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CREDIT OPINION
13 July 2023

Update

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RATINGS

ENGIE SA

Domicile	Paris, France
Long Term Rating	Baa1
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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ENGIE SA

Update to credit analysis

Summary

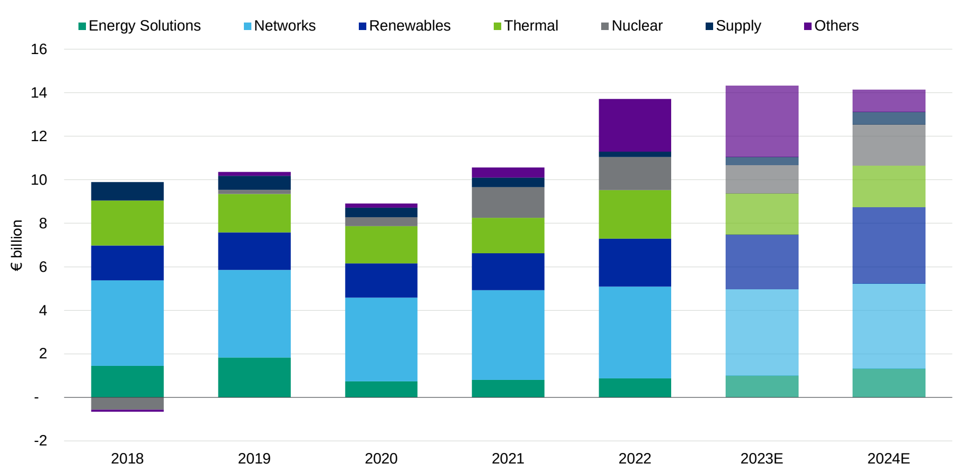
ENGIE SA's (ENGIE) credit quality is underpinned by the group's large scale and diversification, given its leading business positions across the energy value chain and different markets. The prevalence of regulated and contracted activities limits volatility and, with continued progress in the cost reduction programme, should continue to support earnings. The focus on contracted and regulated assets over activities exposed to industrial customers will benefit its business risk profile over time.

ENGIE's credit quality is constrained by the execution risks associated with the company's large capital spending programme of €29 billion-€33 billion over 2023-25 and the earnings volatility stemming from its exposure to merchant power generation, and energy management and trading activities.

Exhibit 1

Normalising performance in 2023 after an exceptional year 2022, driven by high power prices

EBITDA split by activity, in € billions



The 2023-24 estimates represent Moody's forward view and not the view of the issuer.
Source: Moody's Investors Service

ENGIE pursues a relatively balanced financial policy, reflected by its leverage target of no more than 4.0x net economic debt/EBITDA. We expect this financial policy to translate into Moody's adjusted funds from operations (FFO)/net debt in the high teens in percentage terms.

Credit strengths

» Large scale and geographical diversification, which support cash flow stability

» Strategic shift towards renewables and networks should boost cash flow stability

» Significant share of regulated and contracted businesses (about 55% of EBITDA in 2022), which underpins the business risk profile

Credit challenges

» High capital spending to accelerate the strategic shift, which will significantly outpace the group's cash flow, although part of the spending intended to finance nuclear provisions does not affect adjusted net debt

» Exposure of merchant generation and energy management activities to energy price volatility

» Imposition of regular increases in nuclear provisions by the Belgian authorities, although the risk is reduced by the interim agreement signed with the Belgian government in June 2023

» Energy transition policy in France, which plans the phaseout of natural gas by 2050

Rating outlook

The stable rating outlook reflects our expectation that ENGIE's credit metrics will strengthen over the next two to three years, to be in line with our guidance for the Baa1 rating, which includes FFO/net debt in the high teens and retained cash flow (RCF)/net debt in the low teens, both in percentage terms.

Factors that could lead to an upgrade

Because of ENGIE's significant strategic shift and associated investment programme, a rating upgrade is unlikely in the next 18-24 months. Nevertheless, the rating could be upgraded if credit metrics strengthen, with FFO/net debt remaining at or above 20% and RCF/net debt in the mid-teen percentages on a sustained basis.

Factors that could lead to a downgrade

The rating could be downgraded if the company's credit metrics appear likely to remain persistently below our guidance for the Baa1 rating.

Key indicators

Exhibit 2
ENGIE SA

	Dec-19	Dec-20	Dec-21	Dec-22	2023E	2024E	2025E
(CFO Pre-W/C + Interest) / Interest Expense	7.0x	6.5x	8.1x	6.3x	4.5x-5.5x	4.5x-5.5x	4.5x-5.5x
(CFO Pre-W/C) / Net Debt	18.6%	17.6%	20.4%	23.2%	20%-23%	17%-20%	17%-20%
RCF / Net Debt	13.1%	16.3%	16.1%	16.9%	11%-14%	10%-13%	10%-13%

All ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Moody's projections (proj.) are Moody's opinion and do not represent the views of the issuer. They incorporate the effect of the adoption of IFRS 16 from 1 January 2019.
Source: Moody's Financial Metrics™

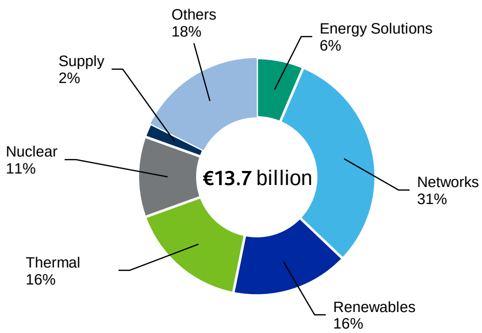
Profile

ENGIE SA (ENGIE) is one of the largest European integrated utilities, with consolidated revenue of €93.9 billion and EBITDA of €13.7 billion in 2022. It is also one of the most diversified groups, with substantial assets along the energy value chain, in Europe and beyond, as well as in energy services. The group is organised into seven segments: Networks, which mostly comprises gas infrastructure activities in France (31% of EBITDA in 2022); Energy Solutions (6%); Thermal Generation (16%); Renewables (16%); Nuclear (11%);

Supply (2%); and Others (18%), whose EBITDA contribution was minor until 2021, but became substantial in 2022 because this segment includes energy management and trading activities, which benefit from the markets' higher volatility.

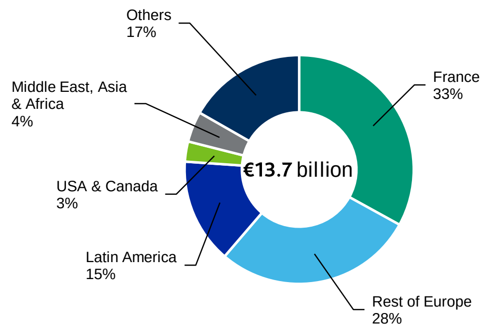
ENGIE is listed on Euronext Paris and Euronext Brussels, with a market capitalisation of around €37 billion as of 3 July 2023. It was 23.64% owned and 33.56% controlled by the French government as of year-end 2022.

Exhibit 3
Business mix is tilted towards regulated and contracted activities...
Breakdown of EBITDA by segment in 2022



Sources: Company reports and Moody's Investors Service

Exhibit 4
...with Europe accounting for 61% of earnings
Breakdown of EBITDA by geography in 2022



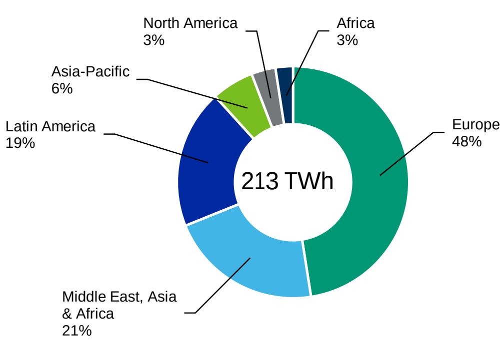
Sources: Company reports and Moody's Investors Service

Detailed credit considerations

Scale and diversification support cash flow stability

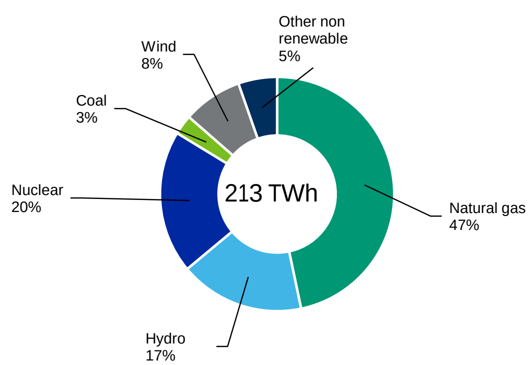
ENGIE's credit profile is underpinned by its large scale (total assets of €235.5 billion as of the end of December 2022) and diversification (by geography, business and asset type), which support the relative stability of its cash flow. In addition to geographical reach, ENGIE benefits from business diversification and its presence along the value chain, including in generation, networks, downstream liquefied natural gas (LNG; mostly re-gasification terminals), supply and energy services. The size and granularity of the group's generation fleet, with 55.3 gigawatts (GW) of installed capacity in operation (net ownership) as of the end of December 2022, help absorb the effects of adverse operational developments, such as local changes to market frameworks or the effect of unusual weather conditions across the portfolio. The diversified fuel mix also mitigates such risks.

Exhibit 5
ENGIE's generation business is diversified by geography...
Electricity output (net ownership) by region for 2022



Source: Company reports

Exhibit 6
... and by fuel typeElectricity output (net ownership) by fuel for 2022



Source: Company reports

Infrastructure and contracted generation activities underpin low risk profile

The group's business risk profile is supported by the substantial and growing contribution from infrastructure and contracted generation, including renewables, which together accounted for about 55% of EBITDA in 2022. In France, Networks (25% of EBITDA in 2022) includes gas transmission, distribution, storage and LNG terminals, with a combined regulated asset base (RAB) of about €30 billion as of 1 January 2022. These activities operate under a well-established and transparent regulatory framework, thereby providing a good degree of stability and predictability of cash flow.

Compared with the previous four-year regulatory period, which ended in 2020, the allowed return was cut by 100 basis points for gas transmission and gas storage, and by 90 basis points for gas distribution. The decision reflected lower interest rates and the gradual reduction in the income tax rate to 25% in 2022 by the French government. The diminution in the allowed return also illustrates the regulator's intention to limit capital spending for conventional gas infrastructure in France, in line with the French energy transition plan, which aims to phase out natural gas by 2050.

In preparation for the new regulatory period for transmission, distribution and storage, starting in the first half of 2024, the regulator has suggested a possible switch from a real to a nominal return, ending the RAB indexation on inflation and accelerating the amortisation of the RAB. These measures could boost the earnings contribution to ENGIE in the short term, at least during the next regulatory period but would do so at the expense of the regulated asset base. The regulator plans to publish its final determination in January 2024.

Exhibit 7

Regulated infrastructure in France (25% of group EBITDA in 2022) provides significant cash flow visibility, but the French regulator lowered the allowed returns for 2020-23

	Gas transmission	Gas distribution	LNG terminals	Gas storage
Company	GRTgaz [1]	GRDF	Elengy	Storengy [4]
RAB at 1 January 2022 (€ bn)	€ 8.8	€ 16.2	€ 0.9	€ 4.1 [5]
Regulatory determination	ATRT7	ATRD6	ATTM6	ATS2
Regulatory period	4 years (2020-24)	4 years (2020-24)	4 years (2021-25)	4 years (2020-24)
WACC	4.25% (real, pre-tax)	4.10% (real, pre-tax)	6.25% (real, pre-tax) [3]	4.75% (real, pre-tax)
Incentives	up to 300bps over 10 years [2]	200bps over 20 years for Gazpar	125bps for Capex decided in 2004-2008	-

[1] GRTgaz also operates transmission activities in Germany. [2] Only for select network projects in service before the ATRT7. [3] Except for assets in Montoir put in service from 1 January 2021 (5.75%). [4] Storengy also includes gas storage operations in Germany and the UK. [5] Including 50% of Geomethane.
Sources: Commission de Régulation de l'Energie, ENGIE and Moody's Investors Service

Contracted thermal and renewable generation (we estimate about 17% of EBITDA in 2022) includes a substantial share of earnings outside Europe, which are underpinned by power purchase agreements (PPAs). Although each PPA is different, they are generally characterised by long tenors, minimum contractually agreed revenue, fuel costs hedged by cost pass-through mechanisms and protection against inflation, which in turn provide a degree of earnings stability and insulation from wholesale power price volatility. Most of the group's renewables business is in France and Latin America, where revenue stability is mostly supported by 15-year feed-in tariffs, 20-year PPAs and long-term concessions. However, about 22% of the renewables output in 2022, mainly the hydro production in France and some marginal hydro generation in Brazil, was sold on a merchant basis.

Business profile less exposed to economic cycles following disposal of Equans

In 2022, ENGIE largely completed its asset disposal plan, which included the sale of the asset-light clients solutions division Equans in October 2022 for an enterprise value of €7.1 billion. Equans' core business of services and maintenance contracts is highly dependent on customers' industrial activity, especially for the asset-light contracts. Thus, this sale reduced but did not eliminate ENGIE's exposure to the economic cycle. ENGIE will remain exposed to asset-backed energy services activities (including District Heating and Cooling), which contributed around 6% to ENGIE's consolidated EBITDA in 2022.

Merchant generation and global energy management activities are significantly exposed to energy price volatility

Merchant power generation accounted for 26% of ENGIE's EBITDA in 2022. These activities comprise mainly nuclear plants in Belgium and hydro capacity in France (with a combined output of around 54.9 terawatt-hours (TWh) in 2022). As a result, any fall in European forward baseload power prices could strain the profitability of ENGIE's merchant generation because of the fixed-cost nature of the nuclear and hydro fleet, and vice versa.

Merchant generation is exposed to wholesale power price volatility, although the group's hedging policy moderates the risk. ENGIE's strategy is to sell forward a substantial proportion of its outright power generation on a three-year rolling basis. For example, as of 31 March 2023, the group sold in advance 82% of its 2023 nuclear and hydro output, 56% of its 2024 output and 18% of its 2025 output at average hedged prices of €98/megawatt-hour (MWh), €124/MWh and €159/MWh, respectively.

Merchant generation is also subject to nuclear fleet availability, which recovered to 92% in 2021 from around 52% in 2018 (because of unplanned outages), before falling to 82.6% in 2022, versus historical standards of around 90%. Despite the estimated €1.1 billion EBIT impact from Belgium's nuclear tax, the financial performance of the division remained stable, supported by a high power price, with EBIT up by 6.9% to €1 billion in 2022.

In addition, ENGIE remains exposed to risks of further nuclear liabilities increases in Belgium, as demonstrated in December 2022, when the Belgian Commission for Nuclear Provisions concluded its triennal revision with a €3.3 billion increase in provisions for the dismantling of nuclear power plants and nuclear waste treatment (see Higher Begium nuclear provisions and inframarginal rent cap are credit negative, 22 December 2022). In June 2023, the Belgian government signed an interim agreement with ENGIE to extend the lifetime of ENGIE's two youngest nuclear reactors (Tihange 3 and Doel 4) by 10 years. This agreement, if implemented, would raise ENGIE's economic net debt by €4.5 billion, but at the same time eliminate the company's exposure to the risk of a further increase in nuclear waste liabilities (see Agreement with Belgian government would de-risk ENGIE's nuclear waste exposure at the expense of credit headroom, 30 June 2023). The agreement would not affect the scheduled phaseout of ENGIE's other five reactors in the country, which will significantly reduce ENGIE's operations and earnings contribution from Belgium.

Separately, tension in global energy commodity markets supported a significant increase in the contribution of the Global Energy Management and Sales (GEMS) division to ENGIE's group EBITDA to 21% in 2022 from 6% in 2021. The contribution from GEMS is likely to remain high in 2023, on the back of persistent high energy price volatility.

Transformation plan extended, but replacing earnings associated with disposal remains a challenge

ENGIE's 2023-25 strategy follows and extends the 2021-23 plan, through which significant progress was made towards simplifying the group structure, focusing on fewer geographies and stepping up the group's renewables growth. The updated plan targets a return on average capital employed (on all assets, excluding nuclear) of 7%-9% by 2025 from 6% in 2021 and 9% in 2022, supported by a continued focus on performance improvement; and growth investment of €22 billion-€25 billion, significantly up (50%) compared with the 2021-23 levels. The investment will be split 55%-65% for Renewables (doubling from the previous level, at €13 billion-€14 billion), 10%-15% for Networks, 10%-15% for Energy Solutions and 5%-10% for flexible generation and retail.

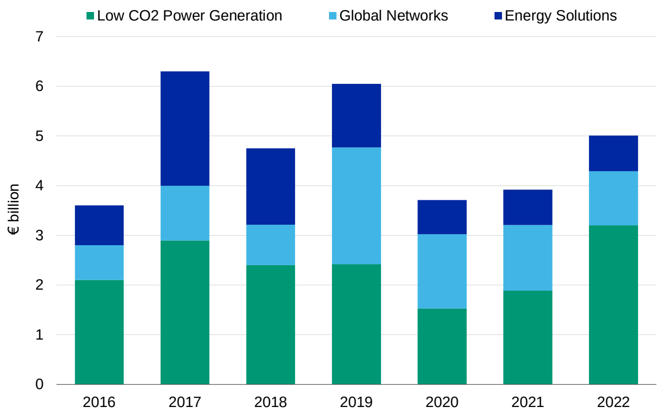
The group's development will continue to focus on renewables and distributed infrastructure. The group confirmed its renewables target of 80 GW installed capacity by 2030, which will be achieved through an annual growth of 4 GW over 2022-25 and 6 GW over 2026-30. The strategic plan also includes 8 GW of additional distributed energy infrastructure by 2025 compared with 2020, and 10 GW of battery capacity, 4 GW of hydrogen production capacity and 10 TWh biomethane production per year by 2030.

Finally, ENGIE has extended its performance plan to deliver €0.2 billion in additional net EBIT over 2023-25 through the strong control of general and administrative costs, by increasing support functions efficiency and by turning around underperforming businesses.

Overall, we expect the group's business risk profile to develop favourably over the planned period, with the shift away from volatile businesses resulting in greater cash flow stability. However, the capital investment programme has execution risk because of the overall scale, the share of investments dedicated to emerging markets and the margin compression in the renewables sector. Some of these risks are moderated by the regulated nature of the investment in networks, as well as by the scale and competitive advantage that ENGIE derives from its renewables platform.

Exhibit 8

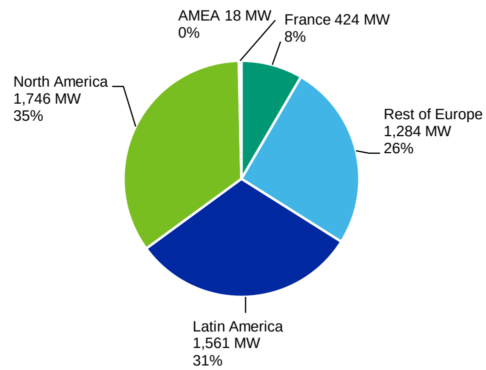
Investment is focused on contracted and regulated activities
Split of growth in capital spending (excluding maintenance) by business



Capital spending excludes investments related to exploration and production and LNG, which were divested in 2018.
Source: Company reports

Exhibit 9

New generation to be mostly added in North America, Europe and Latin America,
Expected commissioning of capacity under construction (at 100%) as of 31 December 2022



Source: Company reports

Credit metrics likely to remain strong over next two to three years

ENGIE's financial performance in 2022 benefited from high power prices across all power generation activities, from the contribution of new renewable capacity, and from record contribution from GEMS, ENGIE's energy management and trading activities division, due to the volatile energy price environment.

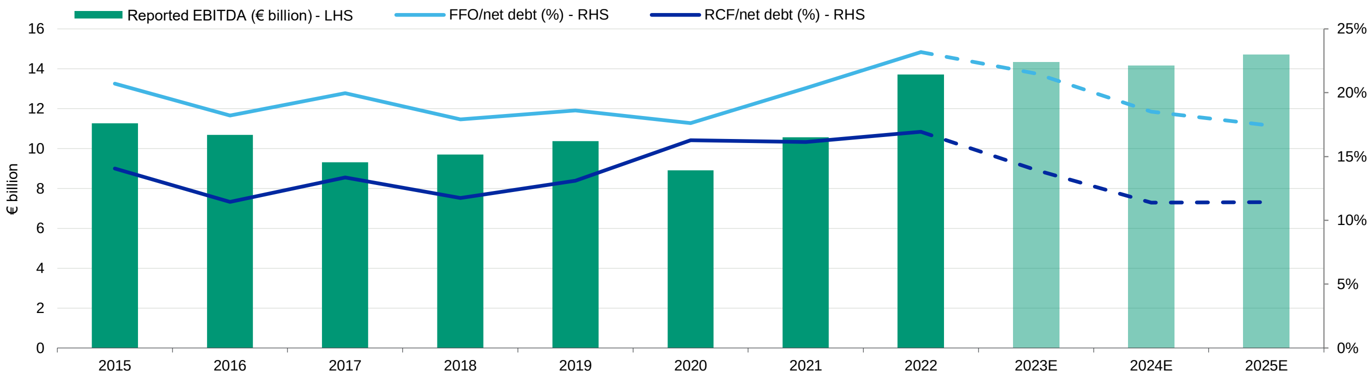
The group reported a solid performance, with EBITDA and EBIT up by 27% and 42.7% organically to €13.7 billion and €9 billion, respectively. This was partly tempered by €900 million of windfall profit taxes mainly in Belgium and Italy, along with the €1.1 billion contribution to government profit-sharing mechanisms in Belgium and France applied to nuclear and hydro.

Moody's adjusted FFO/net debt was 23.2% in 2022, up from 20.4% in 2021. Despite the disposal of Equans, finalised in October 2022 and contributing to a reduction in net debt of €7 billion, ENGIE's Moody's-adjusted net debt remained stable at €42.1 billion in 2022, compared with €42.8 billion in 2021, mainly because of a €3.3 billion increase in nuclear provision following the triennial review in Belgium (see ENGIE SA: Higher Belgium nuclear provisions and inframarginal rent cap are credit negative).

In June 2023, ENGIE significantly increased its 2023 EBIT (excluding nuclear) guidance to €8.5 billion-€9.5 billion from €6.6 billion-€7.6 billion, as the group anticipates the GEMS division will benefit from a particularly supportive energy volatility environment.

We expect a decline in ENGIE's metrics over 2023-25 because of the sizeable development and maintenance capital spending, dividend payment and nuclear provisions readjustment of €4.5 billion, which will exceed the cash generation and disposal proceeds over the period.

Exhibit 10
We expect ENGIE's FFO/net debt in 2024-25 to be in line with the Baa1 rating guidance of high-teen in percentage terms



The 2023-25 estimates represent Moody's forward view and not the view of the issuer. They incorporate the effect of the adoption of IFRS16 from 1 January 2019.
Source: Moody's Investors Service

Government related issuer considerations

Because of the 23.64% shareholding and 33.56% voting rights held by the French government, we consider ENGIE a government-related issuer under our Government-Related Issuers rating methodology, published in February 2020, which generally requires 20% as the minimum government ownership level. However, following the adoption in French law of the Loi PACTE on 23 May 2019, we removed the notch of uplift that had hitherto been factored into the rating. ENGIE's Baa1 rating is now based on the group's underlying credit strength, which is reflected in its Baseline Credit Assessment (BCA) of baa1.

ESG considerations

ENGIE SA's ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 11
ESG Credit Impact Score

CIS-3

Moderately Negative

For an issuer scored CIS-3 (Moderately Negative), its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. The negative influence of the overall ESG attributes on the rating is more pronounced compared to an issuer scored CIS-2.

Source: Moody's Investors Service

ENGIE's ESG Credit Impact Score is moderately negative (**CIS-3**), indicating that its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. ENGIE's **CIS-3** reflects a high exposure to environmental risks, reflecting a likely rise in nuclear liabilities. The effect of these considerations on the rating is mitigated by ENGIE's moderate exposure to social and governance risks, including the risk of stranded gas assets.

Exhibit 12
ESG Issuer Profile Scores

ENVIRONMENTAL	SOCIAL	GOVERNANCE
E-4	S-3	G-3
Highly Negative	Moderately Negative	Moderately Negative

Source: Moody's Investors Service

Environmental
ENGIE's **E-4** score reflects the group's exposure to high waste and pollution risks because of the high likelihood of an additional increase in costs associated with Belgian nuclear liabilities, although the risk is reduced by the interim agreement signed with the Belgian government in June 2023. ENGIE's exposure to carbon transition risks is moderate, as the high exposure to gas transmission and distribution assets to earnings (c. 31% of EBITDA in 2022), with a gas phase out law effective in France by 2050, and to gas fired generation (38% of capacity in 2022) are partly offset by growing investments in renewables. The group is moderately exposed to physical climate risks.

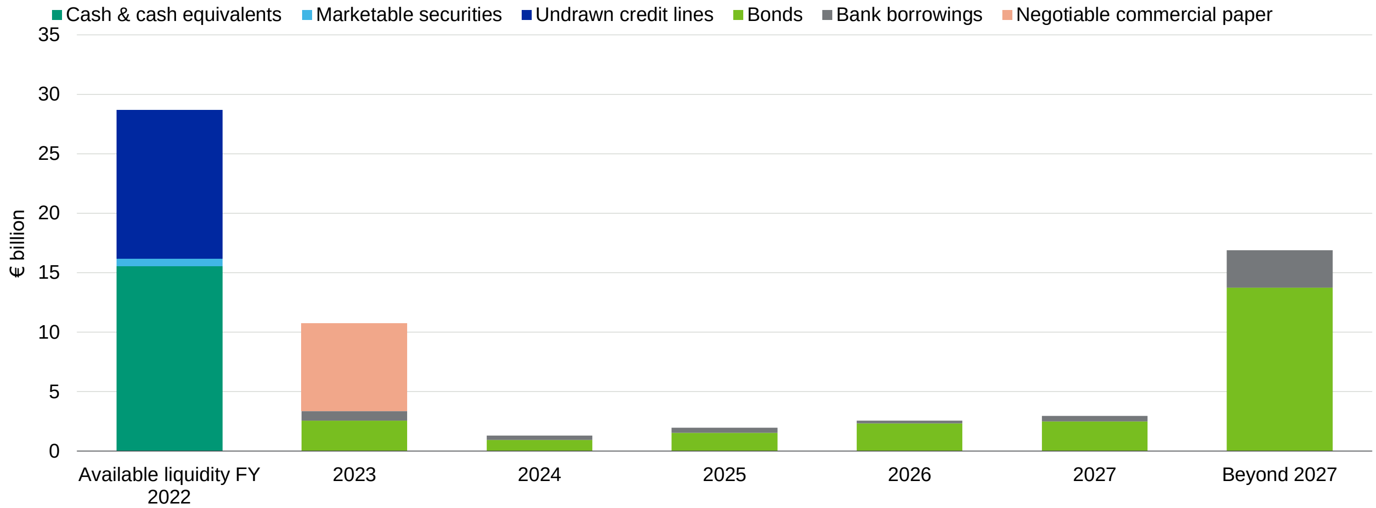
Social
ENGIE's **S-3** score reflects the fundamental utility risk that demographics and societal trends could include public concerns over affordability, public expectation that utilities act as public service, utility's reputational risk. These pressures could turn into adverse political intervention, as evidenced by the future French natural gas phase out. This also includes nuclear and gas exposures and associated risk to public health. ENGIE also has moderately negative exposure to risk to public safety as a gas leak or explosion, although unlikely, could have significant negative impact on the group's reputation and financial situation.

Governance
ENGIE's **G-3** score reflects the recent management turbulences, resulting in material changes in long term strategy, combined with the substantial ownership of the French State (23.64% as of December 2022).

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity analysis
ENGIE's strong liquidity was supported by €15.6 billion of available cash and financial assets, and a total of €12.5 billion of undrawn confirmed covenant-free credit facilities as of 31 December 2022. These include the €5.0 billion and €4.0 billion syndicated loan facilities maturing in December 2025 and December 2027, respectively. Together with strong cash generation, these sources are sufficient to cover the group's debt maturities (including the €7.4 billion commercial paper outstanding as of 31 December 2022), capital spending and expected dividend payments over the next 12 months. In addition, ENGIE issued a €2.75 billion green bond in January 2023, a £650 million green bond in March 2023 and a CHF415 million green bond in July 2023.

Exhibit 13
ENGIE has a well-spread debt maturity profile
Debt maturity profile and available liquidity as of 31 December 2022



Sources: ENGIE and Moody's Investors Service

Structural considerations

Our credit assessment takes into account both the external borrowing at the subsidiary level and nuclear provisions at ENGIE's subsidiary Electrabel SA (Electrabel, Baa1 stable) around €12.2 billion net of allocated assets in 2022), which benefit from a priority ranking in respect of the movable assets of Electrabel. While these liabilities imply some structural subordination for ENGIE's parent company's creditors, they can be accommodated in the context of total group financial debt of €41 billion and assets of €235 billion as of 31 December 2022.

Methodology and scorecard

ENGIE is rated in accordance with the following rating methodologies: Unregulated Utilities and Unregulated Power Companies, published in May 2017, and Government-Related Issuers Methodology, published in February 2020. We consider ENGIE a government-related issuer, because of the French government's ownership of 23.64% of the share capital and 33.56% of voting rights.

Following the enactment of the Loi PACTE in France in May 2019, ENGIE's creditworthiness is based on its standalone credit profile, as reflected by its BCA of baa1, which is one notch below the scorecard-indicated outcome.

Exhibit 14

Rating factors

ENGIE SA

Unregulated Utilities and Unregulated Power Companies Industry [1]	Current FY 12/31/2022		Moody's 12-18 Month Forward View As of July 2023 [2]	
Factor 1 : Scale (10%)	**Measure**	**Score**	**Measure**	**Score**
a) Scale (USD Billion)	Aaa	Aaa	Aaa	Aaa
Factor 2 : Business Profile (40%)				
a) Market Diversification	Aaa	Aaa	Aaa	Aaa
b) Hedging and Integration Impact on Cash Flow Predictability	A	A	A	A
c) Market Framework & Positioning	A	A	A	A
d) Capital Requirements and Operational Performance	Baa	Baa	Baa	Baa
e) Business Mix Impact on Cash Flow Predictability	Aa	Aa	Aa	Aa
Factor 3 : Financial Policy (10%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	6.9x	Baa	4.5x - 5.5x	Baa
b) (CFO Pre-W/C) / Net Debt (3 Year Avg)	20.4%	Baa	17% - 20%	Ba
c) RCF / Net Debt (3 Year Avg)	16.5%	Baa	10% - 13%	Ba
Rating:				
a) Scorecard-Indicated Outcome		A2		A3
b) Actual Rating Assigned				baa1
Government-Related Issuer				
a) Baseline Credit Assessment				baa1
b) Government Local Currency Rating				Aa2
c) Default Dependence				Moderate
d) Support				Moderate
e) Actual Rating Assigned				Baa1

[1] All ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. [2] This represents Moody's forward view and not the view of the issuer.

Source: Moody's Investors Service

Ratings

Exhibit 15

Category	Moody's Rating
ENGIE SA	
Outlook	Stable
Issuer Rating	Baa1
Sr Unsec Bank Credit Facility -Dom Curr	Baa1
Senior Unsecured	Baa1
Subordinate MTN -Dom Curr	(P)Baa2
Jr Subordinate -Dom Curr	Baa3
Commercial Paper	P-2
Other Short Term -Dom Curr	(P)P-2
ENGIE CC	
Outlook	Stable
Issuer Rating	Baa1
ENGIE INVEST INTERNATIONAL S.A.	
Outlook	Stable
Issuer Rating -Dom Curr	Baa1
ELECTRABEL SA	
Outlook	Stable
Issuer Rating -Dom Curr	Baa1
Other Short Term -Dom Curr	(P)P-2
ENGIE ALLIANCE	
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured -Dom Curr	Baa1
ST Issuer Rating	P-2

Source: Moody's Investors Service

Appendix

Exhibit 16
Peer comparison

	ENGIE SA Baa1 Stable			Electricite de France Baa1 Stable			Iberdrola S.A. Baa1 Stable			E.ON SE Baa2 Stable			ENEL S.p.A. Baa1 Negative		
(in EUR million)	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-20	FYE Dec-21	FYE Dec-22
Revenue	44,306	57,866	93,865	69,031	84,461	143,476	33,145	39,114	53,949	60,944	77,358	115,660	63,594	81,932	135,773
EBITDA	8,515	10,981	8,549	13,711	16,261	(4,246)	9,555	11,644	12,770	6,703	8,601	8,603	15,377	15,438	17,233
Total Assets	154,336	227,537	237,719	302,380	358,713	390,139	122,369	141,607	154,478	95,385	119,759	134,009	162,981	207,781	219,751
Total Debt	54,587	56,509	57,623	85,746	91,145	119,004	44,230	48,382	53,759	50,931	48,644	44,689	61,629	76,991	93,944
Net Debt	41,675	42,791	42,065	64,690	68,687	90,115	40,803	44,349	49,151	45,265	41,715	34,769	55,740	68,097	82,896
FFO / Net Debt	17.6%	20.4%	23.2%	22.4%	20.3%	-18.7%	19.7%	21.7%	20.3%	9.9%	15.6%	18.7%	21.4%	15.8%	13.4%
RCF / Net Debt	16.3%	16.1%	16.9%	21.6%	19.5%	-19.6%	11.5%	15.8%	13.8%	6.5%	11.9%	14.2%	12.7%	8.2%	7.3%
(FFO + Interest Expense) / Interest Expense	6.5x	8.1x	6.3x	7.0x	7.5x	-4.5x	7.4x	7.6x	5.5x	3.6x	4.5x	4.1x	6.2x	5.3x	5.0x
Debt / Book Capitalization	60.1%	54.2%	56.8%	62.2%	61.2%	74.0%	45.1%	43.4%	45.1%	78.8%	69.8%	64.4%	55.2%	60.8%	65.5%

All figures and ratios are calculated using Moody's estimates and standard adjustments. FYE = Financial year end.
Source: Moody's Financial Metrics™

Exhibit 17
Moody's-adjusted net debt calculation
ENGIE SA

(in eur million)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22
As Reported Total Debt	33,467	32,179	38,545	37,938	41,048	40,591
Pensions	1,865	2,078	2,480	3,209	1,851	768
Leases	3,954	4,194	0	0	0	0
Hybrid Securities	1,816	1,875	1,957	1,957	1,884	1,697
Securitization	928	872	944	1,257	2,204	2,338
Non-Standard Adjustments	10,263	10,344	11,578	10,226	9,522	12,229
Moody's Adjusted Total Debt	52,293	51,542	55,504	54,587	56,509	57,623
Cash & Cash Equivalents	(9,911)	(9,501)	(10,951)	(12,912)	(13,718)	(15,558)
Moody's Adjusted Net Debt	42,382	42,041	44,553	41,675	42,791	42,065

Source: Moody's Financial Metrics™

Exhibit 18
Adjusted EBITDA calculation
ENGIE SA

(in eur million)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22
As Reported EBITDA	8,002	8,080	10,099	9,069	12,355	6,714
Unusual Items - Income Statement	1,199	668	(166)	(268)	(1,090)	1,864
Pensions	77	105	80	51	131	33
Leases	659	699	0	0	0	0
Interest Expense - Discounting	(493)	(538)	(566)	(614)	(630)	(617)
Non-Standard Adjustments	(130)	10	(188)	(276)	(585)	555
Moody's Adjusted EBITDA	9,736	9,385	9,759	8,515	10,981	8,549

Source: Moody's Financial Metrics™

Exhibit 19

Select historical adjusted financial data

ENGIE SA

(in eur million)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22
INCOME STATEMENT						
Revenue	59,576	56,967	60,058	44,306	57,866	93,865
EBITDA	9,736	9,385	9,759	8,515	10,981	8,549
EBIT	5,244	4,975	5,262	4,147	6,611	3,973
Interest Expense	1,473	1,512	1,379	1,329	1,228	1,835
Net income	3,052	2,322	2,051	1,099	3,684	3,186
BALANCE SHEET						
Net Property Plant and Equipment	54,912	52,977	51,852	49,786	51,079	55,379
Total Assets	154,554	158,295	160,631	154,336	227,537	237,719
Total Debt	52,293	51,542	55,504	54,587	56,509	57,623
Cash & Cash Equivalents	9,911	9,501	10,951	12,912	13,718	15,558
Net Debt	42,382	42,041	44,553	41,675	42,791	42,065
Total Liabilities	121,646	125,347	130,111	127,418	192,429	205,243
CASH FLOW						
Funds from Operations (FFO)	8,462	7,534	8,285	7,342	8,715	9,752
Cash Flow From Operations (CFO)	9,253	7,722	7,343	6,602	5,737	7,658
Dividends	2,799	2,598	2,468	557	1,808	2,627
Retained Cash Flow (RCF)	5,663	4,936	5,817	6,785	6,907	7,125
Capital Expenditures	(6,802)	(6,646)	(6,418)	(4,861)	(6,550)	(6,771)
Free Cash Flow (FCF)	(348)	(1,522)	(1,543)	1,184	(2,621)	(1,740)
INTEREST COVERAGE						
(FFO + Interest Expense) / Interest Expense	6.7x	6.0x	7.0x	6.5x	8.1x	6.3x
LEVERAGE						
FFO / Net Debt	20.0%	17.9%	18.6%	17.6%	20.4%	23.2%
RCF / Net Debt	13.4%	11.7%	13.1%	16.3%	16.1%	16.9%
Debt / EBITDA	5.4x	5.5x	5.7x	6.4x	5.1x	6.7x
Net Debt / EBITDA	4.6x	4.7x	4.8x	5.2x	4.2x	4.9x

All metrics are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics™

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