

SASB Disclosure

Background

Established in 2011, SASB aims to help corporates disclose the sustainability material issues and related metrics to investors in a standardized way. To this end SASB finalized in 2018 a complete set of standards for each of 77 industries.

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In 2022, Engie decided to perform a gap analysis to identify the company's compliance with relevant SASB standards. This document is the second SASB disclosure proposed by Engie. It responds to the most relevant standard, i.e. *Electric utilities and Power Generators*.

Methodology

Documentation reviewed

The following SASB disclosure has been produced based on:

- Public documents and data available on Engie's website (eg. 2023 Integrated report, Universal Registration Document 2022, FY accounts),
- The Electric Utilities & Power Generators Sustainability Accounting SASB Standard.

Methodology Process

Qualitative and quantitative comparisons between Engie's public information and data disclosure and the SASB standards has been performed.

Results of this analysis have been formalised in the following sheet of this document.

The corresponding information and / or data communicated is disclosed when relevant.

Additional information is provided if deemed necessary.

Electric Utilities & Power Generators

Accounting Metric

Topic	Measurement	2022 excl Equans	2021 excl Equans	2020 including Equans	SASB Code
Greenhouse Gas Emissions & Energy Resource Planning	Total direct GHG Emissions - Scope 1 (t CO2 eq.)	29 832 102	35 860 798	38 606 036	
	<i>Comment : As of today, the Group does not disclosed 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 2022 and 2021 emissions are given excluding EQUANS. The 2020 emissions are given including EQUANS.</i>				
	Gross global Scope 1 GHG emissions covered under an emissions limiting regulation or programme (%)	98%	98%	98%	
	<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%	IF-EU-110a.1
<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 : 27 917 242 Scope 3 : 31 626 021 Total : 59 543 263	Scope 1 : 33 697 812 Scope 3 : 31 465 816 Total : 65 163 628	Scope 1 : 36 394 644 Scope 3 : 31 150 692 Total : 67 545 336	
	Indirect emissions related to energy ("Scope 2") (t CO2 eq)	751 862	538 222	613 714	
	of which indirect emissions related to power consumption (t CO2 eq)	743 376	529 273	598 797	IF-EU-110a.2
	Other indirect GHG emissions ("Scope 3") (t CO2 eq)	143 705 796	122 487 530	124 240 115	
	of which upstream fuel chain GHG emissions (not included in the "direct GHG emissions" and "indirect energy-related GHG emissions" categories) (t CO2 eq)	41 978 623	17 765 961	19 343 594	

	<p>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 performance regarding its strategy, efficiently manage scope 1 emissions and accelerate GHG emissions reductions. In addition, Engie thrives to strengthen the Group's capacity in renewable energy.</p> <p>Over the past three years, the Group has undergone a profound transformation, focusing its development on four core businesses: renewable electricity generation (mainly solar and wind), flexible power generation to support the development of renewable energies and energy sales, energy infrastructure development with a focus on converting existing gas infrastructure to renewable gas, and the development of infrastructure and decentralized sustainable energy solutions in cities and industrial or tertiary sites. This transformation has enabled Engie to return to organic growth and establish itself as a global leader in competitive energy transition.</p> <p>The Group has published a new set of CSR objectives for 2030. In terms of GHG emission, the targets include the following:</p> <ul style="list-style-type: none"> - GHG emissions from electricity generation, regardless of the assets held (scopes 1 and 3), in line with the SBT trajectory, with a target of 43 million tons of CO2 eq. in 2030; - GHG emissions from use of sold products in line with the SBT trajectory, with a target of 52 million tons of CO2 eq. in 2030. <p>In 2020, the Group announced its total exit from coal in 2027 (and in 2025 for continental Europe) and was certified as compliant with a "2°C" trajectory by the SBT initiative. In 2021, the Group announced its objective to become Net Zero Emissions by 2045 and an emissions reduction target following a trajectory "well below 2°C" in the process of being certified by the SBT initiative. In 2022, the Group's Board of Directors decided to consult its General Meeting on the main lines of ENGIE's climate transition strategy. Shareholders voted 96.7% in favor of the "Say on Climate" resolution proposed by the Board, thus confirming the Group's strategy and commitments. In 2023, the Group was certified "well-below 2°C" by SBTi by committing to 3 targets:</p> <ul style="list-style-type: none"> - the carbon intensity of direct energy production (scope 1) and energy consumption (scope 2) with a target of 110 g CO2 per kWh (below the threshold set by SBTi for "well-below 2°C" certification) - the carbon intensity of energy sales produced (scopes 1 and 3) and purchased (scope 3) with a target of 153 g CO2 per kWh - GHG emissions from the purchase of products and services, capital goods and the rest of the energy and fuel activities (scopes 3.1, 3.2 and 3.3) with a target of 85 Mt CO2 eq. 			IF-EU-110a.3
Discussion of the long and short-term strategy to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets				
	<p>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 38% in 2022. This objective corresponds to a target of 80 GW of renewable electricity capacity in 2030 (and 50 GW by 2025) for 38 GW at the end of 2022.</p>			IF-EU-110a.4
Number of customers served in markets subject to renewable portfolio standards (RPS) and percentage fulfillment of RPs target by market (%)				
Renewable installed capacities (GW @100%)	38	34	31	
Share of renewable resources in installed capacity (% @100%)	38%	34%	31%	
Air quality				
NO_x emissions (t)	33 517	48 831	49 022	
<i>Comment : The SASB protocol requires data to be disclosed excluding N2O however this distinction is currently not achieved for the Group as it is not specified in French applicable regulations.</i>				
SO2 emissions (t)	7 418	105 984	119 584	
<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 particulate emissions - PM10 and PM2,5 (t)	3 398	5 693	6 312	
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)	0.049	0.194	0.305	

Percentage of atmospheric pollutants from facilities located in or near areas of dense population

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).

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 latest. In 2022 coal represented less than 3% of global ENGIE power generation capacity.

ENGIE also announced in May 2021 that the Group aims to reach net zero carbon by 2045, following a well-below 2° 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.

Water Management	Total water withdrawn (thousands of cubic meters)	6 873 000	7 651 000	7 283 000
	Total fresh water withdrawn (Mm3)	1 658 Mm³	2 402 Mm³	2 088 Mm³
	Total non-fresh water withdrawn (Mm3)	5 215 Mm³	5 249 Mm³	5 195 Mm³
	Total water discharged (thousands of cubic meters)	6 794 000	7 554 000	7 206 000
	Total fresh water discharged (Mm3)	1 603 Mm³	2 336 Mm³	2 039 Mm³
	Total non-fresh water discharged (Mm3)	5 191 Mm³	5 218 Mm³	5 167 Mm³
	Total water consumed (thousands of cubic meters)	80 000	97 000	77 000
Total consumption (Mm3)	80 Mm³	97 Mm³	77 Mm³	

Percentage total water withdrawn and total water consumed in regions with High or Extremely High Baseline Water Stress (%)

The Group has two water-related objectives: one involves the implementation of concerted local action plans for sites located in areas with extremely high and high water stress levels, and the other involves reducing water consumption ratio per energy produced across the Group. Each year, the water risk is assessed by using the Aqueduct tool (World Resource Institute). For sites located in extreme or high water stressed area, a local analysis is systematically done, and action plan is implemented where relevant. These action plans are based on the Alliance for Water Stewardship standards (site and watershed levels, with the operational, regulatory and reputational dimensions, by integrating stakeholders and local context).

% of sites located in areas of extreme water stress	4,0%	4,7%	5,9%
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Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations

Engie does not disclose this information but discloses a KPI on "Environment-related complaints", including water management complaints.

Environmental complaints and convictions	8 complaints and 1 conviction	11 complaints and 2 convictions	6 complaints and 2 convictions
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Description of water management risks and discussion of strategies and practices to mitigate those risks

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.

Coal Ash Management	Amount of coal combustion residuals generated (metric tons) and percentage of coal combustion residuals recycled (%)			
	Fly ash, reformed (t)	660 169	1 668 246	1 583 111
	Ash, bottom ash (t)	513 615	702 305	804 701
	Total quantity of hazardous waste and by products recovered (t)	4 926	4 933	11 511

Total number of coal combustion residual impoundments, broken down by hazard potential classification and structural integrity assessment

The Group does not communicate on this specific indicator. As previously mentioned, Engie has been implementing its coal-exit strategy (worldwide exit in 2027) in order to place the zero-carbon transition at the core of its economic model. The Group is focusing on an ambitious development of renewables, both in the generation of electricity and in the supply of thermal energy. The Group is therefore reducing its exposure to fossil fuels by withdrawing from activities associated with coal and natural gas deposits.

Energy Affordability

Average retail electric rate for residential, commercial, and industrial customers	This indicator is not yet disclosed.	IF-EU-240a.1
Typical monthly electric bill for residential customers for 500 kWh and 1,000 kWh of electricity delivered per month	These indicators are not disclosed by the Group. Indeed, this type of information is not relevant at Group level given Engie's worldwide activities and diversified customer portfolio. However, specific information from major markets may be added in the future.	IF-EU-240a.2
Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days		IF-EU-240a.3
Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	<p>One of Engie's key objective is to help build a sustainable future and to provide local authorities and businesses with clean, affordable, and resilient energy and supporting infrastructure. The Group has deployed diverse initiatives in this effort, such as the project Clean Cooking, which provides households in developing countries with a clean and affordable cooking option.</p> <p>Through its investments in companies developing decentralized energy production and distribution solutions (mainly solar) in developing countries, ENGIE has set itself the goal of providing access to affordable, reliable and clean energy for 30 million beneficiaries located at the bottom of the Pyramid (i.e. living on less than 2 US\$ per day) by 2030 vs 2018. In 2022, ENGIE has provided 9,5 millions of such beneficiaries mainly in Africa and India.</p> <p>At a time when prices are rising sharply, ENGIE is helping its individual customers by implementing the government's measures to freeze regulated rates in France and welcoming the customers of defaulting suppliers thanks to responsible pricing.</p> <p>Furthermore, the Group is striving to align its strategy with the Sustainable Development Goal (SDG) Agenda 2030, including SDG7 which aims to "ensure access to affordable, reliable, sustainable and modern energy for all".</p>	IF-EU-240a.4.

Workforce Health & Safety

Total recordable incident rate (TRIR)	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.		
<i>Lost-time injury frequency rate of employees (per one million hours worked)</i>	2.3	2.8	3.0
<i>Lost-time injury frequency rate of employees and contractors (per one million hours worked)</i>	2.0	2.5	2.7
<i>Los-time injury severity rate of employees</i>	0.06	0.09	0.11
Fatality rate	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.		
<i>Number of fatal accidents of employees</i>	0	2	3
<i>Number of fatal accidents of employees and contractors</i>	4	13	6

~~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

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.

After the years 2021 and 2022, which were marked by work-related deaths, ENGIE had audited its health and safety organization and had launched a vast health and safety transformation plan, ENGIE One Safety, defined in collaboration with its operating entities. The aim of this plan is to eradicate serious and fatal accidents affecting people ~~working for the Group, including employees, subcontractors and temporary workers~~

Near miss frequency rate (NMFR)

Prevention Rate : Number of events and situations with high potential of severity (HiPo), divided by the sum of the numbers of HiPos and occupational accidents with lost time

0.73	0.65	0.59
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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.

IF-EU-420a.1

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.

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

Topic	Measurement	2022 excl Equans	2021 excl Equans	2020 including Equans	SASB Code
Number of residential, commercial, and industrial customers served		Engie discloses only the number of electricity contracts for BtoC customers (individuals and small businesses) but with a distinction by geography.			IF-EU-000.A
Number of BtoC power contracts (thousands)		9,108	8,881	8,388	
Total electricity delivered (sold) to: residential, commercial, industrial, all other retail customers, and wholesale customers (MWh)		ENGIE does not disclose electricity sales according to this breakdown, but distinguishes between B2C customers (individuals or small businesses) and B2B customers (industrial, wholesale, etc.)			IF-EU-000.B
Electricity volumes supplied to BtoB clients (TWh)		107.4	107.0	111.2	
Electricity volumes supplied to BtoC clients (TWh)		40.0	41.5	33.7	
Length of transmission and distribution lines (km)					
Length of distribution networks (km)		255,394	267,594	254,294	IF-EU-000.C
Length of transmission networks (km)		39,504	39,360	39,352	
Total electricity generated (MWh)		421,500,000	420,220,000	388,853,000	IF-EU-000.D
<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		16%	16%	15%	
Onshore wind		7,7%	6,8%	6,1%	
Offshore wind		1,0%	0,4%	0%	
Solar		2,0%	1,5%	1,2%	
Other renewables		0,6%	0,6%	0,8%	
Natural gas		58%	58%	62%	
Coal		3,3%	4,6%	4,6%	
Nuclear		10%	11%	9%	
Other non renewables		1,4%	1,2%	0,7%	
Total wholesale electricity purchased (TWh)		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.			IF-EU-000.E