regulatory environment and the operating life of the assets concerned.

  Coal-fired power plants in Europe have been subject to unfavorable conditions, including the expected impact of the stricter regulatory environment, which has resulted in lower captured margins over the long term, impacting the profitability of these assets;

- Belgian nuclear power assets

  Further developments in 2018 led the Group to now distinguish nuclear power plants where there is no longer any possibility of extending their operating life from those whose operating life may still be extended beyond 2025. In view of this backdrop accentuated by the prolonged outages at certain power plants and the changes to the management methods of the plants as the end of their operating lives draws near, the Group has aligned its forecasts with the nuclear plants' maintenance schedule, as updated for the next three years. Consequently, the Group recognized impairment losses of €615 million in 2018 against plants whose operating life may no longer be extended;

- Other impairment losses

  Other impairment losses recognized by the Group mainly concern:

  - an investment in the Africa/Asia segment in respect of which an impairment loss of €209 million was recognized based on the revised forecasts,
  - gas infrastructure facilities in Europe, in respect of which an €87 million impairment loss was recognized after the life expectancy of certain facilities was revised and their dismantling date consequently brought forward,
  - thermal power generation assets in Latin America, in respect of which a €71 million impairment loss was recognized after their operating lives were revised.

10.2.2 Impairment losses recognized in 2017

Net impairment losses amounted to €1,298 million in 2017, and mainly concerned:

- the Storengy CGU for €494 million, including €338 million against goodwill following the regulation of storage activities in France;
- thermal power generation assets in Europe for €317 million, mainly due to the expected impact of a stricter regulatory environment for coal-fired power plants.

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 2017 amounted to €1,129 million.

10.3 Restructuring costs

Restructuring costs totaled €162 million in 2018, mainly including:

- costs related to various staff reduction plans (€54 million);
- costs related to decisions to relinquish several premises, restructure agencies and close facilities (€63 million);
- various other restructuring costs (€45 million).

In 2017, restructuring costs totaled €669 million, including €509 million related to staff reduction plans as part of the Group's transformation plan as well as measures to adapt to economic conditions, €108 million related to the shutdown of production and closure of some facilities and €53 million in other miscellaneous restructuring costs.

10.4 Changes in scope of consolidation

The impact of changes in the scope of consolidation in 2018 was a negative €150 million and mainly comprised (i) the €87 million negative impact of the sale of the Loy Yang B thermal power plant in Australia, primarily in respect of items of other comprehensive income recycled to the income statement, and (ii) the €27 million negative impact of the sale of LNG operations in the United States.

The impact of changes in the scope of consolidation in 2017 was a positive €752 million, and mainly comprised gains on the disposal of (i) the thermal merchant power plant portfolio in the United States for €540 million, (ii) the Group's interest in NuGen for €93 million, (iii) a thermal power plant portfolio in the United Kingdom for €61 million, and (iv) the Polaniec power plant in Poland for €57 million.

10.5 Other non-recurring items

Other non-recurring items totaling a negative €147 million in 2018, mainly included asset scrapping, costs related to site closures and other miscellaneous costs.

In 2017, other non-recurring items mainly included the €1,243 million expense corresponding to the change in the accounting treatment of long-term gas supply contracts and transport and storage contracts implemented by the GEM BU.

NOTE 11 Net financial income/(loss)

	Dec. 31, 2018			Dec. 31, 2017 [1]		
In millions of euros	**Expense**	**Income**	**Total**	**Expense**	**Income**	**Total**
Cost of net debt	(713)	85	(628)	(812)	134	(678)
Gains and losses on debt restructuring transactions and from the early unwinding of derivative financial instruments	(108)	115	7	(181)	83	(98)
Other financial income and expenses	(1,161)	400	(761)	(1,134)	522	(611)
NET FINANCIAL INCOME/(LOSS)	**(1,981)**	**600**	**(1,381)**	**(2,127)**	**739**	**(1,388)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

11.1 Cost of net debt

The main items of the cost of net debt break down as follows:

			Total	
In millions of euros	**Expense**	**Income**	**Dec. 31, 2018**	**Dec. 31, 2017 [1]**
Interest expense on gross debt and hedges	(844)	-	(844)	(915)
Foreign exchange gains/losses on borrowings and hedges		4	4	21
Ineffective portion of derivatives qualified as fair value hedges	(3)		(3)	(2)
Gains and losses on cash and cash equivalents and liquid debt instruments held for cash investment purposes	-	81	81	113
Capitalized borrowing costs	134	-	134	104
COST OF NET DEBT	**(713)**	**85**	**(628)**	**(678)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

The decrease in the cost of net debt is mainly due to a slight reduction in the volume of average debt since the end of 2017, to the positive impacts of debt financing transactions realized by the Group and to active interest-rate management *(see Note 17.3.3 "Financial instruments – Main events of the period")*.

At December 31, 2018, the average cost of debt after hedging came out at 2.68% compared with 2.63% at December 31, 2017.

11.2 Gains and losses on debt restructuring transactions and from the early unwinding of derivative financial instruments

The main effects of debt restructuring break down as follows:

			Total	
In millions of euros	Expense	Income	Dec. 31, 2018	Dec. 31, 2017 (1)
Impact of early unwinding of derivative financial instruments on the income statement	**(108)**	**102**	**(6)**	**-**
Of which cash payments made on the unwinding of swaps	*(108)*	*-*	*(108)*	*(83)*
Of which reversal of the negative fair value of these derivatives that were settled early		*102*	*102*	*83*
Impact of debt restructuring transactions on the income statement	**-**	**13**	**13**	**(98)**
Of which early refinancing transactions expenses		*13*	*13*	*(98)*
GAINS AND LOSSES ON DEBT RESTRUCTURING TRANSACTIONS AND THE EARLY UNWINDING OF DERIVATIVE FINANCIAL INSTRUMENTS	**(108)**	**115**	**7**	**(98)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

The Group carried out a number of early refinancing transactions *(see Note 17.3.3. "Financial instruments - Main events of the period")*.

11.3 Other financial income and expenses

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Other financial expenses		
Income/(loss) from debt instruments and equity instruments	(84)	(12)
Change in fair value of derivatives not qualified as hedges	(183)	(187)
Gains and losses on the designation and inefficiency of economic hedges on other financial items	(2)	(1)
Unwinding of discounting adjustments to other long-term provisions	(538)	(493)
Net interest expense on post-employment benefits and other long-term benefits	(112)	(118)
Interest on trade and other payables	(39)	(48)
Other financial expenses	(203)	(275)
TOTAL	**(1,161)**	**(1,134)**
Other financial income		
Income/(loss) from debt instruments and equity instruments	73	77
Interest income on trade and other receivables	52	29
Interest income on loans and receivables at amortized cost	111	151
Other financial income	164	265
TOTAL	**400**	**522**
OTHER FINANCIAL INCOME AND EXPENSES, NET	**(761)**	**(611)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

At December 31, 2017, "Other financial income" notably included interest relating to the recovery from the French State of the 3% tax on dividends as well as interest relating to the dispute opposing Electrabel and E.ON in respect of the Belgian and German nuclear contribution payments for an amount of €87 million.

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 2018 amounts to €704 million (€395 million income tax income in 2017). It breaks down as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Current income taxes	(712)	(367)
Deferred taxes	9	761
TOTAL INCOME TAX BENEFIT/(EXPENSE) RECOGNIZED IN INCOME	**(704)**	**395**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 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, 2018	Dec. 31, 2017 [1]
Net income/(loss)	**1,629**	**2,108**
Share in net income of entities accounted for using the equity method	361	422
Net income from discontinued operations	1,069	366
Income tax expense	(704)	395
Income/(loss) before income tax expense and share in net income of associates (A)	**903**	**925**
Of which French companies	*1,434*	*(744)*
Of which companies outside France	*(531)*	*1,669*
Statutory income tax rate of the parent company (B)	34.4%	34.4%
THEORETICAL INCOME TAX EXPENSE (C) = (A) X (B)	**(311)**	**(318)**
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	42	112
Permanent differences [2]	(72)	(287)
Income taxed at a reduced rate or tax-exempt [3]	123	460
Additional tax expense [4]	(74)	(241)
Effect of unrecognized deferred tax assets on tax loss carry-forwards and other tax-deductible temporary differences [5]	(968)	(564)
Recognition or utilization of tax income on previously unrecognized tax loss carry-forwards and other tax-deductible temporary differences [6]	370	241
Impact of changes in tax rates [7]	54	518
Tax credits and other tax reductions [8]	185	506
Other [9]	(53)	(32)
INCOME TAX BENEFIT/(EXPENSE) RECOGNIZED IN INCOME	**(704)**	**395**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").*
(2) *Includes mainly the disallowable impairment losses on goodwill, the disallowable operating expenses, the deduction of interest expenses arising from hybrid debts and effects relating to the cap on allowable interest on borrowings in France.*
(3) *Reflects notably 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, the disallowable impairment losses and capital losses on securities, and the impact of the untaxed income from remeasuring previously-held (or retained) equity interests in connection with acquisitions and changes in consolidation methods.*
(4) *Includes mainly tax on dividends resulting from the parent company tax regime, the exceptional income tax to compensate the reimbursement from the French State of the 3% tax on the dividends in 2017, the 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 the assets.*
(6) *Includes the impact of the recognition of net deferred tax asset positions for some tax entities.*
(7) *Includes mainly the impact of tax rate changes on the deferred tax balances in France (see below) and in the United States in 2017.*
(8) *Includes notably the reversals of provisions for tax litigation, tax credits in France and other tax reductions and the impact of deductible notional interest in Belgium. In 2017, includes the refund of €376 million relating to the 3% tax on dividends paid previously in cash by the French companies.*
(9) *Includes mainly the correction of previous tax charges.*

The 2018 French Finance Law approved on December 30, 2017 plans a tax rate decrease to 25.82% as of 2022 for all French tax entities (tax rate of 25.00%, plus the 3.3% social contribution). Deferred tax recorded by the French entities which is expected to reverse after 2022 was re-measured at this new rate in the December 31, 2017 accounts. This resulted in a positive impact of €550 million on non-recurring income and a negative impact of €91 million on deferred tax recognized in the statement of comprehensive income. However, the deferred tax balances, which expire in 2019, have been maintained at the 32.02% rate, without taking into consideration the fact that the 34.43% rate will be maintained for 2019, as already announced but not yet approved by Parliament at December 31, 2018.

12.1.3 Analysis of the deferred tax income/(expense) recognized in the income statement, by type of temporary difference

	Impact in the income statement	
In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017** (1)
Deferred tax assets:		
Tax loss carry-forwards and tax credits	302	(118)
Pension and related obligations	2	(68)
Non-deductible provisions	(77)	(25)
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(141)	(240)
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	845	(288)
Other	38	(72)
TOTAL	**969**	**(811)**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(249)	671
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	(751)	741
Other	116	125
TOTAL	**(884)**	**1,537**
DEFERRED TAX INCOME/(EXPENSE)	**85**	**726**
Of which continued activities	*9*	*761*

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

The deferred tax income recorded in 2017 derives notably from the future tax rate decrease approved in France.

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, 2018**	**Dec. 31, 2017** (1)
Equity and debt instruments	(1)	37
Actuarial gains and losses	68	(95)
Net investment hedges	(14)	(86)
Cash flow hedges on other items	71	(116)
Cash flow hedges on net debt	(10)	2
TOTAL EXCLUDING SHARE OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**114**	**(257)**
Share of entities accounted for using the equity method	(20)	3
Discontinued operations	(81)	(81)
TOTAL	**13**	**(336)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 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, 2017 (1)	**854**	**(5,215)**	**(4,361)**
Impact on net income for the year	969	(884)	85
Impact on other comprehensive income items	127	(128)	(1)
Impact of changes in scope of consolidation	(207)	199	(9)
Impact of translation adjustments	(3)	(24)	(27)
Transfers to assets and liabilities classified as held for sale	(222)	161	(60)
Other	28	(4)	24
Impact of netting by tax entity	(481)	481	
AT DECEMBER 31, 2018	**1,066**	**(5,415)**	**(4,349)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

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 the Management, unless exception 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, 2018	Dec. 31, 2017 (1)
Deferred tax assets:		
Tax loss carry-forwards and tax credits	1,765	1,652
Pension obligations	1,374	1,318
Non-deductible provisions	371	312
Difference between the carrying amount of PP&E and intangible assets and their tax bases	787	974
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	3,398	2,736
Other	545	555
TOTAL	**8,239**	**7,547**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(8,773)	(8,657)
Measurement of financial instruments at fair value (IAS 32/IFRS 9)	(3,343)	(2,629)
Other	(472)	(623)
TOTAL	**(12,588)**	**(11,908)**
NET DEFERRED TAX ASSETS/(LIABILITIES)	**(4,349)**	**(4,361)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

12.4 Unrecognized deferred taxes

At December 31, 2018, 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 €3,216 million (€3,144 million at December 31, 2017). Most of these unrecognized tax losses relate to companies based in countries which allow losses to be carried forward indefinitely (mainly Belgium and Luxembourg) or up to nine years in the Netherlands. These tax loss carry-forwards did not give 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 €1,364 million at end-December 2018 versus €1,246 million at end-December 2017.

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 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.).

	Dec. 31, 2018	Dec. 31, 2017 (1)
Numerator *(in millions of euros)*		
Net income/(loss) Group share	**1,033**	**1,320**
Of which Net income(loss) relating to continued activities, Group share	*(12)*	*1,047*
Interest from deeply-subordinated perpetual notes	(145)	(144)
Net income used to calculate earnings per share	**889**	**1,176**
Of which Net income(loss) relating to continued activities, Group share, used to calculate earnings per share	*(156)*	*903*
Impact of dilutive instruments		
Diluted net income/(loss) Group share	**889**	**1,176**
Denominator (in millions of shares)		
Average number of outstanding shares	**2,396**	**2,396**
Impact of dilutive instruments:		
Bonus share plans reserved for employees	11	9
Diluted average number of outstanding shares	**2,407**	**2,405**
Earnings per share (in euros)		
Basic earnings/(loss) per share	**0.37**	**0.49**
Of which Basic earnings/(loss) Group share relating to continued activities per share	*(0.07)*	*0.38*
Diluted earnings/(loss) per share	**0.37**	**0.49**
Of which Diluted earnings/(loss) Group share relating to continued activities per share	*(0.06)*	*0.38*

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

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)*.

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.

NOTE 14 Goodwill

Accounting standards

Goodwill is measured as the excess of the aggregate of:

(i) the consideration transferred;

(ii) the amount of any non-controlling interests in the acquiree; and

(iii) in a business combination achieved in stages, the acquisition-date fair value of the previously held equity interest in the acquiree;

over the net acquisition-date 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.

The amount of goodwill recognized at the acquisition date cannot be adjusted after the end of the measurement period.

Goodwill relating to interests in associates is recorded under "Investments in entities accounted for using the equity method".

Risk of impairment

Goodwill is not amortized but 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.

The method used to carry out these impairment tests are described in paragraph 14.3.

Impairment losses in relation to goodwill cannot be reversed and are shown as "Impairment losses" in the income statement.

Indicators of impairment (goodwill, intangible assets and property plant and equipment)

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 hereafter and that will have an adverse effect on 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 for which the asset belong,
  - internal reports that indicate that the economic performance of an asset is, or will be, worse than expected.

14.1 Movements in the carrying amount of goodwill

In millions of euros	**Net amount**
At December 31, 2016	**17,372**
Impairment losses	(481)
Changes in scope of consolidation and Other	775
Transfer to Assets classified as held for sale	(32)
Translation adjustments	(350)
At December 31, 2017 (1)	**17,285**
Impairment losses	(14)
Changes in scope of consolidation and Other	745
Transfer to Assets classified as held for sale	(216)
Translation adjustments	9
AT DECEMBER 31, 2018	**17,809**

(1) Comparative data at December 31, 2017 and at January 1, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

The impact of changes in the scope of consolidation at December 31, 2018 relates primarily to:

- the recognition of goodwill arising on the acquisition of Langa Group (€241 million), Infinity Renewables (€94 million) and Electro Power System (€57 million);
- the derecognition of goodwill in an amount of €109 million relating to the disposal of wind and solar fields in France (negative impact of €71 million), and gas distribution activities in Hungary (negative impact of €29 million).

Following the classification of the Company's interest in Glow, the electricity production project in Thailand, as assets held for sale (see Note 5.2 "Assets held for sale and discontinued operations"), the carrying amount of the corresponding goodwill was transferred to "Assets classified as held for sale" in the statement of financial position.

The decrease in this caption in 2017 related chiefly to the recognition of impairment losses against goodwill totaling €481 million, including €338 million against the Storengy CGU and €141 million allocated to the group of assets held for sale which comprises the Loy Yang B power plant, the derecognition of goodwill relating to assets sold for €127 million, translation adjustments for €350 million, offset by the recognition of goodwill arising on the acquisitions for €674 million and the increase in the fair value of the financial liability representing the put option granted by the Group on non-controlling interests in La Compagnie du Vent, with a matching entry of €131 million in goodwill.

14.2 Goodwill CGUs

The table below shows "material" goodwill CGUs at December 31, 2018:

In millions of euros	**Operating segment**	**Dec. 31, 2018**
MATERIAL CGUs		
Benelux	Benelux	4,258
GRDF	Infrastructures Europe	4,009
France Renewable Energy	France	1,085
United Kingdom	Europe excl. France & Benelux	1,045
France BtoC	France	1,044
OTHER SIGNIFICANT CGUs		
North America	North America	875
France BtoB	France	731
Northern, Southern and Central Europe	Europe excl. France & Benelux	644
Generation Europe	Other	629
OTHER CGUs		**3,490**
TOTAL		**17,809**

14.3 Impairment testing of goodwill CGUs

All goodwill CGUs are tested for impairment based on data as of end-June, completed by a review of events arisen in the second half of the year. In most cases, the recoverable amount of CGUs is determined by reference to a value in use that is calculated using cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 medium-term business plan, as approved by the 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 2022-2040. The forecasts that feature in the reference scenario were approved by the Executive Committee in December 2018. 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;
- 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 prices are those presented in the "Canfin, Grandjean et Mestrallet" report published in July 2016. 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_2prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

The discount rates used correspond to the weighted average cost of capital, which is adjusted in order to reflect the business, market, country and currency risk relating to each goodwill CGU reviewed. The discount rates used are consistent with available external information sources. The post-tax rates used in 2018 to measure the value in use of the goodwill CGUs for discounting future cash flows ranged between 3.7% and 11.3%, compared with a range of between 4.7% and 12.5% in 2017. The discount rates used for the main goodwill CGUs are shown in Notes 14.3.1 "Material CGUs" and 14.3.2 "Other significant CGUs", below.

14.3.1 Material CGUs

This section presents the method for determining value in use, the key assumptions underlying the valuation, and the sensitivity analyses for the impairment tests on CGUs where the amount of goodwill represents more than 5% of the Group's total goodwill at December 31, 2018.

14.3.1.1 Benelux CGU

The goodwill allocated to the Benelux CGU amounted to €4,258 million at December 31, 2018. The Benelux CGU includes the Group's activities in Belgium, the Netherlands and Luxembourg: (i) power generation activities using its nuclear power plants and wind farms, (ii) natural gas and electricity sales activities, and (iii) energy services activities, as well as drawing rights on the Chooz B and Tricastin power plants in France.

Key assumptions used for the impairment test

The cash flow projections for the Benelux CGU are based on a large number of key assumptions, such as the long-term prices for fuel and CO_2, expected trends in gas and electricity demand and in electricity prices, 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). The key assumptions also include the discount rate used to calculate the value in use of this goodwill CGU.

The 2018 value in use of the activities included in this CGU was calculated using the cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 medium-term business plan. 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 (1)
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 and Tihange 2, cash flow projection over the residual useful life of 40 years. For the second generation reactors Doel 4 and Tihange 3, extension of the operating life for a period of 20 years.
Drawing rights on Chooz B et Tricastin power plants	Cash flow projection over the remaining term of existing contract plus assumption that drawing rights will be extended for a further 10 years.
Energy retail and service activities	Cash flow projection over the duration of the business plan at mid term, plus application of a terminal value based on a normative cash flow using a long-term growth rate of 1.9%

(1) Assumptions unchanged from December 31, 2017.

The discount rates applied to these cash flows ranged from 5.8% to 8.5%, depending on the risk profiles of each business activity.

The most important assumptions concerning the Belgian regulatory environment relate to the operating life of existing nuclear reactors and the level of royalties and nuclear contributions paid to the Belgian State.

The impairment test took into account the 10-year extension (through 2025) of the operating life of Tihange 1, Doel 1 and Doel 2, as well as the capital expenditure required for the extension of Doel 1 and Doel 2, annual royalties totaling €20 million in respect of said extension and the new conditions for determining the nuclear contribution that will apply to second-generation reactors (Doel 3 and 4, Tihange 2 and 3) through their 40th year of operation, as defined in the December 29, 2016 law.

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 the reactors Doel 3 in 2022, Tihange 2 in 2023 and Tihange 3 and Doel 4 in 2025, after 40 years of operation, were reaffirmed in the law of June 18, 2015 and by the energy pact approved by the government on March 30, 2018. The pact is supplemented by a federal energy strategy based on four objectives: the safeguarding of supplies, the impact on climate, the impact on energy prices, and the safety of power plants. A monitoring committee has been set up and will meet each year to evaluate the achievement of these objectives and, where applicable, make recommendations to policymakers so that corrective action may be taken.

However, in view of (i) the extension of the operating life of Tihange 1, Doel 1 and Doel 2 beyond 40 years, (ii) the importance of nuclear power generation in the Belgian energy mix, (iii) the lack of a sufficiently detailed and attractive industrial plan enticing energy utilities to invest in replacement thermal capacity, and (iv) CO_2 emissions reduction targets, the Group considers that nuclear power will still be needed to guarantee the energy equilibrium in Belgium after 2025. Accordingly, in calculating value in use, the Group assumes a 20-year extension of the operating life of half of its second generation reactors, while taking into account a mechanism of nuclear contributions to be paid to the Belgian government. Should the circumstances described above change in the future, the Group may adapt its industrial scenarios accordingly.

In France, the Group included an assumption that its drawing rights on the Tricastin and Chooz B nuclear plants expiring in 2021 and 2037, respectively, would be extended by 10 years. Although no such decision has been taken by the government and the nuclear safety authority, the Group considers that extending the reactors' operating life is the most credible and likely scenario at this point in time. This is also consistent with the expected French energy mix featured in the Group's reference scenario.

Results of the impairment test

At December 31, 2018, the recoverable amount of the goodwill CGU was higher than its carrying amount. Furthermore, the Group recognized impairment losses of €615 million against nuclear reactors (*see Note 10.2 "Impairment losses"*).

Sensitivity analyses

A decrease of €10/MWh in electricity prices for nuclear power generation would lead to an additional impairment loss of around €1,200 million. Conversely, an increase of €10/MWh in electricity prices would have a positive impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU.

An increase of 50 basis points in the discount rates used would have a negative 49% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. 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 53% impact on the calculation.

Various transformational scenarios were considered concerning nuclear power generation in Belgium:

- the disappearance of the entire nuclear component from the portfolio in 2025 after 50 years of operation in the case of Tihange 1, Doel 1 and Doel 2, and 40 years of operation for the second-generation reactors would have a strongly adverse impact on the results of the test, with the recoverable amount falling significantly below the carrying amount. In this scenario, the impairment risk would represent around €1,700 million;
- if the life of half of the second-generation reactors were to be extended by ten years and the entire nuclear component subsequently disappear, the recoverable amount would fall below the carrying amount and the impairment risk would represent €547 million.

14.3.1.2 GRDF CGU

The total amount of goodwill allocated to the GRDF CGU was €4,009 million at December 31, 2018. The GRDF CGU groups together the Group's regulated natural gas distribution activities in France.

The value in use of the GRDF CGU was calculated using the cash flow projections drawn up on the basis of the 2019 budget, the 2020-2021 medium-term business plan, and cash flow projections for the 2022-2024 period. The terminal value corresponds to the expected Regulated Asset Base (RAB) with no premium at the end of 2024. The RAB is the value assigned by the French Energy Regulation Commission (CRE) to the assets operated by the distributor. It is the sum of the future pre-tax cash flows, discounted at a rate that equals the pre-tax rate of return guaranteed by the regulator.

The cash flow projections are drawn up based on the tariff for public natural gas distribution networks, known as the "ATRD 5 tariff", which entered into effect for a period of four years on July 1, 2016, and on the overall level of investments agreed by the CRE as part of its decision on the ATRD 5 tariff.

Given the regulated nature of the businesses grouped within the GRDF CGU, a reasonable change in any of the valuation inputs would not result in the recoverable amount falling below the carrying amount.

14.3.1.3 France Renewable Energy CGU

The goodwill allocated to the France Renewable Energy CGU amounted to €1,085 million at December 31, 2018. The France Renewable Energy CGU groups together the development, construction, financing, operation and maintenance of all of the renewable power generation assets in France (hydraulic, wind and photovoltaic).

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 medium-term business plan. For the hydraulics business, a terminal value was calculated by extrapolating the cash flows beyond that period 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 the sales prices of electricity beyond the liquidity period.

The discount rates applied are between 5.1% and 8.3%, depending on whether they relate to regulated assets or merchant activities.

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.

A decrease of €10/MWh in electricity prices for hydropower generation would have a negative 47% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of €10/MWh in electricity prices would have a positive 47% impact on the calculation.

An increase of 50 basis points in the discount rates used would have a negative 47% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. 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 63% impact on the calculation.

If the Compagnie Nationale du Rhône hydropower concession agreements are not renewed beyond 2023, this would have a strong adverse impact on the results of the test, with the recoverable amount falling significantly below the carrying amount. In this scenario, the impairment risk would represent around €0.9 billion.

14.3.1.4 United Kingdom CGU

The goodwill allocated to the United Kingdom CGU amounted to €1,045 million at December 31, 2018. The United Kingdom CGU includes activities in (i) renewable power generation (hydraulic, wind and solar), (ii) gas and electricity sales, and (iii) services to individual and professional customers in the United Kingdom.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 medium-term business plan. A terminal value was calculated for the services and energy sales businesses by extrapolating the cash flows beyond that 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.

The discount rates applied are between 5.7% and 9.0%.

An increase of 50 basis points in the discount rates used would have a negative 44% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. 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 60% impact on the calculation.

A decrease of 10% in the margin captured by power generation assets would have a negative 69% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. An increase of 10% in the margin captured would have a positive 69% impact on this calculation.

14.3.1.5 France BtoC CGU

The goodwill allocated to the France BtoC CGU amounted to €1,044 million at December 31, 2018. The France BtoC CGU groups together sales of energy and related services to individual and professional customers in France.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 medium-term business plan. A terminal value was calculated by extrapolating the cash flows beyond that period using a long-term growth rate of 1.8%.

The main assumptions and key estimates relate primarily to discount rates, expected trends in gas and electricity demand in France, changes in the Group’s market share and sales margin forecasts.

The discount rates applied are between 6.5% and 8.5%.

An increase of 50 basis points in the discount rates used would have a negative 22% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. 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 29% impact on the calculation.

A decrease of 5% in the margin on gas and electricity sales activities would have a negative 14% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of 5% in the margin on gas and electricity sales activities would have a positive 14% impact on the calculation.

14.3.2 Other significant CGUs

The table below sets out the assumptions used to determine the recoverable amount of the other main CGUs.

CGU	Reportable segment	Measurement	Discount rate
North America	North America	DCF + DDM	4.0% - 11.3%
Generation Europe	Other	DCF + DDM	3.7% - 9.1%
Northern, Southern and Eastern Europe	Europe excl. France & Benelux	DCF + DDM	4.8% - 10.9%
France BtoB	France	DCF + DDM	7.1% - 7.7%

DDM refers to the discounted dividend model.

14.3.2.1 North America CGU

The goodwill allocated to the North America CGU amounted to €875 million at December 31, 2018. The North America CGU mainly comprises:

- Canada, which includes activities in (i) renewable, thermal power generation (wind and biomass), (ii) services to individual and professional customers;
- the United States, which includes activities in (i) gas and electricity sales, (ii) services to individual and professional customers and (iii) thermal power generation;
- Puerto Rico, which includes an investment in EcoElectrica, a key energy industry player in Puerto Rico's economy (*see Note 4.2 “Investments in joint ventures”*). Despite the difficult financial environment in Puerto Rico, ENGIE does not have any information at December 31, 2018 on the basis of which the Group would modify its valuation assumptions regarding its share in these assets.

The wind and solar energy production activities acquired in the United States in 2018 make up an independent goodwill CGU.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 medium-term business plan. A terminal value was calculated for the services and energy sales businesses using EBITDA multiples as a basis.

The main assumptions and key estimates relate primarily to discount rates and changes in captured margins beyond the liquidity period.

The discount rates applied are between 4.0% and 11.3%.

An increase of 50 basis points in the discount rates used would have a negative impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain slightly above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive impact on the calculation.

A decrease of 5% in the margin on gas and electricity sales activities would have a negative 45% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of 5% in the margin on gas and electricity sales activities would have a positive 45% impact on the calculation.

A decrease of 5% in service activities would have a negative 37% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of 5% in the margin on gas and electricity sales activities would have a positive 37% impact on the calculation.

14.3.2.2 Generation Europe CGU

The goodwill allocated to the Generation Europe CGU amounted to €629 million at December 31, 2018. The Generation Europe CGU groups together the thermal power generation activities in Europe.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2019 budget and the 2020-2021 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 discount rates applied to these cash flow projections ranged between 3.7% and 9.1%.

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.

Results of the impairment test

At December 31, 2018, the recoverable amount of the Generation Europe goodwill CGU was higher than its carrying amount.

Sensitivity analyses

An increase of 50 basis points in the discount rates used would have a negative 13% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. 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 13% impact on the calculation.

A decrease of 10% in the margin captured by thermal power plants would have a negative 17% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. An increase of 10% in the margin captured would have a positive 17% impact on this calculation.

14.3.2.3 Other significant goodwill CGUs

For the other significant goodwill CGUs, there is a considerable difference between their recoverable amount and their carrying amount at December 31, 2018.

14.4 Goodwill segment information

The carrying amount of goodwill can be analyzed as follows by operating segment:

In millions of euros	**Dec. 31, 2018**
North America	997
Latin America	740
Africa-Asia	649
Benelux	4,258
France	3,273
Europe excl. France & Benelux	1,689
Infrastructures Europe	5,000
Other	1,203
TOTAL	**17,809**

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	10	40
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.

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 to exceed 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 costs of disposal. 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”.

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, 2016	**3,205**	**2,565**	**11,614**	**17,384**
Acquisitions	179		1,026	1,205
Disposals	(32)		(224)	(256)
Translation adjustments	(57)		(261)	(318)
Changes in scope of consolidation	1		27	28
Transfer to "Assets classified as held for sale"			(1,075)	(1,075)
Other	343	116	(439)	20
At December 31, 2017 (1)	**3,640**	**2,681**	**10,668**	**16,988**
Acquisitions	120	17	912	1,048
Disposals	(9)	(19)	(149)	(177)
Translation adjustments	(52)		10	(42)
Changes in scope of consolidation	1		(290)	(289)
Transfer to "Assets classified as held for sale"			(98)	(98)
Other	55	40	(54)	41
AT DECEMBER 31, 2018	**3,753**	**2,719**	**11,000**	**17,472**
ACCUMULATED AMORTIZATION AND IMPAIRMENT				
At December 31, 2016	**(1,259)**	**(1,988)**	**(7,497)**	**(10,744)**
Amortization	(117)	(56)	(603)	(776)
Impairment	(7)		(219)	(227)
Disposals	20		219	239
Translation adjustments	5		149	154
Changes in scope of consolidation			(3)	(3)
Transfer to "Assets classified as held for sale"			880	880
Other	(26)		19	(7)
At December 31, 2017 (1)	**(1,385)**	**(2,045)**	**(7,054)**	**(10,484)**
Amortization	(144)	(61)	(632)	(837)
Impairment			(16)	(16)
Disposals	7	19	129	155
Translation adjustments	4		2	6
Changes in scope of consolidation			434	434
Transfer to "Assets classified as held for sale"			46	46
Other	(32)		(26)	(57)
AT DECEMBER 31, 2018	**(1,550)**	**(2,087)**	**(7,117)**	**(10,754)**
CARRYING AMOUNT				
At December 31, 2017 (1)	**2,255**	**636**	**3,613**	**6,504**
AT DECEMBER 31, 2018	**2,204**	**632**	**3,883**	**6,718**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

Following the classification of the Group's interest in Glow (power generation in Thailand) under "Assets held for sale" (*see Note 5.2 "Assets held for sale and discontinued operations*"), the carrying amount of the corresponding intangible assets was transferred to "Assets classified as held for sale" in the statement of financial position at December 31, 2018.

15.1.1 Intangible rights arising on concession contracts

Accounting standards

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 retains the right to take back the infrastructure at the end of the concession.

The intangible asset model according to IFRIC 12§17 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 the distribution infrastructures of gas 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.

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 to exceed 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 Others

At December 31, 2018, this caption mainly relates to software and licenses for €985 million, as well as to intangible assets (client portfolio) acquired as a result of business combinations and capitalized acquisition costs for customer contracts for €1,000 million.

15.2 Information regarding research and development costs

Accounting standards

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 recognized.

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 €182 million in 2018, of which €25 million 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.

Property, plant and equipment acquired under finance leases are carried in the consolidated statement of financial position at the lower of market value and the present value of the related minimum lease payments, in accordance with IAS 17. The corresponding liability is recognized under borrowings. These assets are depreciated using the same methods and useful lives as set out below.

Borrowing costs that are directly attributable to the construction of the qualifying asset are capitalized as part of the cost of that asset.

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 27.2 "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, 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.

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	Other	Total
GROSS AMOUNT								
At December 31, 2016	**756**	**5,687**	**95,555**	**451**	**3,030**	**6,462**	**1,174**	**113,115**
Acquisitions	7	24	918	39		4,015	58	5,062
Disposals	(10)	(84)	(851)	(40)	(34)	(110)	(208)	(1,337)
Translation adjustments	(22)	(119)	(2,466)	(11)	(41)	(414)	(16)	(3,090)
Changes in scope of consolidation	3	(23)	(1,614)	3	(4)	99		(1,535)
Transfer to "Assets classified as held for sale"	(26)	(67)	(11,698)	(7)	(742)	(1,160)	(14)	(13,714)
Other	9	98	3,702	9	11	(4,039)	11	(197)
At December 31, 2017 (1)	717	5,517	83,547	444	2,220	4,853	1,005	98,303
Acquisitions	9	42	545	51		4,593	61	5,302
Disposals	(17)	(38)	(635)	(40)	(3)	(6)	(59)	(797)
Translation adjustments	(5)	31	114	2	6	(53)	8	103
Changes in scope of consolidation	(1)	(3)	(1,678)	(39)	(12)	(59)	(4)	(1,797)
Transfer to "Assets classified as held for sale"	(19)	(12)	(3,866)	(6)	(1)	(206)	(29)	(4,138)
Other	(14)	138	3,589	6	233	(3,652)	34	334
AT DECEMBER 31, 2018	**671**	**5,676**	**81,615**	**419**	**2,444**	**5,469**	**1,015**	**97,309**
ACCUMULATED DEPRECIATION AND IMPAIRMENT								
At December 31, 2016	**(145)**	**(2,925)**	**(48,534)**	**(337)**	**(1,324)**	**(1,195)**	**(878)**	**(55,337)**
Depreciation	(9)	(123)	(2,929)	(40)	(187)		(96)	(3,384)
Impairment	2	(31)	(670)	(1)	2	(19)	(2)	(719)
Disposals	1	68	692	36	46	96	202	1,140
Translation adjustments	6	16	1,226	10	24	59	10	1,352
Changes in scope of consolidation	1	18	825	(1)	2	26	1	871
Transfer to "Assets classified as held for sale"	15	35	7,785	5	518	208	11	8,577
Other		7	(388)	(2)	(9)	625	26	258
At December 31, 2017 (1)	**(129)**	**(2,937)**	**(41,992)**	**(330)**	**(929)**	**(199)**	**(725)**	**(47,241)**
Depreciation	(8)	(119)	(2,600)	(42)	(189)		(90)	(3,048)
Impairment	(1)	(82)	(1,006)	(1)	(250)	(219)	(3)	(1,561)
Disposals		23	551	37		1	53	665
Translation adjustments	4	(5)	(108)	(2)	(4)	4	(6)	(119)
Changes in scope of consolidation	2	1	1,277	43	12	21	7	1,363
Transfer to "Assets classified as held for sale"		5	1,552	5		2	23	1,588
Other	2	(60)	56	(1)	(58)	24	(2)	(39)
AT DECEMBER 31, 2018	**(130)**	**(3,175)**	**(42,270)**	**(290)**	**(1,418)**	**(367)**	**(742)**	**(48,391)**
CARRYING AMOUNT								
At December 31, 2017 (1)	**588**	**2,579**	**41,554**	**115**	**1,291**	**4,653**	**280**	**51,062**
AT DECEMBER 31, 2018	**541**	**2,501**	**39,345**	**129**	**1,026**	**5,102**	**273**	**48,917**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement financial information").

In 2018, the net decrease in "Property, plant and equipment" takes into account:

- the classification under "Assets held for sale" (see Note 5.2 "Assets held for sale and discontinued operations") for a negative €2,550 million of the Group's interest in Glow (power generation in Thailand), the Langa group's operating wind farms in France and solar fields in Mexico. The carrying amount of these property, plant and equipment, has been transferred to "Assets classified as held for sale" in the statement of financial position at December 31, 2018;
- depreciation for a total negative amount of €3,048 million;
- impairment losses amounting to €1,561 million, mainly related to thermal power generation assets in Europe (€1,268 million) and Latin America (€71 million), and gas infrastructure sites in France (€87 million);
- changes in the scope of consolidation for a negative €434 million, mainly resulting from the DBSO[1] activities relating to wind and solar farms in France (negative impact of €411 million), gas distribution activities in Hungary (negative impact of €155 million), LNG activities (negative impact of €€110 million), slightly offset by the acquisition of the Langa group in France (€206 million);
- partly offset by maintenance and development investments for a total amount of €5,302 million mainly relating to the construction of plants and development of wind and solar farms in Latin America and France, the extension of transportation and distribution networks in the Infrastructures Europe segment.

(1) Develop Build Share and Operate.

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In 2017, the net increase in "Property, plant and equipment" mainly resulted from:

- the transfer of the carrying amount of property, plant and equipment to "Assets held for sale" of Loy Yang B assets in the process being sold at December 31, 2017 and of exploration-production activities under discontinued operations for a negative total amount of €5,137 million;
- maintenance and development investments for a total amount of €5,062 million mainly related to the construction of plants and development of wind and solar farms in Latin America and France, and the extension of transportation and distribution networks in the Infrastructures Europe segment;
- depreciation for a total negative amount of €3,384 million;
- negative net translation adjustments of €1,738 million, mainly resulting from the US dollar (negative impact of €963 million) and the Brazilian real (negative impact of €439 million);
- impairment losses amounting to €719 million, mainly related to thermal power generation assets (€510 million) and gas storage facilities in Germany (€156 million);
- changes in the scope of consolidation for a negative €664 million, mainly resulting from the DBSO activities relating to wind and solar fields in France (negative impact of €277 million), and the disposal of power generation plants in the United-Kingdom (negative impact of €186 million).

16.2 Pledged and mortgaged assets

Items of property, plant and equipment pledged by the Group to guarantee borrowings and debt amounted to €1,298 million at December 31, 2018 compared to €2,185 million at December 31, 2017.

The decrease mainly related to the classification of Glow assets in Thailand under "Assets held for sale". The secured debt, on the other hand, was classified as "Liabilities held for sale" *(see Note 5.2).*

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 €1,415 million at December 31, 2018 compared to €1,988 million at December 31, 2017.

16.4 Other information

Borrowing costs for 2018 included in the cost of property, plant and equipment amounted to €134 million at December 31, 2018 compared to €104 million at December 31, 2017.

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 flows characteristics of the financial asset. The analysis of the contractual cash flows characteristics allows to determine whether these cash flows are "only payments of principal and interest on the outstanding amounts" (known as "SPPI" test or Solely Payment 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 flows 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 their 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 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:

In millions of euros	Notes	Dec. 31, 2018 Non-current	Dec. 31, 2018 Current	Dec. 31, 2018 Total	Dec. 31, 2017 (1) Non-current	Dec. 31, 2017 (1) Current	Dec. 31, 2017 (1) Total
Other financial assets	17.1	6,193	2,290	8,483	5,586	2,010	7,596
Equity instruments at fair value through other comprehensive income		*742*		*742*	*733*		*733*
Equity instruments at fair value through income		*365*		*365*	*393*		*393*
Debt instruments at fair value through other comprehensive income		*1,108*	*840*	*1,947*	*844*	*942*	*1,786*
Debt instruments at fair value through income		*600*	*233*	*832*	*647*	*210*	*857*
Loans and receivables at amortized cost		*3,378*	*1,218*	*4,596*	*2,968*	*858*	*3,826*
Trade and other receivables	8.2		15,613	15,613		13,127	13,127
Assets from contracts with customers	8.2		7,411	7,411		6,930	6,930
Cash and cash equivalent	17.1		8,700	8,700		8,929	8,929
Derivative instruments	17.4	2,693	10,679	13,372	2,949	7,378	10,326
TOTAL		**8,886**	**44,692**	**53,578**	**8,535**	**38,374**	**46,908**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

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 in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument that is not held for trading. 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, the 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, 2017 (1)	**733**	**393**	**1,127**
Increase	50	170	220
Decrease	(62)	(118)	(179)
Changes in fair value	35	(46)	(10)
Changes in scope of consolidation, foreign exchange translation and other	(15)	(34)	(50)
AT DECEMBER 31, 2018	**742**	**365**	**1,107**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

Equity instruments amounted to €1,107 million at December 31, 2018 of which €62 million in listed securities relating to equity instruments at fair value through other comprehensive income.

At December 31, 2018 the net book value of equity instruments at fair value through other comprehensive income amounted to €742 million. This amount mainly includes shares held by the group as minority interest in Nord Stream AG for an amount of €478 million.

In 2018, the Group received €55 million of dividends including €38 million from equity instruments at fair value through other comprehensive income (of which €1 million from shares sold in 2018) and €15 million from equity instruments at fair value through income (of which €3 million from shares sold in 2018).

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 recycling mechanism). This involves a measurement through profit or loss for interest (at amortized cost using the effective interest method), depreciations and foreign exchange gains and losses, and through OCI (with recycling mechanism) for other gains or losses.

This category mainly includes bonds and financial deposits (step-up deposits).

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, on simple request of the holder. They are measured at fair value through profit or loss because the contractual cash flows characteristics do not meet the SPPI test.

In millions of euros	Debt instruments 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 other comprehensive income	Liquid debt instruments held for cash investment purposes at fair value through income	Total
At December 31, 2017 (1)	**884**	**621**	**902**	**236**	**2,643**
Increase	139	(73)	170	65	300
Decrease	(9)	(2)	(145)		(156)
Changes in fair value	33	(23)		3	14
Changes in scope of consolidation, foreign exchange translation and other	(22)	3	(5)	3	(22)
AT DECEMBER 31, 2018	**1,025**	**525**	**922**	**307**	**2,779**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

At December 31, 2018, the debt instruments at fair value amounted to €2,779 million including €1,947 million of debt instruments at fair value through other comprehensive income and €832 million of debt instruments at fair value through income (respectively €1,786 million and €857 million at December 31, 2017).

Debt instruments at fair value at December 31, 2018 include bonds and money market funds held by Synatom for €1,492 million and liquid instruments deducted from gross debt for €1,229 million (respectively €1,441 million and €1,138 million at December 31, 2017).

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.

Leasing security deposits are presented in this caption and recognized at their nominal value.

	Dec. 31, 2018			Dec. 31, 2017 [(1)]		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Loans granted to affiliated companies	1,498	121	1,619	990	97	1,087
Other receivables at amortized cost	675	241	916	672	107	779
Amounts receivable under concession contracts	544	68	612	571	82	653
Amounts receivable under finance leases	661	89	750	735	72	807
Margin calls on derivatives hedging borrowings - assets		699	699		500	500
TOTAL	**3,378**	**1,218**	**4,596**	**2,968**	**858**	**3,826**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

The increase in "Loans and receivables at amortized cost" in 2018 includes the €247 million loan granted to Neptune Energy as part of the sale of the exploration-production business. This item also includes the financing of the Nord Stream 2 pipeline project for a nominal amount of €298 million (excluding capitalized interests and expected credit losses).

The table below shows impairment and expected credit losses on loans and receivables at amortized cost:

	Dec. 31, 2018				Dec. 31, 2017 [(1)]			
In millions of euros	Gross	Amortized cost	Impairment and expected credit loss [(2)]	Net	Gross	Amortized cost	Impairment and expected credit loss [(2)]	Net
Loans granted to affiliated companies	1,808	86	(275)	1,619	1,293	19	(225)	1,087
Other receivables at amortized cost	924	1	(10)	916	789		(10)	779
Amounts receivable under concession contracts	614		(1)	612	655		(2)	653
Amounts receivable under finance leases	783	1	(34)	750	839	1	(33)	807
Margin calls on derivatives hedging borrowings - assets	699			699	500			500
TOTAL	**4,827**	**88**	**(319)**	**4,596**	**4,076**	**21**	**(270)**	**3,826**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").
(2) Including impairment on the Argentine State receivables, attributable to SUEZ (see Note 28.1.1 "Concessions in Buenos Aires and Santa Fe).

Information on the age of past due receivables and on counterparty risk associated with loans and receivables at amortized cost are provided in Note 18.2 "Counterparty risk".

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, 2018	263	(21)	(41)
At December 31, 2017 (1)	248	(13)	(8)

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").*

No material expected credit losses were recognized against loans and receivables at amortized cost at December 31, 2018 and December 31, 2017.

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.

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 €8,700 million at December 31, 2018 (€8,929 million at December 31, 2017).

This amount included funds related to the green bond issues, which remain unallocated to the funding of eligible projects (*see section 5 of the Registration Document*).

This amount also included at December 31, 2018 €121 million in cash and cash equivalents subject to restrictions (€141 million at December 31, 2017). Cash and cash equivalents subject to restrictions include notably €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 €73 million at December 31, 2018 compared to €104 million at December 31, 2017.

17.1.4 Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material

As indicated in Note 20.2 "Nuclear dismantling liabilities", the Belgian law of April 11, 2003, amended by the law of April 25, 2007, granted the Group's wholly-owned subsidiary Synatom responsibility for managing and investing funds received from operators of nuclear power plants in Belgium and designed 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 operators of nuclear plants provided that they meet certain financial criteria – particularly in terms of credit quality. The funds that cannot be lent to operators are either lent to entities meeting the credit quality criteria set by the law or invested in financial assets such as bonds and money market funds.

Loans to entities outside the Group and other cash investments are shown in the table below:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Loans to third parties	**512**	**516**
Loan to Eso/Elia	454	454
Loan to Ores Assets	40	41
Loan to Sibelga	18	22
Others loans and receivables at amortized cost	**163**	**23**
Debt instruments - restricted cash	163	23
Equity and debt instruments at fair value	**1,539**	**1,483**
Equity instruments at fair value through other comprehensive income	47	41
Debt instruments at fair value through other comprehensive income	1,025	861
Debt instruments at fair value through income	467	580
TOTAL	**2,214**	**2,022**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

Loans to entities outside the Group and the cash subject to restriction held by money market funds are shown in the statement of financial position as "Loans and receivables at amortized cost". Bonds and money market funds held by Synatom are shown as "equity instruments at fair value through other comprehensive income", "debt instruments at fair value through other comprehensive income" or "debt instruments at fair value through income" (*see Note 17.1 "Financial assets"*).

17.1.5 Transfer of financial assets

At December 31, 2018, 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.

In 2018, the Group carried out disposals without recourse to financial assets as part of transactions leading to full derecognition, for an outstanding amount of €872 million at December 31, 2018.

17.1.6 Financial assets and equity instruments pledged as collateral for borrowings and debt

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Financial assets and equity instruments pledged as collateral	3,447	3,602

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, 2018, broken down into current and non-current items:

		Dec. 31, 2018			Dec. 31, 2017 (1)		
In millions of euros	Notes	Non-current	Current	Total	Non-current	Current	Total
Borrowings and debt	17.2	26,434	5,745	32,178	25,292	8,175	33,467
Trade and other payables	17.2		19,759	19,759		16,404	16,404
Liabilities from contracts with customers	8.2	36	3,598	3,634	258	3,317	3,575
Derivative instruments	17.4	2,785	11,510	14,295	2,980	8,720	11,700
Other financial liabilities	17.2	46		46	32		32
TOTAL		**29,301**	**40,612**	**69,913**	**28,562**	**36,617**	**65,179**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

17.2.1 Trade and other payables

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Trade payables	19,192	15,983
Payable on fixed assets	568	422
TOTAL	**19,759**	**16,404**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

The carrying amount of these financial liabilities represents a reasonable estimate of their fair value.

17.2.2 Liabilities from contracts with customers

Information on liabilities from contracts with customers are provided in Note 8.2.

17.2.3 Borrowings and debt

	Dec. 31, 2018			Dec. 31, 2017 (1)		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Bond issues	21,444	1,202	22,645	20,062	2,175	22,237
Bank borrowings	4,272	349	4,620	4,231	928	5,159
Negotiable commercial paper		2,894	2,894		3,889	3,889
Drawdowns on credit facilities	33	33	66	26	21	47
Liabilities under finance leases	262	118	380	330	152	483
Other borrowings	74	51	125	65	56	121
TOTAL BORROWINGS	**26,084**	**4,647**	**30,731**	**24,714**	**7,221**	**31,935**
Bank overdrafts and current accounts		464	464		466	466
OUTSTANDING BORROWINGS AND DEBT	**26,084**	**5,111**	**31,195**	**24,714**	**7,688**	**32,401**
Impact of measurement at amortized cost	13	228	241	242	47	289
Impact of fair value hedges	337	2	339	336	29	365
Margin calls on derivatives hedging borrowings - carried in liabilities		404	404		412	412
BORROWINGS AND DEBT	**26,434**	**5,745**	**32,178**	**25,292**	**8,175**	**33,467**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

The fair value of gross borrowings and debt amounted to €33,651 million at December 31, 2018, compared with a carrying amount of €32,178 million.

Financial income and expenses relating to borrowings and debt are detailed in Note 11 "Net financial income/(loss)".

Borrowings and debt are analyzed in Note 17.3 "Net debt".

17.2.4 Other financial liabilities

At December 31, 2018, other financial liabilities amounted to €46 million (compared to €32 million at December 31, 2017), mainly corresponding to debt resulting from uncalled share capital of entities accounted for using the equity method.

17.3 Net debt

17.3.1 Net debt by type

	Dec. 31, 2018			Dec. 31, 2017 (1)		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Outstanding borrowings	26,084	5,111	31,195	24,714	7,688	32,401
Impact of measurement at amortized cost	13	228	241	242	47	289
Impact of fair value hedge (2)	337	2	339	336	29	365
Margin calls on derivatives hedging borrowings - carried in liabilities		404	404		412	412
BORROWINGS AND DEBT	**26,434**	**5,745**	**32,178**	**25,292**	**8,175**	**33,467**
Derivatives hedging borrowings - carried in liabilities (3)	259	66	325	293	59	352
GROSS DEBT	**26,692**	**5,811**	**32,503**	**25,585**	**8,234**	**33,819**
Assets related to financing	(53)	(1)	(53)	(59)	(1)	(60)
Margin calls on derivatives hedging borrowings - carried in assets		(699)	(699)		(500)	(500)
ASSETS RELATED TO FINANCING AND MARGIN CALLS	**(53)**	**(700)**	**(752)**	**(59)**	**(501)**	**(559)**
Cash and cash equivalents		(8,700)	(8,700)		(8,929)	(8,929)
Derivatives hedging borrowings - carried in assets (3)	(678)	(42)	(720)	(610)	(63)	(673)
NET CASH	**(678)**	**(8,742)**	**(9,420)**	**(610)**	**(8,992)**	**(9,602)**
Liquid debt instruments held for cash investment purposes	(235)	(995)	(1,230)	(30)	(1,108)	(1,138)
LIQUID DEBT INSTRUMENTS HELD FOR CASH INVESTMENT PURPOSES	**(235)**	**(995)**	**(1,230)**	**(30)**	**(1,108)**	**(1,138)**
NET DEBT	**25,727**	**(4,625)**	**21,102**	**24,887**	**(2,367)**	**22,520**
Outstanding borrowings	26,084	5,111	31,195	24,714	7,688	32,401
Assets related to financing	(53)	(1)	(53)	(59)	(1)	(60)
Liquid debt instruments held for cash investment purposes	(235)	(995)	(1,230)	(30)	(1,108)	(1,138)
Cash and cash equivalents		(8,700)	(8,700)		(8,929)	(8,929)
NET DEBT EXCLUDING THE IMPACT OF AMORTIZED COST, DERIVATIVE INSTRUMENTS AND MARGIN CALLS	**25,796**	**(4,584)**	**21,212**	**24,626**	**(2,351)**	**22,275**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").
(2) This item corresponds to the revaluation of the interest rate component of debt in a qualified fair value hedging relationship.
(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.

Net debt excluding internal debt of discontinued operations amounted to €20,788 million at December 31, 2017 (*see Notes 5.1.2 "Disposal of the exploration-production business" and 5.1.4 "Disposal of ENGIE's liquefied natural gas (LNG) activities"*).

17.3.2 Reconciliation between net debt and cash flow from (used in) financing activities

In millions of euros	Dec. 31, 2017 [(1)]	Cash flow from financing activities	Cash flow from operating and investing activities and variation of cash and cash equivalents	Change in fair value	Translation adjustments	Change in scope of consolidation and others	Dec. 31, 2018
Outstanding borrowings	32,401	(589)			41	(658)	31,195
Impact of measurement at amortized cost	289	(20)		19	(12)	(35)	241
Impact of fair value hedge	365			(26)			339
Margin calls on derivatives hedging borrowings - carried in liabilities	412	(8)					404
BORROWINGS AND DEBT	**33,467**	**(617)**		**(7)**	**29**	**(694)**	**32,178**
Derivatives hedging borrowings - carried in liabilities	352	(76)			51	(2)	325
GROSS DEBT	**33,819**	**(693)**		**(7)**	**80**	**(696)**	**32,503**
Assets related to financing	(60)				6		(53)
Margin calls on derivatives hedging borrowings - carried in assets	(500)	(199)					(699)
ASSETS RELATED TO FINANCING AND MARGIN CALLS	**(559)**	**(199)**			**6**		**(752)**
Cash and cash equivalents	(8,929)		(449)		93	585	(8,700)
Derivatives hedging borrowings - carried in assets	(673)	89		29	(160)	(4)	(720)
NET CASH	**(9,602)**	**89**	**(449)**	**29**	**(67)**	**580**	**(9,420)**
Liquid debt instruments held for cash investment purposes	(1,138)	(90)		(4)		3	(1,230)
LIQUID DEBT INSTRUMENTS HELD FOR CASH INVESTMENT PURPOSES	**(1,138)**	**(90)**		**(4)**		**3**	**(1,230)**
NET DEBT	**22,520**	**(894)**	**(449)**	**18**	**19**	**(113)**	**21,102**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

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 debt

In 2018, changes in exchange rates resulted in a €19 million increase in net debt, including a €124 million decrease in relation to the Brazilian real, which was offset by a €151 million increase in debt denominated in US dollars.

Changes in the scope of consolidation (including the cash impact of acquisitions and disposals) led to a €2,605 million decrease in net debt, reflecting:

- disposals of assets over the period, which reduced net debt by €3,938 million, notably including the disposal of the exploration-production business, upstream liquefied natural gas (LNG) activities, the Loy Yang B power plant in Australia and the gas distribution business in Hungary (*see Note 5.1 "Disposals carried out in 2018"*);
- the classification of Glow under "Assets held for sale" (*see Note 5.2.1 "Disposal of ENGIE's interest in Glow"*) and assets held by the Langa group (*see Note 5.2.2 "Disposal of Langa group asset disposal program"*) which reduced net debt by €993 million;
- acquisitions carried out in 2018 (chiefly in the United States with the purchase of companies in the renewable energy and services sectors and in France with the purchase of the Langa group, Priora FM SA and a majority interest in Electro Power Systems), which increased net debt by €2,326 million (*see Note 5.3 "Acquisitions carried out in 2018"*).

17.3.3.2 Financing and refinancing transactions

The Group carried out the following main transactions in 2018:

- on June 22, 2018, ENGIE SA issued €750 million worth of bonds maturing in June 2028 with a 1.421% coupon;
- on September 19, 2018, ENGIE SA issued €1 billion worth of bonds:
  - a €500 million tranche maturing in September 2025 with a 0.875% coupon,
  - a €500 million tranche maturing in September 2033 with a 1.875% coupon;

- the redemption of the following bonds, which matured in 2018:
  - ENGIE SA redeemed the €644 million worth of bonds that matured on February 18, 2018 with a 5.125% coupon,
  - ENGIE SA redeemed the €729 million worth of bonds that matured on June 1, 2018 with a 2.25% coupon,
  - ENGIE SA redeemed the €150 million worth of bonds that matured on October 17, 2018 with a 3.046% coupon;
- on July 5, July 11 and October 16, 2018, ENGIE SA carried out private issues in the amounts of €75 million, AUD 85 million (€53 million) and €50 million, maturing in 2038, 2033 and 2027 respectively;
- on June 6, 2018, ENGIE gave notice that it had exercised the annual prepayment option for the €600 million tranche of deeply-subordinated notes (representing a total amount of €621 million including the accrued coupon) that had previously been recognized in equity in an amount of €584 million. ENGIE SA redeemed the bonds on July 10, 2018;
- on December 5, 2018, ENGIE gave notice that it had exercised the annual prepayment option for the GBP 300 million tranche of deeply-subordinated notes (representing a total amount of €352 million including the accrued coupon) that had previously been recognized in equity in an amount of €340 million;
- on December 12, 2018, Electrabel SA repaid the €300 million bank loan with a variable 3-month Euribor coupon;
- ENGIE Brasil Energia carried out the following transactions:
  - on June 28, 2018, ENGIE Brasil Energia carried out four bond issues totaling BRL 1,802 million (€401 million). BRL 782 million of these issues will mature in 2023 and BRL 1,020 million in 2027,
  - on July 25, 2018, ENGIE Brasil Energia carried out two bond issues totaling BRL 746 million (€161 million). BRL 515 million of these issues will mature in 2025 and BRL 231 million in 2028,
  - on August 27, 2018, ENGIE Brasil Energia took out 11 bank loans to finance wind farm projects totaling BRL 730 million (€153 million) and maturing in 2035,
  - in April 2018 and November 2018, ENGIE Brasil Energia took out four bank loans totaling USD 400 million including €174 million maturing in 2020 and €174 million in 2021,
  - in August 2018 and December 2018, ENGIE Brasil Energia took out bank loans totaling BRL 635 million (€143 million) maturing in January 2036,
  - on June 29, 2018, ENGIE Brasil Energia partially redeemed bonds in an amount of BRL 1,685 million (€375 million).

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 will be 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 therefore 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 paragraph 17.1. 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 within 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).

If an embedded derivative is separate from the host contract, it shall be 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 "Mark-to-market" or "Mark-to-market on commodity contracts other than trading instruments" below current operating income for derivative instruments with non-financial assets as the underlying, and in 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.

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 contracts 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 some parameters 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).

Derivative instruments recognized in assets and liabilities are measured at fair value and broken down as follows:

	Dec. 31, 2018						Dec. 31, 2017 [(1)]					
	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	678	42	720	259	66	325	610	63	673	293	59	352
Derivatives hedging commodities	1,409	10,608	12,018	1,311	11,405	12,716	1,532	7,231	8,763	1,475	8,544	10,018
Derivatives hedging other items [(2)]	606	28	634	1,215	38	1,254	806	83	889	1,212	118	1,329
TOTAL	**2,693**	**10,679**	**13,372**	**2,785**	**11,510**	**14,295**	**2,949**	**7,378**	**10,326**	**2,980**	**8,720**	**11,700**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*
(2) *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 debt, as well as net investment hedge derivatives.*

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 set off in accordance with Section 42 of IAS 32, are presented in the table below:

		Dec. 31, 2018				Dec. 31, 2017			
In millions of euros		Gross amount	Net amount recognized in the statement of financial position [(2)]	Other offsetting agreements [(3)]	Total net amount	Gross amount	Net amount recognized in the statement of financial position [(1,2)]	Other offsetting agreements [(3)]	Total net amount
Assets	Derivatives hedging commodities	12,588	12,018	(8,409)	3,608	9,177	8,763	(5,061)	3,703
	Derivatives hedging borrowings and other items	1,354	1,354	(384)	970	1,563	1,563	(315)	1,248
Liabilities	Derivatives hedging commodities	(13,286)	(12,716)	10,448	(2,268)	(10,432)	(10,018)	7,221	(2,798)
	Derivatives hedging borrowings and other items	(1,579)	(1,579)	601	(978)	(1,682)	(1,682)	393	(1,289)

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").
(2) Net amount recognized in the statement of financial position after taking into account offsetting agreements that meet the criteria set out in Section 42 of IAS 32.
(3) Other offsetting agreements include collateral and other guarantee instruments, as well as offsetting agreements that do not meet the criteria set out in Section 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, 2018				Dec. 31, 2017 (1)			
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)	3,887	1,554		2,332	3,493	976	277	1,937
Equity instruments at fair value through other comprehensive income	*742*	*62*		*680*	*733*	*55*		*678*
Equity instruments at fair value through income	*365*			*365*	*393*	*37*		*356*
Debt instruments at fair value through other comprehensive income	*1,947*	*1,025*		*922*	*1,786*	*884*		*902*
Debt instruments at fair value through income	*832*	*467*		*365*	*580*		*277*	
Derivative instruments	13,372	38	12,912	422	10,326	21	9,993	313
Derivatives hedging borrowings	*720*		*720*		*673*		*673*	
Derivatives hedging commodities - relating to portfolio management activities (2)	*2,075*		*2,036*	*39*	*2,001*		*1,969*	*32*
Derivatives hedging commodities - relating to trading activities (2)	*9,943*	*38*	*9,522*	*383*	*6,763*	*21*	*6,461*	*281*
Derivatives hedging other items	*634*		*634*		*889*		*889*	
TOTAL	**17,259**	**1,593**	**12,912**	**2,754**	**13,820**	**997**	**10,270**	**2,249**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").
(2) 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 relating 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)

At December 31, 2018, 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	Equity instruments at fair value through income	Debt instruments at fair value through other comprehensive income	Debt instruments at fair value through income	Other fiancial assets (excluding loans and receivable at amortized cost)
At December 31, 2017 (1)	**678**	**356**	**902**	**277**	**2,213**
Acquisitions	44	170	170	85	469
Disposals	(61)	(81)	(145)	(2)	(290)
Changes in fair value	34	(46)			(11)
Changes in scope of consolidation, foreign currency translation and other changes	(15)	(34)	(5)	6	(49)
AT DECEMBER 31, 2018	**680**	**365**	**922**	**365**	**2,332**
Gains/(losses) recorded in income relating to instruments held at the end of the period					

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*

Derivative instruments

At December 31, 2018, changes in level 3 derivative instruments commodities can be analyzed as follows:

In millions of euros	Net Asset/(Liability)
At December 31, 2017	**(188)**
Changes in fair value recorded in income	29
Settlements	87
Transfer out of level 3 to levels 1 and 2	(6)
Net fair value recorded in income	**(79)**
Deferred Day-One gains/(losses)	(4)
AT DECEMBER 31, 2018	**(83)**

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, 2018				Dec. 31, 2017 (1)			
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	5,358		5,358		5,217		5,217	
Borrowings not used in designated fair value hedges	28,293	19,028	9,265		30,352	19,478	10,874	
Derivative instruments	14,295	26	13,764	505	11,700	26	11,173	501
Derivatives hedging borrowings	*325*		*325*		*352*		*352*	
Derivatives hedging commodities - relating to portfolio management activities (2)	*2,124*		*2,075*	*49*	*2,210*		*2,140*	*70*
Derivatives hedging commodities - relating to trading activities (2)	*10,592*	*26*	*10,110*	*456*	*7,808*	*26*	*7,351*	*431*
Derivatives hedging other items	*1,254*		*1,254*		*1,329*		*1,329*	
TOTAL	**47,946**	**19,054**	**28,387**	**505**	**47,269**	**19,504**	**27,264**	**501**

(1) *Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").*
(2) *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 relating 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, which 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 Section 2 "Risk factors and control" of the Registration Document.

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 time frames (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, 2018 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, 2018		Dec. 31, 2017	
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	60		307	197
Natural gas	+€3/MWh	961	1	(17)	(48)
Electricity	+€5/MWh	65	(26)	145	(30)
Coal	+USD 10/ton	9	2	33	2
Greenhouse gas emission rights	+€2/ton	37	1	53	
EUR/USD	+10%	67	(2)	102	(233)
EUR/GBP	+10%	87		69	2

(1) The sensitivities shown above apply solely to financial commodity derivatives used for hedging purposes as part of the portfolio management activities.

The change in sensitivity on natural gas compared to December 31, 2017 is mainly related to the sale of the upstream LNG activities, whose long exposure offset the short exposure of the gas supply 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; (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 €526 million at December 31, 2018 (€349 million at December 31, 2017).

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, 2018	2018 average (1)	2018 maximum (2)	2018 minimum (2)	2017 average (1)
Trading activities	13	10	21	4	9

(1) Average daily VaR.
(2) Maximum and minimum daily VaR observed in 2018.

18.1.2 Hedges of commodity risks

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 that 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.

The Group applies cash flow hedge accounting as defined by IFRS 9 only for a minor part of the aforementioned hedge transactions. The disposal of the Group's upstream liquefied natural gas activities and of the exploration-production business (70% interest in EPI) in 2018 further reduced the materiality of hedge accounting for commodity risks.

The fair values of commodity derivatives at December 31, 2018 and December 31, 2017 are indicated in the table below:

	Dec. 31, 2018				Dec. 31, 2017 (1)			
	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	1,409	666	(1,311)	(813)	1,532	468	(1,475)	(736)
Cash flow hedges	*46*	*56*	*(61)*	*(129)*	*186*	*62*	*(208)*	*(110)*
Other derivative instruments	*1,364*	*610*	*(1,249)*	*(684)*	*1,346*	*406*	*(1,267)*	*(625)*
Derivative instruments relating to trading activities		9,943		(10,592)		6,763		(7,808)
TOTAL	**1,409**	**10,608**	**(1,311)**	**(11,405)**	**1,532**	**7,231**	**(1,475)**	**(8,544)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

See also Note 17.4 "Derivative instruments".

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, 2018				Dec. 31, 2017 (1)			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Natural gas	20	15	(1)	(3)	14	12		(10)
Electricity	1	3	(44)	(120)	3	7	(44)	(52)
Coal	7	3			8	4		
Oil					145	1		(1)
Other (2)	18	35	(16)	(6)	16	38	(164)	(47)
TOTAL	**46**	**56**	**(61)**	**(129)**	**186**	**62**	**(208)**	**(110)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").
(2) Includes mainly foreign currency hedges on commodities.

Notional amounts (net) (1)

Notional amounts and maturities of cash flow hedges are as follows:

	Unit	Total at Dec. 31, 2018	2019	2020	2021	2022	2023	Beyond 5 years
Natural gas	*GWh*	5,619	3,258	2,361				
Electricity	*GWh*	(8,028)	(4,601)	(2,241)	(1,186)			
Coal	*Thousands of tons*	220	128	92				
Oil-based products	*Thousands of barrels*							
Forex	*Millions of euros*	65	25	21	18			
Greenhouse gas emission rights	*Thousands of tons*	1,050	900	150				

(1) Long/(short) position.

At December 31, 2018, a loss of €35 million was recognized in equity in respect of cash flow hedges, versus a loss of €24 million at December 31, 2017. A loss of €20 million was reclassified from equity to income in 2018, compared to a loss of €185 million in 2017.

Gains and losses arising from the ineffective portion of hedges are taken through profit or loss. This represented a gain of €8 million in 2018, compared to a loss of €6 million in 2017.

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 in 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 American dollars, Brazilian real and pounds sterling.

18.1.3.1 Financial instruments by currency

The following tables present a breakdown by currency of outstanding gross debt and net debt, before and after hedging:

OUTSTANDING GROSS DEBT

	Dec. 31, 2018		Dec. 31, 2017	
	Before hedging	After hedging	Before hedging	After hedging
EUR	68%	76%	69%	79%
USD	12%	14%	12%	11%
GBP	8%	1%	7%	0%
Other currencies	12%	9%	12%	10%
TOTAL	**100%**	**100%**	**100%**	**100%**

NET DEBT

	Dec. 31, 2018		Dec. 31, 2017	
	Before hedging	After hedging	Before hedging	After hedging
EUR	63%	75%	65%	80%
USD	15%	18%	16%	14%
GBP	12%	1%	9%	-1%
Other currencies	10%	6%	10%	7%
TOTAL	**100%**	**100%**	**100%**	**100%**

18.1.3.2 Currency risk sensitivity analysis

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).

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, 2018		
	Impact on income		Impact on equity
In millions of euros	+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)	(18)	18	NA
Financial instruments (debt and derivatives) qualified as net investment hedges (3)	NA	NA	137

(1) +(-) 10%: depreciation (appreciation) of 10% on 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 the 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. At December 31, 2018, the Group had a portfolio of interest rate options (caps) protecting it from a rise in short-term interest rates for the euro.

The Group has a portfolio of 2019 and 2020 forward interest rate pre-hedges with respective 18- and 10-year maturities 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 gross debt and net debt before and after hedging.

OUTSTANDING GROSS DEBT

	Dec. 31, 2018		Dec. 31, 2017	
	Before hedging	After hedging	Before hedging	After hedging
Floating rate	23%	43%	29%	39%
Fixed rate	77%	57%	71%	61%
TOTAL	**100%**	**100%**	**100%**	**100%**

NET DEBT

	Dec. 31, 2018		Dec. 31, 2017	
	Before hedging	After hedging	Before hedging	After hedging
Floating rate	-11%	19%	-1%	14%
Fixed rate	111%	81%	101%	86%
TOTAL	**100%**	**100%**	**100%**	**100%**

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, 2018			
	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	(40)	39	NA	NA
Change in fair value of derivatives not qualifying as hedges	51	(65)	NA	NA
Change in fair value of derivatives qualifying as cash flow hedges	NA	NA	321	(412)

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 validated 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 debts, 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.

A Group-wide approach on interest rate risk management is reflected in a dedicated Group policy that is validated by Group Management. This policy distinguishes between the two following main sources of interest rate risk:

- 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, in 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.

  The evolution of the interest rate risk is managed actively by monitoring the market rates and their effect 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 paragraph "Interest rate risk" above).

  Managing interest rate risk for specific project transactions aims 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 likeliness of completion, the availability of hedging instruments and their associated cost.

Hedging instruments and sources of hedge ineffectiveness

The Group uses principally the following risk management levers for mitigating interest rate risk:

- derivative instruments: these mostly correspond to over-the-counter contracts allowing 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 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, does not designate specific risk components as a hedged item and does not 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) at December 31, 2018 and December 31, 2017 are indicated in the table below:

	Dec. 31, 2018				Dec. 31, 2017 (1)			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivatives hedging borrowings	678	42	(259)	(66)	610	63	(293)	(59)
Fair value hedges	*521*	*1*	*(29)*	*(1)*	*449*	*9*	*(38)*	
Cash flow hedges	*24*		*(191)*		*15*	*1*	*(191)*	
Derivative instruments not qualifying for hedge accounting	*133*	*42*	*(39)*	*(65)*	*147*	*53*	*(64)*	*(59)*
Derivatives hedging other items	606	28	(1,215)	(38)	806	83	(1,212)	(118)
Fair value hedges								
Cash flow hedges	*21*	*1*	*(284)*	*(4)*	*128*	*5*	*(375)*	*(37)*
Net investment hedges	*1*		*(5)*		*54*		*(8)*	
Derivative instruments not qualifying for hedge accounting	*583*	*27*	*(927)*	*(34)*	*625*	*78*	*(830)*	*(80)*
TOTAL	**1,283**	**71**	**(1,474)**	**(105)**	**1,417**	**146**	**(1,505)**	**(177)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

See also Note 17.4 "Derivative instruments".

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 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, 2018 of the nominal amount of the hedging instruments, and, if applicable, the average price or rate of the hedging instrument:

In millions of euros

Buy/Sell	Interest rate type	Derivative instrument type	Currency	Total	2019	2020	2021	2022	2023	Beyond 5 years
Buy	Fixed	CCS	AUD	(527)	(123)	(123)	(123)	(52)	(52)	(52)
			CHF	(954)	(399)	(399)	(155)			
			EUR	(615)	(322)	(288)	(6)			
			GBP	(13,808)	(2,041)	(2,041)	(1,789)	(1,789)	(1,230)	(4,919)
			HKD	(1,338)	(256)	(256)	(256)	(256)	(156)	(156)
			JPY	(993)	(358)	(358)	(278)			
			NOK	(151)	(50)	(50)	(50)			
			PEN	(967)	(263)	(263)	(252)	(189)		
			USD	(2,281)	(1,053)	(1,097)	(44)	(44)	(44)	
	Floating	CCS	USD	(580)	(262)	(318)				
Sale	Fixed	CCS	CLP	13	7	6				
			EUR	17,988	3,095	3,138	2,568	2,277	1,541	5,369
			GBP	550	286	259	5			
			INR	58		58				
			USD	1,030	289	286	260	195		
	Floating	CCS	BRL	600	300	300				
		CCS	EUR	2,633	1,180	1,180	273			

In millions of euros

Buy/Sell	Interest rate type	Derivative instrument type	Currency	Total	2019	2020	2021	2022	2023	Beyond 5 years
Buy	Fixed	CAP	EUR	2,000	1,000	1,000				
			HUF	1						
		IRS	AUD	2	2					
			CAD							
			CZK	16	4	4	3	2	1	
			EUR	38,495	5,671	7,324	8,197	6,157	3,660	7,486
			GBP	13	5	4	3	1		
			USD	2,526	831	705	292	249	201	248
		FRA	EUR	3,600	1,950	1,650				
	Floating	IRS	BRL	675	250	250	176			
			EUR	45,484	13,056	11,751	7,589	5,972	2,482	4,635

The tables presented above exclude currency derivatives (except for cross currency swaps - CCS). These hedges are mainly short term, with maturity dates 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 2.68% as presented in Note 11.1 “Cost of net debt”.

Effects of hedge accounting on the Group's financial position and performance

The following tables show:

- the carrying amounts of the hedging instruments (financial assets separately from financial liabilities), with reference to the line item in the statement of financial position that includes the hedging instrument; and
- the nominal amounts of the hedging instruments.

CURRENCY DERIVATIVES

	Dec. 31, 2018				Dec. 31, 2017	
	Fair value			Nominal amount	Fair value	Nominal amount
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Cash flow hedges	45	(380)	(335)	3,268	(167)	3,285
Net investment hedges	1	(5)	(3)	1,114	47	3,370
Derivative instruments not qualifying for hedge accounting	82	(105)	(23)	10,996	(76)	5,161
TOTAL	**128**	**(489)**	**(361)**	**15,379**	**(197)**	**11,815**

INTEREST RATE DERIVATIVES

	Dec. 31, 2018				Dec. 31, 2017	
	Fair value			Nominal amount	Fair value	Nominal amount
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Fair value hedges	521	(30)	491	4,846	420	4,941
Cash flow hedges	1	(99)	(98)	1,434	(287)	1,550
Derivative instruments not qualifying for hedge accounting	703	(960)	(257)	25,216	(55)	21,792
TOTAL	**1,226**	**(1,090)**	**136**	**31,496**	**78**	**28,283**

The fair values shown in the table above are positive for an asset and negative for a liability.

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, 2018 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.

FAIR VALUE HEDGES

The following tables concerning fair value hedges show:

- the carrying amounts of the hedged items and the accumulated amounts of fair value adjustments included in these carrying amounts, financial assets separately from financial liabilities, and with reference to the line item in the statement of financial position that includes the hedged items;
- the nominal amounts of the hedging instruments;
- the accumulated amount of fair value hedge adjustments remaining in the statement of financial position for any hedged items that have ceased to be adjusted for hedging gains and losses in accordance with paragraph 6.5.10 of IFRS 9; and
- the ineffective portion of the hedge recognized in the statement of profit or loss.

In millions of euros	Nominal amount	Fair value	Line item of the statement of financial position	Change in fair value used for calculating hedge ineffectiveness (1)	Ineffective portion recognized in profit or loss	Line item of the income statement
Hedging instruments	4,941	420	Derivatives hedging borrowings	420	(2)	Cost of net debt

In millions of euros	Outstanding amount	Impact of fair value hedge(1,2)	Line item of the statement of financial position	Change in value used for calculating hedge ineffectiveness
Hedged items	4,951	365	Long-term and short-term borrowings	142

(1) 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 fair value hedge relationship.

(2) Of which €153 million relating to hedging items that have ceased to be adjusted as a result of fair value hedge discontinuance.

CASH FLOW HEDGES

The following tables concerning cash flow hedges show:

- the change in fair value of the hedged item used as the basis for recognizing hedge ineffectiveness for the period;
- the balances in the cash flow hedge reserve for continuing hedges;
- the balances remaining in the cash flow hedge reserve for hedging relationships for which hedge accounting is no longer applied;
- the ineffective portion of the hedge recognized in the statement of profit or loss; and
- the gains and losses recognized in and reclassified from equity.

In millions of euros	Nominal amount	Fair value	Line item of the statement of financial position	Change in fair value used for calculating hedge ineffectiveness	Change in the value of the hedging instrument recognized in equity (1)	Ineffective portion recognized in profit or loss (1)	Line item of the income statement	Amount reclassified from the hedge reserve to profit or loss (1)	Line item of the income statement
Hedging instruments	4,835	(454)	Derivatives hedging borrowings/ other items	(291)	65	(1)	Other financial income and expenses/ Income/(loss) from operating activities	127	Other financial income and expenses/ Income/(loss) from operating activities

(1) Gains/(losses).

In millions of euros	Change in fair value used for calculating hedge ineffectiveness	Cash flow hedge reserve - hedge accounting still applied	Cash flow hedge reserve - hedge accounting no longer applied
Hedged items	290	(265)	(459)

Foreign currency and interest rate derivatives designated as cash flow hedges can be analyzed as follows by maturity:

At December 31, 2018

In millions of euros	**Total**	2019	2020	2021	2022	2023	Beyond 5 years
Fair value of derivatives by maturity date	(433)	4	(25)	(28)	(12)	(13)	(360)

At December 31, 2017

In millions of euros	Totxal	2018	2019	2020	2021	2022	Beyond 5 years
Fair value of derivatives by maturity date	(454)	(49)	(31)	(62)	(29)	(22)	(261)

NET INVESTMENT HEDGES

The following tables concerning net investment hedges show:

- the change in fair value of the hedged item used as the basis for recognizing hedge ineffectiveness for the period;
- the balances in the foreign currency translation reserve for continuing hedges;
- the balances remaining in the foreign currency translation reserve for hedging relationships for which hedge accounting is no longer applied;
- the ineffective portion of the hedge recognized in the statement of profit or loss; and
- the gains and losses recognized in and reclassified from equity.

In millions of euros	Nominal amount	Fair value	Line item of the statement of financial position	Change in fair value used for calculating hedge ineffectiveness	Change in the value of the hedging instrument recognized in equity (1)	Ineffectiveness recognized in profit or loss (1)	Line item of the income statement	Amount reclassified from the hedge reserve to profit or loss (1)	Line item of the income statement
Hedging instruments	3,370	47	Derivatives hedging other items	3	25		Other financial income and expenses	(32)	Income/(loss) from operating activities

(1) Gains/(losses).

In millions of euros	Change in fair value used for calculating hedge ineffectiveness	Cash flow hedge reserve - hedge accounting still applied	Cash flow hedge reserve - hedge accounting no longer applied
Hedged items	(3)	(313)	NA

AMOUNTS PRESENTED IN THE STATEMENT OF CHANGES IN EQUITY AND 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)	Derivatives hedging other items - interest rate risk hedging (1)	Derivatives hedging other items - currency risk hedging (2)	Derivatives hedging other items - currency risk hedging (2)
At December 31, 2017	**46**	**(562)**	**(18)**	**(320)**
Effective portion recognized in equity	(72)		7	(25)
Amount reclassified from the hedge reserve to profit or loss	(156)		29	32
Translation differences				
Changes in scope of consolidation and other	1	5	(3)	
AT DECEMBER 31, 2018	**46**	**(741)**	**(28)**	**(313)**

(1) Time period related to cash flow hedges.
(2) Transaction related to cash flow hedges.

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 a visibility and to provide tools for financial performance management; and
- provides guidelines on the use of mitigating mechanisms such as collaterals 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 which includes the two different approaches:

- a portfolio approach, for which 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,
  - any other aspects the Group may consider relevant, and
  - impairment rates must be determined based on historical ageing balances and, when correlation is proven and documentation possible, the historical data must be adjusted by forward-looking elements;
- 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 of the counterparty's creditworthiness 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 the evolution of 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 as of strategic importance for the counterparty, such as essential public services or goods, the LGD parameter is set at 30%.

The Group has decided that write-off applies in the following situations:

- for assets for which a legal recovery procedure is pending: no write-off to be applied as long as the procedure is ongoing;
- for assets for which no legal recovery procedure is pending: write-off should be booked once the trade receivable is 3 years overdue (5 years overdue for public counterparties).

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, contract assets

The following tables concerning exposure to counterparty risk of "Trade and other receivables" and "Contract assets" show:

- the allocation of the outstanding amount according to the approach chosen (individual or collective) for monitoring expected credit losses;
- the breakdown of the outstanding amount relating to "Trade and other receivables" and "Contract assets" monitored according to the individual approach:
  - by risk level (levels 1, 2 and 3),
  - by counterparty type (investment grade versus other);
- the breakdown of the outstanding amount relating to "Trade and other receivables" and "Contract assets" monitored according to the collective approach between past due assets and assets neither impaired nor past due.

Total outstanding exposures presented in the tables hereafter do not include impacts relating to VAT or to any other item not subject to credit risk, which amounted to €2,547 million and €13 million respectively for "Trade and other receivables" and "Contract assets" at December 31, 2018 (compared to €2,114 million and €12 million at December 31, 2017).

Outstanding exposure breaks down as follows by type of monitoring approach:

		Dec. 31, 2018			Dec. 31, 2017		
In millions of euros		Individual approach	Collective approach	Total	Individual approach	Collective approach	Total
Trade and other receivables, net	Gross	10,339	3,804	14,142	8,548	3,546	12,094
	Expected credit losses	(323)	(754)	(1,076)	(352)	(729)	(1,081)
TOTAL		**10,016**	**3,050**	**13,066**	**8,196**	**2,817**	**11,013**
Assets from contracts with customers	Gross	3,052	4,381	7,432	2,757	4,073	6,831
	Expected credit losses	(7)	(1)	(8)	(7)	(5)	(12)
TOTAL		**3,045**	**4,379**	**7,424**	**2,750**	**4,068**	**6,818**

Individual approach

Outstanding "Trade and other receivables" and "Contract assets" exposures monitored according to the individual approach break down as follows by risk level:

		Dec. 31, 2018				Dec. 31, 2017			
In millions of euros		Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total
Trade and other receivables, net	Gross	9,694	422	222	10,339	7,821	455	272	8,548
	Expected credit losses	(107)	(71)	(145)	(323)	(103)	(76)	(173)	(352)
TOTAL		**9,587**	**352**	**77**	**10,016**	**7,718**	**379**	**99**	**8,196**
Assets from contracts with customers	Gross	2,730	261	61	3,052	2,047	507	203	2,757
	Expected credit losses	(6)		(1)	(7)	(5)		(1)	(7)
TOTAL		**2,725**	**261**	**59**	**3,045**	**2,042**	**507**	**202**	**2,750**

Outstanding "Trade and other receivables" and "Contract assets" exposures monitored according to the individual approach break down as follows by counterparty type:

		Dec. 31, 2018			Dec. 31, 2017		
In millions of euros		Investment Grade (1)	Other	Total	Investment Grade (1)	Other	Total
Trade and other receivables, net	Gross	9,161	1,178	10,339	7,258	1,290	8,548
	Expected credit losses	(205)	(118)	(323)	(164)	(189)	(352)
TOTAL		**8,956**	**1,060**	**10,016**	**7,094**	**1,101**	**8,196**
Assets from contracts with customers	Gross	2,358	694	3,052	1,780	977	2,757
	Expected credit losses	(4)	(3)	(7)	(6)	(1)	(7)
TOTAL		**2,354**	**691**	**3,045**	**1,774**	**976**	**2,750**

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's.

Collective approach

Outstanding past due "Trade and other receivables" and "Contract assets" exposures monitored according to the collective approach break down as follows:

In millions of euros		0 to 6 months	6 to 12 months	beyond	Total past due assets at Dec. 31, 2018
Trade and other receivables, net	Gross	730	146	368	1,243
	Expected credit losses	(18)	(19)	(243)	(281)
TOTAL		**711**	**126**	**125**	**962**
Assets from contracts with customers	Gross	34	3	4	42
	Expected credit losses				
TOTAL		**34**	**3**	**4**	**42**

In millions of euros		0 to 6 months	6 to 12 months	beyond	Total past due assets at Dec. 31, 2017
Trade and other receivables, net	Gross	730	135	517	1,381
	Expected credit losses	(19)	(26)	(230)	(274)
TOTAL		**711**	**109**	**287**	**1,107**
Assets from contracts with customers	Gross	75			75
	Expected credit losses				
TOTAL		**75**			**75**

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, 2018		Dec. 31, 2017	
In millions of euros	Investment Grade (3)	Total	Investment Grade (3)	Total
Gross exposure (1)	9,325	12,027	7,309	8,764
Net exposure (2)	2,701	3,683	2,913	3,705
% of credit exposure to "Investment Grade" counterparties	73.4%		78.6%	

(1) Corresponds to the maximum exposure, i.e. the value of the derivatives shown under assets (positive fair value).
(2) After taking into account the liability positions with the same counterparties (negative fair value), collateral, netting agreements and other credit enhancement techniques.
(3) 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.

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 drew 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 following tables concerning exposure to counterparty risk of "Loans and receivables at amortized cost" show the breakdown of the outstanding exposure:

- by risk level (levels 1, 2 and 3);
- by counterparty type (investment grade versus other).

Total outstanding exposures presented in tables hereafter do not include impacts relating to VAT or to any other item not subject to credit risk, which amount at December 31, 2018 to €809 million (compared to €533 million at December 31, 2017).

Outstanding exposure breaks down as follows by risk level:

	Dec. 31, 2018				Dec. 31, 2017			
In millions of euros	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total
Gross	3,402	466	233	4,100	2,799	517	245	3,561
Expected credit losses	(91)		(227)	(319)	(36)		(232)	(269)
TOTAL	**3,311**	**466**	**5**	**3,781**	**2,763**	**517**	**13**	**3,293**

Outstanding exposure breaks down as follows by counterparty type:

	Dec. 31, 2018			Dec. 31, 2017		
In millions of euros	Investment Grade (1)	Other	Total	Investment Grade (1)	Other	Total
Gross	2,003	2,098	4,100	2,079	1,482	3,561
Expected credit losses	(86)	(233)	(319)	(21)	(247)	(269)
TOTAL	**1,917**	**1,865**	**3,781**	**2,058**	**1,235**	**3,293**

(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.

At December 31, 2018, total outstanding exposure to credit risk amounted to €9,634 million.

	Dec. 31, 2018				Dec. 31, 2017			
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	9,634	85.0%	6.0%	8.0%	10,009	84.0%	9.0%	7.0%

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's or Baa3 by Moody's.
(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, 2018, Crédit Agricole Corporate and Investment Bank (CACIB) is the main Group counterparty and represents 29% 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 quarterly 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, and performing stress tests on the margin calls put in place when commodity, interest rate and currency derivatives are negotiated.

The Group centralizes virtually all 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. 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 onslaught of successive 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 risks for both investment types, allowing the Group to take immediate action where required in response to market developments. Consequently, 78% of cash pooled at December 31, 2018 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 and in the United States.

At December 31, 2018, bank loans accounted for 17% of gross debt (excluding overdrafts and the impact of derivatives and amortized cost), while the remaining debt was raised on capital markets (including €22,645 million in bonds, or 74% of gross debt).

Outstanding negotiable commercial paper issues represented 9% of gross debt, or €2,894 million at December 31, 2018. 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 allowing the Group to continue to finance its activities if access to this financing source were to dry up.

Available cash, comprising cash and cash equivalents and liquid debt instruments dedicated to cash investments, totaled €9,935 million at December 31, 2018, of which 70% was invested in the Eurozone.

The Group also has access to confirmed credit lines. These facilities are appropriate for the scale of its operations and for the timing of contractual debt repayments. Confirmed credit facilities had been granted for a total of €13,297 million at December 31, 2018, of which €13,232 million was available. 95% of available credit facilities are centralized. None of these centralized facilities contain a default clause linked to covenants or minimum credit ratings.

At December 31, 2018, all the entities of the Group whose debt is consolidated comply with the covenants and declarations included in their financial documentation, except for some non-significant entities for which compliance actions are being implemented.

18.3.1 Undiscounted contractual payments relating to financial activities

At December 31, 2018, undiscounted contractual payments on net debt excluding the impact of derivatives, margin calls and amortized cost break down as follows by maturity:

AT DECEMBER 31, 2018

In millions of euros	Total	2019	2020	2021	2022	2023	Beyond 5 years
Bond issues	22,645	1,202	2,496	1,778	2,613	2,675	11,882
Bank borrowings	4,620	349	952	411	401	345	2,163
Negotiable commercial paper	2,894	2,894					
Drawdowns on credit facilities	66	33	17	2	2	2	11
Liabilities under finance leases	380	118	92	82	10	9	70
Other borrowings	125	51	20	19	4	5	26
Bank overdrafts and current accounts	464	464					
OUTSTANDING BORROWINGS AND DEBT	**31,195**	**5,111**	**3,577**	**2,291**	**3,030**	**3,035**	**14,152**
Assets related to financing	(53)	(1)	(5)	(2)			(46)
Liquid debt instruments dedicated to cash investments	(1,230)	(1,230)					
Cash and cash equivalents	(8,706)	(8,706)					
NET DEBT EXCLUDING THE IMPACT OF AMORTIZED COST, DERIVATIVE INSTRUMENTS AND MARGIN CALLS	**21,206**	**(4,825)**	**3,572**	**2,290**	**3,029**	**3,034**	**14,106**

AT DECEMBER 31, 2017

In millions of euros	Total	2018	2019	2020	2021	2022	Beyond 5 years
OUTSTANDING BORROWINGS AND DEBT	**32,427**	**7,714**	**1,408**	**3,380**	**2,239**	**3,070**	**14,617**
Assets related to financing, liquid debt instruments dedicated to cash investments and cash and cash equivalents	(10,128)	(10,069)		(3)	(2)		(54)
NET DEBT EXCLUDING THE IMPACT OF AMORTIZED COST, DERIVATIVE INSTRUMENTS AND MARGIN CALLS	**22,300**	**(2,355)**	**1,408**	**3,377**	**2,237**	**3,070**	**14,563**

At December 31, 2018, undiscounted contractual interest payments on outstanding borrowings and debt break down as follows by maturity:

AT DECEMBER 31, 2018

In millions of euros	Total	2019	2020	2021	2022	2023	Beyond 5 years
Undiscounted contractual interest flows on outstanding borrowings and debt	9,335	894	825	734	619	534	5,730

AT DECEMBER 31, 2017

In millions of euros	Total	2018	2019	2020	2021	2022	Beyond 5 years
Undiscounted contractual interest flows on outstanding borrowings and debt	9,500	930	808	741	651	531	5,839

At December 31, 2018, undiscounted contractual payments on outstanding derivatives (excluding commodity instruments) recognized in assets and liabilities break down as follows by maturity (net amounts):

AT DECEMBER 31, 2018

In millions of euros	Total	2019	2020	2021	2022	2023	Beyond 5 years
Derivatives (excluding commodity instruments)	(138)	(16)	37	93	59	(29)	(282)

AT DECEMBER 31, 2017

In millions of euros	Total	2018	2019	2020	2021	2022	Beyond 5 years
Derivatives (excluding commodity instruments)	(105)	(156)	(106)	(62)	(55)	(12)	286

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.

The maturities of the Group's undrawn credit facility programs are analyzed in the table below:

AT DECEMBER 31, 2018

In millions of euros	Total	2019	2020	2021	2022	2023	Beyond 5 years
Confirmed undrawn credit facility programs	13,232	760	1,263	429	5,514	5,012	255

Of these undrawn programs, an amount of €2,894 million is allocated to covering commercial paper issues.

At December 31, 2018, no single counterparty represented more than 5% of the Group's confirmed undrawn credit lines.

AT DECEMBER 31, 2017

In millions of euros	Total	2018	2019	2020	2021	2022	Beyond 5years
Confirmed undrawn credit facility programs	13,389	704	540	1,421	5,018	5,515	191

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.

AT DECEMBER 31, 2018

In millions of euros	Total	2019	2020	2021	2022	2023	Beyond 5 years
Derivative instruments carried in liabilities							
Relating to portfolio management activities	*(2,114)*	*(811)*	*(780)*	*(342)*	*(108)*	*(37)*	*(36)*
Relating to trading activities	*(10,579)*	*(10,579)*					
Derivative instruments carried in assets							
Relating to portfolio management activities	*2,080*	*672*	*937*	*306*	*126*	*32*	*6*
Relating to trading activities	*9,952*	*9,952*					
TOTAL AT DECEMBER 31, 2018	**(661)**	**(766)**	**157**	**(36)**	**18**	**(5)**	**(30)**

At December 31, 2017

In millions of euros	Total	2018	2019	2020	2021	2022	Beyond 5 years
Derivative instruments carried in liabilities							
Relating to portfolio management activities	*(2,179)*	*(713)*	*(858)*	*(374)*	*(172)*	*(49)*	*(12)*
Relating to trading activities	*(7,801)*	*(7,801)*					
Derivative instruments carried in assets							
Relating to portfolio management activities	*2,018*	*463*	*794*	*433*	*220*	*56*	*52*
Relating to trading activities	*6,770*	*6,770*					
TOTAL AT DECEMBER 31, 2017	**(1,192)**	**(1,281)**	**(64)**	**59**	**48**	**7**	**40**

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 (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 (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 the GEM, Latin America and North America reportable segments (expressed in TWh):

In TWh	Total at Dec. 31, 2018	2019	2020-2023	Beyond 5 years	Total at Dec. 31, 2017
Firm purchases	(3,070)	(500)	(994)	(1,576)	(5,680)
Firm sales	1,329	337	503	489	2,046

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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, 2016	**2,435,285,011**	**(37,522,838)**	**2,397,762,173**	**2,435**	**32,506**	**(761)**
Purchase/disposal of treasury stock		(9,335,181)	(9,335,181)			(122)
AT DECEMBER 31, 2017	**2,435,285,011**	**(46,858,019)**	**2,388,426,992**	**2,435**	**32,506**	**(883)**
Link 2018 worldwide employee share plan	6,036,166	26,655,602	32,691,768	6	60	459
Cancellation of treasury stock shares	(6,036,166)	6,036,166		(6)		81
Purchase of shares from the French State		(11,111,111)	(11,111,111)			(152)
Delivery of treasury stock (bonus)		1,386,192	1,386,192			35
AT DECEMBER 31, 2018	**2,435,285,011**	**(23,891,170)**	**2,411,393,841**	**2,435**	**32,565**	**(460)**

Changes in the number of shares during 2018 resulted from:

- employee share issuances as part of the "Link 2018" worldwide employee share plan. All in all, 30.9 million shares were subscribed and 1.8 million bonus shares were awarded under employee contribution schemes, representing a total of 32.7 million shares. At August 2, 2018 the transaction resulted in the sale to employees of 26.7 million shares partly repurchased from the French State in September 2017 (€153 million) and in July 2018 (€152 million) for a total amount of 22.2 million shares, on the one hand, and in a capital increase for €66 million, on the other. This last amount is broken down into a capital increase for €6 million and additional paid-in capital for €60 million;
- an equity decrease of €81 million broken down into a €6 million capital decrease and a €75 million decrease in consolidated reserves;
- the delivery of treasury stock for 1.4 million shares as part of bonus share plans.

Changes in the number of shares during 2017 result from net treasury stock acquisitions for 9 million shares, mainly repurchased from the French State in accordance with its share transfer program (0.46% of ENGIE's share capital). These shares have been allocated to the employee savings transactions planned by the Group.

19.1.1 Potential share capital and instruments providing a right to subscribe for new ENGIE SA shares

At December 31, 2017, the last stock subscription option plan came to an end.

Shares to be allocated under bonus share plans, performance share award plans as well as the stock purchase option plans, described in Note 24 "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 18, 2018. 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, 2018, the Group held 23.9 million treasury shares, allocated in full 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 €150 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 fiscal year), amounted to €36,547 million at December 31, 2018, including €32,565 million in additional paid-in capital.

Consolidated reserves include the cumulative income of the Group, the legal and statutory reserves of ENGIE SA, the cumulative actuarial gains and losses, net of tax and 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.

The cumulative actuarial gains and losses Group share represent losses of €3,275 million at December 31, 2018 (losses of €3,095 million at December 31, 2017). Deferred taxes relating to these actuarial gains and losses amount to €790 million at December 31, 2018 (€744 million at December 31, 2017).

19.2.1 Issuance of deeply-subordinated perpetual notes

On January 16, 2018, ENGIE SA carried out an issue of green deeply-subordinated perpetual notes for an amount of €1 billion offering a coupon of 1.375% with an annual reimbursement option from April 2023.

In accordance with the provisions of IAS 32 – *Financial Instruments – Presentation,* and given their characteristics, these instruments were accounted for in equity in the Group's consolidated financial statements for a total amount of €989 million.

On June 6, 2018, ENGIE gave notice of the annual prepayment option of the €600 million tranche (a total amount of €621 million accrued interest included), previously recognized in equity for a net amount of €584 million. ENGIE SA made the reimbursement on July 10, 2018.

On December 5, 2018, ENGIE gave notice of the annual prepayment option of the GBP 300 million tranche (a total amount of €352 million accrued interest included), previously recognized in equity for a net amount of €340 million.

At December 31, 2018 the level of deeply-subordinated notes amounted to €3,750 million.

The coupons ascribed to the owners of these notes, of which €145 million was paid in 2018, are accounted for as a deduction from equity in the Group's consolidated financial statements; the relating tax saving is accounted for in the income statement.

19.2.2 Distributable capacity of ENGIE SA

ENGIE SA's distributable capacity totaled €33,320 million at December 31, 2018 (compared with €33,969 million at December 31, 2017), after deducting the interim dividend paid on October 12, 2018 for a total amount of €892 million, including €32,565 million of additional paid-in capital.

19.2.3 Dividends

The table below shows the dividends and interim dividends paid by ENGIE SA in respect of 2017 and 2018.

	Amount distributed *(in millions of euros)*	Net dividend per share *(in euros)*
In respect of 2017		
Interim dividend (paid on October 13, 2017)	836	0.35
Remaining dividend for 2017 (paid on May 24, 2018)	836	0.35
Remaining additional dividend for 2017 (paid on May 24, 2018)	11	0.07
In respect of 2018		-
Interim dividend (paid on October 12, 2018)	892	0.37

The Shareholders' Meeting of May 18, 2018 approved the distribution of a total dividend of €0.70 per share in respect of 2017. In accordance with Article 26.2 of the bylaws, a dividend increase of 10% (€0.07 per share) has been allocated to shares registered in the name of the holder for at least two years at December 31, 2017, provided they are held in this form by the same shareholder until the payment date. This 10% increase may only apply, for any one shareholder, for a number of shares not representing more than 0.5% of the capital.

As an interim dividend of €0.35 per share was paid on October 13, 2017, for an amount of €836 million, ENGIE SA settled the remaining dividend balance of €0.35 per share in cash on May 24, 2018, for an amount of €836 million, for shares benefiting from an ordinary dividend, as well as the remaining €0.42 per share for shares benefiting from the bonus dividend. In addition, the Board of Directors' Meeting of July 26, 2018 approved the payment of an interim dividend of €0.37 per share payable on October 12, 2018 for a total amount of €892 million.

Proposed dividend in respect of 2018

Shareholders at the Shareholders' Meeting convened to approve the ENGIE Group financial statements for the year ended December 31, 2018, will be asked to approve a dividend of €1.12 per share, representing a total payout of €2,701 million based on the number of shares outstanding at December 31, 2018. This proposed dividend per share includes an ordinary dividend of €0.75 per share and an exceptional dividend of €0.37 per share. It will be increased by 10% for all shares held for at least two years on December 31, 2018 and up to the 2018 dividend payment date. Based on the number of outstanding shares on December 31, 2018, this increase is valued at €24 million.

Subject to approval by the Shareholders' Meeting of May 17 2019, this dividend, net of the interim dividend paid (€892 million), will be detached on May 21, 2019 and paid on May 23, 2019 for an estimated amount of €1,809 million, outstanding shares excluded. It is not recognized as a liability in the financial statements at December 31, 2018, since the financial statements at the end of 2018 are presented before the appropriation of earnings.

19.3 Total gains and losses recognized in equity (Group share)

All the items shown in the table below correspond to cumulative gains and losses (Group share) at December 31, 2018 and December 31, 2017, which are recyclable to income in subsequent periods.

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 [1]
Debt instruments	28	(1)
Net investment hedges	(313)	(320)
Cash flow hedges (excl. commodity instruments)	(725)	(542)
Commodity cash flow hedges	(30)	(37)
Deferred taxes on the items above	244	201
Share of entities accounted for using the equity method in recyclable items, net of tax	(223)	(473)

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In millions of euros	Dec. 31, 2018	Dec. 31, 2017 [(1)]
Translation adjustments	(1,130)	(1,063)
Recyclable items relating to discontinued operations, net of tax		(6)
TOTAL RECYCLABLE ITEMS	**(2,149)**	**(2,240)**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data")

19.4 Capital management

ENGIE SA seeks to optimize its financial structure at all times by pursuing an optimal balance between its 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 "A" rating by 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 net financial expense and taxes paid, and the denominator includes adjusted net financial debt. Net debt is mainly adjusted for nuclear provisions, provisions for unfunded pension plans and operating lease commitments.

The Group's objectives, policies and processes for managing capital have remained unchanged over the past few years.

ENGIE SA is not obliged to comply with any 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 and provisions for site restoration costs. 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

Parameters 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 and to the dismantling of nuclear facilities, as well as those relating to the dismantling 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 parameters are based on information and estimates deemed by the Group to be the most appropriate as of today.

Modifications to certain parameters could lead to a significant adjustment in these provisions.

In millions of euros	Dec. 31, 2017 (1)	Additions	Reversals (utilizations)	Reversals (surplus provisions)	Changes in scope of consolidation	Impact of unwinding discount adjustments	Translation adjustments	Other	Dec. 31, 2018	Non-current	Current
Post-employment and other long-term benefits	6,142	294	(399)	(8)		113	(9)	238	6,371	6,264	107
Back-end of the nuclear fuel cycle	5,914	102	(52)			207			6,170	6,114	57
Dismantling of plant and equipment (2)	5,728	52	(73)		(58)	209	(4)	227	6,081	6,081	
Site rehabilitation	313	6	(14)		(81)	3	(6)	1	222	222	1
Litigation, claims, and tax risks	703	97	(107)	(86)	12	2	(8)	17	629	16	613
Other contingencies	2,915	331	(673)	(79)	(199)	20	1	23	2,340	497	1,842
TOTAL PROVISIONS	**21,715**	**882**	**(1,317)**	**(173)**	**(327)**	**554**	**(26)**	**505**	**21,813**	**19,194**	**2,620**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").
(2) Of which €5,337 million in provisions for dismantling nuclear facilities, compared to €5,159 million at December 31, 2017.

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 the interest income on plan assets.

The "Other" column mainly comprises actuarial gains and losses arising on post-employment benefit obligations in 2018 which are recorded in "Other comprehensive income" as well as provisions recorded against a dismantling or site rehabilitation asset.

Additions, reversals and the impact of unwinding discounting adjustments are presented as follows in the consolidated income statement:

In millions of euros	Dec. 31, 2018
Income/(loss) from operating activities	555
Other financial income and expenses	(541)
Income taxes	59
Income/(loss) from discontinued operations	(18)
TOTAL	**55**

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" for a description of the main pension plans and other post-employment and long-term benefits.

20.2 Nuclear power generation activities

In the context of its nuclear power generation activities, the Group assumes obligations relating to 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 radioactive fissile material from such plants. The tasks of the Commission for Nuclear Provisions set up pursuant to the above-mentioned law is to oversee the process of computing and managing these provisions. The Commission also issues opinions on the maximum percentage of funds that Synatom can lend to operators of nuclear plants and on the types of assets in which Synatom may invest its outstanding funds (*see Note 17.1.4 "Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material"*).

To enable the Commission for Nuclear Provisions to carry out its work in accordance with the law, Synatom is required to submit a report every three years describing the core inputs used to measure these provisions.

Synatom submitted its triennial report to the Commission for Nuclear Provisions on September 12, 2016. The Commission issued its opinion on December 12, 2016 based on the prior opinion given by ONDRAF, the Belgian agency for radioactive waste and enriched fissile material.

If any changes are observed from one triennial report to another that could materially impact the financial inputs used, the industrial scenario, estimated costs or their timing, the Commission for Nuclear Provisions may decide to revise its opinion.

The provisions related to nuclear power generation activities are measured 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.

The provisions take into account 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. However, the Group is not aware of any planned legislation on this matter which could materially impact the amount of the provisions, other than the matters described in Note 20.2.2 below.

The estimated provision amounts also include margins for contingencies and other risks in order to take into account the degree of control of techniques related to dismantling and radioactive spent fuel management, being understood that contingency margins for the disposal of waste are determined by ONDRAF and included in its fees. Thus, the Group considers that the provisions approved by the Commission for Nuclear Provisions take into account all currently available information to manage the contingencies and other risks associated with processes such as dismantling nuclear facilities and managing radioactive spent fuel.

Based on the information disclosed in Notes 20.2.2 and 20.2.3 below, core inputs for measuring provisions including management scenarios, implementation program and timetable, detailed technical analyses (physical and radiological inventories), estimation methods and timing of expenditures, as well as discount rates, are those approved by the Commission for Nuclear Provisions in 2016.

Consequently, changes in provisions in the Group's financial statements in 2018 therefore mainly relate to recurring items linked to the passage of time (the unwinding of discounting adjustments) and provisions for fuel spent during the year.

20.2.2 Provisions for the back-end of the nuclear fuel cycle

Accounting standards

Allocations to the 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 remains radioactive and requires processing. There are two scenarios for managing radioactive spent fuel:

- either based essentially on reprocessing;
- or based essentially on conditioning without reprocessing.

ENGIE considers that the "mixed" scenario adopted by the Commission for Nuclear Provisions in 2016 continues to apply, whereby around one-quarter of total fuel is reprocessed, and the rest disposed of directly without reprocessing.

Furthermore, 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).

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, storage and geological removal. They are calculated based on the following 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 resulting plutonium and uranium is sold to a third party;
- 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;
- the reprocessing residues and conditioned radioactive spent fuel are transferred to ONDRAF;
- the cost of burying fuel in deep geological repositories is estimated by ONDRAF;
- the long-term obligation is calculated using estimated internal costs and external costs assessed based on offers received from third parties;
- the discount rate used is 3.5% and was calculated based on an inflation rate of 2.0% (actual rate of 1.5%). It is based on an analysis of trends in and average, past and prospective benchmark long-term rates.

The costs effectively incurred in the future may, however, differ from the estimates in terms of their nature and timing of payment. The provisions may be subsequently adjusted in line with changes in the above-mentioned inputs and related cost estimates. In particular:

- as regards the partial reprocessing scenario, Belgium's current legal framework does not prescribe methods for managing nuclear waste. The reprocessing of radioactive spent fuel was suspended following a resolution adopted by the House of Representatives in 1993. 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. The Commission's 2016 opinion recommends that the necessary steps be officially initiated to ensure that this partial reprocessing scenario is implemented.

  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 Commission for Nuclear Provisions;
- the Belgian government has not yet taken a decision as to whether the medium- and high-level radioactive waste should be buried in a deep geological repository or stored over the long term. In accordance with the European Directive, in 2015 the government submitted its proposed national program for the management of spent fuel and radioactive waste to the European Commission. This program was approved by ministerial order in 2016, based on the assumption that the waste would be buried in a deep clay layer at Boom. This assumption was accepted by the Commission for Nuclear Provisions in 2016 although to date, there is no accredited site in Belgium where the waste may be buried. However, the Commission for Nuclear Provisions asked for a scenario to be developed that includes the creation of a storage facility concept that the authorities would be likely to authorize.

  In these conditions, in 2018 ONDRAF's Board of Directors adopted a new reference scenario for the geological storage of this waste, based on a new architecture and a potentially greater burial depth, on condition that a suitable site could be identified in Belgium. On that basis and in accordance with the procedures set out in the Royal Decree of March 30, 1981 "determining the tasks and setting the operational procedures of the public agency for the management of radioactive waste and fissile material", ONDRAF set the new fees to be charged for the management and storage of high-level and/or long-lived waste. These fees were approved by ONDRAF's Board of Directors on September 28, 2018 and notified to the Commission for Nuclear Provisions and Synatom. However, they have yet to be integrated in the agreements to be entered into by ONDRAF and the nuclear waste producers, including Electrabel and Synatom;

The new technical arrangements will result in the following:

  - estimated costs of €8.0 billion based on 2017 economic conditions, meaning a twofold increase in the cost of geological storage of waste compared with the cost assumptions used in the 2016 proposal submitted to the Commission for Nuclear Provisions. This amount includes technical optimizations for €2.7 billion, based on 2017 economic conditions, to be confirmed by a special working group by 2020,
  - significant delays in the payment schedule for the various expenses related to the conditioning and storage of nuclear waste. These delays could be as long as 35 years for some expense categories, such as facilities for conditioning radioactive spent fuel and for the removal of conditioned fuel, thus reducing the net present value of the expenses and, therefore, the impact of the increase in burial costs on the measurement of nuclear provisions.

  ONDRAF has asked the Commission for Nuclear Provisions to ensure that provisions are sufficient to cover the expenses for the back end of the nuclear fuel cycle, should the optimizations subject to expert appraisal fail to materialize.

Given the expected trend in assumptions for geological waste storage costs, reprocessed volumes, unit reprocessing costs and the timetable for operations, the Group believes, based on information available to date, that the impact of the new technical scenario on the provisions for the back-end cycle should not significantly alter the net present value of its commitments as estimated today.

The amount of provisions for radioactive spent fuel at December 31, 2018 therefore remained based on the industrial scenarios and cash flow projections approved by the Commission for Nuclear Provisions in December 2016 at the time of the last triennial report.

The new estimate, taking into account the new fees and timetable, will be included in Synatom's proposal to be submitted to the Commission for Nuclear Provisions no later than at the time of the next triennial report in 2019.

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. Based on the new scenario notified by ONDRAF:

- a 10% increase in ONDRAF fees for the removal of high-level and/or long lived waste would lead to an increase in provisions of approximately €140 million at unchanged contingency margins;
- a five-year advance in ONDRAF's program for high-level and/or long-lived radioactive waste conditioning and removal would lead to an increase in provisions of approximately €90 million. A five-year delay in the payment schedule for these various expenses would lead to a decrease of a similar amount;

- a change of ten basis points in the discount rate used could lead to an adjustment of approximately €190 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 engagement at the time of commissioning represents the initial amount of the provision for dismantling with, as 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. 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.

Nuclear power plants have to be dismantled at the end of their operating life. Provisions are set aside in the Group's accounts 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 "serial" 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 inputs:

- 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 "in series";
- 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 3.5% (including inflation of 2.0%) is applied to determine the net present value (NPV) of the obligation. This rate is the same as that used for the back-end of the nuclear fuel cycle;
- 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 costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment. The provisions may be subsequently adjusted in line with changes in the above-mentioned inputs. The assumptions used have a significant impact on the related implementation costs. However, these inputs and assumptions are based on information and estimates which the Group deems reasonable to date and which have been approved by the Commission for Nuclear Provisions.

The scenario adopted is based on a dismantling program and on timetables that have to be approved by the nuclear safety authorities.

Provisions are also recognized for the Group's share of the expected dismantling costs for the nuclear facilities in which it has drawing rights.

Sensitivity

Based on currently applied inputs for estimating costs and the timing of payments, a change of ten basis points in the discount rate used could lead to an adjustment of approximately €60 million in dismantling provisions. A fall in discount rates would lead to an increase in outstanding provisions, while a rise in discount rates would reduce the provision amount.

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.

20.3 Dismantling of non-nuclear plant and equipment and site rehabilitation

20.3.1 Dismantling obligations arising on other non-nuclear plant and equipment

Certain 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. This obligation is the result of prevailing environmental regulations in the countries concerned, contractual agreements, or an implicit Group commitment.

Based on estimates of proven and probable gas reserves through 2260 using current production levels, dismantling provisions for gas infrastructures in France have a present value near zero.

20.3.2 Hazelwood Power Station & Mine (Australia)

Following the Group and its partner Mitsui's announcement in November 2016 of their decision to close the coal-fired Hazelwood Power Station, the adjoining mine was shut down in late March 2017. The Group holds a 72% interest in the 1,600 MW power station, which was previously fully consolidated and has been consolidated on joint operation since September 2018.

At end-2018, the Group's share (72%) of the provision covering the obligation to dismantle and rehabilitate the mine amounted to €310 million.

Dismantling and site rehabilitation work was initiated in 2017 and includes site rehabilitation, with the purpose of ensuring long-term land and wall stability, the demolition and dismantling of all of the site's industrial facilities, the monitoring of environmental incidents and any related remediation plans, as well as long-term site monitoring.

Several laws that have a direct or indirect impact on mine rehabilitation and on the agencies that administer the laws are currently being reformed. Consequently, the ultimate regulatory obligations could 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 4.22%.

The amount of the provision recognized is based on the Group's best current estimate of the dismantling 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 Litigation and tax risks

This caption includes essentially provisions for commercial litigation, and tax claims and disputes.

20.5 Other contingencies

This caption includes notably provisions for onerous contracts relating to storage and transport capacity reservation contracts recognized in 2017 (*see Note 10.5*).

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, 2018, the projected benefit obligation in respect of the special pension plan for EGI sector companies amounted to €3.2 billion.

The duration of the pension benefit obligation of the EGI pension plan is 20 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, ENGIE CC and some ENGIE Energy Management Trading 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 15% of total pension obligations and related liabilities at December 31, 2018. The average duration is 10 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 2018, the minimum rate of return stood at 1.75%.

An expense of €24 million was recognized in 2018 in respect of these defined contribution plans (€31 million in 2017).

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 2018 in respect of multi-employer pension plans was stable as compared to 2017 at €70 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 was 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 €3.0 billion at December 31, 2018. The duration of the obligation is 21 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 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, 2016	**(6,422)**	**69**	**130**
Exchange rate differences	31	17	-
Transfer to "Liabilities directly associated with assets classified as held for sale"	233	-	-
Changes in scope of consolidation and other	(86)	8	-
Actuarial gains and losses	92	5	13
Periodic pension cost of continued operations	(427)	(50)	3
Periodic pension cost of discontinued operations	(28)	-	-
Asset ceiling	2		-
Contributions/benefits paid	464	53	12
AT DECEMBER 31, 2017	**(6,142)**	**101**	**159**
Exchange rate differences	(22)		
Changes in scope of consolidation and other	95	(26)	(12)
Actuarial gains and losses	(237)	7	8
Periodic pension cost of continued operations	(457)	(68)	3
Asset ceiling			-
Contributions/benefits paid	392	93	11
AT DECEMBER 31, 2018	**(6,371)**	**108**	**168**

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 €525 million in 2018 (€477 million in 2017). The components of this defined benefit cost in the period are set out in Note 21.3.4 “Components of the net periodic pension cost”.

The Eurozone represented 97% of the Group’s net obligation at December 31, 2018 (compared to 96% at December 31, 2017).

Cumulative actuarial gains and losses recognized in equity amounted to €3,472 million at December 31, 2018, compared to €3,327 million at December 31, 2017.

Net actuarial differences arising in the period and presented on a separate line in the statement of comprehensive income represented a net actuarial loss of €231 million in 2018 and a net actuarial gain of €99 million in 2017.

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, 2018				Dec. 31, 2017			
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		**(7,653)**	**(3,739)**	**(539)**	**(11,931)**	**(7,945)**	**(3,731)**	**(556)**	**(12,232)**
Service cost		(308)	(62)	(42)	(412)	(278)	(57)	(46)	(381)
Interest expense		(165)	(73)	(8)	(245)	(189)	(73)	(9)	(271)
Contributions paid		(16)			(16)	(13)			(13)
Amendments		(3)	(5)	10	2	(7)			(7)
Changes in scope of consolidation		(37)	31	49	43	3	1	5	9
Curtailments/settlements		1			1	6			6
Non-recurring items			2		2		(2)		(2)
Financial actuarial gains and losses		(44)	(35)	(1)	(80)	23	(53)	23	(8)
Demographic actuarial gains and losses		101	1	1	103	(195)	1	(8)	(201)
Benefits paid		397	97	40	533	498	129	46	673
Transfer to "liabilities directly associated with assets classified as held for sale"						404	44	6	454
Other (of which translation adjustments)		16	(11)	(10)	(5)	39	1		40
Projected benefit obligation at December 31	A	**(7,712)**	**(3,794)**	**(499)**	**(12,006)**	**(7,653)**	**(3,739)**	**(539)**	**(11,931)**
B - CHANGE IN FAIR VALUE OF PLAN ASSETS									
Fair value of plan assets at January 1		**5,904**	**-**	**-**	**5,904**	**5,919**	**1**	**-**	**5,920**
Interest income on plan assets		128			128	144			144
Financial actuarial gains and losses		(253)			(253)	321			321
Contributions received		309	15		324	298	21		318
Changes in scope of consolidation		32			32				
Settlements						(9)	(1)		(10)
Benefits paid		(341)	(15)		(357)	(441)	(21)		(462)
Transfer to "liabilities directly associated with assets classified as held for sale"						(222)	-	-	(222)
Other (of which translation adjustments)		(11)			(11)	(105)			(105)
Fair value of plan assets at December 31	B	**5,767**	**-**	**-**	**5,767**	**5,904**	**-**	**-**	**5,904**
C - FUNDED STATUS	A+B	**(1,945)**	**(3,794)**	**(499)**	**(6,239)**	**(1,749)**	**(3,739)**	**(539)**	**(6,027)**
Asset ceiling		(25)			(25)	(14)			(14)
NET BENEFIT OBLIGATION		**(1,970)**	**(3,794)**	**(499)**	**(6,263)**	**(1,763)**	**(3,739)**	**(539)**	**(6,041)**
ACCRUED BENEFIT LIABILITY		**(2,078)**	**(3,794)**	**(499)**	**(6,371)**	**(1,865)**	**(3,739)**	**(538)**	**(6,142)**
PREPAID BENEFIT COST		**108**			**108**	**101**			**101**

(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.

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21.3.3 Change in reimbursement rights

Changes in the fair value of reimbursement rights relating to plan assets managed by Contassur are as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Fair value at January 1	**159**	**130**
Interest income on plan assets	*3*	*3*
Financial actuarial gains and losses	*8*	*13*
Actual return	11	16
Curtailments/settlements	(12)	
Employer contributions	18	16
Employee contributions		
Benefits paid	(7)	(3)
Other		
FAIR VALUE AT DECEMBER 31	**168**	**159**

21.3.4 Components of the net periodic pension cost

The net periodic cost recognized in respect of defined benefit obligations for the years ended December 31, 2018 and 2017 breaks down as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Current service cost	412	360
Actuarial gains and losses [(1)]	(1)	(14)
Plan amendments	(2)	6
Gains or losses on pension plan curtailments, terminations and settlements	(1)	2
Non-recurring items	(2)	1
Total recognized under current operating income after share in net income of entities accounted for using the equity method	**407**	**355**
Net interest expense	117	122
Total accounted for under net financial income/(loss)	**117**	**122**
TOTAL	**525**	**477**

(1) On the long-term benefit obligation.

21.3.5 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 at December 31 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	(5,648)	4,294	(23)	(1,377)
Overfunded plans	(1,375)	1,473	(2)	96
Unfunded plans	(4,977)			(4,977)
AT DECEMBER 31, 2018	**(12,000)**	**5,767**	**(25)**	**(6,258)**
Underfunded plans	(5,876)	4,505	(9)	(1,380)
Overfunded plans	(1,286)	1,399	(5)	108
Unfunded plans	(4,768)			(4,768)
AT DECEMBER 31, 2017	**(11,930)**	**5,904**	**(14)**	**(6,041)**

The allocation of plan assets by principal asset category can be analyzed as follows:

In %	Dec. 31, 2018	Dec. 31, 2017
Equity investments	27	27
Sovereign bond investments	25	24
Corporate bond investments	27	28
Money market securities	4	3
Real estate	2	2
Other assets	15	17
TOTAL	**100**	**100**

All plan assets were quoted on an active market at December 31, 2018.

The actual return on assets of EGI sector companies stood at a negative 5% in 2018.

The actual return on plan assets of Belgian entities amounted to approximately 3% in Group insurance and a negative 5% 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	57	26	3	11	4	100
Sovereign bond investments	77	2	21			100
Corporate bond investments	76	18	1	3	1	100
Money market securities	67		4		29	100
Real estate	90		7		3	100
Other assets	12	8	3	3	73	100

21.3.6 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	
		2018	2017	2018	2017	2018	2017	2018	2017
Discount rate	Eurozone	2.0%	1.9%	2.1%	2.0%	1.6%	1.8%	1.9%	1.9%
	UK Zone	2.5%	2.6%		-		-		-
Inflation rate	Eurozone	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
	UK Zone	3.3%	3.2%		-		-		-

21.3.6.1 Discount and inflation rate

The discount rate applied is determined based on the yield, at the date of the calculation, 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 16% 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 13% in the projected benefit obligation.

21.3.6.2 Other assumptions

The increase in the rate of medical costs (including inflation) was estimated at 2.8%.

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	6	(5)

21.3.7 Estimated employer contributions payable in 2019 under defined benefit plans

The Group expects to pay around €265 million in contributions into its defined benefit plans in 2019, including €126 million for EGI sector companies. Annual contributions in respect of EGI sector companies will be made by reference to rights vested in 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 2018, the Group recorded a €133 million expense in respect of amounts paid into Group defined contribution plans (€142 million in 2017). These contributions are recorded under "Personnel costs" in the consolidated income statement.

NOTE 22 Finance leases

Accounting standards

Leases are analyzed based on the situations and indicators set out in IAS 17 in order to determine whether they constitute operating leases or finance leases.

A finance lease is defined as a lease which transfers substantially all the risks and rewards incidental to the ownership of the related asset to the lessee.

The following main factors are considered by the Group to assess wether or not a lease transfers substantially all the risks and rewards incidental to ownership: whether (i) the lessor transfers ownership of the asset to the lessee by the end of the lease term; (ii) the lessee has an option to purchase the asset and if so, the conditions applicable to exercising that option; (iii) lease term is for the major part of the economic life of the asset; (iv) the asset is of a highly specialized nature; and (v) the present value of minimum lease payments amounts to at least substantially all of the fair value of the leased asset.

Accounting for finance leases

On initial recognition, assets held under finance leases are recorded as property, plant and equipment and the related liability is recognized under borrowings. At inception of the lease, finance leases are recorded at amounts equal to the fair value of the leased asset or, if lower, the present value of the minimum lease payments.

Accounting for arrangements that contain a lease

IFRIC 4 deals with the identification of services and take-or-pay sales or purchasing contracts that do not take the legal form of a lease but convey rights to customers/suppliers to use an asset or a group of assets in return for a payment or a series of fixed payments. Contracts meeting these criteria should be identified as either operating leases or finance leases. In the latter case, a finance receivable should be recognized to reflect the financing deemed to be granted by the Group where it is considered as acting as lessor and its customers as lessees.

The Group is concerned by this interpretation mainly with respect to:

- some energy purchase and sale contracts, particularly where the contract conveys to the purchaser of the energy an exclusive right to use a production asset;
- certain contracts with industrial customers relating to assets held by the Group.

22.1 Finance leases for which ENGIE acts as lessee

The carrying amounts of property, plant and equipment held under finance leases are broken down into different categories depending on the type of asset concerned.

The main finance lease agreements concluded by the Group primarily concern power plants in the Latin America segment (mostly ENGIE Energía Perú – Peru) and ENGIE Cofely's cogeneration plants.

The undiscounted and present values of future minimum lease payments break down as follows:

	Dec. 31, 2018		Dec. 31, 2017	
In millions of euros	Undiscounted value	Present value	Undiscounted value	Present value
Year 1	125	121	155	151
Years 2 to 5 inclusive	209	193	334	306
Beyond year 5	69	61	27	20
TOTAL	**403**	**376**	**516**	**477**

The following table provides a reconciliation of liabilities under finance leases as reported in the statement of financial position (see Note 17.2.3 "Borrowings and debt") with undiscounted future minimum lease payments by maturity:

In millions of euros	Total	Year 1	Years 2 to 5 inclusive	Beyond year 5
Liabilities under finance leases	380	118	193	69
Impact of discounting future repayments of principal and interest	23	7	16	
UNDISCOUNTED FUTURE MINIMUM LEASE PAYMENTS	**403**	**125**	**209**	**69**

22.2 Finance leases for which ENGIE acts as lessor

These leases mainly fall within the scope of IFRIC 4 guidance on the interpretation of IAS 17. 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) and Lanxess (Electrabel Belgium).

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Undiscounted future minimum lease payments	919	1,013
Unguaranteed residual value accruing to the lessor	27	27
TOTAL GROSS INVESTMENT IN THE LEASE	**946**	**1,041**
Unearned financial income	**170**	**197**
NET INVESTMENT IN THE LEASE (STATEMENT OF FINANCIAL POSITION)	**777**	**844**
Of which present value of future minimum lease payments	*758*	*828*
Of which present value of unguaranteed residual value	*19*	*16*

Undiscounted future minimum lease payments receivable under finance leases can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Year 1	182	130
Years 2 to 5 inclusive	420	456
Beyond year 5	317	427
TOTAL	**919**	**1,013**

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NOTE 23 Operating leases

Accounting standards

All leases that do not meet the definition of a finance lease are classified as operating leases.

Payments made under operating leases are recognized as an expense on a straight-line basis over the lease term.

23.1 Operating leases for which ENGIE acts as lessee

The Group has entered into operating leases mainly in connection with miscellaneous buildings and fittings.

Operating lease income and expenses for 2018 and 2017 can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Minimum lease payments	(686)	(642)
Contingent lease payments	(13)	(17)
Sub-letting income		(1)
Sub-letting expenses	(29)	(35)
Other operating lease expenses	(99)	(94)
TOTAL	**(828)**	**(789)**

(1) Comparative data at December 31, 2017 have been restated due to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities (see Note 2 "Restatement of 2017 comparative data").

The present values of future minimum lease payments under non-cancelable operating leases can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Year 1	353	459
Years 2 to 5 inclusive	839	1,159
Beyond year 5	895	696
TOTAL	**2,087**	**2,314**

(1) Comparative data at December 31, 2017 have been restated due to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities (see Note 2 "Restatement of 2017 comparative data").

23.2 Operating leases for which ENGIE acts as lessor

These leases fall mainly within the scope of IFRIC 4 guidance on the interpretation of IAS 17. They primarily concern power plants operated in the Africa/Asia segment.

Operating lease income for 2018 and 2017 can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Minimum lease payments	126	271
Contingent lease payments		6
TOTAL	**126**	**277**

(1) Comparative data at December 31, 2017 have been restated due to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities (see Note 2 "Restatement of 2017 comparative data").

The present values of future minimum lease payments receivable under non-cancelable operating leases can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 (1)
Year 1	31	286
Years 2 to 5 inclusive	72	58
Beyond year 5	67	3
TOTAL	**170**	**347**

(1) Comparative data at December 31, 2017 have been restated due to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities (see Note 2 "Restatement of 2017 comparative data").

NOTE 24 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	Note	Dec. 31, 2018	Dec. 31, 2017
Employee share issues [1]	24.2	31	1
Bonus/performance share plans	24.3	46	36
Other Group companies' plans		3	1
TOTAL		**80**	**38**

(1) Including Share Appreciation Rights set up within the scope of employee share issues in certain countries.

24.1 Stock option plans

No new ENGIE stock option grants were approved by the Group's Board of Directors in either 2018 or 2017.

At December 31, 2017, the last stock purchase plan expired.

24.2 Link 2018

24.2.1 Description of available ENGIE share plans

In 2018, Group employees and former Group employees were entitled to purchase ENGIE shares as part of the "LINK 2018" worldwide employee share ownership plan. The offering mainly involved the sale of treasury shares, including 22.2 million shares bought back from the French State following the private placements carried out in *(see Note 19.1).* Employees could subscribe to either:

- the Link Classique Plan: this plan allows employees to subscribe to shares at a discount, either directly or via an employee mutual fund and with an employer top-up contribution;
- the Link Multiple Plan: under this plan, employees may subscribe to shares at a discount, either directly or via an employee mutual fund, and also benefit from any increase in the share price (leverage effect) in addition to the amounts invested. Through a Swap Agreement with a bank, employees are guaranteed to recover 100% of the invested amount as well as a minimum capitalized return;
- the Link+ Plan: under this plan, employees may subscribe to shares at a discount, either directly or via an employee mutual fund, and also benefit from any increase in the share price (higher leverage effect than the Link Multiple Plan) in addition to the amounts invested. This plan is subject to a lock-up period of ten years. Through a Swap Agreement with a bank, employees are guaranteed to recover 100% of the invested amount as well as a guaranteed minimum capitalized return;
- Share Appreciation Rights (SARs): this leveraged plan entitles beneficiaries who purchase shares to receive a cash bonus equal to the increase in the share price after a period of five years. The resulting employee liability is covered by warrants.

The Link Classique Plan and the Link+ Plan featured an employer contribution under the terms and conditions described below:

- participating French employees were entitled to bonus ENGIE shares depending on the amount of their own contribution to the plans:
  - the Link Classique Plan: for an employee contribution of €150, the employer contribution corresponded to 200% of this amount; for an additional employee contribution of €150, the employer contribution represented 100% of the amount. The employer contribution was capped at €450,
  - the Link+ Plan: for an employee contribution of €100, the employer contribution corresponded to 300% of this amount;
- for employees in other countries, ENGIE shares were granted through a bonus share award plan, subject to the still being employed with the Group and depending on their own contribution to the plan:
  - for an employee contribution of €150, two bonus shares were granted for every one share subscribed,
  - for employee contributions from €150 to €300, one bonus share was granted for every share subscribed.

The bonus shares will be awarded to employees on August 2, 2023, provided that they are still employed by the ENGIE Group.

24.2.2 Accounting impacts

Subscription price for the 2018 plan represents the average closing price of the ENGIE share on the NYSE Euronext Paris Eurolist market over the 20 trading days between May 24, 2018 and June 20, 2018 inclusive. The reference price is set at €13.65 less 20% for the Link Classique and the Link Multiple plans, i.e. €10.92 and less 30% for the Link+ plan, i.e. €9.56.

The expense recognized in the consolidated financial statements in respect of the Link Classique, Link Multiple and Link+ plans corresponds to the difference between the fair value of the shares subscribed and the subscription price. The fair value takes into account the lock-up period of five or ten years, as provided for by French legislation. It also considers the opportunity cost implicitly borne by ENGIE under the leveraged share ownership plan in allowing its employees to benefit from more attractive financial conditions than those that would have been available to them as individual investors.

The following assumptions were applied:

	5 years	10 years
Risk-free interest rate	0.26%	0.88%
Spread applicable to the retail banking network	3.64%	3.60%
Employee financing cost	3.90%	4.48%
Share lending cost	1.00%	1.50%
Share price at grant date	13.65	13.65
Volatility spread	1.90%	7.50%

The accounting impacts are break down as follows:

	Link Classique	Link Multiple	Link+	Link+ France - additional employer's contribution	Link Classique France - additional employer's contribution	Total
Amount subscribed (*in millions of euros*)	24	187	111			321
Number of shares subscribed (*in millions of shares*)	2.2	17.1	11.6	0.9	0.9	32.7
Discount (*€/share*)	2.7	2.7	4.1	13.7	13.7	
Non-transferability restriction (*€/share*)	(3.3)	(3.3)	(7.6)	(7.6)	(3.3)	
Opportunity cost (*€/share*)		0.3	1.0			
COST FOR THE GROUP ***(in millions of euros)***		**4**	**12**	**6**	**9**	**31**

Subscriptions to the Link 2018 worldwide employee share ownership plan totaled €321 million and break down as follows:

- the sale of treasury shares to employees amounted to €255 million;
- a capital increase and additional paid-in capital of €66 million (excluding issuance costs). This amount is broken down into €4 million for Link Classique and €62 million for Link Multiple.

The Group recognized a total expense of €31 million for 2018 in respect of the 30.9 million shares subscribed and 1.8 million bonus shares awarded under employer contributions.

The accounting impact of cash-settled Share Appreciation Rights consists in recognizing a payable to the employee over the vesting period, with a corresponding adjustment recorded in income. At December 31, 2018, the fair value of the liability relating to the 2014 and 2018 awards amounted to €0.8 million.

24.3 Bonus shares and performance shares

24.3.1 New awards in 2018

ENGIE Performance Share plan of December 11, 2018

On December 11, 2018, 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, 2022, subject to a further one-year lock-up period;
- performance shares vesting on March 14, 2022, without a lock-up period; and
- performance shares vesting on March 14, 2023, 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 three different conditions, excluding the first 150 performance shares granted to beneficiaries (excluding top management) which are exempt from performance conditions. The performance conditions, each of which accounts for one-third of the total grant, are as follows:

- a market performance condition relating to ENGIE's Total Shareholder Return compared to that of a reference panel of ten companies, as assessed between November 2018 and January 2022;
- two internal performance conditions relating to net recurring income Group share and to Return On Capital Employed (ROCE) in 2020 and 2021.

As part of this plan, performance shares without conditions were also awarded to the winners of the Innovation and Incubation programs (21,150 shares awarded).

ENGIE Bonus Share plan of August 2, 2018

As part of the Link 2018 employee share plan, bonus shares were awarded to subscribers of the Link Classique plan (outside France), with two bonus shares awarded for €150 of shares purchased, and one bonus share awarded for shares purchased beyond €150 and up to €300. A total of 301,816 shares were awarded under this plan, subject to the employees still being employed with the ENGIE Group on August 2, 2023.

24.3.2 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 2018:

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
August 2, 2018	August 2, 2023	August 2, 2023	14.0	0.75	NA	NA	no	10.28
Weighted average fair value of the August 2, 2018 plan								**10.28**
December 11, 2018	March 14, 2022	March 14, 2023	12.3	0.75	4.4%	0.32	yes	8.95
December 11, 2018	March 14, 2022	March 14, 2022	12.3	0.75	4.4%	0.32	yes	9.32
December 11, 2018	March 14, 2022	March 14, 2022	12.3	0.75	4.4%	0.40	no	10.00
December 11, 2018	March 14, 2023	March 14, 2023	12.3	0.75	4.4%	0.32	yes	8.62
Weighted average fair value of the December 11, 2018 plan								**8.90**

24.3.3 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.

24.3.4 Free share plans with or without performance conditions in force at December 31, 2018, and impact on income

The expense recorded during the year on plans in effect was as follows:

	Expense for the year (In millions of euros)	
	Dec. 31, 2018	**Dec. 31, 2017**
Bonus share plans		
Performance share plans	46	36
of which expense for the year	*46*	*37*
of which reversal for performance conditions not achieved		*(1)*
TOTAL	**46**	**36**

NOTE 25 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 26 "Executive compensation".

Transactions with joint ventures and associates are described in Note 4 "Investments in entities accounted for using the equity method".

Only material transactions are described below.

25.1 Relations with the French State and with entities owned or partly owned by the French State

25.1.1 Relations with the French State

On July 30, 2018, the French State sold to ENGIE a 0.46% in the Group's share capital (11.1 million shares for €151.7 million). Consequently, the share of ENGIE owned by the French State decreased from 24.10% to 23.64%, allowing it to appoint four representatives to the Group's 19-member Board of Directors (instead of five previously).

Since August 2018, the French State has held 34.51% of the Group's theoretical voting rights (or 34.79% of the exercisable voting rights) compared to 34.87% at the end of July 2018, and 28.07% at the end of December 2017.

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.

On November 6, 2015, the French State and ENGIE renewed the public service contract which sets out how such engagements are implemented, the Group's public service obligations and the conditions for rate regulation in France:

- as part of its public service obligations, the Group reaffirmed its commitments in terms of security of supply, quality of customer relations, solidarity and assistance to low-income customers, sustainable development and protection of the environment, as well as in terms of research;
- regarding the conditions for rate regulation in France, the contract confirms the overall regulatory framework for setting and changing natural gas tariffs in France, according to the Decree of December 18, 2009, which notably forecasts rate changes based on costs incurred, while also defining the transitional framework following the elimination of regulated natural gas tariffs for business customers.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, rates for accessing the French LNG terminals, as well as revenues related to storage capacity are all regulated.

25.1.2 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 (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.

25.2 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 26 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, 2018 (12 members at December 31, 2017).

Their compensation breaks down as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Short-term benefits	21	17
Post-employment benefits	6	8
Shared-based payments	5	6
Termination benefits	0	
TOTAL	**32**	**31**

The amount of pension benefit obligations in respect of members of the Group's Executive Committee stood at €29 million at December 31, 2018, being specified that this is an estimated amount as these commitments are, as a rule, not individualized. The Group has a policy of financing pension obligations through hedging assets, without these being specifically dedicated to the retirement obligations of a dedicated population.

NOTE 27 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.

27.1 Composition of change in working capital requirements

In millions of euros	Change in working capital requirements at Dec. 31, 2018	Change in working capital requirements at Dec. 31, 2017 (1)
Inventories	(268)	(487)
Trade and other receivables, net	(2,311)	732
Trade and other payables, net	2,177	7
Tax and employee-related receivables/payables	237	102
Margin calls and derivative instruments hedging commodities relating to trading activities	197	993
Other	117	267
TOTAL	**149**	**1,613**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 and to the classification as "Discontinued operations" of ENGIE's upstream liquefied natural gas (LNG) activities sold in July 2018 (see Note 2 "Restatement of 2017 comparative data").

27.2 Inventories

Accounting standards

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

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operation of the reservoirs, and cushion gas, which is inseparable from the reservoirs and essential for their operation (see Note 16).

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.

An impairment loss is recognized when the net realizable value of inventories is lower than their weighted average cost.

Certain inventories are used for trading purposes and are recognized at fair value less the estimated costs necessary to make the sale in accordance with IAS 2. Any changes in this fair value are recognized in the consolidated income statement for the year to which they occur.

Greenhouse gas emissions rights

European Directive 2003/87/EC establishes a greenhouse gas (GHG) emissions allowance trading scheme within the European Union. Under the Directive, each year the sites concerned have to surrender a number of allowances equal to the total GHG emissions of their installations during the previous calendar year. As there are no specific rules under IFRS dealing with the accounting treatment of GHG emissions allowances, the Group decided to apply the following principles:

- emission rights are classified as inventories, as they are consumed in the production process;
- emission rights purchased on the market are recognized at acquisition cost;
- emission rights granted free of charge are recorded in the statement of financial position for a value of nil.

The Group records a liability at the year-end in the event that it does not have enough emission rights to cover its GHG emissions during the year. This liability is measured at the market value of the allowances required to meet its obligations at the year-end or based on the price of future contracts concluded to hedge this lack of emission rights.

Energy savings certificates (ESC)

In the absence of current IFRS Standards or IFRIC Interpretations on accounting for energy savings certificates (ESC), the following principles are applied:

- in the event that the number of ESCs held exceeds the obligation at the reporting date, they are accounted in inventories; otherwise, a liability is recorded;
- ESC inventories are valued at weighted average cost (acquisition cost for ESCs acquired or cost incurred for ESCs generated internally).

In millions of euros	Dec. 31, 2018	Dec. 31, 2017 [1]
Inventories of natural gas, net	1,274	1,423
Inventories of uranium	595	575
CO_2 emission rights, green certificates and energy saving certificates, net	654	650
Inventories of commodities other than gas and other inventories, net	1,635	1,513
TOTAL	**4,158**	**4,161**

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

27.3 Other assets and other liabilities

	Dec. 31, 2018				Dec. 31, 2017 [1]			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Other assets and liabilities	474	9,337	(960)	(12,529)	566	8,508	(1,007)	(11,531)
Tax receivables/payables		*6,999*		*(7,449)*		*6,529*		*(6,685)*
Employee receivables/payables	*275*	*72*	*(5)*	*(2,461)*	*259*	*27*	*(3)*	*(2,376)*
Dividend receivables/payables		*12*		*(170)*		*6*		*(119)*
Other	*198*	*2,255*	*(954)*	*(2,449)*	*306*	*1,946*	*(1,004)*	*(2,351)*

(1) Comparative data at December 31, 2017 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data").

At December 31, 2018, other non-current assets also include a receivable towards EDF Belgium in respect of nuclear provisions amounting to €74 million (€75 million at December 31, 2017).

NOTE 28 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.

Provisions recorded in respect of these proceedings totaled €629 million at December 31, 2018 (€703 million at December 31, 2017).

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 also 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.

28.1 Latin America

28.1.1 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 USD 405 million in respect of 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 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.

28.1.2 Planned construction of an LNG terminal in Uruguay

GNLS SA, a joint subsidiary of Marubeni and ENGIE, was selected in 2013 to build an offshore LNG terminal in Uruguay. On November 20, 2013, GNLS contracted out the design and construction of the terminal to Construtora OAS SA. Following a number of problems and defects, GNLS terminated the contract in March 2015 and made use of its guarantees. OAS challenged the termination of the contract but did not take action against GNLS. OAS went bankrupt in Uruguay on April 8, 2015. In September 2015, GNLS and the authorities agreed to cancel the planned construction.

On May 24, 2017, OAS and GNLS appeared before the Uruguayan courts in a conciliation process at the request of OAS. The conciliation process was unsuccessful. OAS then threatened to call GNLS before the Uruguayan courts to claim damages. Since GNLS had incurred significant losses as a result of the termination of the contract, it filed a request for arbitration on August 22, 2017 in accordance with the terms of the contract providing for dispute resolution in Madrid by the ICC International Court of Arbitration, claiming a principal amount of USD 373 million. OAS responded by summonsing GNLS before the Montevideo Commercial Court, claiming USD 311 million in damages. ENGIE was officially named as a party to the proceedings on December 5, 2018. Both proceedings are still pending.

28.2 Benelux

28.2.1 Resumption and extension of operations at the nuclear reactors

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. On June 22, 2017, the Constitutional Court referred the case to the Court of Justice of the European Union for a preliminary ruling. The Brussels Court of Appeal dismissed Greenpeace's claims in a decision dated June 12, 2018. The other actions are still pending.

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 German local authorities seeking the annulment of this decision. Civil proceedings are still ongoing before the Brussels Court of First Instance.

28.2.2 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. However, given that ENGIE Energie Nederland Holding BV considers the court's reasoning to be contradictory and disputable, both in light of Dutch and European law, it has appealed the decision.

28.2.3 Claim by the Dutch tax authorities related to power plant impairment losses

The Dutch tax authorities plan to disallow 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 appeal in November 2018.

28.3 France

28.3.1 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 withholding tax paid in respect of the 1999-2003 fiscal years). In May 2016, the French tax authorities issued an assessment notice for part of the resulting corporate income tax, in an amount of €89.6 million. ENGIE paid this sum and filed an application to institute proceedings before the Montreuil Administrative Court in July 2017.

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, and cases seeking the repayment of the *précompte* in respect of the 2002, 2003 and 2004 fiscal years are still pending before the appellate courts.

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 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 used in closed and pending court cases.

28.4 Europe excluding France & Benelux

28.4.1 Spain – Punica

In the Punica case (investigation into the awarding of contracts), 12 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 is in progress and is scheduled to be closed by March 30, 2022.

28.4.2 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 began on December 11, 2018 and will continue through 2019.

28.4.3 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 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.

28.5 Infrastructures Europe

28.5.1 Commissioning

In the dispute between GRDF and various gas suppliers, in a decision dated June 2, 2016, the Paris Court of Appeal (i) recalled that the risk of unpaid compensation for the "transmission" part of the agreement with the end customer should be borne by the grid manager and not the gas supplier; (ii) held that the compensation for customer management services provided by the supplier on behalf of the grid manager should be fair and commensurate with the grid manager's cost savings; and (iii) ordered GRDF to bring its transmission agreements into compliance with these principles. GRDF appealed the decision handed down by the Court of Appeal before the Court of Cassation [1]. On January 18, 2018, the Energy Regulatory Commission (*Commission de Régulation de l'Énergie* – CRE) published a decision setting the rate for access to the grids for management services provided to single contract customers from January 1, 2018. This compensation is included in the costs covered by the transmission rate and is therefore ultimately borne by the grids' users. On June 18, 2018, the CRE's Standing Committee for Disputes and Sanctions (*Comité de règlement des différends et des sanctions* – CORDiS), which has been tasked by the Court of Appeal to evaluate the amount of the customer management services, instructed GRDF to propose to Direct Energie (retroactively since 2005 and going forward) and to ENI (retroactively since June 2, 2016 and going forward) a new addendum providing for compensation of €91 per year for T3, T4 and TP customers, and €8.10 per year for T1 and T2 customers. Both GRDF [2] on the one hand and Direct Energie and ENI on the other have appealed the decision dated June 18, 2018 before the Paris Court of Appeal. The CRE has been asked to submit its observations by December 2018. A decision may be handed down during the second quarter of 2019 [3].

(1) *In March 2018, the court of Cassation referred to the Europen Court of Justice (ECJ) the question of whether European Union law required that the CORDIS could take decisions of a retroactive nature. A decision of the Court of Cassation could be issued in 2019 after the return of the ECJ which is expected for July 2019 at the earliest.*

(2) *GRDF disputes the remuneration for the past, in paticular by arguing that the corresponding sums have already been passed on by the supplier to the customers.*

(3) *The hearing will take place on June 13, 2019.*

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* also ruled that the same 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 until then 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. ENGIE also brought an action before the *Conseil d'État* against the CRE's decision of October 26, 2017 in respect of the compensation for customer management services in the electricity sector, seeking the annulment of the decision for the period prior to January 1, 2018 only.

28.6 Other

28.6.1 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 for one of the proceedings in question, no aid actually having been paid in the other transaction. 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.

28.6.2 United Kingdom – State aid investigation regarding Gibraltar

On October 7, 2016, the European Commission announced its decision to open a state aid investigation against the United Kingdom with regard to Gibraltar's tax system. The decision covers Gibraltar's tax ruling practices and cited 165 tax rulings, which could constitute State aid. One of the rulings was obtained by a subsidiary of International Power Ltd in 2011 as part of the dismantling of a facility in Gibraltar. ENGIE contested this decision on November 25, 2016, pending the Commission's final decision.

28.6.3 Claim against sales tax adjustments in Brazil

On December 14, 2018, the Brazilian tax authorities issued tax deficiency notices to ENGIE Brasil Energia for fiscal years 2014, 2015 and 2016, considering that it was liable for the PIS and COFINS federal sales taxes on the amounts reimbursed to it in respect of certain fuels used by thermo-power generation plants. The adjustments were for an aggregate amount of BRL 480 million, comprising BRL 229 million of tax plus interest and penalties.

ENGIE Brasil Energia is contesting these tax deficiency notices and filed a tax claim in January 2019.

NOTE 29 Subsequent events

No significant subsequent events have occurred since the closing of the accounts at December 31, 2018.

NOTE 30 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 April 28, 2014 decided to renew the terms of office of Deloitte and EY as Statutory Auditors for a six-year period from 2014 to 2019.

In million of euros	Deloitte			EY			
	Deloitte & Associés	Network	Total	EY & others	Network	Total	Total
Statutory audit and review of consolidated and parent company financial statements	**5.2**	**7.9**	**13.0**	**6.4**	**4.7**	**11.1**	**24.1**
ENGIE SA	2.3		2.3	3.2		3.2	5.5
Controlled entities	2.9	7.9	10.8	3.2	4.7	7.9	18.7
Non-audit services	**0.9**	**1.9**	**2.8**	**0.8**	**1.7**	**2.5**	**5.3**
ENGIE SA	**0.6**	**-**	**0.6**	**0.6**	**-**	**0.6**	**1.2**
Of which services related to legal and regulatory requirements	*0.4*		*0.4*	*0.3*		*0.3*	*0.7*
Of which other audit services	*0.2*		*0.2*	*0.3*		*0.3*	*0.5*
Of which reviews of internal control							
Of which due diligence services							
Of which tax services					-		
Controlled entities	**0.3**	**1.9**	**2.3**	**0.2**	**1.6**	**1.9**	**4.2**
Of which services related to legal and regulatory requirements	-	*0.4*	*0.4*	*0.2*	*0.2*	*0.4*	*0.8*
Of which other audit services	*0.2*	*0.3*	*0.5*	*0.1*	*0.4*	*0.5*	*1.0*
Of which reviews of internal control	*0.1*	*0.2*	*0.3*		*0.1*	*0.1*	*0.4*
Of which due diligence services		*0.7*	*0.7*		*0.1*	*0.1*	*0.8*
Of which tax services		*0.4*	*0.4*		*0.8*	*0.8*	*1.2*
TOTAL	**6.0**	**9.8**	**15.9**	**7.3**	**6.4**	**13.6**	**29.5**

NOTE 31 Information regarding Luxembourg and Dutch companies exempted from the requirements to publish Annual Financial Statements

Some companies in the Benelux, GEM & LNG and Other segments do not publish annual financial statements pursuant to domestic provisions in 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: ENGIE Energie Nederland NV, ENGIE Energie Nederland Holding BV, ENGIE Nederland Retail BV, ENGIE United Consumers Energie BV, Epon Eemscentrale III BV, Epon Eemscentrale IV BV, Epon Eemscentrale V BV, Epon Eemscentrale VI BV, Epon Eemscentrale VII BV, Epon Eemscentrale VIII BV, Epon International BV, Epon Power Engineering BV, ENGIE Portfolio Management BV, IPM Energy Services BV, Electrabel Invest Luxembourg, ENGIE Corp Luxembourg SARL, 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, 2018

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 financial statements of ENGIE ("the Company") for the year ended December 31, 2018.

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 of December 31, 2018 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 in compliance with independence rules applicable to us, for the period from January 1, 2018 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 or in the French Code of Ethics (*Code de déontologie*) for statutory auditors.

Observation

Without qualifying the opinion expressed above, we draw your attention to Notes 1 and 2 of the consolidated financial statements which describe the changes in accounting methods and the impacts relating to the first-time application of IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from contracts with customers" as from January 1, 2018.

Justification of Assessments - Key Audit Matters

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. We do not provide a separate opinion on specific elements, accounts or items of the consolidated financial statements.

Measurement of the recoverable amount of goodwill, intangible assets and property, plant & equipment

[notes 14, 15 and 16]

Key audit matter

As of December 31, 2018, the net carrying amount of fixed assets (goodwill, intangible assets and property, plant & equipment) amounted to €73.4 billion (after recognition of impairment losses of €1.8 billion), or 47.8% of total assets.

Fixed assets are comprised of:

- €17.8 billion of goodwill, mainly allocated to the Cash-Generating Units (CGU) Benelux (€4.3 billion), GRDF (€4 billion), France Renewable Energy (€1.1 billion), United Kingdom (€1.0 billion), France B to C (€1 billion), and Generation Europe (€0.6 billion);
- €6.7 billion of intangible assets;
- €48.9 billion of property, plant & equipment;

For operating entities which the 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 2019 budget and 2020-2021 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) and price projections featured in the Group's reference scenario for 2022-2040 approved by the Executive Committee that is applied to each of the operating entities over the respective periods of their intended operation.

These recoverable amounts are based on key assumptions 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. Concerning the goodwill of the main CGU, measurement is based on the following assumptions :

- for the Benelux CGU, expected trends in the long-term electricity and gas demand, the price of CO2, the price of electricity and fuel as well as changes in the regulatory environment for nuclear capacities in Belgium beyond 2025 and the extension of drawing rights agreements for French nuclear plants beyond their current legal terms ;

– for the Renewable Energy CGU, prospects of renewing the hydropower concession agreements in France ;

- These measurements are sensitive to the macro-economic assumptions (inflation and discount rates) to be applied.

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 and because they require the use of assumptions and estimates to be assessed in a context which remains sensitive to trends in the energy market and whose consequences make the medium-term economic outlook difficult to anticipate.

Our response

We have reviewed the definition of CGU as well as the allocation of goodwill to the different CGU.

We have assessed the Group's measures aiming to identify indications 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 reviewed the calculations performed by the Group with, for the most complex topics, the support of our valuation experts.

Our work 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 have :
  - assessed the consistency of the basic data with the budget, the medium-term business plan and beyond, the Group's long-term scenario ;
  - assessed the consistency with past performances and market outlook ;
- the discount rates for which we have verified the determination methods and the consistency with the underlying market assumptions, using internal specialists;
- Management's sensitivity analysis to the main price, operational and regulatory assumptions for which we have assessed the pertinence;
- the assessment of the highy probable nature of disposals decided by the Group and the elements considered to measure the recoverable amount;
- the appropriateness of the disclosure given in the notes, notably on sensitivity analyses carried out by the Group.

Measurement of provisions relating to the back-end of nuclear fuel cycle and to the dismantling of nuclear facilities in Belgium
[notes 20.2.2 and 20.2.3]

Key audit matter

The 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 NIRAS the Belgian agency for radioactive waste and enriched fissile material which reviews all of the characteristics and technical parameters of the report.

The provisions, which totaled respectively €6.2 billion for the management of radioactive nuclear fuel and €4.8 billion for the dismantling of nuclear facilities, are estimated based on the prevailing contractual and legal framework presented in the triennial report of Synatom approved by the CNP on December 12, 2016.

We considered the measurement of these provisions to be a key audit matter due to their 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 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 sensitive to macro-ecronomic assumptions (inflation and discount rates) to be applied.

Our response

With respect to 2016 during which the last triennal revision of the provisions took place, we reviewed the conclusions, observations and recommendations made in the opinions of the NIRAS and the CNP.

We have examined the basis on which these provisions have been measured and 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 discount rates applied to cash flows.

Our work mainly consisted in assessing :

- the consistency of industrial scenarios used with regard to the current legal and regulatory environment for the choice of nuclear policy remaining to be made in Belgium;
- the consistency of forecasts of costs by nature and forecasts of cash outflows with available studies and quotes and, for dismantling, with a study of independent experts mandated by Synatom;
- the level of margins for uncertainties and contingencies included in the provisions to take into account the degree of technical control over dismantling and management of radioactive fuel;
- the consistency of volumes of spent fuel produced to date and the estimates of volumes of spent fuel remaining to be produced with the physical inventory and the Group's forecast data ;
- the methods for determining the discount rate used and its consistency with the underlying market assumptions.

With respect to 2018, our work mainly consisted in assessing:

- the consistency of the industrial scenarios used with regard to the decisions made or actions planned by the Group or by the authorities and consistency of forecasts of costs by nature and forecasts of cash outflows with these assumptions;
- the consistency of the discount rates with underlying market assumptions;
- the appropriateness of the disclosure given in the notes to the consolidated financial statements, notably on the sensitivity to measurement of the provisions to changes in key assumptions.

Valuation for provisions relating to litigations, claims and tax risks

[notes 20.4 et 28]

Key audit matter	Our response
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, investigations before state courts, arbitral tribunals or regulated authorities, in the normal course of its business. The main disputes and investigations potentially having a significant impact on the Group are recognized as liabilities or give rise to contingent liabilities, as it is indicated in the note 28 to the financial statements. We have considered this topic as a key audit matter, provided the amounts at stake and the judgement required to determine the provisions for litigations and tax risk, due to the regulatory context and the continuously changing market environment.	Our audit procedures consisted in: - investigating the procedures implemented by the Group in order to identify all the litigations and risk exposures; - corroborating these analysis with the confirmations received from the lawyers; - evaluating the analysis of the probability of occurrence performed by the Group, as well as the assumptions used, and the supporting documentation with, if any, consultations received by third parties. We have recourse to our experts for the most complex analysis; - appreciating the appropriateness of the disclosure given in the notes to the consolidated financial statements.

Estimate of gas and electricity unbilled and un-metered revenues ("energy in the meter")

[notes 8.1.1 et 8.2.1]

Key audit matter	Our response
The Group uses an estimate in revenue, relating to the sales on networks generated from customers whose energy consumption is metered during the accounting period. Since the meter readings provided by the grid operators and their final allocations to the Group are sometimes only known several months down the line, this means that revenue figures are only an estimate. As of December 31, 2018, the receivables relating to the energy in the meter (gas and electricity un-metered and unbilled revenue) amount to €3.1 billion. These receivables are calculated using a direct method, developed by the Group, taking into account estimated customers' consumption based on the previous bill, or the last metering not yet billed, supported by measuring and modelling tools allowing it to estimate revenue with a satisfactory degree of accuracy and subsequently. 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. Considering the amount of revenue at stake and the sensitivity of the estimates to assumptions regarding volumes and the average energy price, we have considered the estimate of the portion of un-metered revenue at the year-end to be a key audit matter.	Our procedures, mainly performed for France and Belgium, consisted in : - considering the internal control procedures implemented by the Group about the billing process, and the process enabling the reliability of the estimate about the energy in the metered revenue; - evaluating the models used by the Group and investigating the modality of the computation for the estimated volumes; we include a specialist 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; - ensured that the modalities of the computation for the average price of the metered power take account of its anteriority and the different kinds of customers; - analyzed the coherence of the volumes delivered with the Energy Balance (which corresponds to the physical reality of the operations of allocations (revenues, injections and stocks) and resources (purchases, withdrawals and stocks) of energy on the networks) prepared by the Group; - assessed the regular clearance of the metered energy during the period; - assessed the age of the delivered but unbilled metered energy at the year-end.

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 Director's 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 (*Code de commerce*) 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 declaration or its consistency with the consolidated financial statements that must be verified in a report by an independent third party.

Report on Other Legal and Regulatory Requirements

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, 2018, our firms were in their eleventh 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 (*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 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 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. 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) N° 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 (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) 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.

In Paris-La Défense, March 8, 2019

The Statutory Auditors

DELOITTE & ASSOCIES

Patrick E. Suissa
Olivier Broissand

ERNST & YOUNG et Autres

Charles-Emmanuel Chosson
Stéphane Pédron

6.4 Parent company financial statements

6.4.1 Parent company financial statements

Balance sheet

Assets

In millions of euros		Note	Dec. 31, 2018 Gross	Dec. 31, 2018 Depreciation, amortization and impairment	Dec. 31, 2018 Net	Dec. 31, 2017 Net
NON-CURRENT ASSETS						
Intangible assets		3	1,660	1,157	503	442
Property, plant and equipment		3	1,007	623	384	386
Financial fixed assets		4				
Equity investments			74,667	6,365	68,302	66,194
Other financial fixed assets			598	519	79	180
TOTAL NON-CURRENT ASSETS	I		77,932	8,664	69,268	67,202
CURRENT ASSETS						
Inventories		5				
Gas reserves			1,005	-	1,005	801
Energy savings certificates			50	5	45	116
Other			161	-	161	76
Advances and downpayments given on orders			**26**	**-**	**26**	**10**
Operating receivables		6				
Trade and other receivables			6,773	286	6,487	4,651
Other operating receivables			641	-	641	678
Miscellaneous receivables						
Current accounts with subsidiaries			5,216	-	5,216	6,185
Other miscellaneous receivables			2,712	15	2,697	3,114
Marketable securities		7	**2,455**	**20**	**2,434**	**2,223**
Cash and cash equivalents			**382**	**-**	**382**	**454**
TOTAL CURRENT ASSETS	II		19,420	327	19,094	18,309
ACCRUALS	III	8	2,252	-	2,252	2,712
UNREALIZED FOREIGN EXCHANGE LOSSES	IV	8	339	-	339	307
TOTAL ASSETS	**(I TO IV)**		**99,943**	**8,991**	**90,953**	**88,530**

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, 2018	Dec. 31, 2017
EQUITY				
SHAREHOLDERS' EQUITY		9		
Share capital			2,435	2,435
Additional paid-in capital			32,565	32,505
Revaluation adjustments			41	41
Legal reserve			244	244
Other reserves			256	313
Retained earnings			289	566
Net income			1,102	1,421
Interim dividend			(892)	(836)
Tax-driven provisions and investment subsidies		10.2	576	502
TOTAL SHAREHOLDERS' EQUITY	**I**		**36,616**	**37,191**
OTHER EQUITY	**II**		**9**	**8**
TOTAL EQUITY	**I + II**		**36,625**	**37,199**
PROVISIONS FOR CONTINGENCIES AND LOSSES	**III**	**10.1**	**2,424**	**2,878**
LIABILITIES		**11**		
BORROWINGS AND DEBT				
Borrowings			27,498	27,615
Amounts payable to equity investments			5,250	4,400
Current accounts with subsidiaries			2,749	1,612
Other borrowings and debt			583	627
TOTAL BORROWINGS AND DEBT	**IV**		**36,080**	**34,254**
CURRENT LIABILITIES				
Advances and downpayments received on orders			6	5
Trade and other payables			8,677	6,716
Tax and employee-related liabilities			1,225	1,065
Other liabilities			3,587	3,830
TOTAL CURRENT LIABILITIES	**V**		**13,495**	**11,617**
TOTAL LIABILITIES	**IV+V**		**49,575**	**45,871**
ACCRUALS	**VI**	**12**	**1,926**	**2,163**
UNREALIZED FOREIGN EXCHANGE GAINS	**VII**	**12**	**403**	**420**
TOTAL EQUITY AND LIABILITIES	**(I TO VI)**		**90,953**	**88,530**

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, 2018	Dec. 31, 2017
Energy sales		25,017	18,339
Other production sold		2,816	2,246
REVENUES	**13.1**	**27,833**	**20,585**
Production taken to inventory		-	-
Production for own use		13	10
TOTAL PRODUCTION		**27,846**	**20,596**
Energy purchases and change in gas reserves		(17,712)	(10,441)
Other purchases		(3,762)	(3,620)
Other external charges		(6,464)	(6,595)
VALUE ADDED		**(92)**	**(61)**
Subsidies received		70	122
Taxes and duties		(131)	(98)
Personnel costs	13.2	(651)	(587)
GROSS OPERATING INCOME/(LOSS)		**(804)**	**(624)**
Net additions to depreciation, amortization and impairment		(203)	(136)
Net additions to provisions	13.3	97	(368)
Expense transfers		39	20
Other operating income and expenses		(188)	(250)
NET OPERATING INCOME/(LOSS)		**(1,058)**	**(1,358)**
NET FINANCIAL INCOME/(LOSS)	**14**	**3,718**	**3,849**
NET RECURRING INCOME/(LOSS)		**2,660**	**2,491**
NET NON-RECURRING INCOME/(LOSS)	**15**	**(2,107)**	**(2,072)**
INCOME TAX EXPENSE	**16.2**	**549**	**1,001**
NET INCOME		**1,102**	**1,421**

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, 2018	Dec. 31, 2017
Cash flow from operations	**1**	**3,152**	**3,592**
Change in inventories		340	154
Change in trade receivables (net of trade receivables with a credit balance)		2,046	925
Change in trade payables		(1,784)	(668)
Change in other items		(918)	(518)
Change in working capital requirements	**2**	**(317)**	**(107)**
CASH FLOW FROM OPERATING ACTIVITIES	**(1-2) = I**	**3,468**	**3,698**
Property, plant and equipment and intangible assets		260	191
Financial fixed assets		4,544	2,523
Change in amounts payable on investments		-	-
Cash flow used in investing activities	**1**	**4,804**	**2,714**
Third-party contributions		7	1
Net proceeds from asset disposals		465	977
Decrease in financial fixed assets		114	158
Cash flow from investing activities	**2**	**587**	**1,135**
CASH FLOW FROM INVESTING ACTIVITIES	**(1-2) = II**	**4,217**	**1,579**
CASH FLOW AFTER OPERATING AND INVESTING ACTIVITIES	**(I-II) = III**	**(749)**	**2,120**
Increase/decrease in capital	**1**	**(15)**	**-**
Dividends and interim dividends paid to shareholders	**2**	**(1,740)**	**(2,049)**
Bonds		2,329	3,952
Group long-term borrowings		850	4,400
Short- and medium-term credit facilities and other borrowings		191	20
Financing raised on capital markets	**3**	**3,370**	**8,372**
Bonds and short- and medium-term credit facilities		(2,729)	(6,006)
Repayments and redemptions	**4**	**(2,729)**	**(6,006)**
CASH FLOW FROM/(USED IN) FINANCING ACTIVITIES	**(1+2+3+4) = IV**	**(1,114)**	**317**
CHANGE IN CASH AND CASH EQUIVALENTS	**(III+IV) = V**	**(1,862)**	**2,437**

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 parent company financial statements

NOTE 1 Summary of significant accounting policies

The 2018 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 Regulations No. 2014-03 (as amended by Regulation No. 2018-01), No. 2015-05 and No. 2015-06 issued by the French accounting standards-setter (*Autorité des normes comptables* – ANC), and with the valuation methods described below.

Financial transactions involving equity investments, securities and the related receivables, especially impairment charges or reversals, are included in non-recurring items rather than financial items. In accordance with Article 121-3 of the French chart of accounts, ENGIE SA considers that although this classification diverges from French accounting standards, it 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.

The Company has taken the change in the economic environment and the significant market volatility into account in its business plans and in the various discount rates used to perform impairment tests. This environment led ENGIE SA to step up its risk oversight procedures and factor in a risk assessment process in its valuations.

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.

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 adjustments to the impairment losses to be recognized;

- fair value of financial instruments.

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.

In accordance with the principles reaffirmed by ANC Regulation No. 2015-05, 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 these derivatives 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;

- measurement of provisions for contingencies and losses.

Provisions for contin gencies 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.

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) discounted cash flows or discounted dividends, 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 best estimate is used to determine the sale price.

Technical loss

In accordance with Article 9 of ANC Regulation No. 2015-06, 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 writedown 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

This caption mainly includes 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.

A writedown may be taken against other financial fixed assets in accordance with the criteria described above for equity investments.

Liquidity agreement and treasury stock

A 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.

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)

Energy savings certificates (ESC) are accounted for by ENGIE SA using the “energy savings” model: energy sales generate energy savings obligations, which are settled by:

- expenditure on energy savings (classified as production cycle costs) that qualify for certificates, or
- the purchase of certificates, or
- payment to the French Treasury *(Trésor Public)* of the amount provided for in Article L. 221-4 of the French Energy Code *(Code de l’énergie)*.

Inventory inflows: certificates obtained from the French State in exchange for qualifying energy savings are recorded at production cost in inventories. Certificates purchased are valued using the weighted average cost method.

Inventory outflows: certificates are derecognized as and when energy sales generate energy savings obligations, which are equivalent to one unit of energy consumed, and/or upon disposal. Capital gains and losses on disposal are recognized in operating income.

At December 31, 2018:

- 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 energy savings that qualify for certificates.

Capacity remuneration mechanism (CRM)

The capacity mechanism introduced by France's "NOME" *(Nouvelle organisation du marché de l'électricité)* 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 (certificates) 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 certificates/guarantees which they can sell on the capacity market using a dedicated exchange managed by the European organization EPEX Spot.

EPEX Spot auction volumes for 2018 capacity totaled 22.39 GW.

ENGIE SA has an obligation both as electricity supplier and production capacity operator.

In the absence of a specific ANC regulation on accounting for capacity certificates, ENGIE SA has adopted the accounting treatment applicable to ESC purchased for the production cycle.

Inventory inflows: inventories are measured based on the costs incurred during the period to purchase or obtain certificates, leading to the calculation of a weighted average unit cost of inventories.

Inventory outflows: certificates are derecognized as and when they are returned under the rebalancing mechanism.

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 not billed

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 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. 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 netted against the 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 natural gas 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.

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 writedown is recognized for the difference.

For listed securities, market value is determined based on the market price at the end of the reporting period.

Subordinated perpetual notes

Subordinated perpetual notes issued by the Company in euros and currency are recognized in accordance with Opinion No. 28 issued by the French association of public accountants *(Ordre des experts-comptables)* in July 1994, taking into account their specific characteristics.

Accordingly, they are classified as debt as their redemption is not perpetual.

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 SA 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 costs required to complete the rehabilitation work, based on current information relating to technical knowledge and regulatory requirements.

Movements in these provisions are shown under operating items.

Provision for employee bonus share awards and stock option plans

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.

For stock options, a provision is set aside whenever the share price at the end of the reporting period is higher than the exercise price of the options granted. The provision is set aside on a straight-line basis over the vesting period, and ultimately covers the disposal loss equal to the purchase cost of the shares, less the exercise price paid by employees.

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 SA at December 31, 2007 were transferred to ENGIE SA.

In accordance with Opinion No. 2005-C of the CNC's Emerging Issues Taskforce and with the method applied by ENGIE SA and described above, no further amounts will be set aside to these provisions in respect of rights newly vested by employees or the unwinding 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.

Bond redemption premiums and issue costs

In accordance with the benchmark treatment prescribed by the French National Accounting Board (*Conseil National de la Comptabilité* – CNC), 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 financial 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 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).

Article 66 of Amending Finance Law No. 2012-1510 of December 29, 2012 introduced a tax credit aimed at boosting employment and competitiveness in France (*Crédit d'impôt pour la compétitivité et l'emploi* – CICE). This tax credit is recognized as a reduction of income tax expense.

NOTE 2 Significant events during the year and comparability of periods presented

Significant events during the year

- On July 13, 2018, ENGIE completed the sale of its upstream LNG activities (international trading, liquefaction and shipping) to the Total Group. The sale took place in two stages: a contribution of assets in exchange for shares of Global LNG (an ENGIE Group company), generating a gain of €142 million, followed by the sale of the shares received in consideration for the asset contribution acquired from the other ENGIE Group contributing companies. The disposal gain before tax, recognized in non-recurring income amounted to €154 million at December 31, 2018. Transaction costs were €14 million.
- In the first half of 2018, ENGIE acquired ENGIE Energy Services International (a holding company for the Group's interests in international services companies) from ENGIE Energie Services for an amount of €3.9 billion. The purpose of the transaction was to simplify the Group's structure.
- The Storengy business unit was reorganized following the introduction of gas storage industry regulation in France. A holding company called Storengy SAS was created and now directly holds Storengy SA France (regulated business) as well as non-regulated business. ENGIE subscribed to the share capital by contributing its Storengy SA France shares to the new company at net book value (€2,388 million). The transaction had no impact on the income statement.
- During 2017, the French State Shareholding Agency (*Agence des Participations de l'État* – APE) sold a part of its holding in ENGIE SA, as follows: approximately 4.1% of the share capital in January 2017 and approximately 4.5% in September 2017, of which 10% (i.e., 0.46% of the share capital) was sold directly to ENGIE SA. Pursuant to Law No. 2015-990 of August 6, 2015 on growth, activity and equal opportunity, the 10% block of shares acquired from the State by ENGIE SA was offered to employees and former employees of ENGIE SA under the LINK 2018 employee shareholder plan, a transaction in which the French State decided to take part, after consultation with ENGIE, by selling a further 0.46% of its holding in July 2018. As a result of these various transactions, the French State now owns 23.64% of the share capital and 34.51% of the voting rights of ENGIE SA.

Comparability of periods presented

The same accounting methods were used in 2018 and 2017.

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, 2017	Increases	Decreases	Reclassifications	Dec. 31, 2018
Intangible assets	**1,482**	**203**	**(21)**	**(4)**	**1,660**
Software	981	-	(18)	126	1,089
Other	364	1	(3)	-	362
Intangible assets in progress	137	202	-	(130)	209
Property, plant and equipment	**987**	**65**	**(50)**	**5**	**1,007**
Land	35	-	(3)	-	32
Dismantling assets	7	-	(2)	-	5
Buildings	496	-	(10)	-	486
Plant and equipment	256	1	(19)	27	265
General plant and equipment, and miscellaneous fixtures and fittings	95	-	(13)	29	111
Other	31	-	(3)	-	28
Property, plant and equipment in progress[1]	67	64	-	(51)	80
Advances and downpayments	-	-	-	-	-
TOTAL	**2,469**	**268**	**(71)**	**1**	**2,667**

(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, 2017	Increases	Decreases	Dec. 31, 2018
Intangible assets	**842**	**145**	**(11)**	**975**
Software	702	124	(8)	818
Other	140	21	(3)	158
Property, plant and equipment	**584**	**47**	**(33)**	**597**
Land	-	-	-	-
Dismantling assets	5	-	-	5
Buildings	366	19	(9)	376
Plant and equipment	123	16	(15)	124
General plant and equipment, and miscellaneous fixtures and fittings	65	9	(7)	67
Other	25	3	(2)	26
Property, plant and equipment in progress	-	-	-	-
TOTAL	**1,425**	**192**	**(44)**	**1,573**

Changes in impairment were as follows:

In millions of euros	Dec. 31, 2017	Additions	Reversals	Dec. 31, 2018
Intangible assets	198	2	(19)	181
Property, plant and equipment	18	22	(14)	25
TOTAL	**216**	**24**	**(33)**	**207**

Movements in depreciation, amortization and impairment can be broken down as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Depreciation, amortization and impairment	**172**	**161**
Straight-line method	169	159
Declining-balance method	2	2
Depreciation of dismantling assets	1	-
Exceptional amortization	**18**	**40**
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 amortization/ depreciation	Impairment	Net value at Dec. 31, 2018	Net value at Dec. 31, 2017
Intangible assets	**1,660**	**(975)**	**(181)**	**503**	**442**
Software	1,089	(818)	(5)	266	275
Other	362	(158)	(176)	28	31
Intangible assets in progress	209	-	-	209	137
Property, plant and equipment	**1,007**	**(597)**	**(25)**	**384**	**385**
Land	32	-	(2)	29	34
Dismantling assets	5	(5)	-	-	2
Buildings	486	(375)	(23)	88	114
Plant and equipment	265	(124)	-	141	133
General plant and equipment, and miscellaneous fixtures and fittings	111	(68)	-	43	30
Other	28	(25)	-	3	6
Property, plant and equipment in progress	80	-	-	80	67
Advances and downpayments	**-**	**-**	**-**	**-**	**-**
TOTAL	**2,667**	**(1,573)**	**(206)**	**887**	**828**

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, 2017	Increases	Decreases	Other	Dec. 31, 2018
Equity investments	**70,683**	**4,388**	**(124)**	**(279)**	**74,667**
Consolidated equity investments	70,063	4,378	(124)	(277)	74,040
Consolidated equity investments – technical loss(1)	285	-	-	-	285
Non-consolidated equity investments	334	10	-	(2)	342
Other financial fixed assets	**666**	**700**	**(768)**	**-**	**598**
Other long-term investments	39	3	-	-	42
Amounts receivable from equity investments	567	35	(91)	-	511
Loans	14	12	(12)	-	14
Other financial fixed assets	46	650	(665)	-	31
TOTAL	**71,349**	**5,088**	**(892)**	**(279)**	**75,265**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, involving SUEZ and 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 year-on-year change in equity investments at December 31, 2018 is essentially attributable to the following transactions:

- acquisition of ENGIE Energy Services International shares (€3,908 million);
- subscription to the capital increase made by Storengy SAS (€345 million);
- contribution of Storengy SA shares to Storengy SAS, which for ENGIE SA resulted in the derecognition of Storengy SA shares for a gross value of €2,665 million and the recognition of Storengy SAS shares for a gross value of €2,388 million, corresponding to the net book value of Storengy SA shares. This resulted in a €278 million decrease in gross value recorded under "Other" and a €278 million increase in impairment of Storengy SA shares;
- acquisition and then disposal of Global LNG shares (€124 million).

As at December 31, 2018, "Other financial fixed assets" comprised:

- deposits paid (€21 million);
- shares held under liquidity agreements (€10 million).

4.2 Impairment

In millions of euros	Dec. 31, 2017	Additions	Reversals	Other	Dec. 31, 2018
Consolidated equity investments	4,227	1,903	(6)	(278)	5,846
Consolidated equity investments – technical loss(1)	31	253	-	-	284
Non-consolidated equity investments	231	5	-	(1)	235
Other long-term investments	6	2	-	-	8
Amounts receivable from equity investments	479	31	-	-	510
Loans	1	-	-	-	1
TOTAL	**4,975**	**2,194**	**(6)**	**(279)**	**6,884**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, involving SUEZ and Electrabel shares.

The change in impairment mainly reflects:

- provisions for impairment against equity investments:
  - Electrabel (€1,155 million),
  - COGAC (€589 million),
  - SUEZ (€393 million, including a technical loss of €253 million),
  - ENGIE China Investment Company (€9 million),
  - ENGIE New Ventures (€9 million);
- reversals of impairment provisions against equity investments:
  - GENFINA (€5 million);
- the contribution of Storengy France to Storengy SAS, which led to a €278 million decrease in gross value recorded under "Other", corresponding to the impairment taken against Storengy France shares at the time of the contribution.

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4.3 Net values

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2018	Net value at Dec. 31, 2017
Equity investments	**74,667**	**(6,365)**	**68,302**	**66,194**
Consolidated equity investments	74,040	(5,846)	68,193	65,836
Consolidated equity investments – technical loss(1)	285	(284)	2	255
Non-consolidated equity investments	342	(235)	107	103
Other financial fixed assets	**598**	**(519)**	**79**	**180**
Other long-term investments	42	(8)	34	34
Amounts receivable from equity investments	511	(510)	1	88
Loans	14	(1)	13	12
Other financial fixed assets	31	-	31	46
TOTAL	**75,265**	**(6,884)**	**68,381**	**66,374**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, involving SUEZ and Electrabel shares.

In millions of euros	% interest	Carrying amount	Share of net asset value	Unrealized gain	Valuation method
Electrabel (incl. technical loss)	99.13%	31,592	31,592	-	Value-in-use – DCF
GRDF	100.00%	8,405	10,289	1,884	Value-in-use – DCF
ENGIE Finance	100.00%	5,567	5,738	171	Intrinsic value
GDFI	100.00%	3,972	5,530	1,558	Intrinsic value
ENGIE Energy Services International	100.00%	3,908	4,208	300	Value-in-use – DCF
ENGIE Energie Services (incl. technical loss)	100.00%	2,933	5,297	2,364	Value-in-use – DCF
Storengy SAS	100.00%	2,733	3,016	283	Value-in-use – DCF
SUEZ (incl. technical loss)	32.06%	2,427	2,427	-	Yield value
GRTgaz	74.78%	2,240	3,516	1,276	Value-in-use – DCF
Electrabel France	100.00%	1,641	2,172	531	Intrinsic value
GENFINA	100.00%	1,294	1,294	-	Intrinsic value
COGAC	100.00%	1,161	1,161	-	Intrinsic value
ENGIE New Business	100.00%	90	120	30	Intrinsic value
GIE ENGIE Alliance	64.00%	62	62	-	Intrinsic value
ENGIE New Ventures	100.00%	58	58	-	Intrinsic value
SFIG	100.00%	58	65	7	Intrinsic value
Other		161	1,115	954	
TOTAL		**68,302**	**77,660**	**9,358**	

The value in use of the equity investments set out in the table above 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 2019 budget and from the 2020-2021 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 2022-2040. The price forecasts that feature in the Group reference scenario were approved in December 2018. 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;
- CO_2 prices presented in the "Canfin, Grandjean et Mestrallet" report published in July 2016. 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.

Electrabel

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;
- discount rates.

Electrabel owns, either directly or through equity investments in Europe or outside Europe, the following main operating activities:

- power generation and sales activities, including:
  - nuclear power plants in Belgium,
  - thermal power plants, mainly in Belgium, the Netherlands, Italy, Greece, Spain, Portugal, Australia, Thailand, Singapore, Brazil, Puerto Rico, Chile, Mexico, Peru, the Middle East and Pakistan,
  - renewable power generation plants, mainly in Belgium, the Netherlands, Italy, Spain, Portugal, Poland, Germany, the United Kingdom, Brazil, Canada, Chile and Mexico;
- natural gas and power generation activities in Belgium, the Netherlands, Italy, Spain, Portugal, the United Kingdom, Australia, Thailand and Singapore;
- management and optimization of portfolios of physical and contractual assets.

COGAC

COGAC is a financial holding company that holds the French subsidiaries of the GEM (ENGIE Global Markets), France Renewables (ENGIE Green), Generation Europe (ENGIE Thermique France) and BtoC (ENGIE Home Services and Solfea) business units.

Storengy

Following the introduction of gas storage industry regulation in France on January 1, 2018, Storengy's legal structure was reorganized in 2018 to enable it to develop its non-regulated business both in France and internationally (mainly geothermal power, biogas and storage outside France).

This reorganization consisted in splitting off the regulated natural gas storage business in France, which is housed in Storengy SA, from the rest of its business activities in France (mainly industrial appraisal and business development), which are now housed in a new company called Storengy SAS, which owns 99.99% of Storengy SA and is 99.99% owned by ENGIE SA. Thus, as at July 23, 2018, all of the Storengy SA shares held by ENGIE SA were contributed to Storengy SAS and, on October 23, 2018, the appraisal business as well as inventory, buildings and land were sold by Storengy SA to Storengy SAS.

4.4 Subsidiaries and investments

In millions of euros	Share capital as per latest available balance sheet	Other equity as per latest available balance sheet	% capital held at Dec. 31, 2018
Name			
A - Detailed information concerning subsidiaries and investments whose gross value exceeds 1% of ENGIE SA's capital (i.e., €24,352,850)			
1. Subsidiaries (more than 50%-owned by ENGIE SA)			
Aguas Provinciales de Santa Fe (data in local operating currency)	4	(168)	64.19%
Celizan	-	-	100.00%
COGAC	1,287	(524)	100.00%
Ecometering	22	(17)	99.00%
Electrabel	4,640	13,328	99.13%
Electrabel France	532	(109)	100.00%
ENGIE Alliance	100	(52)	64.00%
ENGIE China Investment Company	35	(19)	100.00%
ENGIE Energie Services	699	788	100.00%
ENGIE Energy Services International	1,571	355	100.00%
ENGIE Finance	5,460	278	100.00%
ENGIE Information & Technologies	45	(70)	100.00%
ENGIE Management Company	63	(77)	100.00%
ENGIE New Business	90	(1)	100.00%
ENGIE New Ventures	49	5	100.00%
ENGIE Rassembleurs d'Energies	50	(10)	100.00%
GDF International	3,972	411	100.00%
GENFINA	492	153	100.00%
GRDF	1,801	2,010	100.00%
GRTgaz	620	3,680	74.78%
SFIG	55	6	100.00%
Sopranor	-	5	100.00%
Storengy SAS	2,733	(7)	100.00%
2. Equity investments (less than 50%-owned by ENGIE SA)			
Aguas Argentinas	15	(467)	48.19%
SUEZ (formerly SUEZ Environnement)	2,493	5,974	32.06%
B - Information concerning other subsidiaries and investments			
1. Subsidiaries not included in section A			
French companies	-	-	-
Foreign companies (data in local operating currency)	-	-	-
2. Equity investments not included in section A			
French companies	-	-	-
Foreign companies (data in local operating currency)	-	-	-
3. Other long-term investments not included in section A			
French companies	-	-	-
Foreign companies (data in local operating currency)	-	-	-
TOTAL			

Book value of shares held at Dec. 31, 2018		Loans and advances granted by ENGIE SA	Sureties and endorsements given by ENGIE SA	Revenues for the latest available period	Net income (+) or loss (-) for the latest available period	Dividends received by ENGIE SA during the period	Year-end of last available period (unaudited provisional accounts)
Gross	Provisions						
39	(39)	79	-	-	(65)	-	12/2016
31	(31)	-	-	-	-	-	12/2018
2,434	(1,273)	-	-	-	(591)	-	12/2018
38	(34)	-	-	17	1	-	12/2018
34,148	(2,556)	-	-	11,355	(290)	-	12/2017
1,641	-	-	-	42	(37)	-	12/2018
62	-	-	1,000	-	(52)	-	12/2018
95	(81)	-	-	-	(6)	-	12/2018
2,933	-	-	-	2,116	2,043	1,700	12/2018
3,908	-	-	-	2	105	-	12/2018
5,567	-	4,487	-	-	190	201	12/2018
78	(78)	-	-	364	15	-	12/2018
115	(115)	-	-	163	(1)	-	12/2018
90	-	-	-	-	1	-	12/2018
72	(13)	-	-	-	(5)	-	12/2018
50	(6)	-	-	-	(5)	-	12/2018
3,972	-	-	-	-	672	721	12/2018
2,627	(1,333)	-	-	-	12	-	12/2018
8,405	-	-	-	3,477	143	985	12/2018
2,240	-	-	1	1,885	342	466	12/2018
58	-	-	-	18	(1)	-	12/2018
245	(240)	-	-	-	-	-	12/2018
2,733	-	-	-	15	(7)	-	12/2018
145	(145)	379	-	-	(237)	-	12/2016
2,820	(393)	-	-	73	393	130	12/2017
55	(20)	-	-	-	-	-	
27	-	-	-	-	-	-	
39	(16)	-	-	-	-	41	
24	-	-	-	-	-	-	
29	-	-	-	-	-	-	
-	-	-	-	-	-	-	
74,720	**(6,373)**					**4,244**	

NOTE 5 Inventories

In millions of euros	Gross values Dec. 31, 2017	Increases	Decreases	Gross values Dec. 31, 2018
Natural gas (including butane/propane)	801	1,369	(1,165)	1,005
Energy savings certificates	116	158	(225)	50
Other	76	85	-	161
TOTAL	**993**	**1,612**	**(1,390)**	**1,215**

5.1 Natural gas reserves

Gas reserves at end-December 2018 were €204 million higher than at end-December 2017.

This year-on-year change was due mainly to an increase in underground stocks of LNG partly offset by a decrease in LNG reservoir reserves.

The average price also rose by 24.8%.

5.2 Energy savings certificates

National energy savings targets for the fourth three-year period from January 1, 2018 to December 31, 2020 have risen sharply and have been fixed at 1,600 TWh for all energy suppliers for the period. This includes 400 TWh cumac to help households affected by fuel poverty, a target introduced by 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" 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 ("cumac" means updated cumulative kilowatt-hours (kWh) annualized over the lifespan of the equipment).

For the "fuel poverty" ESC obligation (400 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 addition, the National Agency for Energy Savings Certificates (PNCEE) decided to withdraw the issuance of 1 TWh of certificates. ENGIE is disputing this decision but has recognized an impairment provision of €4.4 million against its energy savings certificates.

NOTE 6 Receivables

6.1 Maturity of receivables

		Due		
In millions of euros	Gross amount at Dec. 31, 2018	End-2019	Between 2020 and 2024	2025 and beyond
Non-current assets	**598**	**5**	**3**	**591**
Amounts receivable from equity investments	511	4	-	507
Loans	14	1	3	10
Liquidity agreements	-	-	-	-
Other financial fixed assets	73	-	-	73
Current assets	**15,368**	**15,165**	**132**	**71**
Trade and other receivables(1)	6,773	6,732	42	-
Current accounts with subsidiaries	5,216	5,216	-	-
Other operating receivables	641	641	-	-
Other receivables	2,712	2,550	91	71
Advances and downpayments made on orders	26	26	-	-
TOTAL	**15,966**	**15,169**	**135**	**662**

(1) Sales of energy in the meter net of advances from customers billed on a monthly basis totaled €592 million including tax at December 31, 2018 (€657 million at December 31, 2017).

6.2 Impairment of receivables

In millions of euros	Dec. 31, 2017	Additions	Reversals	Other	Dec. 31, 2018
Trade and other receivables	269	139	(115)	(7)	286
Other miscellaneous receivables	15	-	-	-	15
Marketable securities	70	44	-	(94)	20
TOTAL	**355**	**183**	**(115)**	**(101)**	**322**

NOTE 7 Marketable securities

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2018	Net value at Dec. 31, 2017
Treasury shares held to cover bonus share plans	460	(20)	440	812
Money-market funds	1,522	-	1,522	968
Term deposits	473	-	473	443
TOTAL	**2,455**	**(20)**	**2,434**	**2,223**

The gross value of treasury shares held at December 31, 2018 was €460 million against which an impairment loss of €20 million has been recognized, giving a carrying amount of €440 million. The aggregate par value of treasury shares held was €24 million.

Treasury shares break down into two categories:

- shares not yet allocated to a future plan (€84 million). Since the average share price over the last twenty trading days of the year was lower than the purchase price, an impairment loss of €20 million was recognized;
- shares allocated to a plan (€376 million). These shares are measured at cost 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, 2017	Increases	Decreases	Dec. 31, 2018
Loan redemption premiums	144	121	(121)	143
Deferred loan issuance costs	50	626	(629)	48
Financial instruments	2,518	1,867	(2,326)	2,061
ACCRUALS (ASSETS)	**2,712**	**2,614**	**(3,076)**	**2,252**
UNREALIZED FOREIGN EXCHANGE LOSSES	**307**	**3,154**	**(3,123)**	**339**

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, 2018	2,435,285,011
Total number of shares comprising the share capital	**2,435,285,011**

In 2018, a total of 12,858,493 shares were purchased and 12,858,493 shares were sold under the liquidity agreement, generating a net capital gain of €389,671. At December 31, 2018, ENGIE SA no longer held any treasury shares under the liquidity agreement.

At December 31, 2018, ENGIE SA held 23,891,170 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, 2017	**37,191**
Dividends and interim dividends paid and other	(1,751)
Tax-driven provisions and investment subsidies	74
Income	1,102
Shareholders' equity at December 31, 2018	**36,616**

In 2018, ENGIE SA paid:

- a dividend of €0.35 per share (net of the interim dividend paid in 2017) in respect of 2017, representing a total amount of €836 million, less the treasury shares held at the dividend payment date (€16 million). The total 2017 dividend was €0.70 per share, representing a total payout of €1,688 million;
- a loyalty dividend of €0.10 per share, representing a total payout of €11 million;
- a cash interim dividend of €0.37 per share in respect of 2018, representing a total amount of €892 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 2018, ENGIE SA granted 5,438,909 bonus shares to ENGIE Group employees.

In 2018, ENGIE SA delivered 1,372,227 shares to Group employees.

Based on all existing share plans, the number of beneficiaries and staff turnover assumptions, at December 31, 2018 ENGIE SA considered that it had an obligation to deliver 18,751,648 shares.

In view of the shares delivered in 2018, the company holds 23,891,170 shares to cover its bonus share obligations at December 31, 2018, representing a total amount of €440 million net of provisions. The market value of these shares at end-2018 was €299 million.

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)* 2018	2017
Bonus shares awarded					
ENGIE Plan of December 11, 2013	339,840	127,515	25.34	(3.16)	(54.05)
ENGIE Plan of December 10, 2014	3,391,873	1,117,904	24.80	(58.55)	22.34
Link Abondement Plan of December 10, 2014	125,142	-	19.93	0.13	0.75
ENGIE Plan of February 25, 2015	70,965	64,310	24.53	(1.55)	(0.99)
ORS 2015 Plan of December 10, 2015	86,437	-	19.93	0.11	0.53
ENGIE Plan of December 16, 2015	3,349,695	-	19.93	9.29	23.41
ENGIE Plan of February 24, 2016	132,529	62,498	25.34	(1.21)	1.37
ENGIE Plan of December 14, 2016	5,297,560	-	19.93	29.51	30.30
ENGIE Plan of March 1, 2017	149,178	-	19.93	1.01	1.09
ENGIE Plan of December 13, 2017	5,278,045	-	19.93	29.77	1.48
ENGIE Plan of March 7, 2018	135,583	-	19.93	0.86	-
Link Abondement Plan of August 2, 2018	301,816	-	19.93	0.46	-
ENGIE Plan of December 11, 2018	5,001,510	-	19.93	1.39	-
TOTAL	**23,660,173**	**1,372,227**		**8.06**	**26.23**

NOTE 10 Provisions

10.1 Provisions for contingencies and losses

In millions of euros	Dec. 31, 2017	Additions	Reversals (used provisions)	Reversals (surplus provisions)	Other	Dec. 31, 2018
Provisions for site rehabilitation (Note 10.1.1)	21	-	(11)	-	-	10
Provisions relating to employees (Note 10.1.2)	263	85	(78)	-	(4)	266
Provisions for taxes (Note 10.1.3)	11	12	-	-	-	23
Provisions for tax consolidation (Note 10.1.4)	1,242	49	(184)	-	-	1,107
Risks arising on subsidiaries	52	2	(1)	-	-	53
Other provisions for contingencies and losses (Note 10.1.5)	1,288	612	(731)	(19)	(186)	965
TOTAL	**2,878**	**760**	**(1,005)**	**(19)**	**(190)**	**2,424**

6

10.1.1 Provisions for site rehabilitation

Provisions for site rehabilitation totaled €10 million at December 31, 2018 versus €21 million at end-2017. They chiefly relate to the rehabilitation of sites on which gas production plants were located and mainly cover safety requirements (ground water, air pollution, etc.) based on their current use. They also include refurbishment of the La Défense and Lyon (Monolyte) premises.

In 2015, ENGIE SA implemented a five-year national property asset disposal program (*Plan National de Cessions Immobilières* – PNC) covering 236 non-strategic sites.

Whenever a binding agreement is entered into to sell an asset, a provision for dismantling costs is recognized under liabilities with a matching entry to dismantling assets depreciated over their residual life.

In millions of euros	Dec. 31, 2017	Additions	Reversals (used provisions)	Matching entry to dismantling assets	Reclassifications	Dec. 31, 2018
Provisions for site rehabilitation (excluding PNC assets)	11	-	(6)	-	-	4
Provisions for site rehabilitation (PNC assets)	10	-	(4)	-	-	6
TOTAL	**21**	**-**	**(10)**	**-**	**-**	**10**

At December 31, 2018, provisions for site rehabilitation broke down as follows:

- provisions with a matching entry to dismantling assets: €0 million;
- provisions for the prior year: €6 million.

10.1.2 Provisions relating to employees

Provisions for employee benefits

At December 31, 2018, pension obligations amounted to €6 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 €79 million.

These provisions represented a total amount of €98 million at December 31, 2018. 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 €27 million at December 31, 2018.

Provisions for employee bonus share awards and stock option plans

At December 31, 2018, provisions for employee bonus share awards and stock option plans amounted to €164 million (end-2017: €156 million).

In 2018, ENGIE SA set aside a further €73 million to this provision to cover rights vested by employees. It also wrote back €65 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

Following various tax audits, ENGIE SA set aside several provisions for tax risks.

At end-2018, the provision for income taxes amounted to €22 million versus €11 million at end-2017, mainly in respect of tax audits related to 2013 and 2014, and primarily concerning LNG transfer prices.

At end-2018, other provisions for reassessments of other levies and taxes (VAT, construction effort, CVAE business value-added, etc.) amounted to €1.6 million.

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 2018, ENGIE SA recognized a provision charge of €48.8 million and a reversal of €84.9 million, bringing the total provision to €488.7 million at the year-end.

At December 31, 2007, the capital gain on the disposal of the gas distribution activity had no impact on tax, since GRDF was part of the tax consolidation group. 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 2018, the Company wrote back an amount of €99 million (€162 million in 2017), corresponding to the neutralization of the excess amortization on the amortizable component arising in the year.

Provisions for tax consolidation amounted to €1,106.8 million at end-2018, including €618 million relating to the amortizable component of GRDF's intangible assets.

10.1.5 Other provisions for contingencies and losses

This item mainly includes provisions for contingencies arising on other third parties, provisions for disputes, 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 €965 million at December 31, 2018 versus €1,288 million at end-2017.

Given structural changes in gas markets, ENGIE SA decided to overhaul the management model of its midstream gas business (excluding LNG). To this end, in 2017 a new organization was put in place aimed at changing the methods for managing long-term gas supply contracts, transport and storage capacity contracts, and a power exchange contract. These new methods are designed to permit the relevant contracts to be managed individually rather than as part of a portfolio. The initial accounting impact of this change was a negative €678 million. At December 31, 2017, the provision for onerous contracts amounted to €981 million. A net provision reversal of €122 million was recorded in 2018 and the Isle of Grain provision (€182 million) was transferred following the sale of the LNG business to Global LNG. At December 31, 2018, the provision for onerous contracts amounted to €677 million.

The remaining balance at end-2018 chiefly concerns provisions for capacity reservation contracts classified as loss-making (€677 million), litigation (€35 million), restructuring (€72 million), foreign exchange losses (€26 million), interest rate risk (€67 million) and other risks (€70 million).

The provisions for subsidiaries' risk amounted to €53 million at December 31, 2018 (€52 million at December 31, 2017).

10.2 Tax-driven provisions and investment subsidies

In millions of euros	Dec. 31, 2017	Additions	Reversals	Transfer	Dec. 31, 2018
Tax-driven provisions	**499**	**331**	**(258)**	**(6)**	**566**
Accelerated depreciation and amortization	426	300	(208)	(6)	512
Provision for price increases	73	31	(50)	-	54
Provision for investments	-	-	-	-	-
Investment subsidies	**3**	**7**	**-**	**-**	**10**
TOTAL	**502**	**338**	**(258)**	**(6)**	**576**

NOTE 11 Borrowings and debt

11.1 Summary of borrowings and debt

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Borrowings	**27,498**	**27,615**
Hybrid bonds	4,085	3,688
Bonds	19,377	18,953
Other loans	4,036	4,973
Amounts payable to equity investments	**5,250**	**4,400**
Current accounts with subsidiaries	**2,749**	**1,612**
Other borrowings and debt	**583**	**627**
Deposits received from customers	26	29
Tax consolidation	98	-
Current portion of interest due	409	427
Bank overdrafts	14	135
Miscellaneous	35	35
TOTAL	**36,080**	**34,254**

The €1,826 million increase in borrowings and debt chiefly reflects:

- a new long-term loan obtained from ENGIE Alliance (€850 million);
- a €1,137 million increase in the credit balance on current accounts with subsidiaries mainly concerning the ENGIE Global Markets current account;
- a €752 million increase in bond issues;
- a €152 million equivalent increase in USCP (US Commercial Paper) issues,
- partially offset by a €1,147 million decrease in NEUCP (Negotiable European Commercial Paper).

11.2 Maturities of borrowings, debt and payables

		Due		
In millions of euros	**Dec. 31, 2018**	**End-2019**	**Between 2020 and 2024**	**2025 and beyond**
Borrowings and debt	**36,080**	**8,336**	**17,539**	**10,205**
Hybrid bonds	4,085	1,335	2,750	-
Bonds	19,377	775	8,777	9,825
Other loans	4,036	2,894	762	380
Amounts payable to equity investments	5,250	-	5,250	-
Current accounts with subsidiaries	2,749	2,749	-	-
Other borrowings and debt	583	583	-	-
Trade and other payables	**8,677**	**8,677**	**-**	**-**
Tax and employee-related liabilities	**1,225**	**1,225**	**-**	**-**
Other liabilities	**3,587**	**3,587**	**-**	**-**
Advances from customers	858	858	-	-
Other	2,729	2,729	-	-
Advances and downpayments received on orders	**6**	**6**	**-**	**-**
TOTAL	**49,575**	**21,831**	**17,539**	**10,205**

11.2.1 Breakdown of hybrid bonds

	Dec. 31, 2018	**Issue date**	**Interest repricing date**	**Interest**	**Listing**
Public issues					
In millions of euros	750	07/2013	07/2021	4.750%	Paris
In millions of euros	1,000	06/2014	06/2019	3.000%	Paris
In millions of euros	1,000	06/2014	06/2024	3.875%	Paris
In millions of euros	1,000	01/2018	04/2023	1.375%	Paris
In millions of pounds sterling	300	07/2013	01/2019	4.625%	Paris

11.2.2 Breakdown of bonds

	Dec. 31, 2018	Issue date	Maturity date	Interest	Listing
Public issues					
In millions of euros	775	10/2008	01/2019	6.875%	Luxembourg
In millions of euros	900	01/2009	01/2021	6.375%	Luxembourg
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	424	11/2011	01/2020	3.125%	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	1,200	05/2014	05/2020	1.375%	Paris
In millions of euros	1,300	05/2014	05/2026	2.375%	Paris
In millions of euros	750	03/2015	03/2022	0.500%	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 pounds sterling	500	10/2008	10/2028	7.000%	Luxembourg
In millions of pounds sterling	226	02/2009	02/2021	6.125%	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	275	10/2012	10/2020	1.125%	Zurich
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
Private placements					
In millions of euros	100	10/2011	10/2023	CMS10YR+0.505%	Paris
In millions of euros	400	07/2012	01/2020	2.500%	None
In millions of euros	100	03/2013	03/2033	3.375%	None
In millions of euros	200	04/2013	04/2020	Euribor3M+0.58%	Paris
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 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	11/2015	11/2021	2.681%	Paris
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, 2018, other borrowings comprised mainly NEUCP (€2,028 million, including €1,724 million at fixed rates) and USCP at fixed rates (USD 992 million, equivalent value of €866 million). These borrowings all fall due in less than one year.

ENGIE SA also had a credit facility on which €877 million had been drawn and a USD 300 million bank loan (equivalent value of €262 million).

In December 2018, ENGIE SA took out an €850 million long-term bank loan from ENGIE Alliance.

The long-term loan from ENGIE Finance remained unchanged at end-2018 (€4,400 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, 2018**	**Dec. 31, 2017**	**Dec. 31, 2018**	**Dec. 31, 2017**
Floating rate				
Bonds	7,210	4,724	378	300
Amounts payable to equity investments	5,250	4,400	5,250	4,400
Other loans	2,546	3,679	1,076	1,830
Current accounts with subsidiaries	2,749	1,612	2,749	1,612
Other borrowings and debt	583	627	583	627
Fixed rate				
Hybrid bonds	4,085	3,688	4,085	3,688
Bonds	12,170	14,229	19,002	18,653
Amounts payable to equity investments	-	-	-	-
Other loans	1,487	1,292	2,957	3,141
TOTAL	**36,080**	**34,251**	**36,080**	**34,251**

11.3.2 Analysis by currency

	After hedging		Before hedging	
In millions of euros	**Dec. 31, 2018**	**Dec. 31, 2017**	**Dec. 31, 2018**	**Dec. 31, 2017**
In euros				
Hybrid bonds	3,753	3,350	3,753	3,350
Bonds	19,377	18,953	15,450	15,097
Amounts payable to equity investments	5,250	4,400	5,250	4,400
Other loans	4,033	4,971	2,905	4,006
Current accounts with subsidiaries	2,356	1,434	2,356	1,434
Other borrowings and debt	522	566	522	566
In foreign currency				
Hybrid bonds	335	338	335	338
Bonds	-	-	3,927	3,856
Amounts payable to equity investments	-	-	-	-
Other loans	-	-	1,128	965
Current accounts with subsidiaries	393	178	393	178
Other borrowings and debt	61	61	61	61
TOTAL	**36,080**	**34,251**	**36,080**	**34,251**

NOTE 12 Accruals (liabilities) and unrealized foreign exchange gains

In millions of euros	Dec. 31, 2017	Increases	Decreases	Dec. 31, 2018
Options contracts	107	157	204	469
Financial instruments	2,056	1,458	(2,057)	1,457
ACCRUALS (LIABILITIES)	**2,163**	**1,615**	**(1,853)**	**1,926**
UNREALIZED FOREIGN EXCHANGE GAINS	**420**	**-**	**(15)**	**403**

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, 2018	Dec. 31, 2017
Energy sales		
• France	9,034	6,065
• International	15,983	12,274
Works, research and services provided	2,345	1,725
Revenues from non-core activities and other	471	521
TOTAL	**27,833**	**20,585**

The increase in revenues from French and international energy activities was due to an increase in volumes sold and an increase in average gas prices.

Revenues by business activity

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Energy sales		
• Natural gas	20,334	13,737
• Electricity	4,683	4,602
Other production sold		
• Works, research and services provided	2,345	1,725
• Revenues from non-core activities and other	471	521
TOTAL	**27,833**	**20,585**

At December 31, 2018, unbilled, un-metered revenues (energy in the meter) amounted to €1,663 million excluding tax.

13.2 Personnel costs

Change in headcount by category

In number of employees	Dec. 31, 2017	Change	Dec. 31, 2018
Operating staff	611	(333)	278
Senior technicians and supervisory staff	1,538	164	1,702
Managerial-grade staff	2,959	(338)	2,621
TOTAL	**5,108**	**(507)**	**4,601**

The number of employees in 2018 was 4,601 (4,738 in 2017). Unlike 2017, the 2018 figure includes non-statutory permanent employees, fixed-term contract employees and employees on work/study contracts. On a comparable basis, the 2017 figure would have been 5,108.

Personnel costs break down as follows:

In millions of euros	Dec. 31, 2018	Dec. 31, 2017
Wages and salaries	(289)	(317)
Payroll expenses	(151)	(169)
Profit sharing	(21)	(26)
Other	(190)	(74)
TOTAL	**(651)**	**(587)**

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, 2018	Dec. 31, 2017
Provision for capital renewal and replacement liabilities regarding concessions	-	-
Provision for site rehabilitation	(7)	(1)
Provisions relating to employees	(18)	15
Other contingency and loss provisions for operating items	(74)	354
TOTAL	**(97)**	**368**

Other contingency and loss provisions mainly comprised:

- net reversal of the provision for onerous contracts (€122 million);
- net reversal of the provision for tax audits (€7 million);
- addition to provisions for negative fair value adjustments to swaps (€54 million).

13.4 Operating expense transfers

Expense transfers are included in other operating income and amounted to €39 million in 2018 and €20 million in 2017.

NOTE 14 Net financial income/(loss)

In millions of euros	Expenses	Income	Total Dec. 31, 2018	Dec. 31, 2017
Other interest income and expenses	(1,082)	538	(545)	(546)
Interest on current accounts and amounts receivable from equity investments	-	36	36	39
Foreign exchange gains/(losses)	(482)	541	59	140
Dividends received	-	4,259	4,259	4,214
Movements in provisions for financial items	(92)	-	(92)	2
TOTAL	**(1,657)**	**5,375**	**3,718**	**3,849**

NOTE 15 Net non-recurring income/(loss)

In millions of euros	Expenses	Income	Total Dec. 31, 2018	Dec. 31, 2017
Disposals of property, plant and equipment, and intangible assets	(21)	156	135	(3)
Disposals of financial fixed assets	(297)	310	13	(231)
Provision for price increases	(31)	50	19	43
Accelerated depreciation and amortization	(301)	209	(92)	(30)
Movements in provisions relating to equity investments	(2,196)	7	(2,189)	(1,604)
Other	(101)	109	8	(247)
TOTAL	**(2,946)**	**840**	**(2,107)**	**(2,072)**

"Other" mainly includes various expenses and provisions for personnel and real estate restructuring operations.

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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 expense

The income tax rate in 2018 was 34.43%, including the 3.3% social contribution. The 2018 French Finance Law abolished the 3% contribution on dividend distributions provided for in Article 235 *ter* ZCA of the French Tax Code for amounts distributed and paid as of January 1, 2018.

	2018			2017		
In millions of euros	Income before tax	Income tax[1]	Net income/(loss)	Income before tax	Income tax[1]	Net income/(loss)
Income tax due by ENGIE SA for the period (excluding tax consolidation group)						
• on recurring income	2,660		2,660	2,491		2,491
• on non-recurring income	(2,107)		(2,107)	(2,071)		(2,071)
Income tax expense (income tax payable by subsidiaries/provision for transfer of tax savings to entities in the tax consolidation group)		**549**	**549**		**1,001**	**1,001**
• o/w Income tax relating to subsidiaries within the tax consolidation group		343			420	
• o/w 3% tax on dividends		-			375	
• o/w Net change in provisions for income tax		124			95	
• o/w Other (mainly adjustments to research and CICE tax credits held in 2017/2018)		82			111	
TOTAL	**553**	**549**	**1,102**	**420**	**1,001**	**1,421**

(1) *A positive figure signifies a tax benefit.*

In 2018 and 2017, 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. Tax on recurring income includes €2.5 million relating to the CICE tax credit (*Crédit d'impôt pour la compétitivité et l'emploi*).

In 2017, the CICE tax credit amounted to €3 million. In 2018, this amount helped finance R&D projects, in particular to finance pilots and demonstrators relating to the energy transition, launched in 2016.

The income tax benefit amounted to €549 million in 2018 versus an income tax benefit of €1,001 million in 2017, chiefly reflecting:

- savings resulting from tax consolidation (€342.7 million in 2018 versus €420 million in 2017), attributable to the difference between:
  - the €341.2 million contribution to Group income tax due in 2018 to ENGIE SA by subsidiaries reporting a profit (€413 million in 2017),
  - tax credits relating to the tax consolidation group amounting to €1.4 million in 2018 versus €46.7 million in 2017, and
  - income tax due by the consolidated tax group which was zero in 2018 versus €39.2 million in 2017;
- a net reversal of €124 million from the income tax provision in 2018 compared with a reversal of €95 million in 2017, chiefly reflecting:
  - €36.1 million in net reversals in respect of the utilization of tax losses by consolidated subsidiaries of ENGIE SA versus €78.6 million in net additions in 2017,
  - €11.5 million in additions for tax risks chiefly related to the transfer price of LNG compared to a net reversal of €11.5 million in 2017, and
  - €99 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 €82 million in 2018, mainly due to changes in research and CICE tax credits between 2017 and 2018.

16.3 Deferred tax

Future tax liabilities as shown in the table below result 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 2019 to 2022 introduced in the 2018 finance act.

	2018				2017				
In millions of euros	**32.02%**	**28.92%**	**27.37%**	**25.83%**	**34.43%**	**32.02%**	**28.92%**	**27.37%**	**25.83%**
Year of reversal	**2019**	**2020**	**2021**	**2022+**	**2018**	**2019**	**2020**	**2021**	**2022+**
Deferred tax liabilities									
• Unrecognized deductible expenses	339	-	-	-	307	-	-	-	-
• Untaxed income recognized	32	30	27	109	34	32	30	27	109
Deferred tax assets									
• Temporary non-deductible expenses recognized	306	49	109	676	239	62	155	155	686
• Unrecognized taxable income	336	-	-	39	364	-	-	-	40
Net deferred tax base	**271**	**19**	**82**	**606**	**262**	**30**	**125**	**128**	**617**
• Theoretical impact of deferred tax	87	5	22	157	90	10	36	35	159

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) and 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 investment strategies 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 NEUCP (Negotiable European Commercial Paper) as well as USCP (US Commercial Paper).

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, 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 €13,462 million remains undrawn. These facilities include two syndicated credit lines, respectively for €5,500 million and €5,000 million, maturing in November 2022 and December 2023. At December 31, 2018, ENGIE SA had drawn €877 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 USD 4,500 million (of which USD 992 million (€866 million) had been drawn at end-2018), and NEUCP for €5,000 million (€2,028 million drawn at end-2018).

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 (i) the accreditation of counterparties according to external credit ratings, objective market data (credit default swaps, market capitalization) and financial structure, and (ii) risk exposure limits. 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

Based on its net debt position, ENGIE SA has adopted a policy for optimizing borrowing costs 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, 2018						Notional amount at Dec. 31, 2017
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	
Interest rate swap							
Fixed-rate borrower/floating-rate lender	-	2,204	2,116	1,575	5,895	(997)	7,110
Floating-rate borrower/fixed-rate lender	2,032	5,161	4,009	2,350	13,552	1,013	10,685
Purchase of CAP							
Fixed-rate borrower/floating-rate lender	-	1,000	-	-	1,000	-	1,000
Purchase of FRA							
Fixed-rate borrower/floating-rate lender	-	6,050	-	-	6,050	(6)	-
TOTAL EUR	**2,032**	**14,415**	**6,125**	**3,925**	**26,497**	**10**	**18,795**
Interest rate swap							
Fixed-rate borrower/floating-rate lender	470	455	-	120	1,045	5	759
Floating-rate borrower/fixed-rate lender	-	-	-	120	120	(3)	-
Total USD	**470**	**455**	**-**	**240**	**1,165**	**2**	**759**
TOTAL	**2,502**	**14,870**	**6,125**	**4,165**	**27,662**	**12**	**19,554**

In millions of euros	Notional amount at Dec. 31, 2018 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	Notional amount at Dec. 31, 2017
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	426	638	2,115	3,179	(361)	2,179
Fixed-rate borrower/floating-rate lender	-	-	-	-	-	-	-
TOTAL GBP	**-**	**426**	**638**	**2,115**	**3,179**	**(361)**	**2,179**
Currency swap							
Floating-rate borrower/fixed-rate lender	-	229	-	-	229	(22)	230
Fixed-rate borrower/fixed-rate lender	-	-	149	-	149	4	149
TOTAL JPY	**-**	**229**	**149**	**-**	**378**	**(18)**	**378**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	-	-	-	-
Floating-rate borrower/fixed-rate lender	-	453	289	-	742	85	371
TOTAL CHF	**-**	**453**	**289**	**-**	**742**	**85**	**371**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	150	150	-	84
Fixed-rate borrower/floating-rate lender	-	274	-	-	274	(12)	274
Floating-rate borrower/floating-rate lender	-	122	-	-	122	3	122
Floating-rate borrower/fixed-rate lender	-	1,159	-	-	1,159	124	580
TOTAL USD	**-**	**1,555**	**-**	**150**	**1,705**	**115**	**1,060**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	-	67	(19)	67
TOTAL NOK	**-**	**-**	**-**	**-**	**67**	**(19)**	**67**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	54	54	-	75
TOTAL AUD	**-**	**-**	**-**	**54**	**54**	**-**	**75**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	-	-	-	251
TOTAL HKD	**-**	**-**	**-**	**-**	**-**	**-**	**251**
Currency swap							
Floating-rate borrower/floating-rate lender	-	5	-	-	5	(1)	9
TOTAL MXN	**-**	**5**	**-**	**-**	**5**	**(1)**	**9**
TOTAL	**-**	**2,668**	**1,076**	**2,319**	**6,130**	**(199)**	**4,391**

Interest rate hedges outstanding at December 31, 2018 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 (NEUCP issues). These are floating-rate borrower (Eonia)/fixed-rate lender swaps with a notional amount of €1,732 million at December 31, 2018;
- ENGIE SA uses floating-rate borrower swaps when issuing bonds unless management decides otherwise. Interest rate risk is subsequently managed centrally through the use of interest rate swaps and options with due reference to market conditions;
- as part of the Group's interest rate risk management policy, in 2009 ENGIE SA set up macro-hedges fixing the interest rate on the Group's USD debt. The nominal amount totaled USD 910 million at end-2018.

17.1.4 Currency risk

ENGIE SA is exposed to currency risk, particularly including:

- commercial transactions involving the purchase and sale of natural gas, since several gas purchase and sale contracts are indexed to the price of oil-based products, mostly listed in US dollars;
- specific transactional risks related to investment, merger-acquisition or disposal projects.

The exposure to currency risk on these transactions is managed and monitored as follows:

- pass-through mechanisms are applied in determining sale prices for eligible customers, and regulated rates;
- the margin on fixed-price sale contracts or contracts indexed by financial swaps is hedged.

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 uses forward currency purchase or sale contracts 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 deposits and loans or other future operations.

At December 31, 2018, commitments under these contracts were as follows:

In millions of euros	Fixed portion of commitments at Dec. 31, 2018					
	Maturity					
Forward contracts	2019	2020	2021 and beyond	Euro equivalent at Dec. 31, 2018	Exchange rate fluctuations at Dec. 31, 2018	Fixed portion of commitments at Dec. 31, 2017
Long positions						
AUD	96	201	-	302	5	309
CNH	9	-	-	9	-	-
EUR	12	1	-	13	-	6
GBP	247	-	-	248	1	354
HUF	3	2	2	7	-	5
NOK	-	-	-	-	-	95
USD	1,043	8	332	1,408	25	5,182
Short positions						
AUD	4	-	-	4	-	329
CHF	179	-	-	180	1	164
CNH	9	-	-	9	-	-
EUR	111	1	-	113	1	118
GBP	221	47	-	266	(2)	221
HUF	-	-	-	-	-	82
NOK	-	-	-	-	-	95
USD	170	8	-	187	10	2,660

17.1.5 Other financial commitments given

In millions of euros	Total at Dec. 31, 2018	Maturity End-2019	Between 2020 and 2024	2025 and beyond
Market-related commitments				
Performance and other guarantees	205	178	11	16
Performance and other guarantees given on behalf of subsidiaries	8,117	370	4,800	2,947
Financing commitments				
Personal sureties given	-	-	-	-
Guarantees and endorsements given to subsidiaries	5,614	995	3,562	1,057
Collateral given	-	-	-	-
Credit lines	-	-	-	-
Other commitments given				
Contractual guarantees for sales of businesses	4,792	957	175	3,660
Operating lease commitments	108	51	56	1
Finance lease commitments	-	-	-	-
Commitments relating to LNG tankers	-	-	-	-

Market-related commitments totaling €8,322 million at end-2018 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.

Guarantees and endorsements to subsidiaries totaling €5,614 million correspond to payment guarantees granted by ENGIE SA to third parties on behalf of its subsidiaries.

Contractual guarantees for sales of businesses totaling €4,792 million relate mainly to commitments given on the disposals of:

- Nalco (US water business), for which ENGIE SA is counter-guarantor until 2019 in the event of default by the sellers, Leo Holding and Nalco International SAS;
- ENGIE Exploration & Production (EPI), following the sale of the 30% minority interest to CIC in 2011, for an amount of up to €2,751 million expiring in 2026;
- 10% of train 1 of the Atlantic LNG facility in Trinidad and Tobago, for an amount of up to €742 million expiring in 2026;
- EFOG (North Sea oil fields), for which ENGIE SA acts as guarantor towards Elf Exploration UK Limited further to the December 2011 sale of its 22.5% interest. The guarantee is valid for a seven-year period for tax disputes;
- the LNG business to Elf Aquitaine (Total Group) expiring in 2021.

Operating lease commitments totaling €108 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. 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. Since Swire Pacific sold its interest in its joint subsidiary in December 2009 to SUEZ Environnement – which now owns the entire share capital of the venture – 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, Swire has pledged an indemnity ensuring that ultimate responsibility is split 50-50 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 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 business that it had 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 some 58 such contracts at end-2018;
- in exploration-production activities, it is customary for the parent company to provide local authorities with unlimited guarantees covering the obligations and environmental risks of subsidiaries and ENGIE SA has provided numerous such guarantees in accordance with the practices of the sector.

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In addition, following Société d'Infrastructures Gazières (SIG) July 2011 acquisition of a 25% stake in GRTgaz, ENGIE SA agreed to stand as guarantor for a period of 20 years and in proportion to its shareholding, against all losses incurred 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.

17.1.6 Other financial commitments received

In millions of euros	Total at Dec. 31, 2018	Maturity		
		End-2019	Between 2020 and 2024	2025 and beyond
Market-related commitments				
Guarantees received	-	-	-	-
Financing commitments				
Undrawn credit facilities	12,585	535	11,550	500
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	404	38	175	191
Finance lease commitments	-	-	-	-
Commitments relating to LNG tankers	-	-	-	-

ENGIE SA has negotiated two syndicated credit lines: (i) a €5,500 million line secured in May 2005 whose maturity has been extended from 2012 to November 2022, and (ii) a €5,000 million line secured in April 2014, whose maturity has been extended from 2019 to December 2023. The lending banks may opt out of the syndicate on an individual basis in the event of a change in the Company's controlling shareholder.

Counter-guarantees given on personal sureties concern guarantees received from members of GIE ENGIE Alliance.

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. Under these contracts, 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 of them. These commitments are combined with backup measures *(force majeure)* and flexible volume arrangements, making it possible to manage any uncertainties (primarily weather conditions) affecting demand 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. ENGIE SA makes the bulk of its purchases under such contracts.

At December 31, 2018, ENGIE SA had commitments to purchase a minimum of 449 TWh within one year, 1,480 TWh between two and five years, and 2,004 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, 2018, commitments given by ENGIE SA totaled 181 TWh under forward purchase contracts and 420 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, 2018, commitments given by ENGIE SA totaled 154 TWh under forward electricity purchase contracts and 5 TWh under forward electricity sale contracts. As part of its CO_2 brokerage activities, ENGIE SA has also entered into the same volume of purchases of CO_2 emissions allowances for 24,480 kg of CO_2.

17.2.2 Commodity derivatives

As part of its energy brokerage activities, ENGIE 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 the trading activities of ENGIE SA. 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.

INSTRUMENTS NOT RECOGNIZED AS HEDGES

	Notional amount at Dec. 31, 2018				Fair value at Dec. 31, 2018 in millions of euros	Notional amount at Dec. 31, 2017 in GWh
	In GWh by maturity			In millions of euros		
	x < 1 year	1 year < x < 2 years	x > 2 years			
Swaps (long positions)						
Natural gas	369,178	124,050	158,515	8,688	784	985,780
Oil-based products	-	-	-	-	-	160,266
Electricity	3,811	516	5	166	97	11,343
CER EUA – CO_2 (1)	-	-	-	-	-	-
Swaps (short positions)						
Natural gas	(331,021)	(79,848)	(143,869)	(8,116)	(378)	(1,376,421)
Oil-based products	-	-	-	-	-	(90,604)
Electricity	(3,397)	(516)	(5)	(174)	(64)	(10,603)
CER EUA – CO_2 (1)	-	-	-	-	-	-
Options (long positions)						
Natural gas	58,291	42,707	-	(35)	5	49,653
Oil-based products	-	5,574	-	-	18	-
Electricity	-	-	-	-	-	-
Options (short positions)						
Natural gas	(49,677)	(28,832)	-	17	-	(49,254)
Oil-based products	-	(5,574)	-	53	(73)	-
Electricity	-	-	-	-	-	-

(1) In kg of CO_2 quotas.

17.2.2.1 Instruments recognized as hedges

	Notional amount at Dec. 31, 2018				Fair value at Dec. 31, 2018 in millions of euros	Notional amount at Dec. 31, 2017 in GWh
	In GWh by maturity			In millions of euros		
	x < 1 year	1 year < x < 2 years	x > 2 years			
Swaps (long positions)						
Oil-based products	-	-	-	-	-	74,955
Swaps (short positions)						
Oil-based products	-	-	-	-	-	-

17.2.2.2 Physical delivery contracts

	Notional amount at Dec. 31, 2018				Fair value at Dec. 31, 2018 in millions of euros	Notional amount at Dec. 31, 2017 in GWh
	In GWh by maturity			In millions of euros		
	x < 1 year	1 year < x < 2 years	x > 2 years			
Forwards (long positions)						
Natural gas	1,194,398	25,305	154,123	165	132	478,423
Oil-based products	-	-	-	-	-	-
Electricity	46,334	22,385	9,110	3,637	958	73,873
CER EUA – CO_2 (1)	13,272	6,437	4,771	28	14	347
Forwards (short positions)						
Natural gas	(830,475)	(258,668)	(130,091)	(32)	(259)	(524,355)
Oil-based products	-	-	-	-	-	-
Electricity	(30,751)	(8,784)	(4,716)	(1,932)	(678)	(39,329)
CER EUA – CO_2 (1)	-	-	-	-	-	-
Options (long positions)						
Natural gas	80,063	59,107	-	(35)	62	31,706
Oil-based products	-	-	-	-	-	-
Electricity	957	900	7,517	(96)	64	6,904
Options (short positions)						
Natural gas	(145,614)	(78,798)	(27,134)	189	(166)	(48,428)
Oil-based products	-	-	-	-	-	-
Electricity	(4,177)	(5,543)	(5,191)	135	(132)	(5,437)

(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

	EGI sector plan		Non-EGI sector plan		Total	
In millions of euros	Dec. 31, 2018[1]	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
PENSION	**2,015**	**2,156**	**281**	**267**	**2,296**	**2,423**
Pension plan	2,015	2,156	281	267	2,296	2,423
End-of-career and other post-employment benefits	**276**	**297**	**27**	**30**	**304**	**327**
Reduced energy and water prices	163	172	5	6	168	178
End-of-career indemnities	48	57	-	-	48	57
Immediate bereavement benefits	51	53	-	-	51	53
Other[2]	14	15	22	24	36	39
Other employee benefit obligations	**79**	**88**	**-**	**-**	**79**	**88**
Disability benefits and other	71	80	-	-	71	80
Long-service awards	8	8	-	-	8	8
TOTAL	**2,371**	**2,542**	**308**	**297**	**2,679**	**2,839**

(1) Including €98 million covered by a provision in the parent company financial statements (see Note 18.4).
(2) 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	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Discount rate	2.06%	2.04%	2.07%	2.04%	1.75%	1.66%	2.06%	2.04%
Inflation rate	1.82%	1.81%	1.82%	1.81%	1.82%	1.79%	1.82%	1.81%
Average remaining working years of participating employees	20 years	19 years	20 years	19 years	20 years	19 years	20 years	19 years

Non-EGI sector plan	Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
SUEZ	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Discount rate	1.50%	1.60%					1.50%	1.60%
Inflation rate	1.80%	1.80%					1.80%	1.80%
Average remaining working years of participating employees								

Non-EGI sector plan	Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
Cie Financière	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Discount rate	1.50%	1.60%	1.50%	1.60%			1.50%	1.60%
Inflation rate	1.80%	1.80%	1.80%	1.80%			1.80%	1.80%
Average remaining working years of participating employees	2 years	2 years					2 years	2 years

According to the Group's estimates, a 1% increase or decrease in the discount rate would result in a change of 17% 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 SA 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 end-of-career salaries),
  - supplementary pension plans for senior managers operated by all water companies (annuity plans based on end-of-career salaries).

Pension plan for electricity and gas utilities

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 SUEZ SA 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.

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							
	Pension benefit obligations		End-of-career and other post-employment benefits		Long-term benefit obligations		Pension benefit obligations		End-of-career and other post-employment benefits		Long-term benefit obligations		Total	
In millions of euros	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Present value of benefit obligation at January 1	**2,156**	**2,211**	**298**	**333**	**89**	**94**	**267**	**316**	**29**	**33**	**-**	**-**	**2,839**	**2,986**
Impact of mergers and spin-offs	(6)	(5)	(2)	(5)	(1)	(2)	-	-	-	-	-	-	(9)	(12)
Past service cost: plan amendments	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Current service cost	33	31	7	8	11	11	-	1	-	-	-	-	52	51
Interest cost	41	43	6	7	1	1	4	4	-	-	-	-	53	55
Actuarial gains and losses on the obligation	(119)	(36)	(30)	(44)	(15)	(7)	26	(36)	-	(2)	-	-	(139)	(125)
Benefits paid under all plans (funded and unfunded)(1)	(89)	(88)	(3)	(1)	(7)	(9)	(16)	(18)	(2)	(2)	-	-	(116)	(118)
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Present value of benefit obligation at December 31	**2,015**	**2,156**	**276**	**298**	**79**	**88**	**281**	**267**	**27**	**29**	**-**	**-**	**2,679**	**2,838**

(1) The aggregate impact on income of benefits paid under all plans totaled €116 million in 2018 versus €118 million in 2017.

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 SA 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, 2018, ENGIE SA booked provisions of €98 million compared to €103 million at end-2017, representing a decrease of €5 million in employee-related provisions.

CHANGES IN PROVISIONS FOR EMPLOYEE BENEFIT OBLIGATIONS

	EGI sector plan						Non-EGI sector plan							
	Pensions(1)		End-of-career and other post-employment benefits(2)		Long-term benefits(3)		Pensions(1)		End-of-career and other post-employment benefits(2)		Long-term benefits(3)		Total	
In millions of euros	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Present value of benefit obligation at January 1 (provisioned)	**-**	**-**	**13**	**14**	**80**	**86**	**7**	**7**	**3**	**5**	**-**	**-**	**103**	**112**
Impact of mergers and spin-offs	-	-	-	-	(1)	(1)	-	-	-	-	-	-	(1)	(1)
Current service cost	-	-	1	1	11	11	-	-	-	-	-	-	12	12
Interest cost			-	-	1	1	-	-	-	-	-	-	1	1
Actuarial gains and losses on the obligation	-	-	-	-	(5)	(7)	-	-	-	-	-	-	(5)	(7)
Benefits paid under all plans (funded and unfunded)	-	-	(2)	(2)	(7)	(10)	(1)	-	(2)	(2)	-	-	(12)	(14)
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Present value of benefit obligation at December 31 (provisioned)	**-**	**-**	**12**	**13**	**79**	**80**	**6**	**7**	**1**	**3**	**-**	**-**	**98**	**103**

(1) Excluding EGI sector companies in both 2018 and 2017.
(2) Exceptional vacation (€12 million), complementary health insurance for retired SUEZ employees (€0.5 million) and water bonus (€0.5 million).
(3) Allowances for occupational accidents and illness (€49 million), temporary and permanent disability allowances (€20 million), asbestos (€2 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 €83 million was paid to these insurance firms in 2018.

The value of these insurance contracts stood at €1,775 million at December 31, 2018 (€1,937 million at December 31, 2017).

18.6 Change in the fair value of plan assets

	EGI sector plan						Non-EGI sector plan							
	Pensions		End-of-career and other post-employment benefits		Long-term benefit obligations		Pensions		End-of-career and other post-employment benefits		Long-term benefit obligations		Total	
In millions of euros	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Fair value of plan assets at January 1	**1,696**	**1,696**	**27**	**28**	**-**	**-**	**214**	**201**	**-**	**-**	**-**	**-**	**1,937**	**1,925**
Impact of mergers and spin-offs	-	-	(1)	-	-	-	-	-	-	-	-	-	(1)	-
Expected return on plan assets	33	33	-	-	-	-	3	2	-	-	-	-	36	35
Premiums net of handling fees	-	-	-	-	-	-	1	16	-	-	-	-	1	16
Actuarial gains and losses on plan assets	(119)	32	(2)	(1)	-	-	6	10	-	-	-	-	(115)	41
Benefits paid out of plan assets	(66)	(65)	(2)	-	-	-	(15)	(15)	-	-	-	-	(83)	(80)
Fair value of plan assets at December 31	**1,544**	**1,696**	**22**	**27**	**-**	**-**	**209**	**214**	**-**	**-**	**-**	**-**	**1,775**	**1,937**

RETURN ON PLAN ASSETS

	EGI sector plan						Non-EGI sector plan					
	Pensions		End-of-career and other post-employment benefits		Long-term benefit obligations		Pensions		End-of-career and other post-employment benefits		Long-term benefit obligations	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Actual return on plan assets	**-5.2%**	**4.1%**	**-5.2%**	**4.1%**	**0.0%**	**0.0%**	**2.9%**	**2.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

The actual return on plan assets for 2018 is -5.22% in respect of pensions and -5.22% in respect of other obligations for EGI sector plan.

The expected return on plan assets for 2018 is 2.87% in respect of pensions for non-EGI sector plan.

The allocation of plan assets by principal asset category can be analyzed as follows:

	EGI sector plan		Non-EGI sector plan	
	2018	2017	2018	2017
Equities	28%	29%	8%	10%
Bonds	67%	63%	82%	82%
Other (including money market securities)	5%	8%	9%	8%
	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 €7 million at December 31, 2018, 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 €5 million in 2018 and €5.5 million in 2017.

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 USD 405 million in respect of 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 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.

19.2 Commissioning

In the dispute between GRDF and various gas suppliers, in a decision dated June 2, 2016, the Paris Court of Appeal (i) recalled that the risk of unpaid compensation for the “transmission” part of the agreement with the end customer should be borne by the grid manager and not the gas supplier; (ii) held that the compensation for customer management services provided by the supplier on behalf of the grid manager should be fair and commensurate with the grid manager’s cost savings; and (iii) ordered GRDF to bring its transmission agreements into compliance with these principles. GRDF appealed the decision handed down by the Court of Appeal before the Court of Cassation. On January 18, 2018, the Energy Regulatory Commission (*Commission de Régulation de l’Énergie* – CRE) published a decision setting the rate for access to the grids for management services provided to single contract customers from January 1, 2018. This compensation is included in the costs covered by the transmission rate and is therefore ultimately borne by the grids’ users. On June 18, 2018, the CRE’s Standing Committee for Disputes and Sanctions (*Comité de règlement des différends et des sanctions* – CoRDiS), which has been tasked by the Court of Appeal to evaluate the amount of the customer management services, instructed GRDF to propose to Direct Energie (retroactively since 2005 and going forward) and to ENI (retroactively since June 2, 2016 and going forward) a new addendum providing for compensation of €91 per year for T3, T4 and TP customers, and €8.10 per year for T1 and T2 customers. Both GRDF on the one hand and Direct Energie and ENI on the other have appealed the decision dated June 18, 2018 before the Paris Court of Appeal. The CRE was asked to submit its observations by December 2018. A decision may be handed down during the second quarter of 2019.

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* also ruled that the same 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. ENGIE also brought an action before the *Conseil d’État* against the CRE’s decision of October 26, 2017 in respect of the compensation for customer management services in the electricity sector, seeking the annulment of the decision for the period prior to January 1, 2018 only.

19.3 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 withholding tax paid in respect of the 1999-2003 fiscal years). In May 2016, the French tax authorities issued an assessment notice for part of the resulting corporate income tax, in an amount of €89.6 million. ENGIE paid this sum and filed an application to institute proceedings before the Montreuil Administrative Court in July 2017.

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, and cases seeking the repayment of the *précompte* in respect of the 2002, 2003 and 2004 fiscal years are still pending before the appellate courts.

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 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 used in closed and pending court cases.

19.4 Planned construction of an LNG terminal in Uruguay

GNLS SA, a joint subsidiary of Marubeni and ENGIE, was selected in 2013 to build an offshore LNG terminal in Uruguay. On November 20, 2013, GNLS contracted out the design and construction of the terminal to Construtora OAS SA. Following a number of problems and defects, GNLS terminated the contract in March 2015 and made use of its guarantees. OAS challenged the termination of the contract but did not take action against GNLS. OAS went bankrupt in Uruguay on April 8, 2015. In September 2015, GNLS and the authorities agreed to cancel the planned construction.

On May 24, 2017, OAS and GNLS appeared before the Uruguayan courts in a conciliation process at the request of OAS. The conciliation process was unsuccessful. OAS then threatened to call GNLS before the Uruguayan courts to claim damages. Since GNLS had incurred significant losses as a result of the termination of the contract, it filed a request for arbitration on August 22, 2017 in accordance with the terms of the contract providing for dispute resolution in Madrid by the ICC International Court of Arbitration, claiming a principal amount of USD 373 million. OAS responded by summonsing GNLS before the Montevideo Commercial Court, claiming USD 311 million in damages. ENGIE was officially named as a party to the proceedings on December 5, 2018. Both proceedings are still pending.

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

Until January 10, 2017, the French State owned 32.76% of ENGIE SA, giving it the right to appoint five representatives to the Group's 19-member Board of Directors. At that date, the French State sold 4.1% of ENGIE SA by way of a private placement to institutional investors. On September 5, 2017, the State sold a further 4.1% of ENGIE SA under an accelerated private placement to institutional investors, while concurrently selling 0.46% of the capital to ENGIE SA itself. In July 2018, the French State sold 0.46% of the capital to ENGIE SA in connection with the LINK 2018 employee shareholder plan. As a result of these various transactions, the French State now owns 23.64% of the share capital and 34.51% of the voting rights of ENGIE SA.

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 SA 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.

On November 6, 2015, the French State and ENGIE SA renewed the public service contract which sets out how such engagements are implemented, the Group's public service obligations and the conditions for rate regulation in France:

- as part of its public service obligations, ENGIE SA reaffirmed its commitments in terms of the safeguarding of supplies, the quality of customer relations, solidarity and assistance to low-income customers, sustainable development and protection of the environment, as well as in terms of research;
- regarding the conditions for rate regulation in France, the contract confirms the overall regulatory framework for setting and changing natural gas tariffs in France, according to the Decree of December 18, 2009, which notably forecasts rate changes based on costs incurred, while also defining the transitional framework following the elimination of regulated natural gas tariffs for business customers.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, as well as rates for accessing the French LNG terminals, are all regulated.

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 ENGIE SA who belong to the special EGI pension plan, employees of EDF and Non-Nationalized Companies (*Entreprises Non Nationalisées* – ENN), are described in Note 18, "Pensions and other employee benefit obligations".

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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 €20 million for 2018.

Post-employment benefits accruing to these same people totaled €29 million at December 31, 2018.

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 2018.

NOTE 22 Subsequent events

No significant subsequent events have occurred since the closing of the accounts at December 31, 2018.

6.4.3 Total and partial transfers of assets, subsidiaries, and equity investments requiring statutory disclosure

The thresholds presented in this Note are 10% and 50%, 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, 2017	% at Dec. 31, 2018	Reclassification within the Group	Sale outside the Group	Net book value of shares sold *(in euros)*	Business sector
Subsidiaries[(1)]						
ADILONE	100%	-	X		3,966	Other
FLIPAREC	100%	-	X		32,677	Other
Storengy SA France	100%	-	X		2,388,000,000	Storage
Equity investments[(2)]						
CLIMADEF	10%	-		X	84,964	Other
METHAMOLY	13%	-	X		36,750	Production of RNG

(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, 2017	% at Dec. 31, 2018	Reclassification within the Group	Acquisition outside the Group	Net book value of shares held *(in euros)*	Business sector
Subsidiaries[(1)]						
ENGIE Energy Services International	-	100%	X		3,907,736,754	Holding co.
ENGIE Investissements 65	-	100%	X		36,613	Other
Reservoir Sun	-	50%		X	2,000,000	Solar power
Storengy SAS	-	100%	X		2,733,137,029	Storage
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

	2018	2017	2016	2015	2014
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	-	-	4,775,429	10,777,079	20,823,223
Results of operations for the year *(in millions of euros)*					
Revenues, excluding VAT	27,833	20,585	17,939	19,891	24,562
Income before tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	2,960	2,431	245	391	390
Income tax (negative figures = benefit)	(549)	(1,001)	(672)	(540)	(378)
Employee profit-sharing and incentive payments for the year	-	-	-	-	-
Income after tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	1,102	1,421	448	268	411
Total dividends paid (including on treasury shares)	2,718	1,700	2,416	2,414	2,402
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	1.44	1.41	0.38	0.38	0.32
Income after tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	0.45	0.58	0.18	0.11	0.17
Dividend per share	1.12	0.70	1.00	1.00	1.00
Headcount					
Average number of employees during the year	4,400	4,873	5,182	5,461	5,879
Total payroll	289	317	332	343	357
Total employee benefit obligations paid (social security taxes and contributions to pension plans, welfare plans, etc.)	362	269	256	262	330

Shareholders at the AGM held to approve the 2018 financial statements will be asked to approve a dividend of €1.12 per share, representing a total amount of €2,718 million, based on the number of outstanding shares at December 31, 2018. This dividend comprises an ordinary dividend of €0.75 per share and an exceptional dividend of €0.37 per share. It will be increased by 10% for all shares held by the same person for more than two years as of December 31, 2018 provided they are still held on the dividend payment date.

6.5 Statutory auditors' report on the financial statements

Year ended December 31, 2018.

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 regulation 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.

To the Shareholder's Meeting of ENGIE,

Opinion

In compliance with the engagement entrusted to us by your Shareholder's Meetings, we have audited the accompanying financial statements of ENGIE for the year ended December 31, 2018.

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, 2018 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 independence rules applicable to us, for the period from January 1, 2018 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 or in the French Code of Ethics *(Code de déontologie)* for statutory auditors.

Justification of Assessments - Key Audit Matters

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.

Estimate of the unbilled and un-metered revenues (energy in the meter)

[notes 1 and 13]

Key audit matter	Our response
Your Company uses an estimate in revenue, relating to the sales on networks generated from customers whose energy consumption is metered during the accounting period. Indeed, the final allocations are sometimes only known several months down the line, which means that revenue figures are only an estimate. As of December 31, 2018, the receivables relating to the energy in the meter (gas and electricity un-metered and unbilled revenue) amount to 1,663 million of euros. These receivables are calculated using a direct method, developed by your company, taking into account estimated customers' consumption based on the previous bill, or the last metering not yet billed, supported by measuring and modelling tools allowing it to estimate revenue with a satisfactory degree of accuracy and subsequently. These estimates are in line with the volume of energy allocated by grid managers. 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. Provided the amount at stakes and the sensitivity of the volumes and the average energy price, we have determined that the estimate of the energy in the meter revenue is a key audit matter.	Our procedures mainly consisted in: - considering the procedures implemented by your company about the billing process, and the process enabling the reliability of the estimate about the energy in the metered revenue; - assessing the models used by your company and investigate the modality of the computation for the estimated volumes; we include a specialist in our audit team. We have also: - compared the information about the volume determined by your company with the metering data provided by the grid operators; - controlled that the modality of the computation for the average price of the metered power take its anteriority and the different kinds of customers; - analyzed the coherence of the volumes delivered with the Energy Balance (which corresponds to the physical reality of the operations of allocations (revenues, injections and stocks) and resources (purchases, withdrawals and stocks) of energy on the networks) prepared by your company; - assessed the regular clearance of the metered energy during the period; - assessed the anteriority of the metered energy at the closing date.

Measurement of equity investments

[notes 1 and 4]

Key audit matter	Our response
Equity investments totaled €74,667 million as of December 31, 2018 (€68,302 million in net value) and including the share of the technical loss arising from the 2008 merger of Suez with Gaz de France for which €285 million was allocated (technical loss fully impaired at the end of 2018). 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. Value in use is determined by reference to the intrinsic value which corresponds to restated net assets plus unrealized gains, or the yield value which corresponds to the average of the last 20 stock market prices of the period or expected cash flows (« Discounted Cash Flow » or « Dividend Discount Model »), and by taking into account any currency hedges. As indicated in Note 4.3, expected cash flows are drawn from the 2019 budget and 2020-2021 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 the Group's reference scenario for 2022-2040 approved by the Executive Committee in December 2018. As mentioned in Note 4.2, the impairment recognized in 2018 for €2,161 million mainly covers the equity investments in Electrabel (€1,155 million), COGAC (€589 million), and SUEZ (€393 million). The measurement of equity investments is considered a key audit matter given their importance on the balance sheet (75% of total assets) and due to the judgments necessary to estimate their value in use.	We have assessed Management's procedures for approving estimates. We have 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, for the most complex topics, the support of our valuation experts. Our work mainly consisted in: - examining the measurement methods used to estimate values in use; - assessing the consistency of assumptions with the 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, using internal specialists; - assessing the appropriateness of the disclosure given in the notes to the financial statements. 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.

Valuation for provisions relating to litigations, claims and tax risks

[notes 1, 10 and 19]

Key audit matter	Our response
Your company is party to a number of legal and anti-trust proceedings with third parties or with legal and / or administrative authorities, including tax authorities, investigations before state courts, arbitral tribunals or regulated authorities, in the normal course of its business. The main disputes and investigations are recognized as liabilities or give rise to contingent liabilities. We have considered this topic as a key audit matter, provided the amounts at stake and the judgement required to determine the provisions for litigations and tax risk, due to the regulatory context and the continuously changing market environment.	Our audit procedures mainly consisted in: - examining the procedures implemented by your company in order to identify all the litigations and risk exposures; - corroborating these analyses with the confirmations received from the lawyers; - assessing the analysis of the probability of occurrence performed by your company, as well as the assumptions used, and the supporting documentation with, if any, consultations received by third parties. We have recourse to our experts for the most complex analysis; - 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 Board of Director's management report and in the other documents with respect to the financial position and the financial statements provided to the Shareholders.

We attest that the information relating to payment terms referred to in article D. 441-4 of the French Commercial Code (*Code de commerce*) is fairly presented and consistent with the financial statements.

Report on Corporate Governance

We attest that the Board of Directors' Report on Corporate Governance sets out the information required by Articles L. 225-37-3 and L. 225-37-4 of the French Commercial Code (*Code de commerce*).

Concerning the information given in accordance with the requirements of Article L. 225-37-3 of the French Commercial Code *(Code de commerce)* relating to remunerations and benefits received by 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 controlling and controlled companies. 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 public purchase offer or exchange, provided pursuant to Article L. 225-37-5 of the French Commercial Code (*Code de commerce*), we have agreed these to the source documents communicated to us. Based on our work, 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 the voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

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, 2017, our firms were in the eleventh year of 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 risks 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 taken 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, 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 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) N° 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 *(Code de commerce)* and in the French Code of Ethics *(code de déontologie)* for statutory auditors. 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, le 8 mars 2019

The Statutory Auditors

French original signed by

DELOITTE & ASSOCIES	ERNST & YOUNG et Autres
Patrick E. Suissa Olivier Broissand	Charles-Emmanuel Chosson Stéphane Pédron

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Additional information

7.1 Specific statutory provisions and bylaws

The main provisions of the law, the Company's bylaws and the Board's internal regulations are set out below. These documents are available on the website engie.com and at the Company's head office.

7.1.1 Issuer's corporate purpose

Under Article 2 of the bylaws, the Company's purpose is the management and development of its current and future assets, in all countries, by all means and especially to:

- prospect, produce, process, import, export, buy, transmit, store, distribute, supply and market combustible gas, electricity and all other energy;
- trade in gas, electricity and all other energy;
- supply services related to the aforementioned activities;
- carry out the public service missions assigned to it under current law and regulations, in particular the Energy Code, the Electricity and Gas Nationalization Act No. 46-628 of April 8, 1946, the Gas and Electricity Markets and the Public Service of Energy Act No. 2003-8 of January 3, 2003, the Public Service of Electricity, Gas and Electrical and Gas Companies Act No. 2004-803 of August 9, 2004;
- study, design and implement all projects and all public or private works on behalf of all local authorities and individuals; prepare and enter into all agreements, contracts and transactions related to the implementation of the said projects and works;
- participate directly or indirectly in all operations or activities of any kind that may be connected to one of the aforementioned objects or that are likely to further the development of the company's assets, including research and engineering activities, by setting up new companies or undertakings, by contribution, subscription or purchase of securities or rights with respect to entities, by acquiring interests or holdings, in any form whatsoever, in all existing or future undertakings or companies, via mergers, partnerships or any other form;
- create, acquire, rent, take in lease management all property, real estate and businesses, rent, install and operate all establishments, businesses, plants or workshops connected with one of the aforementioned objects;
- 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, to the evacuation and purification of waste water, to drainage and wastewater treatment operations, to irrigation and transport, to protection and pondage structures as well as to 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.

7.1.2 Corporate governance bodies

Regarding the composition and operation of corporate governance bodies, see Section 4.1 "Corporate Governance".

Board of Directors

ENGIE is managed by a Board of Directors.

The Board has an Internal Regulations document that specifies its operating procedures.

The Board's Internal Regulations and the Directors' Charter are intended for every Director, every permanent representative of a member of the Board that is a legal entity, the representative of the Central Works Council or the body acting in lieu thereof, the Government Commissioner and, more generally, any person taking part in or attending Board meetings, either on a one-time basis or at every meeting.

Appointment of Directors (Article 13 of the bylaws)

The Company is managed by a Board of Directors comprising no more than twenty-two members, in accordance with Articles L. 225-17, L. 225-23 and L. 225-27 of the French Commercial Code.

Directors are appointed by the General Shareholders' Meeting, subject to special rules applicable to Directors proposed by or representing the French State, Directors representing employees and the Director representing employee shareholders.

Directors proposed by and representing the French State are appointed in accordance with Articles 4 and 6 of Ordinance No. 2014-948 of August 20, 2014 concerning governance and equity operations of compagnies with a public shareholder. Directors representing employees and the Director representing employee shareholders are appointed in accordance with Articles L. 225-27 et seq. and L. 225-23 of the French Commercial Code and the bylaws.

Under Article 4 of the Ordinance, the State may appoint a representative to the governing bodies of companies in which it holds over 10% of the share capital. In addition, Article 6 of the Ordinance provides that one or more seats on the Board of Directors, in a number proportionate to its shareholding, are reserved for members proposed by the State.

Rights and responsibilities of the Directors (Director's Charter)

The Board represents all shareholders, regardless of its composition and the origin of its members.

Directors must act at all times in the Company's corporate interest. They must carry out their duties independently, fairly and professionally. They must seek, in all circumstances, to maintain their independence of analysis, judgment, decision and action. They must refrain from being influenced by any information that is not related to the Company's interest and must warn the Board of any information of which they become aware that seems to them likely to affect the Company's interests.

Directors have an obligation of absolute confidentiality with regard to the information provided to them within the framework of their duties or discussed at Board meetings. They undertake to maintain the confidentiality of any disclosed information. In particular, the discussions themselves, the minutes recording the terms of such discussions and the reports and documents sent to the Board are confidential and may not be circulated. In the event of a proven breach of a confidentiality obligation by one of the Directors, the Chairman of the Board shall consider the action to be taken, possibly before the courts, with regard to such breach.

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. They must attend Shareholders' Meetings.

They must seek to obtain the information they consider essential in order to deliberate on the Board with full knowledge of the facts within suitable time limits and must seek to update the knowledge that they deem to be useful and may request that the Company provide them with the training they need to perform their duties properly.

Directors contribute to the collegial administration and efficacy of the proceedings of the Board and of any specialized committees set up within the Board. They make recommendations that they feel may improve the operating procedures of the Board, particularly during the Board's periodic evaluation.

They agree, along with the other members of the Board of Directors, to ensure that their supervisory duties are accomplished with efficiency and without any obstacles. In particular, they shall ensure that procedures are put in place in the Company to verify compliance with laws and regulations, both in letter and in spirit.

They ensure that the positions adopted by the Board, in particular relating to the approval of the financial statements, the budget, resolutions to be put to the Annual Shareholders' Meeting as well as to important matters relating to the companies' operations, are the subject of formal decisions that are properly substantiated and recorded in the minutes of the Board's meetings.

The rights and responsibilities of the Directors are described in detail in the Directors' Charter appended to the Internal Regulations of the Board of Directors and published in full on the Group's website.

Term of office of Directors (Article 13 of the bylaws)

All Directors serve a four-year term. The terms of office of Directors elected by the General Shareholders' Meeting 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 replacement of Directors appointed by the General Shareholders' Meeting whose positions have become vacant during the term of office, due to death or the resignation of one or more Directors' seats, 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.

Chairman and Vice-Chairmen (Article 16 of the bylaws)

The Board of Directors elects a chairman and one or more vice-chairmen from among its members.

If he or she is unable to serve, the Chairman is replaced, pursuant to Article 16 of the bylaws and 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 a Director chosen by the Board at the beginning of the meeting.

Directors representing employees and employee shareholders (Article 13 of the bylaws)

The Directors representing the employees and employee shareholders have the same status, powers and responsibilities as the other Directors.

The terms of office of Directors elected by employees expire either at the end of the Ordinary Shareholders' Meeting called to approve the financial statements for the previous year and held after the announcement of the results of the election organized by the Company under the conditions set out in Article 13.3.1 of the bylaws, or in the event of the termination of their employment contract or in the event of removal from office under the terms provided for in the applicable law or regulations or for other reasons provided for by law for Directors appointed by the Shareholders' Meeting.

In the event of a vacancy of a seat of a Director elected by the employees, the vacant seat is filled pursuant to the provisions of Article L. 225-34 of the French Commercial Code.

With the exception of the rules relating to co-optation, which do not apply to him/her, the termination of office of a Director representing employee shareholders shall be subject to the same rules as those applicable to other Directors. Moreover, his/her term of office shall end automatically in the event of loss of (i) his/her capacity as employee of the company or companies or consortia affiliated to it within the meaning of Article L. 225-180 of the French Commercial Code or (ii) his/her capacity as shareholder of the Company, individually or via a company mutual fund, unless, in the latter case, he/she brings his/her situation into compliance within a three-months period.

In the event of the vacancy, for any reason, of the seat of a Director representing employee shareholders, the candidates to replace such a Director shall be appointed in accordance with Article 13.3 of the bylaws at the latest prior to the next Shareholders' Meeting or, if that meeting is held less than four months after the position has become vacant, then prior to the next Shareholders' Meeting after that. The Board of Directors may validly meet and deliberate up to the date of such an appointment.

Government Commissioner (Article 18 of the bylaws)

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 its committees in an advisory capacity and may present his/her observations to any Shareholders' Meeting.

General Management (Articles 16 and 17 of the bylaws)

Subject to the powers expressly granted by law to Shareholders' Meetings, powers that it grants specifically to the Board of Directors and within the scope of the Company's corporate purpose, as well as those mentioned in Articles 13 to 15 of Act No. 2004-803 of August 9, 2004, either the Chairman of the Board of Directors or another natural person appointed by the Board of Directors and holding the title of Chief Executive Officer shall be responsible for the general management of the Company.

ENGIE has chosen to separate the functions of Chairman of the Board of Directors and Chief Executive Officer.

The Chairman of the Board of Directors organizes and directs the work of the Board, and reports on this to the General Shareholders' Meeting. He/she ensures the smooth running of the Company's corporate bodies and in particular sees that the Directors are able to perform their duties.

The Chief Executive Officer is vested with the broadest powers to act in the Company's name in all circumstances. He/she exercises his/her powers within the scope of the Company's corporate purpose and subject to the powers expressly granted by law to Shareholders' Meetings and to the Board of Directors.

Information on General Management is provided in Sections 4.1.3 "General Management" and Section 4.1. "Board of Directors' report on corporate governance".

Decisions of the Board of Directors (Article 14 of the bylaws)

The Board meets when it is convened by the Chairman of the Board of Directors, who sets the meeting's venue and agenda. Any Director who wishes to discuss any matter with the Board that is not on the agenda must notify the Chairman prior to the meeting; the Chairman is then responsible for informing the Board.

When the Board of Directors has not met for over two months, at least one-third of the members of the Board may request that the Chairman call a meeting on a specific agenda.

The Chairman may take the initiative of organizing meetings of the Board of Directors by videoconference, by web conference, or by any other means of telecommunication, within the limits and subject to the conditions set under the current law and regulations and, where applicable, the Internal Regulations.

Resolutions of the Board of Directors are adopted under the conditions of quorum and majority provided by law. In the event of a tie, the meeting Chairman shall have the casting vote.

Regulated agreements (Article 19 of the bylaws)

Any agreement made directly or through an intermediary between ENGIE and a member of the Board of Directors, its Chief Executive Officer, its Deputy Chief Executive Officer or a shareholder holding more than 10% of the voting rights, or if the shareholder is a company, the company controlling it within the meaning of Article L. 233-3 of the French Commercial Code, must be submitted to the Board of Directors for prior approval. This authorization is also required for agreements involving ENGIE in which one of the persons mentioned in the preceding paragraph is indirectly involved, and to agreements between ENGIE and another company, if one of the Directors, the Chief Executive Officer or one of the Deputy Chief Executive Officers of the company is an owner, partner with unlimited liability, legal manager, Director, member of the Supervisory Board or, in general, a manager of the company concerned.

Without prejudice to the formalities of prior authorization and control laid down by law and the bylaws, the Company's Directors must promptly disclose to the Chairman any agreement entered into by the Company and in which they are directly or indirectly involved.

The above provisions shall not apply to agreements relating to current transactions concluded under normal conditions, nor to the agreements between two companies of which one directly or indirectly holds all of the capital of the other minus, where applicable, the minimum number of shares required to satisfy the requirements of Article 1832 of the French Civil Code or Articles L. 225-1 and L. 226-1 of the French Commercial Code.

Compensation of Directors (Article 13.5 of the bylaws)

The General Shareholders' Meeting determines the annual amount of directors' attendance fees allocated to the Board of Directors which, on the recommendation of the Appointments, Compensation and Governance Committee, allocates said compensation between its members by deduction from the annual budget for directors' attendance fees.

The Company reimburses Directors for expenses incurred in the performance of their duties upon presentation of substantiating documents.

7.1.3 Rights, privileges and restrictions attached to shares

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. 225-123 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.

The provisions of Article 26.2 were applied for the first time to the payment of the dividend to be distributed for the year ended December 31, 2016, determined by the 2017 Annual Shareholders’ Meeting.

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 5.2.4 “Golden share”).

In accordance with the French Energy Code and Act No. 2014-384 of March 29, 2014, the French State is required to hold a minimum equity stake or minimum number of voting rights (see Section 5.1.1.3 “Voting rights”).

7.1.4 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 5.2.4 “Golden share”).

In accordance with the applicable law and regulations, any amendment of the bylaws that defines the rights attached to ENGIE shares 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.

7.1.5 Shareholders’ Meetings

Notice to attend Meetings (Articles 20, 21 and 22 of the bylaws)

Ordinary and Extraordinary 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, the Deputy Chief Executive Officer if he or she is also director, or, in the absence of the 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).

7.1.6 Provisions relating to the disclosure of interests

Duty of disclosure upon crossing thresholds (Article 9 of the bylaws)

In addition to the thresholds provided for under Article L. 233-7 of the French Commercial Code, any natural person or legal entity acting alone or in concert, who happens to hold a share of the capital, voting rights or securities, directly or indirectly, that may be converted in the future to capital of the Company – equal or in excess of 0.5% – must inform the Company thereof by recorded delivery letter with acknowledgment of receipt, within five (5) trading days of crossing the said 0.5% threshold, by specifying his/her/its identity, as well as that of the natural persons or legal entities acting in concert therewith, and by specifying the total number of shares, voting rights or share equivalents providing future access to capital that he/she/it owns directly or indirectly or else in concert. This duty of disclosure relates also to the possession of each additional share of 0.5% of the capital or voting rights or share equivalents providing future access to the capital of the Company. It is noted that thresholds to be declared under this paragraph shall be determined pursuant to the provisions of Articles L. 233-7 and L. 233-9 of the French Commercial Code and current regulations. This same duty of disclosure applies in accordance with the same time limits in the event of crossing under the 0.5% threshold or a multiple thereof.

The intermediary registered as a holder of shares pursuant to the seventh paragraph of Article L. 228-1 of the French Commercial Code is bound, without prejudice to the obligations of shareholders, to make the declarations provided for in this article, for all shares for which he/she/it is registered in account.

Pursuant to the provisions of Article L. 233-7 of the French Commercial Code, in the event of any breach of the foregoing provisions, one or more shareholders holding more than 0.5% of the capital or voting rights may request that the penalties provided for in the first two paragraphs of Article L. 233-14 of the French Commercial Code be applied.

Identification of bearer securities (Article 9 of the bylaws)

In order to identify bearer securities, the Company may, in accordance with the law and regulations and subject to the penalties provided for under the French Commercial Code, ask the central depository that manages the issue account of its securities for information that allows identification of holders of Company securities that grant, immediately or in the future, the right to vote at its Shareholders' Meetings and, in particular, the quantity of securities held by each of them.

If they are registered securities that may be converted immediately or in the future to capital, the intermediary registered in accordance with the conditions provided for under the French Commercial Code must reveal the identity of the owners of the said securities on simple request from the Company or its agent, which may be presented at any time.

The breach by holders of securities or intermediaries of their duty to disclose the information provided for above may, in accordance with the conditions provided for by law, entail the suspension or loss of voting rights and the right to the payment of dividends attached to the shares.

7.1.7 Changes in share capital

The share capital may be increased, reduced or amortized in accordance with the conditions provided for by law, subject to the special provisions relating to the French State's stake and its golden share pursuant to Article 6 of the bylaws (see also Section 7.1.3 "Rights, privileges and restrictions attached to shares").

7.2 Material contracts

The Group's main contracts, other than contracts concluded in the ordinary course of business, are as follows:

Contracts finalized in 2017

- Contract for the sale of a merchant power plant portfolio in the United States - see the 2017 Registration Document Section 6.2 Consolidated financial statements note 4.2.1.

Contracts in progress at the end of fiscal year 2017 and finalized in 2018

- Neptune Energy Exploration-Production Divestiture Agreement - see Section 6.2 Consolidated Financial Statements note 5.1.2
- Liquefied Natural Gas Business Transaction Agreement to Total - see Section 6.2 Consolidated Financial Statements note 5.1.4

Contracts in progress at the end of fiscal year 2018

- Contract for the sale of ENGIE's stake in Glow in Thailand to Global Power Synergy Public Company Ltd. - see Section 6.2 Consolidated financial statements note 5.2.1.

Contracts signed post-closing 2018

- Nothingness.

Borrowings and financing transactions

- See Section 6.4 Parent company financial statements notes 11 - 11.2.1 & 11.2.2 and Section 6.2 Consolidated financial statements notes 17.3 and 19.2

7.3 Litigation, arbitration and investigative procedures

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 28, Section 6.2 “Consolidated financial statements” and Note 19, Section 6.4 “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 Registration Document and those relating to each of the two years prior to the filing of this Registration Document) may be consulted at the corporate headquarters for as long as this 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 (amf-france.org).

The ENGIE Registration Document is translated into English. In case of contracdiction, the original French version shall prevail.

In addition to this Registration Document filed with the AMF, the Group publishes an integrated report annually.

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 Registration Document

7.5.1 Party responsible for the Registration Document

Isabelle Kocher, Chief Executive Officer.

7.5.2 Declaration by the party responsible for the Registration Document containing the Annual Financial Report

"I hereby certify, after having taken all reasonable measures to this effect, that the information contained in this 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 Appendix B of this 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.

I have received a completion letter from the Statutory Auditors stating that they have audited the information relating to the financial position and financial statements contained in this Registration Document, which they have read in its entirety. This letter contains no comments."

Courbevoie, March 20, 2019

The Chief Executive Officer

Isabelle Kocher

Appendix

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.

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

Short forms and acronyms

ACP	Autorité de Contrôle Prudentiel des établissements bancaires (French prudential control authority for banking institutions)
AGM	Combined Shareholders' Meeting
AMF	Autorité des marchés financiers (French Financial Markets Authority)
BtoB	Business to Business
BtoC	Business to Consumer
BtoT	Business to Territories
BU	Business Unit
Capex	Capital expenditure
CER	Certified Emission Reduction – see Glossary
CNIL	Commission Nationale de l'Informatique et des Libertés (French national data protection and privacy commission)
CO_2	Carbon dioxide
CRE	Commission de Régulation de l'Énergie (French energy regulator) – see Glossary
CSR	Corporate Social Responsibility
DBSO	Design, Build, Sell Operate - see Glossary
DBpSO	Design, Build, partial Sell, Opertae
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EGI	Electric and Gas Industries – see Glossary
EM	Entities consolidated by the equity method
EMAS	Eco Management and Audit Scheme – see Glossary
EMTN	Euro Medium Term Notes
E&P	Exploration & Production of hydrocarbon
ERM	Enterprise Risk Management
EU	European Union
EWC	European Works Council
FC	Full Consolidation
FM	Facility management - see Glossary
FSRU	Floating LNG storage and regasification unit
GES	Gas Exchange Point Greenhouse Gas – see Glossary
GIE	Groupement d'intérêt économique – Economic Interest Group (EIG)
HR	Human Resources
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
ISO	International Organization for Standardization – see Glossary
ISP	Investment Services Provider – see Glossary
LNG	Liquefied Natural Gas – see Glossary
LPG	Liquefied Petroleum Gas – see Glossary
NGO	Non-governmental organization
NGV	Natural Gas Vehicle – see Glossary
NOx	Nitrogen oxide
NRE	New and renewable energy sources: wind, solar, hydro, etc.
OECD	Organization for Economic Cooperation and Development
Opex	Operating expenses
PC	Proportional Consolidation
PEG	Plan d'Épargne Groupe, Group Employee Savings Plan
PPA	Power Purchase Agreement (often long-term)

RAB	Regulated Asset Base – see Glossary
R&D	Research and Development
ROCE	Return on capital employed
ROE	Return on equity
SME	Small and medium-sized enterprises
SO2	Sulfur dioxide
SRV	Shuttle Regasification Vessel (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).
TMO	Taux mensuel obligataire – a monthly bond yield measured on the basis of the gross yield-to-maturity on fixed-rate bonds with at least 7 years to maturity issued on the French market in a given month.
TPA-d	Third Party Access to the distribution network – see Glossary
TSR	Total Shareholder Return – see Glossary
UCITS	Undertakings for Collective Investment in Transferable Securities (mutual funds)
VaR	Value at Risk – see Glossary
VPP	Virtual Power Plant – see Glossary

Glossary

Afep-Medef Code	Code of corporate governance for listed companies (in France), in the version published by Afep-Medef in November 2015
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 and wastewater treatment plants. 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. Part of these stocks 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.
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 cycle plant	A power plant comprising a gas turbine generator whose exhaust gases power a steam boiler. The steam produced in the boiler drives a turbo-generator.
Commission de Régulation de l'Électricité et du Gaz – CREG (Belgium)	The Belgian Gas and Electricity Regulation Commission is an independent body that advises public authorities on the organization and operation of the deregulated electricity and gas markets. CREG also monitors and supervises the enforcement of related laws and regulations. A General Council, composed of federal and regional government representatives, representatives of labor organizations, employers and the middle classes, environmental associations and producers, distributors and consumers, supervises this body's operations.
Commission de Régulation de l'Énergie – (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.
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 and financial charges).
DBSO	Project development process whereby the Group takes charge of design, construction, wind and operation. It can be complicated for the developer to get the operation if he sells all the assets; we talk about DBpSO with a pS for partial Sell
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 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	Trading of physical or financial contracts on the short-term energy markets (over-the-counter markets and stock exchanges).
Exploration	All methods put to use to discover new hydrocarbon deposits.
Facilities Management	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.
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.
Investment Services Provider (ISP)	Investment services provider approved by the Committee of European Bank Supervisors to transmit and process market orders.
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.
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 (International Standards Organization)	Organization that defines reference systems (industrial standards used as benchmarks).
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.
Liquefied Petroleum Gas (LPG)	Light hydrocarbons that are gaseous under normal temperature and pressure conditions and maintained in a liquid state by raising the pressure or lowering the temperature.
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.
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 licensors	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.
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 and financial costs).
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	The recognized right of each user (eligible customer, distributor, producer) to access a transmission or distribution network in return for payment for access rights.
Well head	All the connections, valves, pipes, manometers, thermometers, etc. installed at the production well top.
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 structures consisting of high-pressure pipes. They convey 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. They 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.
Value at Risk (VaR)	Value-at-Risk is a global indicator that measures the portfolio's exposure to risks of price fluctuations and market volatility. It indicates maximum potential loss that should only be exceeded with a given probability over a given time horizon. This indicator is especially well-suited for measuring market risks for trading activities. For example, for a one-day time horizon and 99% confidence interval, a VaR of €5 million indicates that there is a 1% probability of losing more than €5 million a day, i.e. two to three times a year.
Virtual Power Plant (VPP)	Virtual production capacity. This is a system that makes a production capacity band available to a third party, in exchange for remuneration, without the third party owning a share in an asset or being the asset operator.
Working volume	Gas available in underground storage and capable of being tapped.

Comparison Tables

Comparison table with Regulation (EC) 809/2004

This Registration Document includes all the items required by Appendix 1 of Regulation (EC) 809/2004, as presented in the table below:

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Information relating to the management report

This Registration Document includes all items of the management report that are required under current laws and regulations (article L. 225-100-1 of the French Commercial Code).

The following table presents items from the ENGIE Management Report as at December 31, 2018:

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L. 233-6, para. 1 of the French Commercial Code	Significant equity stakes over the fiscal year in companies with their head office in France	6.2	Consolidated financial statements – Note 5 (Main changes in Group structure)	241
R. 225-102 of the French CommercialCode	Table showing the Company's results for each of the last five fiscal years	6.4.4.	Five-year financial summary of the Company	391
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L. 225-102, para. 2 of the French Commercial Code	Equity acquired by employees in an employee buyout	N/A		
R. 228-90 and R. 228-91 of the French Commercial Code	Any adjustments for share equivalents in the event of share buybacks or financial transactions	N/A		
III – Legal and tax information				
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L. 225-185, para. 4 of the French Commercial Code	In the event that stock options are awarded, details of information upon which the Board of Directors based their decision: ▪ either to prohibit Directors from exercising their options before leaving office; or ▪ or to oblige them to hold all or part of the shares resulting from options already exercised until they leave office.	4.1.4.5.1	Availability of performance shares	161

Legislative or regulatory reference	Items required	Section of the Registration Document		Page
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Information relating to the Annual Financial Report

This Registration Document includes all items of the Annual Financial Report, as mentioned in Articles L. 451-1-2 of the French Monetary and Financial Code and as required by Article 222-3 of the AMF's General Regulations.

The following table summarizes items in the Annual Financial Report:

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