

Rating object	Rating information	
Engie S.A. Creditreform ID: 2000000610 Incorporation: 2004 Based in: La Défense, Courbevoie, France (Main) Industry: Gas transmission and distribution, electricity generation, energy services CEO: Claire Waysand <u>Rating objects:</u> Long-term Corporate Issuer Rating: Engie S.A. Long-term Local Currency (LT LC) Senior Unsecured Issues	Corporate Issuer Rating: A- / negative	
	LT LC Senior Unsecured Issues: A- / negative	Other: n.r.
	Rating date: 15 May 2020 Monitoring until: withdrawal of the rating Rating methodology: CRA "Corporate Ratings" CRA "Non-Financial Corporate Issue Ratings" CRA "Government Related Companies" CRA "Rating Criteria and Definitions" Rating history: www.creditreform-rating.de	

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Analysts

Elena Damijan
Lead Analyst
E.Damijan@creditreform-rating.de

Rudger van Mook
Co-Analyst
R.vanMook@creditreform-rating.de

Neuss, Germany

Summary

Company

Engie S.A. (Group, Company) was created in 1946 with EPIC status and was transformed into an S.A. in 2004 for a period of 99 years. The Group is a result of the merger in 2008 of SUEZ and Gaz de France (GDF Suez). The new name of the Group, Engie, was adopted on July 2015. Engie is a global energy and services group operating in 70 countries, and is active in three main business areas: low-carbon power generation, based predominantly on natural gas and renewable energy, global networks and client solutions. The Group focuses on integrated low-carbon, sustainable solutions, based on digital technologies and provides gas and electricity to around 21 million end customers worldwide, nearly half of whom are located outside France. The Group is a leading gas infrastructure operator in Europe with a portfolio that includes transmission network, distribution networks, gas storage and LNG terminals, and is one of the leading European power producers.

In 2019, with 160,000 employees, the Group generated revenues of EUR 60.1 billion (2018: EUR 57.0 billion) and a net income of EUR 1.6 billion (2018: EUR 1.6 billion).

Rating result

The current rating attests a highly satisfactory level of credit worthiness to Engie, representing a low to medium default risk. Our rating assessment reflects the strong market position of Engie in Europe as one of the leading network operators and low-carbon electricity producers, as well as in other relevant markets. The Company has a resilient, integrated business model and diversified product portfolio, while focusing on future-oriented low-carbon electricity generation and energy efficiency solutions. A substantial part of the Company's earnings is generated in regulated or contracted businesses, creating a basis for predictable and sustainable cash flows. The Group has strengthened its business profile by optimizing its activities with the divestiture of coal-fired power plants and enlarging the share of regulated and contracted activities. This strategy together with the implementation of the cost reduction program, has led to an improvement of the Group's earnings capacity. The Company is exposed to changes in commodity prices, weather, and regulation, as well as to operational and financial risks related to nuclear power generation. The Company's growth strategy in sustainable energy generation and effi-

ciency solutions as well as its network operator activities in times of energy transition are associated with substantial capital expenditure. Given the French state's currently substantial interest in Engie's share capital, as well as its systemic importance for the country, we consider the Company to be government-related. This fact has a positive impact on our rating assessment; however, this supportive rating effect could be lost if the French state were to further decrease its stake in the Company.

Outlook

The one-year outlook of the rating is negative. The main reasons for this assessment are the effects of the coronavirus outbreak and the resulting overall economic slowdown. We expect a deterioration of the Company's earnings, especially in Client Solutions and Supply activities, due to the containment measures and an overall decrease in energy demand, as well as an intensification of the counterparty risks. We also expect lower earnings in the network business due to the reduced gas transportation. Despite the credit protective measures announced by the Company, including cancellation of financial year 2019 dividend, adjustments in investment plans and strengthening of operative expenditure, these effects will lead to a worsening of the Company's earnings capacity and liquidity if they persist, negatively affecting the Company's financials, which could lead to a deterioration of its rating.

Reference:

The relevant rating factors (key drivers) mentioned in this section, are predominantly based on internal analyses and evaluations of the rating process and the derived valuations of the analysts participating in the rating and, if applicable, other rating committee members. The fundamental external sources used, are specified in the section "Regulatory requirements" and "Rules on the presentation of credit ratings and rating outlooks".

Excerpts from the financial key figures analysis 2019:

+ Sales
+ EBITDA and EBIT
+ Net total debt / EBITDA adj.

- Equity ratio
- Ratio of interest expenses to total debt
- Return on investment
- Asset coverage ratio

General rating factors summarize the key issues that – according to the analysts as per the date of the rating – have a significant or long-term impact on the rating, positive (+) as well as negative (-).

Relevant rating factors

Table 1: Financials I Source: Engie S.A. Consolidated financial statements 2019, standardized by CRA

Engie S.A. Selected key figures of the financial statement analysis Basis: Consolidated financial statements as of 31.12. (IFRS)	CRA standardized figures ¹	
	2018	2019
Sales (EUR million)	56,967.00	60,058.00
EBITDA (EUR million)	9,230.00	10,849.00
EBIT (EUR million)	5,331.00	6,236.00
EAT (EUR million)	1,628.00	1,648.00
EAT after transfer (EUR million)	1,033.00	984.00
Total assets (EUR million)	144,738.50	151,540.50
Equity ratio (%)	25.84	22.71
Capital lock-up period (days)	122.96	113.55
Short-term capital lock-up (%)	57.02	54.29
Net total debt / EBITDA adj. (Factor)	10.65	8.74
Ratio of interest expenses to total debt (%)	1.85	1.96
Return on investment (%)	2.08	2.00

General rating factors

- + Strong market position in France and in Europe
- + Good geographical diversification and scale
- + Integrated and diversified business model
- + Stable and predictable cash flows from regulated and contracted activities
- + Systemic importance and natural monopoly in gas network business in France
- + Low-carbon footprint of generation activities
- + Strong know-how in energy efficiency services
- + Proved access to capital markets

- Exposure to commodity prices and weather conditions
- Stringent regulation requirements due to energy transition
- Risks of changes in regulation (tariff framework)
- Elevated operational and financial risks regarding nuclear generation in Belgium
- Capital intensive business, also required in order to retain the leading market position in relevant activities
- High complexity of the business and organization
- Country risk

¹ For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, when calculating the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and internally generated intangible assets are subtracted from the original equity, whilst deferred tax liabilities are added. Net total debt considers all balance sheet liabilities. Therefore, the key financial figures shown often deviate from the original values of the company.

Current rating factors

- + Solid liquidity position
- + Increase in sales
- + Improved earnings capacity, also as a result of cost reduction measures
- + Improved net total debt / EBITDA adj.

- Changes in Belgian regulation regarding nuclear generation
- Changes in French legislation regarding French state's interest in Engie
- Increase in provisions
- Increase in financial debt
- High cash dividend pay-outs

Prospective rating factors

- + Development of green generation capacities and of know-how in energy services
- + Implementation of cost-reduction measures
- + Further product and geographical selectivity
- + Cancellation of 2019 dividend, adjusted capital and operative expenditure as a response to health crisis

- Stricter regulatory requirements in the course of energy transition
- Early decommissioning of nuclear plants and increase in expenditure for their dismantling, as well as for nuclear waste and spent fuel storage
- Implications of COVID-19 outbreak

ESG-factors

CRA generally considers ESG factors (environment, social and governance) within its rating decisions. In the case of Engie S.A. we have identified ESG factors with significant influence on the following categories, of which their influences are described in the chapters listed below.

(E) Environment (S) Social (G) Governance

(E): We consider Engie's business model with its focus on low-carbon power generation and energy efficiency solutions as sustainable and future-oriented.

Please Note: We do not currently see the negative effects from the COVID-19 pandemic as an ESG factor, but as a short-term external shock with considerable effects on the French, European and global economy. The effects are therefore taken into account in the present rating, but are not shown as an ESG factor. In the medium to long term, ESG-relevant aspects can arise from this. A general valid description of Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found here:

<https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html>

Current rating factors are the key factors that have, in addition to the underlying rating factors, an impact on the current rating.

Prospective rating factors are factors and possible events that – according to the analysts as per the date of the rating – would most likely have a stabilizing or positive effect (+) and a weakening or negative effect (-) on future ratings, if they occurred. This is not a full list of possible future events with potential relevance for future ratings. Circumstances can arise that are not included in the list of prospective factors whose effects are impossible to assess at the time of the rating, either because these effects are uncertain or because the underlying events are deemed unlikely to occur.

ESG factors are factors related to the environment, social issues and, governance. For more information, please see the in "Regulatory requirements" CRA generally takes ESG relevant factors into account, when assessing the rating object and discloses them when they have a significant influence on the creditworthiness of the rating object, leading to a change in the rating result or the outlook.

Best-case scenario: A-

In our best-case scenario, we assume a rating of A-. The Company would retain its current rating if it is able to outweigh the negative effects of the lower earnings resulting from the health crisis by implementing its plan of cancellation of 2019 dividend payments as well as adjustments in capital and optimizing operative expenditure.

Best-case scenario: BBB+

In our worst-case scenario, we assume a rating of BBB+. In this case, the expected decrease in earnings resulting from the health crisis would be coupled with a negative price environment, significant investment outflows, shortages in liquidity due to aggravated counterparty risks, and / or a further increase in debt, which would lead to a worsening of the Company's financial metrics. The exact extent of the adverse effects of the COVID-19 crisis cannot be adequately estimated at this moment, as it will depend on the severity and duration of the crisis.

Business development and outlook

In the financial year 2019 Engie reported an overall solid performance, generating revenues of EUR 60.1 billion, up 5.4% (2018: EUR 57.0 billion). Revenue growth was positively impacted by consolidation effects from the acquisitions in Client Solutions in the USA, France and Latin America, and in B-to-B Supply in the USA, partially offset by divestitures (Glow thermal power plants in Thailand in March 2019 and B-to-B supply in Germany at the end of 2018). There was a slightly positive exchange rate effect, mostly driven by the appreciation of the USD. The organic growth in revenues, adjusted for the scope of consolidation and exchange rate effects, amounted to 4.1%. EBITDA (CRA) amounted to EUR 10.8 billion (2018: EUR 9.2 billion) and was impacted by the increase in depreciation due to the scope changes and the commissioning of new assets. EBIT (CRA) stood at EUR 6.2 billion (2018: EUR 5.3 billion).

These positive results were primarily driven by increased nuclear availability and energy management performance, as well as the commissioning of additional renewable capacity (3.0 GW in 2019). The main performance drivers in each business line were as followed:

- **Nuclear:** higher availability of Belgian production units and more favorable prices;
- **Others:** increased Energy Management results due to gas contract renegotiations and enhanced market activities;
- **Client Solutions:** positive effects of acquisitions, good performance of decentralized energy activities, offset by investment activities and restructuring costs;
- **Networks:** negative one-off and weather effects outside France, transmission tariff smoothing in France. First-time contribution from the TAG gas transmission pipeline in Brazil, acquired in June 2019;
- **Renewables:** commissioning of new capacity and higher hydro prices in Brazil;
- **Supply activities:** negative effects of margin contractions in French retail, adverse weather conditions;
- **Thermal:** negative effects of the Glow divestiture, partly offset by the performance of Power Purchase Agreement (PPA) and favorable price and regulatory environment in Chile and the UK.

Please note:

The scenarios are based on information available at the time of the rating. Within the forecast horizon, circumstances may occur that could lead to a change of the rating out of the indicated range.

The Group achieved a net income of EUR 1.6 billion (2018: EUR 1.6 billion) and a net income after transfer (Group share) of EUR 984 million (2018: EUR 1,033 million). The annual result was influenced by the non-recurring and special effects, of which EUR 1,770 million (2018: EUR 1,798 million) was net impairment losses, EUR 218 million (2018: EUR 162 million) restructuring costs, and other non-recurring items of EUR 1,240 million (2018: EUR 147 million). The impairment losses were associated mainly with Belgian nuclear power (EUR 1,023 million, 2018: EUR 615 million), and had to be recognized against the power plants whose operating lives could not be extended beyond 2025. The impairments in 2019 include EUR 639 million in losses corresponding to the increase in the nuclear dismantling provision. Other impairment losses are mainly connected to the upcoming shutdowns and disposals of thermal generation assets, as well as to the revaluation of the client portfolio in France due to the regulatory changes enacting the end of regulated gas tariffs from 2023. Net income in 2018 included net income from discontinued operations of EUR 1,045 million. Adjusted for one-off effects, effects of changes in scope of consolidation, as well as in the fair value of financial instruments, the net recurring income from continued operations amounted to EUR 3.4 billion (2018: EUR 3.2 billion).

Regarding reportable segments, the Group performance is presented as followed:

Table 2: The development of reportable segments in 2019 | Source: Universal registration document 2019

Engie S.A. according to reportable segments in 2019						
in EUR million	External revenues		EBITDA (reported)		Capital employed	
	2018	2019	2018	2019	2018	2019
France excluding Infra-structures	14,998	15,854	1,775	1,672	6,306	7,143
France Infrastructures	5,694	5,569	3,499	3,539	19,802	20,172
Rest of Europe	16,946	17,270	1,081	1,750	3,563	1,197
Latin America	4,639	5,341	1,789	2,221	9,897	11,462
USA & Canada	3,355	4,545	252	291	2,494	3,717
Middle East, Asia & Africa	4,014	2,914	1,133	727	3,553	3,633
Others	7,565	8,565	119	166	5,796	6,401
Total	57,211	60,058	9,648	10,366	51,412	54,325

As part of its strategy including the announced EUR 6 billion assets disposal program for 2019-2021, the Group disposed of a range of shareholdings for a total price of EUR 3.4 billion. The largest were the disposal of its 69.1% interest in the Glow power plants in Thailand for EUR 2.6 billion and the disposal of coal power plants in Germany and the Netherlands for EUR 213 million. In June 2019, a consortium comprising Engie (32.5%), Engie Brasil Energia (32.5%) and Caisse de Dépôt et Placement du Québec (35%) completed the acquisition of 90% of interest in Brazilian Transportadora Associada de Gás S.A. (TAG) for a total acquisition price of USD 8.6 billion. Engie holds a 58.5% interest in TAG directly and indirectly, representing a net interest of 49.3% for the Group. TAG owns the largest natural gas transportation network in Brazil, with 4,500 kilometers of gas pipelines, representing 47% of the country's gas infrastructure. The transaction resulted in an increase of the Group's net debt by EUR 1.6 billion.

Development in first quarter 2020 was influenced by the implications of the COVID-19 outbreak with containment measures introduced worldwide and resulting in an overall economic slowdown. As of 31 March 2020, the Company achieved revenues of EUR 16,493 million (2019: EUR

17,120 billion), a decrease of 3.7%. The organic drop, i.e. adjusted for changes in scope of consolidation and currency effects, was from EUR 16.8 billion in 2019 to EUR 16.1 billion, down by 3.7%. EBITDA decreased by 1.8% on a reported basis to EUR 3,063 million (2019: EUR 3,118 million) and increased by 1.4% organically. The Company's reported current operating income² amounted to EUR 1.9 billion (2019: EUR 2,041 million), a decrease of 6.6% (2.1% organically). The results were driven by the strong development of energy management activities and renewables, by a positive price environment and plant availability in nuclear, as well as by the stable development in networks, where lower gas distribution due to the warm weather was partly offset by the new transmission tariffs in France. The Client Solutions business activities experienced the strongest negative impact of COVID-19 due to the general containment measures, followed by Supply activities, which were affected by the drop in energy consumption.

In recent years, the Company has redesigned and simplified its activities portfolio, divesting a large part of its coal-fired power plants and non-core activities, while focusing on gas, renewable energies and energy efficiency, as well as further developing its expertise in digitization, green mobility and smart grids. The strategic objectives focus on becoming a leader in integrated carbon-neutral solutions and deepening the value-added potential in its business lines. In Client Solutions, the Company is focusing on integrated services including on-site co-generation, heating and cooling networks, public lighting, rooftop solar, and electric vehicle charging stations. Engie plans to significantly increase its renewables capacity and invest in the adaptation of its gas networks to the requirements of green gas development. In its generation business, the carbon footprint is to be limited by further reducing coal generation, and selectively honing gas-power generation to ensure supply reliability. In achieving these objectives, the Company strives to increase its business and geographical selectivity by exiting non-core or less profitable activities and over 25 countries by 2021.

As a response to the COVID-19 crisis, the Company cancelled the dividend payments for 2019 and plans to adjust the timing and, as far as possible, reduce the amount of its capex projects, including maintenance projects, as well as to strengthen its operational expenditure management. Currently, Engie has a strong liquidity position of EUR 19.2 billion as of 31 March 2020, including EUR 12.7 billion in cash, reinforced by the placement of a senior bond for a total of EUR 2.5 billion in March 2020.

The Group's initially targeted capex over the 2020-2022 period amounted to approximately EUR24 billion (EUR 10 billion in growth, EUR 8 billion in maintenance, and EUR 4 billion in the financial capex for the full funding of the nuclear waste provision by 2025), while EUR 4 billion of asset disposals were planned over the period. The focus of growth capex will lie on Client Solutions, Infrastructures and Renewables. The Group is continuing to implement its 2019-2021 cost reduction program with targeted cumulated savings of EUR 800 million by spanning procurement, digitization and shared service centers as well as optimization of assets and customer offers. The initially targeted growth in EBITDA of 2-4% and in current operating income of 4-6% for the period of 2020-2021 will be subject to adjustments with a view to the implications of the coronavirus pandemic.

The Group's Client Solutions and Supply activities with their 19% and 6% contribution respectively to the current operative income in 2019 have been experiencing the severest impact of the overall containment measures due to the decrease in projects and in industrial and consumer demand for energy. Other activities – in Networks, Renewables, Nuclear, Thermo and Others – have been affected to a lesser extent or experienced a rather low impact from the pandemic outbreak. The exact implications of the crisis cannot be assessed at this time, and will

² The Company's Current operating income is defined as revenues deducted by operating costs and taxes other than income taxes, and added by other operating income, without non-recurring effects.

depend on its duration, the willingness of society and governments to lift the restrictions, the extent of governmental support, and on the slope of the post-crisis recovery. We favorably assess the Company's currently strong liquidity position - a supportive factor to bridge the period of slowdown - and its developed credit protective measures in the form of dividend cancellation, investment plans revision and opex optimization. Nevertheless, despite the overall solid financial metrics and resilient, future-oriented business model of Engie with its very good product and geographical diversification, we expect a worsening of the Company's financial metrics as a result of COVID-19, which could have a negative impact on our rating assessment.

Structural risk

As of 31 December 2019, Engie's share capital stood at ER 2,435,285,011, divided into 2,435,285,011 fully paid-up shares. Engie's shares are listed on Compartment A of Euronext Paris and Euronext Brussels under ISIN Code FR0010208488, and are included in the CAC 40 index, the main index published by Euronext Paris.

The French state holds the majority of Engie's shares with 23.64% of share capital and 34.23% of voting rights. Pursuant to French legislation, modified in May 2019, the French government is required to hold at least one share of the Company instead of previously stipulated 33.3% of its shares. In addition, Engie's share capital includes a golden share. The golden share is granted to the French government and entitles it to veto decisions made by Engie or its French subsidiaries, which could directly or indirectly harm French energy interests, particularly as regards the continuity and safeguarding of supplies.

The remaining shares are divided between institutional shareholders, the largest of which is BlackRock with 4.52% of share capital, and employees, management and the public (64.13% of share capital).

The company prepares financial statements in accordance with IAS and IFRS. The Group comprises over 3,000 subsidiaries, directly or indirectly controlled by the Company worldwide.

The Group's organizational structure comprises 23 business units worldwide, primarily geographical, four global business Lines with a global scope (Networks, Renewables, Client Solutions, and Thermal) and various support and operating functions. For financial reporting purposes, the Group has grouped business units and presents sector information organized around seven reportable segments.

The Group's activities comprise the following business lines:

- **Client Solutions:** encompasses services such as design, engineering, operation, installation, maintenance and facility management, as well as asset management such as heating and cooling networks. It also includes the Group's interest in the Suez group;
- **Networks:** the Group's electricity and gas infrastructure activities including the management and development of gas and electricity transportation networks and gas underground storage;
- **Renewables:** centralized renewable energy generation activities, including financing, construction and operation of renewable energy facilities, using various energy sources such as hydroelectric, onshore wind, photovoltaic solar, biomass, offshore wind, geothermal and biogas;
- **Thermal:** Group's centralized energy generation activities using thermal assets, mainly the operation of power plants fueled by gas and coal;

- **Nuclear:** the Group's nuclear power generation activities, with seven reactors in Belgium (four in Doel and three in Tihange) and drawing rights in France;
- **Supply:** all the Group's activities relating to the sale of gas and electricity to end customers, including all the Group's activities in services for residential clients;
- **Others activities,** including energy management and optimization activities, the GTT, and corporate and holding activities.

Geographically, the Group generates 42.2% of its revenues in France, 11.8% in Belgium, 23.8% in other EU-Countries, 7.3% in North America, and 7.1% South America. The remaining revenues are spread between the other European countries, Asia, the Middle East and Oceania, and Africa.

The widespread geographical diversification of the Group requires a high degree of organization and entails risks associated with local legal, political, cultural and social particularities. We assume that the Group's structure supports the implementation and monitoring of its strategy in accordance with the specific legislation and regulatory frameworks in the countries in which the Group operates. Based on publicly available information, we assume sufficiently developed structures with regard to risk management, accounting, and controlling, as well as other administrative and operational functional areas, and see no core risks associated either with the organizational or shareholder structure of the Company. The new initiatives for optimizing geographical presence and the concentration on core activities should enhance operative efficiency. The Company's acquisition activities entail integration risks and the risk of non-realization of expected gains and synergies.

Given the French state's currently substantial interest in Engie's share capital, as well as its systemic importance for the country, we consider the Company to be government-related. This fact has a positive impact on our rating assessment; however, this supportive rating effect could be lost if the French state were to further decrease its stake in the Company.

Business risk

Overall, Engie' business is weather-dependent and faces risks related to climatic fluctuations. Furthermore, variations in the supply and demand for electricity affect commodity prices (gas, oil, coal, electricity, etc.), which has an impact on the Group's margin. Although the Company's electricity production and marketing, including the marketing of gas, are largely open to competition in Europe, they are nevertheless subject to the regulation (price caps), especially with regard to residential sector. Part of Engie's electricity generation activity outside of Europe is secured by long-term power purchase agreements (PPA) in which variations in operating expenses, in particular for fuels, are transferred into electricity sale prices, which partially limits the Company's exposure to fuel price fluctuation risks.

The decentralization of power production following the energy transition has broken down the entry barriers for many competitors (photovoltaic, services). Any changes in the support structures for renewables could hamper the profitability of the Group.

Engie is subject to a range of laws and regulations regarding environmental issues, promotion of zero or low greenhouse gas emission production systems, energy consumption reduction, health protection, and security standards. Changes in these could affect the strategy and results of Engie. As a response to changing environmental policy, Engie has reduced the proportion of coal in its energy mix, and reduced its exposure to market risks after the sale of its thermal power plants in the US, its exploration & production and LNG activities, and its European coal-

fired power plants. After these measures, the Company's electricity generation output at the end of 2019 was distributed as follows: 61% natural gas, 23% renewable energy (hydropower, wind and solar, biomass and biogas), 10% nuclear, and 6% coal.

In France, gas transportation and distribution are regulated. Engie, via its subsidiary GRTgaz, has a dominant position on the gas transmission market in France. GRDF operates gas distribution networks in France under long-term concession arrangements, most of which are mandatorily renewed upon expiration. Tariffs are determined by the Commission de Régulation de l'Énergie (CRE). In other countries, price control mechanisms for energy production, distribution, and sales are in place. Any changes in the regulatory and tariff environment in all countries where Engie operates would have implications for the Group, new regulatory or fiscal initiatives could have an impact on the Group's results. The Group faces also country risks.

The nuclear activities of the Group are associated with considerable maintenance and upgrade capex and are subject to a range of risks, including high operational risks, risks of limited availability of the plants due to safety or technical issues, and the risk of changes in regulation. The Company is obligated to allocate provisions for nuclear waste and spent fuel storage, as well as for dismantling the power plants. These provisions are sensitive to changes in underlying assumptions regarding the overall economic framework, discount rates, and the life cycle of the plants, which could have significant influence on the Company's earnings and financial position. The invalidation of the decision to extend the operating life of the Doel 1 and 2 and Tihange 1 nuclear units (in appeal) could have a significant unfavorable effect on the Group's revenues and on the value of its nuclear assets.

Operational risks in the purchase/sale of natural gas are partially mitigated by long-term contracts. Industrial risks, commodity price risks, counterparty risks, currency risks, interest rate risks, and liquidity risks are also present.

Permits and authorizations are needed to carry out Engie's operations, e.g. Engie has been granted hydropower concessions agreements, one of which will expire in 2023. The non-renewal of such concessions contracts would negatively affect the company.

To mitigate market risks, Engie has put in place a technological monitoring mechanism, as the industry is a rapidly evolving one with regard to technologies, consumer needs, and demand, in a competitive and increasingly digitalized sector. The rise of digital technology and smart energy impacts the cost structure of the Group.

Overall, we assess the Company as having a low to moderate business-risk profile based on the generally increasing global demand for energy, and as the company operates systemically important assets. The business is partly regulated. Engie's activities are well-diversified, both with regard to its business operations and geographically. Nevertheless, its business requires intensive capex to adapt to the energy transition and the overall trends of decentralization and decarbonization of generation, renewable energy, new technologies and digitization, and entails high operational risks.

Financial risk

For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. Contrary to our normal practice, we deducted the goodwill shown on the balance sheet from the equity only by 50%, suggesting a certain recoverability of the goodwill. The following descriptions and indicators are based on these adjustments.

The Group has a relatively good balance sheet structure with an asset coverage ratio of 83.9% (2018: 89.9%) and a structured equity ratio of 22.7% (2018: 25.8%). The adjusted equity decreased from EUR 37.4 billion to EUR 34.4 billion, mainly due to the payment of a cash dividend (EUR 2.3 billion), other items of comprehensive income (EUR 1.8 billion negative impact), and the effect of the deconsolidation of Glow (EUR 0.5 billion), partly offset by net income for the period (EUR 1.6 billion). The first-time application of IFRS 16 resulted in the recognizing of net EUR 2.1 billion of rights-of-use and the respective amount of liabilities as of 1 January 2019.

Total debt increased from EUR 107.3 billion in 2018 to EUR 117.1 billion as of 31 December 2019, mainly driven by the increase in provisions and financial debt. Provisions increased by EUR 3.6 billion to EUR 25.1 billion due to the impacts of the triennial review of nuclear provisions in Belgium (EUR 2.1 billion) and changes in provisions for post-employment benefits against the backdrop of the decrease in discount rates (EUR 1.1 billion). The reported net financial debt increased by EUR 2.7 billion to EUR 25.9 billion, following the increase in capex (EUR 10.0 billion, 2018: EUR 7.6 billion), including a EUR 1.6 billion TAG-transaction. As of 31 December 2019, 74% of net financial debt was denominated in EUR, 15% in US dollars and 10% in Brazilian real. Including the impact of financial instruments, 79% of net financial debt was at fixed rates. The average maturity of the Group's net financial debt was 11.2 years. The ratio net total debt / EBITDA adj. has decreased to 8.7 as of 31 December 2019 (Creditreform Rating's calculation, 2018: 10.7). According to Engie's calculations, the Group's ratio net financial debt to EBITDA increased to 2.5x as of 31 December 2019 compared to 2.4x (as of 1 January 2019, including the effects of IFRS 16 application).

The main financial sources of the Group are bond issues and bank loans. The Company has an EMTN program in place with a maximum amount of EUR 25 billion. In 2019, the Group issued four green bonds for a total amount of EUR 3.4 billion, reaching a total amount in green bonds of EUR 9.7 billion as of 31 December 2019.

As of 31 December 2019, the Group had a solid liquidity position, comprised of EUR 10.5 billion in cash and EUR 13.0 billion in confirmed undrawn credit lines. The internal earnings capacity was also solid with EUR 10.8 EBITDA in 2019 (2018: EUR 9.2 billion).

On 20 March 2020, Engie issued a triple tranche senior bond for a total of EUR 2.5 billion. As of 31 March, the net financial debt further increased to EUR 27.9 billion, mainly due to capital expenditures, and the net financial debt / EBITDA increased to 2.7x. The Company's liquidity position was still very solid as of End of March with EUR 19.2 billion, including EUR 12.7 billion in cash.

Against the backdrop of the COVID-19 implications, we expect a drop in the Company's earnings, especially in the business lines Client Solutions and Supply, together making up roughly one quarter of Engie's current operative income. We assume a certain flexibility in Engie's capex plans with the exception of Networks and Nuclear, so that the Company is, also with a view to the cancellation of dividend for 2019, to a certain extent able to react to the situation. We furthermore expect that the Company will face aggravated counterparty risks, which will put additional pressure on its liquidity. On the other hand, taking into consideration the Group's currently solid liquidity position, we do not see any liquidity risks in the short-term perspective. However, the situation may reverse if the crisis persists and if the path of economic recovery is

insufficient. The current net financial debt extension, while the Company's earnings have already decreased as a result of the crisis, puts pressure on the financial metrics of the Group and could lead to a downgrade of the rating.

Issue rating

Issue rating details

The rating objects of this issue rating are exclusively the long-term senior unsecured notes, denominated in euro and issued by Engie S.A. (issuer), which are included in the list of ECB-eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The notes have been issued under the EMTN program with its latest prospectus from 23 December 2019. This EMTN program amounts to EUR 25 billion. The notes and coupons under the EMTN program constitute unconditional, unsubordinated, unsecured obligations of the Issuer, and rank at least pari passu among themselves and with all other present and future unsecured obligations and guarantees of the Issuer. The Notes issued under the EMTN program benefit from a negative pledge provision and a cross-acceleration mechanism. A redemption at the option of the noteholders following a change of control can be specified in the final terms of each series.

Result corporate issue rating

We derive the rating of the euro-denominated bonds of the issuer from the corporate issuer rating of Engie S.A. The rating of the notes is therefore set equal to the corporate rating of the issuer. The rating result is A- with negative outlook. For the issue rating we have applied our rating methodology for corporate issues.

Overview

Table 3: Overview of CRA Ratings | Source: CRA

Rating Category	Details	
	Date	Rating
Engie S.A. (Issuer)	15.05.2020	A- / negative
Long-term Local Currency (LC) Senior Unsecured Issues	15.05.2020	A- / negative
Other	--	n.r.

Table 4: Overview of 2019 Euro Medium Note Programme | Source: Base Prospectus dated 23 December 2019

Overview 2019 EMTN Programm			
Volume	EUR 25,000,000,000	Maturity	Depending on respective bond
Issuer / Guarantor	Engie S.A.	Coupon	Depending on respective bond
Arranger	Deutsche Bank	Currency	Depending on respective bond
Credit enhancement	none	ISIN	Depending on respective bond

All future LT LC senior unsecured Notes that will be issued by Engie S.A. and that have similar conditions to the current EMTN programme, denominated in euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured notes issued under the EMTN programme. Notes issued under the programme in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG. For the time being, other emission classes or programmes (such as the Commercial Paper Programme) and issues that do not denominate in euro will not be assessed.

Financial ratio analysis

Table 5: Financial key ratios | Source: Engie S.A. consolidated financial statements, structured by CRA

Asset structure	2016	2017	2018	2019
Fixed asset intensity (%)	56.74	55.99	54.29	55.80
Asset turnover	0.46	0.41	0.40	0.41
Asset coverage ratio (%)	92.78	72.36	89.89	83.90
Liquid funds to total assets	7.52	7.71	7.59	8.62
Capital structure				
Equity ratio (%)	29.01	27.51	25.84	22.71
Short-term debt ratio (%)	38.47	38.64	40.02	38.21
Long-term debt ratio (%)	23.63	13.00	22.96	24.11
Capital lock-up period (in days)	89.43	100.50	122.96	113.55
Trade-accounts payable ratio (%)	10.91	11.57	13.26	12.33
Short-term capital lock-up (%)	57.80	58.94	57.02	54.29
Gearing	2.19	2.35	2.58	3.02
Leverage	3.60	3.54	3.75	4.13
Financial stability				
Cash flow margin (%)	12.52	11.27	11.69	19.23
Cash flow ROI (%)	5.57	4.73	4.60	7.62
Total debt / EBITDA adj.	10.34	12.37	11.86	9.84
Net total debt / EBITDA adj.	9.25	11.05	10.65	8.74
ROCE (%)	7.74	4.74	8.31	11.55
Total debt repayment period	11.72	14.83	19.07	11.69
Profitability				
Gross profit margin (%)	44.95	47.19	32.14	33.48
EBIT interest coverage	0.54	1.40	2.69	2.71
EBITDA interest coverage	2.71	3.91	4.64	4.68
Ratio of personnel costs to total costs (%)	15.35	16.87	18.65	19.11
Ratio of material costs to total costs (%)	55.05	52.81	67.86	66.52
Cost income ratio (%)	98.22	95.21	90.94	90.20
Ratio of interest expenses to total debt (%)	2.11	2.07	1.85	1.96
Return on investment (%)	1.03	2.47	2.08	2.00
Return on equity (%)	0.40	5.11	4.26	4.59
Net profit margin (%)	0.24	3.54	2.86	2.74
Operating margin (%)	1.82	5.01	9.36	10.38
Liquidity				
Cash ratio (%)	17.06	16.29	15.02	18.16
Quick ratio (%)	99.11	99.90	101.57	101.57
Current ratio (%)	112.46	113.91	114.21	115.65

Appendix

Rating history

The rating history is available under <https://www.creditreform-rating.de/de/ratings/published-ratings/>.

Table 6: Corporate Issuer Rating of Engie S.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	30.12.2016	09.01.2017	23.04.2017	A- / stable
Update	24.04.2017	25.04.2017	19.06.2018	A- / stable
Update	20.06.2018	22.06.2018	14.05.2020	A- / negative
Update	15.05.2020	www.creditreform-rating.de	Withdrawal of the rating	A- / negative

Table 7: LT LC Senior Unsecured Issues Issued by Engie S.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	28.09.2018	09.10.2018	14.05.2020	A-
Update	15.05.2020	www.creditreform-rating.de	Withdrawal of the rating	A- / negative

Regulatory requirements

The present rating is an unsolicited rating in the regulatory sense. The analysis was carried out on a voluntary basis by Creditreform Rating AG, which was not commissioned by the Issuer or any other third party to prepare the present rating.

The rating is based on the analysis of published information and on internal evaluation methods for the assessment of companies and issues. The rating object was informed of the intention of creating or updating an unsolicited rating before the rating was determined.

The rating object participated in the creation of the rating as follows:

Unsolicited Corporate Issuer / Issue Rating	
With rated entity or related third party participation	Yes
With access to internal documents	No
With access to management	No

The rating was conducted based on the following information.

List of documents
Accounting and controlling
<ul style="list-style-type: none"> Engie's Universal Registration Document 2019 Consolidated financial statements 2018, 2017 Engie's financial information as of 31 March 2020, press-release and presentation from 12 May 2020
Finance
<ul style="list-style-type: none"> EMTN Programme Base Prospectus from 23 December 2019 Final terms of the issues
Additional documents
<ul style="list-style-type: none"> Engie's press-releases Market research and publications regarding market developments

A management meeting did not take place within the framework of the rating process.

The information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodologies.

The rating was conducted based on the following rating methodologies and the basic document.

Rating methodology	Version number	Date	Website
Corporate Ratings	2.3	29.05.2019	https://www.creditreform-rating.de/pub/media/global/page_document/Rating_Methodology_Corporate_Ratings_2.3.pdf
Government-related Companies	1.0	19.04.2017	https://www.creditreform-rating.de/pub/media/global/page_document/Rating_Methodology_Government-Related_Companies.pdf
Non-financial Corporate Issue Ratings	1.0	October 2016	https://www.creditreform-rating.de/pub/media/global/page_document/Rating%20Methodology%20Non-Financial%20Corporate%20Issue%20Ratings.pdf
Rating Criteria and Definitions	1.3	January 2018	https://www.creditreform-rating.de/pub/media/global/page_document/CRAG_Rating_Criteria_and_Definitions_v1_3_01-2018.pdf

The documents contain a description of the rating categories and a definition of default.

The rating was carried out by the following analysts:

Name	Function	Email-Address
Elena Damijan	Lead analyst	E.Damijan@creditreform-rating.de
Rudger van Mook	Analyst	R.vanMook@creditreform-rating.de

The rating was approved by the following person (person approving credit ratings, PAC):

Name	Function	Email-Address
Artur Kapica	PAC	A.Kapica@creditreform-rating.de

On 15 May 2020, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 19 May 2020. There has not been a subsequent change to the rating.

The rating will be monitored until Creditreform Rating AG withdraws the rating. The rating can be adjusted as part of the monitoring, if crucial assessment parameters change.

In 2011, Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on this registration, Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

ESG-factors

You can find out whether ESG factors were relevant to the rating in the upper section of this rating report "Relevant rating factors".

A general valid description for Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found here:

<https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html>

Conflict of interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or in approving credit ratings and rating outlooks.

The provision of financial structural data and the data entry of annual financial statements were performed as ancillary services for affiliated third parties in the Group.

Rules on the presentation of credit ratings and rating outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our "Rating Committee Policy", all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, Creditreform Rating AG has used following substantially material sources:

Corporate issuer rating:

1. Annual report
2. Website
3. Internet research

Corporate issue rating:

1. Corporate issuer rating incl. information used for the corporate issuer rating
2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the Creditreform Rating AG website. Furthermore, Creditreform Rating AG considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The Basic Data Information Card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the Basic Data Information Card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the Basic Data Information Card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified credit rating agency shall make available, in a central repository established by ESMA, information on its historical performance data including the rating transition frequency and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website: <https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml>.

An explanatory statement of the meaning of Creditreform Rating AG's default rates are available in the credit rating methodologies disclosed on the website.

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Creditreform Rating AG

Contact information

Creditreform Rating AG

Hellersbergstraße 11
D-41460 Neuss

Phone: +49 (0) 2131 / 109-626
Telefax: +49 (0) 2131 / 109-627

E-Mail: info@creditreform-rating.de
Web: www.creditreform-rating.de

CEO: Dr. Michael Munsch
Chairman of the Board: Prof. Dr. Helmut Rödl

HR Neuss B 10522