

c Utilities & Power Generators

Accounting Metric

Topic	Measurement	2023 excl Equans	2022 excl Equans	2021 excl Equans	SASB Code	ENGIE reference	
Greenhouse Gas Emissions & Energy Resource Planning	Total direct GHG Emissions - Scope 1 (t CO2 eq.)	24 496 514	29 943 790	36 703 290		For the ENGIE direct GHG emissions, see section 3.5.4.1 (page 111) of the 2023 Universal Registration Document available in the ENGIE website	
	<i>Comment : As of today, the Group does not disclose all seven GHGs substances specified by the SASB protocol. The Group discloses only CH4 emissions. The Group could disclose nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3) if applicable in the future, even these GHGs do not have a material contribution. The Group reports and records all GHGs when calculating its global emissions converted into CO2 equivalent. Note that the 2023, 2022 and 2021 emissions are given excluding EQUANS.</i>						
	Gross global Scope 1 GHG emissions covered under an emissions limiting regulation or programme (%)	98%	98%	98%		For the ENGIE 2030 objective linked to production energy and related to methane leaks, see section 1.5.2 (page 18) of the 2023 Universal Registration Document available in the ENGIE website.	
	<i>Comments:</i> - Scope 1 GHG emissions from energy production - i.e. approximately 94% of the Group's total scope 1 GHG emissions - are subject to a reduction program with a 2030 target that is communicated on the total of direct (scope 1) and indirect (scope 3) emissions from energy production and which has been set at 43 Mt CO2 eq. - Scope 1 methane emissions - representing approximately 4% of the Group's total scope 1 GHG emissions - are subject to reduction programs at the level of the subsidiaries concerned, mainly the gas transmission and distribution subsidiaries (GRTgaz and GRDF) in France. In 2023, the Group has set a global objective of reducing its methane emissions by 30% between 2017 and 2030.						
	Gross global Scope 1 GHG emissions covered under emissions reporting-based regulations (%)	100%	100%	100%		For the methodological elements for calculating GHG emissions, see section 3.5.3 (pages 108 to 110) of the 2023 Universal Registration Document available in the ENGIE website	
	<i>Comment : 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.</i>						
	Greenhouse gas (GHG) emissions associated with power deliveries (t CO2 eq)		Scope 1 : 22 243 521 Scope 3 : 29 969 276 Total : 52 212 797	Scope 1 : 27 918 015 Scope 3 : 32 184 853 Total : 60 102 868	Scope 1 : 34 376 035 Scope 3 : 31 465 816 Total : 65 841 851		For the ENGIE GHG emissions of energy production, see section 3.5.4.1 of the 2023 Universal Registration Document (page 111) available on the ENGIE website. Note that all emissions are given excluding EQUANS.
	Indirect emissions related to energy ("Scope 2") (t CO2 eq)	654 073	850 154	552 962		IF-EU-110a.2	
	of which indirect emissions related to power consumption (t CO2 eq)	584 526	749 362	543 973			
	Other indirect GHG emissions ("Scope 3") (t CO2 eq)	133 337 361	144 543 263	122 622 236			
of which upstream fuel chain GHG emissions (not included in the "direct GHG emissions" and "indirect energy-related GHG emissions" categories) (t CO2 eq)	41 451 946	42 168 536	17 796 478				
Discussion of the long and short-term strategy to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Engie has formalised a low carbon strategy applicable to its business areas in order to mitigate all risks associated with the effects of climate change. Having set reduction targets enables Engie to assess its				IF-EU-110a.3	See the presentation of ENGIE's climate strategy on pages 32 & 33 of the 2024 Integrated Report and for more details, the 2024 Climate & TCFD notebook in appendix, both available on ENGIE website.	
Number of customers served in markets subject to renewable portfolio standards (RPS) and percentage fulfilment of RPs target by market (%)	These indicators are not calculated considering Engie's actual geographical coverage and corresponding European regulation. Nevertheless the Group set an objective to grow renewable capacity with 2nd generation advanced technologies such as offshore wind, green gas and geothermal. The Group thus has a target of 58% renewable electricity capacity by 2030 and displays a current rate of 41% in 2023. This objective corresponds to a target of 80 GW of renewable electricity capacity in 2030 (and 50 GW by 2025) for 42 GW at the end of 2023.				IF-EU-110a.4	See the 1.5.2 section in the Universal Registration Document (p.18)	
Renewable installed capacities (GW @100%)	42	38	34				
Share of renewable resources in installed capacity (% @100%)	41%	38%	34%				
Air quality	NO_x emissions (t)	27 037	34 197	49 819		See section 3.5.4.7 of ENGIE's 2023 Universal Registration Document (page 1114) available on the ENGIE website. Note that all emissions are given excluding EQUANS.	
	<i>Comment : The SASB protocol requires data to be disclosed excluding NO2 however this distinction is currently not achieved for the Group as it is not specified in French applicable regulations.</i>						
	SO2 emissions (t)	3396	7 418	106 028			
	<i>Comment : The Group discloses quantities of SO2, which are calculated locally on the basis of measurements. Where it is not possible to measure these emissions, a standard emission factor based on fuel consumption is used to propose an estimation. This emission factor is taken from the standards of the US Environmental Protection Agency (USEPA).</i>						
	Fine particule emissions - PM10 and PM2,5 (t)	2 832	3 398	5 820			
Lead (Pb)	The Group measures and collects the Plomb data locally, but does not publish centralized data because they are not material, given the Group's activities, especially with the decarbonation of its activities.				IF-EU-120a.1		
Mercury (Hg) (t)	0.104	0.139	0,347				

		<p>The Group does not calculate the percentage of atmospheric pollutants from facilities located in or near areas of dense population. All air pollutants are measured regardless of the location of the emitting facility and the regulatory requirements. The sites comply with the emission limit values defined with the local authorities (values of the operating permit).</p> <p>In 2021 Engie announced its ambition to further reduce its carbon footprint by totally exiting coal activities in continental Europe by 2025 and in the rest of the world by 2027 at last. In 2023 coal represented less than 3% of global ENGIE power generation capacity.</p> <p>ENGIE also announced in May 2021 that the Group aims to reach net zero carbon by 2045, following a "well-below 2°C" trajectory which has been certified by SBTi in February 2023. In 2023, Engie has published emission reduction targets of -75% for NOx, -98% for SOx and -60% for particulate matter by 2030 vs 2017.</p>	
Percentage of atmospheric pollutants from facilities located in or near areas of dense population			
Water Management			
Total water withdrawn (thousands of cubic meters)	6 065 000	6 873 000	7 655 000
Total fresh water withdrawn (Mm3)	1 773 Mm3	1 658 Mm3	2 406 Mm3
Total non-fresh water withdrawn (Mm3)	4 292 Mm3	5 215 Mm3	5 249 Mm3
Total water discharged (thousands of cubic meters)	6 002 000	6 794 000	7 558 000
Total fresh water discharged (Mm3)	1 726 Mm3	1 603 Mm3	2 340 Mm3
Total non-fresh water discharged (Mm3)	4 276 Mm3	5 191 Mm3	5 218 Mm3
Total water consumed (thousands of cubic meters)	62 000	80 000	96 000
Total consumption (Mm3)	62 Mm3	80 Mm3	96 Mm3
			See Section 3.5.4.5 of the 2023 Universal Registration Document (page 113) available on the ENGIE website. Note that all figures are given excluding EQUANS.
Percentage total water withdrawn and total water consumed in regions with High or Extremely High Baseline Water Stress (%)			
			IF-EU-140a.1
% of sites located in areas of extreme water stress	7,0%	4,0%	4,7%
			See Nature NoteBook p. 106 of the 2024 Integrated Report (available on Engie website).
Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations			
Environmental complaints and convictions	4 complaints and 0 conviction	20 complaints and 1 conviction	13 complaints and 2 convictions
			See Section 3.5.4.9 of the 2023 Universal Registration Document (page 115). Note that emissions are given excluding EQUANS.
			IF-EU-140a.2
			See Section 3.5.4.9 of the 2022 Universal Registration Document (pages 126 and 127).
Description of water management risks and discussion of strategies and practices to mitigate those risks			
			IF-EU-140a.3
Coal Ash Management			
Amount of coal combustion residuals generated (metric tons) and percentage of coal combustion residuals recycled (%)			
Fly ash, reflows (t)	84 857	660 169	1 669 050
Ash, bottom ash (t)	220 895	513 615	702 689
Total quantity of hazardous waste and by-products recovered (t)	6 537	4 926	5 180
			See Section 3.5.4.6 of the 2023 Universal Registration Document (page 114) available in the publications section of the ENGIE website. Note that emissions are given excluding EQUANS.
			IF-EU-150a.1
Total number of coal combustion residual impoundments, broken down by hazard potential classification and structural integrity assessment			
			IF-EU-150a.2
Energy Affordability			
Average retail electric rate for residential, commercial, and industrial customers			
			IF-EU-240a.1
Typical monthly electric bill for residential customers for 500 kWh and 1,000 kWh of electricity delivered per month			
			IF-EU-240a.2
Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days			
			IF-EU-240a.3
			See the 2024 integrated report (page 105) available in the publications section of the ENGIE website.
Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory			
			IF-EU-240a.4

Workforce Health & Safety

Total recordable incident rate (TRIR)

<i>Lost-time injury frequency rate of employees (per one million hours worked)</i>	2,1	2,3	2,8
<i>Lost-time injury frequency rate of employees and contractors (per one million hours worked)</i>	1,8	2,0	2,5
<i>Lost-time injury severity rate of employees</i>	0,07	0,06	0,05

ENGIE does not report on this specific indicator however discloses other H&S-related key indicators such as the Group's lost-time injury frequency rate and lost-time injury severity rate for employees and contractors which are the same indicators limited to lost-time incidents. These data correspond to all of the Group's activities, which include very different activities in terms of risk exposure. Publication of these results by type of activity (in particular electricity production activity) should be considered in the future.

See section 3.4.6.7 of the 2023 Universal Registration Document available in the Publications section of the ENGIE website.
Note that data are given excluding EQUANS.

Fatality rate

<i>Number of fatal accidents of employees</i>	2	0	2
<i>Number of fatal accidents of employees and contractors</i>	6	4	13

ENGIE discloses this indicator for the total scope of the Group's activities, distinguishing between employees and subcontractors, but not by activity. Publication of these results by type of activity (in particular electricity production activity) should be considered in the future.

ENGIE does not disclose quantitative information regarding near misses.

On the other hand, Engie has implemented for the first year in 2019 a new proactive indicator, the prevention rate which incorporates the number of events with high potential of severity (HiPo = near miss fatal accident).

ENGIE has deploy since 2010 a Health & Safety policy, which has been transformed in an international agreement approved by employees representatives. One of the key principle of this policy is the hierarchy of prevention. This consists of in order of priority:

- eliminating hazards at source,
- reducing the probability of the feared event's occurrence through preventive measures designed to limit exposure to risks to a level that complies with the optimisation principle ALARP – As Low As Reasonably Practicable,
- creating collective protection measures (e.g. integrated safety) to lessen the potential severity of the feared event,
- wearing personal protective equipment.

IF-EU-320a.1

Near miss frequency rate (NMFR)

Each BU sets out the Group's policy according to its particular situation.

This policy is declined each 5 years in an health and safety action plan which describe the quantitative and qualitative objectives, and main actions.
In addition, technical Groupe Rules (GR) have been established and implemented, for instance on Health & Safety risks management, on Health & Safety of subcontractors, on permit to work, on health at work, etc.

As part of its action plan to eradicate serious and fatal accidents, ENGIE 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, analyzing and treating, through corrective actions, situations and events with high-potential severity (HiPo) that are precursors to serious accidents. Also, operators are asked to stop working if safety conditions are not met (the "Stop the work" approach) and to engage in shared vigilance.

Fatality rate of people working for the Group

<i>After the years 2021 and 2022, which were marked by work-related deaths, ENGIE had audited its health</i>	0,019	0,014	0,045
--	-------	-------	-------

End-Use Efficiency & Demand

Percentage of electric utility revenues from rate structures that are decoupled and contain a lost revenue adjustment mechanism (LRAM)

Engie does not disclose these specific information regarding its revenues. However, as part of its zero-carbon strategy, Engie develops sophisticated global technical and digital offers with associated financing, in order to reduce overall energy consumption and improve the energy efficiency for all customers (in particular thermal comfort with the heating networks (hot and cold), lighting optimization, cities, etc.). A key example of this transformation is the Angers Loire Métropole consortium project that aims to create France's first "smart region". The aim is to use digital technologies to speed up the region's energy transition, enhance its appeal, optimise the way in which public services are structured and manage resources more efficiently, thus improving and facilitating the day-to-day lives of residents.

A key aspects in France and gradually in other European countries, is the system of energy saving certificates (ESC), which is a key policy instruments for controlling energy demand. Imposed by public authorities, Engie is obligated to achieve energy savings through solutions suitable for tertiary and proximity but also for cities and territories or industries. Initially mainly oriented towards the energy renovation of buildings, this regulatory contribution, accompanied by quantified objectives, acts as a trigger for the launch of works, especially with the most modest households and manufacturers.

IF-EU-420a.1

Percentage of electric load served by smart grid technology (%)

Engie has undergone a deep transformation on energy efficiency subjects by positioning itself in innovative activities such smart grids. Smart grid technology is therefore still in exploration phase and the Group is not yet disclosing any indicators reflecting its progress.

Nevertheless, in 2020 Engie continued to develop simulators with a focus on "on-grid" microgrids with islanding mode; production of a reliable, structured database of electrical charge profiles that will measure technical solutions for smart grids and microgrids. For example, the development programme on Lifou island (New Caledonia) aims to replace the diesel engines of the thermal power station with 100% renewable energy obtained from solar and wind plants. With a power of 5.4 MVA and a capacity of 5.06 MWh, the storage unit connected to the high-voltage distribution network allows to supply Lifou with green energy for several hours a day and to store the excess energy supplied.

IF-EU-420a.2

Customer electricity savings from efficiency measures, by market (MWh)

Several efficiency measures are publicly disclosed by Engie (for example energy efficiency tools and solutions proposed to customers), but these have not yet been quantitatively traduced. However specific indicators for major markets could be provided in the future.

Engie has also set an objective on customers' decarbonization : by 2030, the Group wants to reach 45 MtCO₂eq of emissions avoided each year by using ENGIE's products and services, in 2023 25 MtCO₂eq were avoided.

IF-EU-420a.3

Avoided GHG emissions for ENGIE clients by selected products and services (in Mt CO2 eq. avoided)

	25	28	27
--	----	----	----

Nuclear Safety & Emergency Management

See section 1.6.5 of the 2023 Universal Registration Document available in the Publications section on the ENGIE website

Total number of nuclear power units 5 7 7 IF-EU-540a.1

Description of efforts to manage nuclear safety and emergency preparedness IF-EU-540a.2

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. For instance, an integrated security management based on prevention, continuous improvement and the constant implementation of the best international standards and practices (protection of sensitive sites, Seveso III regulations, nuclear security plan 2016- 2020 has been formalised). In addition, dedicated action plans for the protection of industrial control systems to prevent the risk of interruptions to activities, or accidents due to cyberattacks are implemented. Following Belgium decision to withdraw progressively from nuclear power, ENGIE has announced that it will cease operating its 7 nuclear units between 2022 and 2025. Since then, ENGIE has been informed of the Belgian government's wish to extend the two most recent units (Doel 4 and Tihange 3) until 2035. On December 13, 2023, ENGIE and the Belgian government signed the final agreement on the extension of the Tihange 3 and Doel 4 nuclear reactors and all obligations related to nuclear waste.

Grid resiliency

Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations IF-EU-550a.1

Engie does not disclose this kind of information. Like others, the Group is continually exposed to new threats due to the use of new technologies, particularly the multiplication of connected objects, the development of industrial control systems, the spread of mobility tools, cloud computing, and the development of new uses, including social networks or data sciences. Cyber incidents such as crypto-viruses (ransomware), theft of personal or sensitive information, corruption of industrial control systems or compromised connections with customers or suppliers could lead to blockages, delays and/or additional costs in the management of services or production infrastructure, which could harm the Group's activities or reputation. The risk may increase as digitization expands.

In response, Engie continually adjusts its prevention, detection and protection measures for all of its information systems and critical data. The Group has a Global Security Operation Centre (SOC) in place that is operated worldwide with the assistance of Thales and strengthened controls for access to its internal and cloud platforms. To comply with applicable EU regulations (European Regulation 2016/679 on personal data protection, European Directive 2016/1148 on the security of networks and information systems), assessments are organized for the sites or applications concerned and some Group entities have taken steps to obtain ISO 27001 certification regarding the security of their information systems. Major attacks are managed by a specific cyber-incident response system and a cyber-crisis management system that relates to Group crisis management. In relation to its internal control policy and security policy, the organizational, functional, technical and legal security measures are subject to continuous controls that include testing (intrusion, social engineering, phishing, cyber crisis management, etc.) and campaigns to raise awareness.

System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI), and Customer Average Interruption Duration Index (CAIDI), inclusive of major event days IF-EU-550a.2

Engie, which operates transmission electricity networks in Chile, Peru and Brazil, still does not publish these indicators.

Activity Metric

Topic	Measurement	2022 excl Equans	2021 excl Equans	SASB Code	ENGIE reference
Number of residential, commercial, and industrial customers served				IF-EU-000.A	
Number of BtoC power contracts (thousands)		9,257	9,108	8,881	See the Data book for the presentation of the FY2023 accounts (slide 26) available in the publications section on the ENGIE website
Total electricity delivered (sold) to: residential, commercial, industrial, all other retail customers, and wholesale customers (MWh)				IF-EU-000.B	
Electricity volumes supplied to BtoB clients (TWh)		96,2	104,1	107,0	See the Data book for the presentation of the FY2023 accounts (slide 25 for B2C supply and slide 27 for B2B supply) available in the publications section on the ENGIE website
Electricity volumes supplied to BtoC clients (TWh)		37,2	40,0	41,5	
Length of transmission and distribution lines (km)					
Length of distribution networks (km)		258,512	255,394	267,594	IF-EU-000.C See the 2023 Universal Registration Document (page 23) available in the Publications section of the ENGIE website
Length of transmission networks (km)		39,629	39,504	39,360	
Total electricity generated (MWh)		385.500.000	421.500.000	420.220.000	IF-EU-000.D For 2023 (resp. 2022), see the slide 39 (resp. 44) of electricity production for each year broken down by fuel for the FY2023 (resp 2022) accounts data presentation available on the ENGIE website
<i>The production of electricity and its distribution are given here at 100%. ENGIE also publishes this data at the consolidation rate and at the holding rate.</i>					
Percentage by major energy source (% of total MWh generated)					
Hydro		18%	16%	16%	
Onshore wind		9%	7,7%	6,8%	
Offshore wind		1%	1,0%	0,4%	
Solar		3%	2,0%	1,5%	
Other renewables		0,2%	0,6%	0,6%	
Natural gas		57%	58%	58%	
Coal		3%	3,3%	4,6%	
Nuclear		8%	10%	11%	
Other non renewables		1,2%	1,4%	1,2%	
Total wholesale electricity purchased (TWh)					IF-EU-000.E
					The Group is essentially a producer of electricity that it sells to markets around the world. The Group also purchases electricity, but does not publish these purchases.