

ASSESSMENT

13 June 2023



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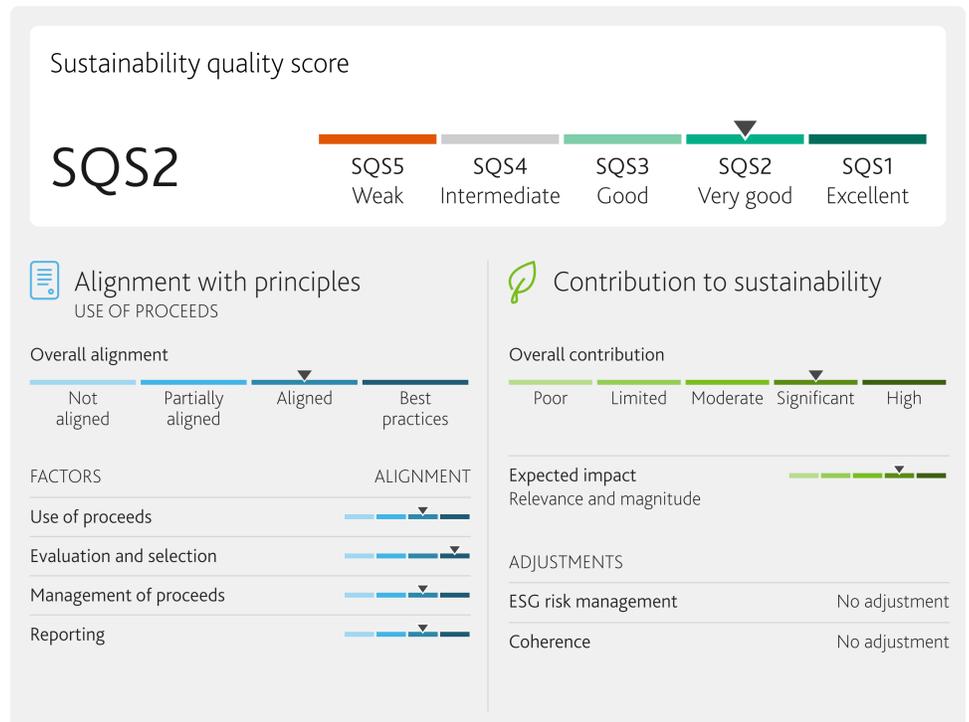
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Engie S.A.

Second Party Opinion – Green Financing Framework Assigned SQS2 Sustainability Quality Score

Summary

We have assigned an SQS2 Sustainability Quality Score (Very good) to Engie S.A.'s green financing framework dated June 13. The company has established its use-of-proceeds framework to finance projects across five eligible green categories. Engie has described the main characteristics of the sustainability bond within a formalized framework that is aligned with the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 (including the June 2022 Appendix 1) and the Loan Market Association, the Asia Pacific Loan Market Association and the Loan Syndications & Trading Association's (LMA/APLMA/LSTA) Green Loan Principles (GLP) 2023. The framework demonstrates a significant contribution to sustainability.



Scope

We have provided a Second Party Opinion (SPO) on the green credentials of Engie's green financing framework, including the framework's alignment with the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023. Under its framework, the company plans to finance projects across five green categories, as outlined in Appendix 2 of this report.

Our assessment is based on Engie's framework dated June 13, and our opinion reflects our point-in-time assessment of the details contained in this version of the framework, as well as other public and nonpublic information provided by the company.

We produced this SPO based on our [Framework to Provide Second Party Opinions on Sustainable Debt](#), published in October 2022.

Issuer profile

Headquartered in La Défense, France, Engie S.A. is the third-largest energy group (excluding oil) and the second largest in selling clean energy in the world. Along with all its subsidiaries, the company is engaged in the provision of electricity, natural gas and energy-related services. The company develops and commercializes thermal energy, hydropower, onshore and offshore wind power, solar power and heat generation services. Engie provides natural gas to 8.2 million French customers and four million customers benefit from an Engie green electricity offer.

As of 31 December 2022, the Government of France was the largest shareholder, holding 23.64% of the total share capital. Engie has adopted an ambitious sustainable strategy to become a leader in low-carbon energy supply and related services. The company aims to phase out coal by 2025 in Europe and by 2027 in the world. Engie has also made large investments toward renewable energy, hydrogen and batteries. Engie will keep investing in natural gas activities as detailed in the coherence section.

Strengths

- » Clearly defined eligible categories, environmental benefits and objectives
- » Comprehensive and transparent project evaluation and selection process, including a robust environmental and social risk mitigation process
- » Monitoring of eligibility and controversies throughout the lifetime of the bond

Challenges

- » Eligible projects are to be developed in the Group's various geographies and expected benefits can vary due to the local context
- » Inclusion of equity investments represents a nonstandard use of proceeds susceptible to specific challenges

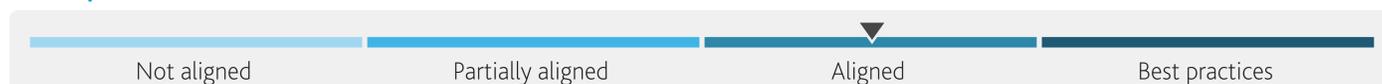
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Alignment with principles

Engie's green finance framework is aligned with the four core components of the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023:

- Green Bond Principles (GBP)
- Social Bond Principles (SBP)
- Green Loan Principles (GLP)
- Social Loan Principles (SLP)
- Sustainability-Linked Bond Principles (SLBP)
- Sustainability Linked Loan Principles (SLLP)

Use of proceeds



Clarity of the eligible categories – ALIGNED

Engie has clearly defined and communicated the nature of expenditures, as well as the eligibility and exclusion criteria for all eligible categories. The projects are expected to be located across the geographies in which the company operates. The geographies where future green bond will be allocated are expected to reflect the firm's updated capital spending plan announced in its February 2023 market update. The eligibility criteria include references to specific technologies and technical thresholds in line with accepted national and international standards. Eligible projects will comply with the substantial contribution criteria contained in the EU Taxonomy Climate Delegated Act, where applicable. Relevant exclusion criteria apply to all eligible categories, and a specific exclusion criterion has been defined in case of any significant issues linked to environmental, social and governance (ESG) factors at the project level.

The cornerstone of the ICMA's GBP and the LMA/APLMA/LSTA's GLP is the full utilization of net proceeds to projects with clear environmental benefits. The inclusion of equity investments represents a non-standard use of proceeds that introduces potential concerns in terms of allocation and traceability, value discrepancies, double counting, adherence to sustainability objectives and impact reporting. With appropriate mitigation measures, certain equity investments can still be considered in line with the spirit of use-of-proceeds thematic issuance and therefore aligned with the GBP and GLP.

Equity investments might make up a non-negligible part of the eligible asset volume under Engie's framework, and include both the participation in new share issues in public and private markets and the acquisition of existing shares in the private market. Suitable measures appear to be in place to mitigate identified concerns related to the alignment with the GBP and GLP. Engie claims that it will invest only in companies deriving at least 90% of their revenue from activities eligible under its framework. Engie has also clarified that the exclusion criteria cover all equity investments, and that companies acquired will not have any project associated with the activities in the exclusion list. Newly issued shares should allow traceability to specific projects and to have access to sufficient information to assess their adherence to the eligibility criteria. For already existing shares, Engie will limit acquisition to non-listed companies where Engie can exercise full or joint control on the acquired company, through the acquisition of majority stakes, therefore ensuring the traceability to the underlying eligible assets. In case of value discrepancy between the acquisition price and the historical price of the assets, Engie states it is able to identify and select still-unrealized projects to justify the haircut. To mitigate the risks of double counting, Engie states to exclusively use its pro-rated ownership share of the estimated or actual capital spending of the projects, reduced by any use of proceeds thematic instruments financing the same project used by the acquired company. Based on the information provided to us and the identified mitigants, we are of the view that the structure conforms to the requirements in the GBP and GLP.

Clarity of the environmental or social objectives – BEST PRACTICES

Engie has clearly outlined relevant and coherent environmental objectives for all eligible categories. These objectives include climate change mitigation and access to sustainable energy. All eligible categories are relevant to the respective environmental or social objectives they aim to contribute to. The objectives set are coherent with international standards. The framework has referenced relevant United Nations (UN) Sustainable Development Goals (SDGs) and associated targets, as well as environmental objectives in the EU taxonomy, in its articulation of the objectives of each of the eligible categories.

Clarity of expected benefits – BEST PRACTICES

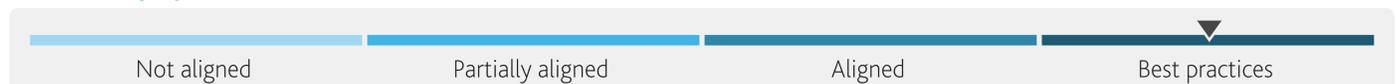
Clear and relevant expected environmental benefits have been identified for all eligible categories. Expected benefits appear measurable for nearly all project categories, and Engie has committed to quantifying these benefits in annual reporting that will

be provided to investors. Engie has clarified that no more than 50% of the proceeds will be allocated to refinancing. While there is no specific lookback period for the refinancing of previously allocated capital spending, there is a lookback period of 24 months for operating expenditure and 24 months for newly allocated capital spending.

Best practices identified

- » Objectives set are defined, relevant and coherent for all project categories
- » Relevant benefits are identified for all project categories
- » Benefits are measurable and quantified for most projects, either ex-ante with clear baselines or with a commitment to do so in future reporting
- » Commitment to transparently disclose the share of proceeds used for refinancing where feasible
- » Commitment to transparently communicate the associated lookback period(s) where feasible

Process for project evaluation and selection



Transparency and quality of process for defining eligible projects – BEST PRACTICES

Engie has established a clear and structured decision-making process for verifying the selection of, approving allocations for and monitoring of eligible projects, formalized in its publicly available framework. The evaluation, validation and monitoring process relies on relevant internal expertise. Potential eligible projects are proposed by relevant business units, the finance department or the corporate social responsibility (CSR) department, to the green financing committee, which was established to govern the framework and related instruments. Co-chaired by the head of the CSR department and the head of corporate finance, the green financing committee is composed of representatives from the corporate finance department, the CSR department, the business units developing eligible projects and representatives of other relevant corporate functions. The committee, which is expected to meet on average three times a year, validates proceeds' allocation and projects' ongoing compliance with the framework, and removes from the eligible asset pool projects that no longer comply with the eligibility criteria, or have been postponed, canceled, divested or subject to a significant ESG controversy. The committee will also validate annual reporting to investors. Clear procedures have been formalized in case of project removal, with the committee replacing them as soon as reasonably practicable.

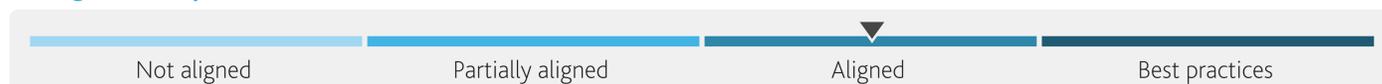
Environmental and social risk mitigation process – BEST PRACTICES

Engie has established a comprehensive environmental and social risk mitigation process, including monitoring for controversies, and the identification and management of environmental and social risks. The process is disclosed in the framework, and expounded in other internal and external documentation provided by the company. The management of such risks includes several layers of assessments and screenings, as well as corrective measures. Before submitting a project for consideration by the Green Financing Committee, projects undergo due diligence assessment under the company's vigilance plan and screening against Engie's corporate CSR criteria matrix. Engie also maintains a Health, Safety and Environment (HSE) management system for eligible projects that follows ISO 45001 (or an equivalent framework), ISO 14001 or EMAS or ISO 50001. Material environmental and social risks are identified for eligible projects before validation.

Best practices identified

- » The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise
- » There is evidence of continuity in the selection and evaluation process through the life of the financial instrument(s), including compliance verification and procedures to undertake mitigating actions when needed
- » The process for project evaluation and selection is traceable
- » Material environmental and social risks for most project categories are identified
- » Presence of corrective measures to address environmental and social risks across projects
- » ESG controversies are monitored

Management of proceeds



Allocation and tracking of proceeds – ALIGNED

Engie has clearly defined the process for the management, allocation and tracking of proceeds in the framework. Net proceeds will be placed in the company's general treasury, managed by its treasury department and earmarked for allocation to eligible green projects. The Green Financing Committee will oversee the tracking of how funds have been matched to eligible projects, and the balance of unallocated proceeds will be similarly adjusted on an ongoing basis. The framework includes information on procedures applied in case of project postponement, cancellation, divestment or discovery of ineligibility. Engie also commits to allocate proceeds of a given green bond issuance within two years when the instrument's initial maturity is less than 10 years and within three years when the initial maturity is 10 years or more.

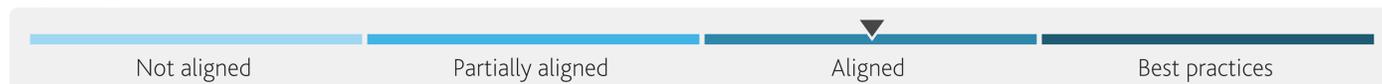
Management of unallocated proceeds – ALIGNED

Any temporary unallocated proceeds may be invested in cash, cash equivalents or money market instruments. The company does not have any specific commitment on the exclusion criteria for environmentally or socially harmful activities. However, the company's treasury department could consider allocating such proceeds to money market funds that are managed following a responsible investment approach on a best-effort basis. Engie commits to replace any eligible projects that no longer comply with the framework as soon as feasible.

Best practices identified

- » Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- » Commitment to reallocate proceeds to projects that are compliant with the framework

Reporting



Transparency of reporting – ALIGNED

Engie will report annually to investors on the use of proceeds issued under the framework. Reporting will occur until the full allocation of proceeds as well as in the event of significant developments. Allocation reporting will include an overview of outstanding bonds, the amount of proceeds allocated at the eligible category level, the share of unallocated proceeds, the share of financing and refinancing, and significant developments, including ESG controversies.

The company has noted that it will publish an annual environmental impact report on its website and has identified relevant environmental reporting indicators for nearly all eligible categories, clearly disclosed in the framework. The calculation methodologies and assumptions used for the environmental indicators will be included in Engie's Universal Registration Document (URD) or published on the firm's website. The company will employ an independent external auditor to verify the tracking and allocation of funds to eligible projects or categories, the compliance of projects with the framework and the management of proceeds, at least until the full allocation of proceeds and in case of significant changes. There will not, however, be an independent impact assessment of the environmental benefits and externalities associated with financed projects.

Best practices identified

- » Reporting covers material developments and issues related to the projects or assets
- » Reporting on allocation of proceeds and benefits done at least at eligible category level
- » Exhaustive allocation reporting – balance or % of unallocated funds, types of temporary investments (e.g. cash or cash equivalent) and share of financing vs re-financing
- » Clear and relevant indicators to report on the expected environmental impact of all the projects, where feasible, or eligible categories
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum
- » Independent audit of the tracking and allocation of funds at least until full allocation and in case of material changes

Contribution to sustainability

The framework demonstrates significant overall contribution to sustainability.



Expected impact

The expected impact of the eligible project categories on the environmental objectives is significant. The issuer has not provided information on the expected allocation of proceeds among the eligible categories. We have thus weighted the five categories evenly for the purpose of assessing their contribution to sustainability. A detailed assessment by eligible category is provided below.

Eligible projects are expected to be located across the geographies in which the company operates (31 countries in 2022). The assessment of whether eligible categories respond to relevant sustainability challenges has therefore focused on the issuer's industry challenges.

Renewable energy production



Electricity and heat production-related greenhouse gas (GHG) emissions accounted for more than 30% of total emissions globally. The International Renewable Energy Agency (IRENA) estimates that the share of renewable energy in the power sector needs to increase to 86% in 2050 from 25% in 2017. According to the International Energy Agency's (IEA) net-zero scenario, two-thirds of global energy in 2050 should come from renewable energy, with solar increasing 20x and wind 11x from the current levels. The category, therefore, answers to one of the most important sustainability challenges of the sector.

The category covers different types of technologies, namely: hydropower, geothermal energy, wind power, solar power, bioenergy, low-carbon hydrogen and ocean energy. Regarding wind, both onshore and offshore assets can be financed. For offshore, systematic environmental impact assessments are systematically conducted, covering the impact on marine life and biodiversity. Solar can either be photovoltaic or concentrated solar power; for the latter, adequate measures to manage local water stress are considered under Engie's water policy. For hydropower, Engie has provided an exhaustive list of international standards to be followed — among these, some belong to the best available, and for others there are more stringent standards in the market. Bioenergy projects will follow the Renewable Energy Directive (RED II) requirements for feedstock sourcing, regarding woody biomass, only sawmill residues and forestry by-products and residues, or waste materials will be sourced. Hydrogen production asset include both electrolysis and methane reforming technologies. The electrolysis will solely use electricity sourced from wind or solar power, with electrolyzer efficiency around 53.5 kWh/kg. Hydrogen produced through methane reforming (blue hydrogen) will follow the criteria set in accordance with technical screening criteria ("TSC") set out in Annex I of the Commission Delegated Regulation (EU) 2021/2139 (the "EU Climate Delegated Act") for both production and storage. To date Engie has identified one project related to blue hydrogen: an Autothermal Reforming (ATR) using Carbon Capture and Storage (CCS) project. The natural gas will be sourced from Norway with upstream leakages following the best available estimates¹ The project will have a carbon capture rate of 95% and a GHG life cycle assessment of 1.5 kg CO₂e/kgH, in line with the carbon footprint targeted by the Climate Bond Initiative for 2030. However, for blue hydrogen, there is a risk of lock-in effects because of the continuous consumption of natural gas and uncertainties regarding its current technical feasibility and gas leakages.

The fact that several eligible projects are not following the best available technologies or thresholds, as well as the potential lock-in emissions of blue hydrogen, results in our assessment of a moderate magnitude score for the category.

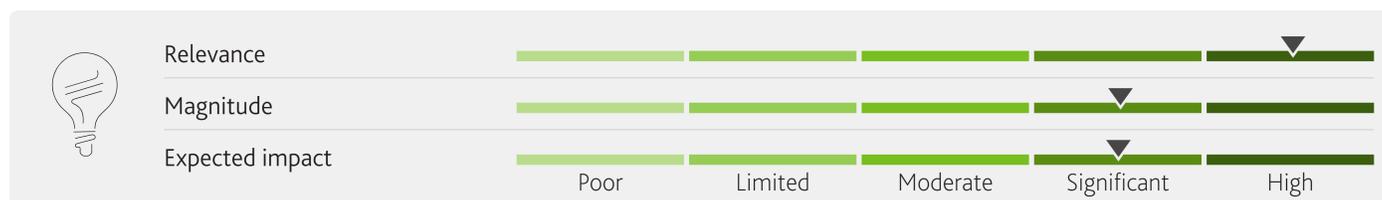
Energy storage



The development of electricity and hydrogen storage is crucial to support the implementation of intermittent, grid-following, renewable energy to the grid and to reduce the consequences of local variations, likely allowing a higher penetration of additional renewable energy capacities and contributing to a more stable electric system². The category therefore responds to a significantly important sustainability challenge of the sector, although less direct than renewable energy production, as one of Engie's main activity remains the transmission and distribution of natural gas.

The category is assumed to be limited to the storage of electricity from renewable energy sources or to replace peak electricity produced by less environmentally friendly units. Similar to the renewable energy production category, the company intends to follow the EU taxonomy's substantial contribution criteria while ensuring that negative externalities are minimized through internal risk management plans. Pumped hydropower can be financed under this category following the EU taxonomy's substantial contribution criteria. All these factors combined result in our assessment of a high magnitude score for the category.

Transmission and distribution infrastructure



According to the International Energy Agency, the average carbon intensity of electricity generated is 475 gCO₂/kWh³, with significant disparities between countries, highlighting the need for further decarbonation of the electricity mix. The development of transmission and distribution assets, together with monitoring tools, is crucial to support the implementation of intermittent, grid-following, renewable energy to the grid and to reduce the consequences of local variations⁴. Per dihydrogen structure, there is a need for specific investments to make the network hydrogen ready⁵. These investments are expected to be made by natural gas distributors as they can rely on existing infrastructure for the development of low-carbon gases infrastructure. We lack visibility into the intended location of the assets, this fact does not allow us to exactly grasp the exact relevance of the project, which is dependent on the local needs to determine further investments in electricity and gas networks. However, the category addresses one of the most important sustainability challenges of the sector.

The assets for electricity distribution will follow the EU taxonomy's substantial contribution criteria. Investments will be made to allow the penetration of additional intermittent renewable energy capacities, where no lock-in effects are expected as the connection of new fossil fuel-powered capacities to the grid is excluded. However, the EU taxonomy criteria are largely defined, creating uncertainty around the capacity of all eligible projects to contribute to the increased penetration of intermittent renewable energy capacities in the network. As for low gases transmission and distribution, the issuer has also committed to follow the EU taxonomy's substantial contribution criteria. Investments should be limited to dedicated pipelines and retrofitting allowing hydrogen distribution. The investments should be limited to a small portion of the network, hence avoiding lock-in effects that would occur when retrofitting larger parts of the network. Regarding the last criterion of the EU taxonomy, "Transmission and distribution networks for renewable and low-carbon gases" category, Engie has mentioned that investments should be limited to injectors of low-carbon gases (no broader network investments are contemplated). We lack visibility into the actual content of the hydrogen to be distributed. Best available thresholds not being systematically applied to all eligible projects results in our assessment of a significant magnitude score for the category.

Energy efficiency



According to the International Energy Agency, electricity and heat production accounted for 46% of the global increase in emissions in 2021⁶, largely driven by an increase in fossil fuel consumption. Regarding residential heating demand, district heating network remains largely unexploited and could be useful to address increasing GHG emissions for the sector⁷. According to the same source, the buildings and construction sector accounted for 36% of total final energy consumption in 2018. Historically, energy utilities such as Engie have been important participants in the development of such low-carbon networks and related heating production, making this a significantly relevant challenge for the sector. By investing in energy efficiency in buildings, the company addresses a relevant issue, but not the main source of its carbon footprint.

The category covers district heating and cooling, cogeneration units, energy management equipment as well as optimization of buildings and plants' efficiency. Per the related categories in the EU taxonomy, the assets using non-renewable energy (for example, gas-fired plants) cannot be financed under this category. The subcategories follow stringent standards, some belonging to the best available in the market, namely the EU taxonomy for district heating even if GHG emissions are still expected. Optimization of buildings and plants' efficiency covers a variety of projects without assurance that they are following the best available solutions, explaining the significant magnitude score for the category.

Clean transportation



According to global data from the International Energy Agency, transport emissions have risen faster than any other end-use sector over the last 30 years⁸ and accounted for more than 35% of total carbon dioxide (CO₂) emissions from end-use sectors in 2021. To get on track with the Net-Zero Emissions by 2050 Scenario, CO₂ emissions from the sector must fall by about 3% per year until 2030⁹. Therefore, activities related to zero-emission vehicles play an important role in ensuring a sustainable low-carbon transition for the transport sector. However, mobility has a minor impact on the utilities sector, and this category does not tackle Engie's main source(s) of emissions, explaining the moderate relevance to address the carbon footprint of the company.

The category covers electric and hydrogen-powered means of transportation including electric light duty and heavy goods vehicles, hydrogen vehicles and related enabling infrastructure, and railways. Eligible projects are limited to zero tailpipe emissions transport, aligned with the current best available standards in the market and thus result in our assessment of a high magnitude score for the category. The overall benefits of this category are dependant on the electricity mix of the country, where a high-carbon content electricity mix would entail a lesser benefit from transport electrification-related projects.

ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. The company has a robust ESG risk management system in place, following international standards such as the Global Compact or Task Force on Climate-Related Financial Disclosures, covering all the significant ESG risks such as network leakage risks, climate change adaptation, biodiversity through its HSE management system, among others. In addition, the company's internal control system covers the main key risks related to the energy sector, including health and safety, corruption practices and responsible purchasing policies. Multiple actions are implemented to ensure the sound management of those risks (through training, risk mapping, a Board risk committee in place).

Engie has provided details on its ESG risk management in its framework, further complemented by its public URD, its CSR Governance policies and internal documentation.

Coherence

We have not applied a negative adjustment for coherence to the expected impact score. The eligible categories of the framework align with Engie's climate strategy to reach net-zero carbon by 2045. Additionally, the company's investments over 2023-25 should contribute to the implementation of the activities mentioned in the framework. Engie plans to invest €22 billion-€25 billion in growth capex — up to 65% of this investment will be allocated to renewable energy, while 10%-15% will be allocated to the business unit Energy Solutions. However, one of the company's main activity remains the transmission and distribution of natural gas, and it will invest 10%-15% in its networks. Moreover, the Company will invest €7 to 8 billion in maintenance capex over 2023-25, which 50% of this investment will be allocated to networks. Regarding natural gas investments, the Russia-Ukraine conflict has forced Engie to reorientate its business strategy, as Engie depended on Russia for 20% of its gas sales and consumption. In addition, to secure long-term contracts with Norway, Engie signed three long-term contracts with Northern American companies, Sempra, Cheniere and NextDecade in 2022, covering LNG imports. We understand that Engie had to take special actions in light of the the Russian-Ukrainian conflict to ensure the supply of gas in France and Europe and that those agreements do not represent the majority of the company's investments. However, in view of these elements, we cannot assert that Engie will not further invest in the gas-related activities in the future. We have not applied a negative adjustment for coherence.

Appendix 1 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The five eligible categories included in Engie's framework are likely to contribute to three of the UN SDGs, namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 7: Affordable and Clean Energy	Renewable Energy Production, Energy Storage Transmission and Distribution Infrastructure	7.2: Increase substantially the share of renewable energy in the global energy mix
GOAL 11: Sustainable Cities and Communities	Energy Efficiency Clean Transportation	7.3: Double the global rate of improvement in energy efficiency 11.2: Provide access to safe, affordable, accessible and sustainable transport systems for all
GOAL 13: Climate Action	Renewable Energy Production Energy Storage Transmission and Distribution Infrastructure Energy Efficiency Clean Transportation	13.3: Improve awareness and human and institutional capacity on climate change mitigation, adaptation and impact reduction

The UN SDGs mapping in this SPO considers the eligible project categories (or key performance indicators) and associated sustainability objectives/benefits documented in the issuer/borrower/lender's financing framework, as well as resources and guidelines from public institutions, such as the ICMA SDG Mapping Guidance, and the UN SDG targets and indicators.

Appendix 2 - Summary of eligible categories in Engie's framework

Eligible Category	Description	Objectives	Impact Reporting Metrics
Renewable Energy Production	<p>Hydropower:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of hydroelectricity production facilities that complies with either of the following criteria: <ul style="list-style-type: none"> (a) the electricity generation facility is a run-of-river plant and does not have an artificial reservoir; (b) the power density of the electricity generation facility is above 5 W/m²; (c) the life-cycle GHG emissions are lower than 100gCO₂e/kWh; (d) Other recognized international standard, including inter alia Climate Bonds Initiative , UNFCCC Clean Development Mechanism, IFC Reference Standards for hydro projects. <p>Geothermal Energy:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of geothermal facilities. Life-cycle GHG emissions from the generation of electricity from geothermal energy are lower than 100gCO₂e/kWh. <p>Wind Power:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of wind facilities (onshore and offshore projects including floating wind turbines). <p>Solar Power:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of solar facilities (photovoltaic or concentrated solar plants). <p>Bioenergy:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of facilities and related infrastructure that produce electricity exclusively from biomass, biogas or bioliquids, excluding electricity generation from blending of renewable fuels with biogas or biofuels, in line with the substantial contribution to climate change mitigation criteria of the EU Taxonomy (Sourcing of sustainable raw material and sustainable sourcing process, including transport and land use & avoidance of conflicting utilization of the resources). 	Climate Change Mitigation	<ul style="list-style-type: none"> - Annual renewable energy production in MWh (in full operational phase) - Annual contribution to GHG emissions avoided in tons of CO₂ equivalent
	<p>Low carbon hydrogen:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of low carbon hydrogen production capacity including investments in production processes aiming at promoting electrolysis efficiency with low carbon energy sources. For the avoidance of doubt, low carbon hydrogen includes green hydrogen i.e. produced via electrolysis from renewable energy, and blue hydrogen i.e. produced through steam reforming or autothermal reforming with carbon capture and storage, where the carbon footprint of these projects is below the threshold value of this Framework. <p>Ocean Energy:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of marine energy facilities (hydrokinetics and marine geothermal). 		

Eligible Category	Description	Objectives	Impact Reporting Metrics
Energy Storage	<p>Storage of electricity:</p> <ul style="list-style-type: none"> - Development, construction, installation and maintenance of energy storage facilities including pumped hydropower storage. (aiming at promoting the development of renewable energies and/or replacing peak electricity produced by less environmentally friendly units). <p>Storage of Hydrogen:</p> <ul style="list-style-type: none"> - Construction and operation of facilities that store hydrogen: <ul style="list-style-type: none"> (a) Construction of hydrogen storage facilities (b) Conversion of existing underground gas storage facilities into dedicated hydrogen storage); (c) Operation of low-carbon hydrogen storage facilities. 	Climate Change Mitigation	<ul style="list-style-type: none"> - Annual renewable energy stored in MWh (in full operational phase) - Annual contribution to GHG emissions avoided in tons of CO2 equivalent
Transmission and Distribution Infrastructure	<p>Electricity:</p> <p>Development, construction, installation and maintenance of transmission and distribution projects when at least one of the following criteria is met:</p> <ul style="list-style-type: none"> - more than 67% of newly enabled generation capacity in the system is below the generation threshold value of 100 gCO2e/kWh measured on a life cycle basis over a rolling five-year period; - the average system grid emissions factor is below the threshold value of 100 gCO2e/kWh measured on a life cycle basis over a rolling five-year period. <p>Development, construction, installation and maintenance of the following Transmission and Distribution projects:</p> <ul style="list-style-type: none"> - T&D infrastructure having the purpose of, or the ambition to, connecting renewable energy production units - Equipment and infrastructure where the main objective is an increase of the generation or use of renewable electricity generation - Projects related to EV charging stations and electric infrastructure for public transport - Installation of T&D transformers that are eco-designed and align with requirements on no-load losses - Equipment to increase the controllability and observability of the electrical power system and enable the development and integration of renewable energy sources including: <ul style="list-style-type: none"> o Sensors and measurement tools (including meteorological sensors for forecasting renewable production) o Communication and control (including advanced software and control rooms, automation of substations or feeders, and voltage control capabilities to adapt to more decentralised renewable infeed); - Construction/installation of equipment to allow for exchange of specifically renewable electricity between users. <p>Renewable and low-carbon gases:</p> <p>Construction, operation, conversion, repurposing, or retrofit of either:</p> <ul style="list-style-type: none"> - new transmission and distribution networks dedicated to hydrogen or other low-carbon gases; - existing natural gas networks to 100% hydrogen; - gas transmission and distribution networks that enables the integration of hydrogen and other low-carbon gases in the network. <p>The projects includes leak detection and repair of existing gas pipelines and other network elements to reduce methane leakage.</p>	Climate Change Mitigation	<ul style="list-style-type: none"> - Annual GHG emissions avoided by the renewable generation capacity connected by the T&D asset (tCO2e per year) (in full operational phase)

Eligible Category	Description	Objectives	Impact Reporting Metrics
Energy Efficiency	<p>Heating/cooling distribution: Heating and cooling network projects meeting at least one of these criteria:</p> <ul style="list-style-type: none"> - Construction and operation of energy efficient system; - Refurbishment of systems leading it to be energy efficient; - Modifications to lower temperature regimes; - Advanced pilot systems (control and energy management systems and internet of things). <p>Reduction of energy consumption per unit of output:</p> <ul style="list-style-type: none"> - Cogeneration with a minimum of 50% usage of renewable power (from solar energy, geothermal energy, renewable non-gaseous and liquid fuels, bioenergy) , in line with the substantial contribution to climate change mitigation criteria of the EU Taxonomy - Systems for energy management (smart grids, smart metering, and demand side management systems). <p>Optimization of buildings and plants efficiency:</p> <ul style="list-style-type: none"> - Major renovation or restructuring of existing buildings and plants demonstrating a reduction of at least 30% of primary energy demand post refurbishment (for buildings and plants) - Efficient products or appliances (Insulation retrofitting; energy efficient doors and windows; LED roll-out; HVAC systems renovation and improvement (excluding fossil-fuel based heating systems)) - Instruments and devices for measuring, regulation and controlling energy performance of buildings (zoned or smart thermostats systems; Motion detectors roll-out; solar shading or solar control façade and roofing elements) - Renewable energy technologies on-site (solar panels; heat pumps; wind turbines; thermal or electric storage units; heat exchangers or recovery systems). 	Climate Change Mitigation	<ul style="list-style-type: none"> - Annual reduction in energy consumption in % or in MWh (in full operational phase) - Annual GHG emissions reduced in tons of CO2 equivalent
Clean Transportation	<p>Projects that contribute directly or indirectly to a reduction of CO2 emissions or energy consumption per km-passenger:</p> <ul style="list-style-type: none"> - Individual or Public Transportation Vehicles with zero direct (tailpipe) CO2 emissions: <ul style="list-style-type: none"> o Electric light duty and heavy goods vehicles o Hydrogen vehicles - Infrastructure for zero direct emissions transport: <ul style="list-style-type: none"> o Electrification of railway and/ or highways); o Infrastructure is dedicated to the operation of vehicles with zero tailpipe CO2 emissions: electric charging points, electricity grid connection upgrades, hydrogen fuelling stations or electric road systems (ERS). 	Climate Change Mitigation	<ul style="list-style-type: none"> - Annual GHG emissions reduced in tons of CO2 equivalent of g CO2 per passenger-km (passengers' activities) or per t-km (freight activity) - Annual contribution to GHG emissions avoided in tons of CO2 equivalent or g CO2 per passenger-km (passengers' activities) or per t-km (freight activity)

Moody's related publications

Second Party Opinion analytical framework:

» [Framework to Provide Second Party Opinions on Sustainable Debt](#), October 2022

Topic page:

» [ESG Credit and Sustainable Finance](#)

Endnotes

1 [Carbone 4: Importations de gaz naturel: tous les crus ne se valent pas](#), October 2021.

2 [International Energy Agency, RTE, Conditions and Requirements for the Technical Feasibility of a Power System with a High Share of Renewables in France Towards 2050](#).

3 [Global Energy & CO2 Status Report 2019](#).

4 [International Energy Agency, RTE, Conditions and Requirements for the Technical Feasibility of a Power System with a High Share of Renewables in France Towards 2050](#).

5 [International Energy Agency, The Future of Hydrogen](#), June 2019.

6 [International Energy Agency - Global Energy Review: CO2 Emissions in 2021](#), March 2022.

7 [International Energy Agency: How can district heating help decarbonise the heat sector by 2024?](#) October 2019.

8 [International Energy Agency: Transport](#), September 2022.

9 [ibid](#)

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