

Electricite de France (EDF)

The recent upgrade of Electricite de France (EDF)'s Short-Term Issuer Default Rating (IDR) reflects Fitch Ratings' expectations that the state support will also flow to the short-term debt holders. We now therefore derive EDF's short-term rating from its Long-Term IDR, rather than the Standalone Credit Profile (SCP; bbb-).

The affirmation of the IDR mainly reflects the favourable pricing environment, which mitigates the risk of lower-than-expected production, due to the new corrosion problems. Fitch has adopted cautious assumptions for 2023, which would accommodate further outages, in combination with conservative realised price assumptions. This translates into a funds from operations (FFO) net leverage of around 5x in 2023. Fitch expects FFO net leverage to trend towards 4x thereafter, against the negative sensitivity of 4.7x, driving the Stable Outlook.

The rating continues to factor in a two-notch uplift to EDF's SCP, reflecting the links with the stronger sovereign. This assessment already assumes the full nationalisation of the company.

Key Rating Drivers

Operational Risk Is Main Threat: The state of the fleet continues to remain the key risk for EDF. The detected cracks at Penly 1 in northern France due to stress corrosion triggered checks on 320 welds across the fleet. EDF envisages to conclude the control of most of the 69 highly sensitive welds in 2023. This comes on top of the previous stress corrosion episodes at the beginning of 2022, which was the main cause of a production drop to 279TWh in 2022 (versus an average for 2017-2021 of 370TWh).

Low Production Visibility for 2023: EDF has reaffirmed the French nuclear production target at 300TWh-330TWh for 2023. However, material downside risks remain in our view, due to more numerous or longer-than-expected outages.

While ASN, the French Nuclear Authority, has assessed EDF's strategy for investigation and repair of the above mentioned welds as appropriate, and the company has reaffirmed its nuclear generation targets for 2023, we have taken a more conservative approach and assumed nuclear output below the 300TWh-330TWh range, which could accommodate longer-than-expected outages. This translates to a Fitch-defined EBITDA of about EUR20 billion and an FFO net leverage of around 5x. This could provide significant upside if the controls are performed as expected.

Price Environment Mitigates Risk: A reasonably conservative assumption on production (not far from 2022 level) would still result in a Fitch-defined EBITDA of about EUR20 billion and an FFO-net leverage of about 5x for 2023. This mainly reflects the regulated tariff increase of 15% in France (with the energy price component cashed in by EDF to be higher than the final price paid by customers, supported by the CSPE), high forward prices, a more profitable hedging position and materially lower risks deriving from over-hedging than 2022.

Our assumptions also take into account risks associated with windfall taxes. Conversely, we see significant cash flow upside if the controls are performed as planned by the company and the current production guidance is met.

Favourable Medium-Term Perspectives: Fitch assumes healthy prices to persist in the medium term, yet still at or below price caps currently in place, supporting EDF's cash flow generation. We forecast EBITDA of around EUR24 billion in 2024 and EUR27 billion in 2025, due to a production assumption of about 315TWh (low range of company's expectations) and 339TWh in 2024 and 2025, respectively, while assuming prices of around EUR90/MWh for the merchant sales and the ARENH framework to continue normally. This would lead to an FFO-net leverage of around 4x, against the negative sensitivity of 4.7x.

Ratings

Foreign Currency

Long-Term IDR	BBB+
Standalone Credit Profile	bbb-
Short-Term IDR	F2

Outlooks

Long-Term Foreign-Currency IDR Stable

Debt Ratings

Senior Unsecured Debt - Long-Term Rating	BBB+
Subordinated Long-Term Rating	BBB-

2035 Climate Vulnerability Score:

[Click here for the full list of ratings](#)

Applicable Criteria

[Corporate Rating Criteria \(October 2022\)](#)

[Government-Related Entities Rating Criteria \(September 2020\)](#)

[Corporates Recovery Ratings and Instrument Ratings Criteria \(April 2021\)](#)

[Corporate Hybrids Treatment and Notching Criteria \(November 2020\)](#)

[Parent and Subsidiary Linkage Rating Criteria \(December 2021\)](#)

Related Research

[Global Corporates Macro and Sector Forecasts - March 2023](#)

[Stable Outlook for Top EMEA Utilities, Amid Price Upside and Political Risk \(November 2022\)](#)

[Top EMEA Integrated Utilities - Peer Review \(November 2022\)](#)

Analysts

Manuel Meneses Pereira
 +34 93 492 9511
manuel.menesespereira@fitchratings.com

Djivan Torossian
 +44 20 3530 2617
djivan.torossian@fitchratings.com

Post-ARENH, New Nuclear: The ARENH framework will be concluded at the end of 2025. Although there is low visibility on the future of the framework, we see a material upside for the company from 2026, in light of the expected price trend, the increasing importance of EDF for European security of supply and the acknowledgement that price visibility is fundamental to enhance France's nuclear ambitions. On the investments side, the key unknown is related to the funding structure and the remuneration scheme of the new nuclear plants which France targets to commission in the next decade.

GRE Rating Uplift Unchanged: The rating continues to incorporate a two-notch uplift for state support under Fitch's Government-Related Entities (GRE) Rating Criteria. This reflects the assessment of status, ownership and control as 'Very Strong', with 'Moderate' support record and expectations and socio-political impact of default and 'Weak' financial implications of a default for the French state. The full nationalisation is factored in the IDRs. The delays to finalise the transaction do not affect our assessment of the GRE links.

New Plants Burden Balance Sheet: Based on our estimate, more than half of EDF's reported net debt in 2022 was related to the new nuclear plants of Flamanville in Normandy and Hinkley Point C (HPC) in the UK, both burdened by severe delays and extra costs.

Following another review in December 2022, Flamanville saw an estimated construction cost increase of EUR0.5 billion (2015 real terms) from previous estimates, with the fuel-loading further postponed to 1Q24 and full-year contribution from 2026 (about 12TWh). At HPC, EDF will be required provide additional equity to cover cost overruns. The commissioning of these assets would give a better picture of the company's financial structure.

Short-Term Rating Upgraded: EDF's Short-Term IDR is now derived from its Long-Term IDR, rather than the SCP, resulting in an upgrade to 'F2' from 'F3'. This reflects our expectations that the state support will also flow to the short-term debtholders, if needed. The 'F2' rating also reflects our assessment of both Financial Flexibility and Financial Structure factors in our Ratings Navigator at 'bbb+'.

Financial Summary

(EURm)	2020	2021	2022	2023F	2024F	2025F
EBITDA	15,725	16,338	-13,613	19,825	23,554	27,673
Funds flow from operations	11,638	12,218	-17,827	12,877	18,231	19,584
Free cash flow	-5,371	-6,437	-27,459	-23,451	-7,053	-11,832
FFO net leverage	3.5	3.6	-4.3	5.0	4.1	4.0
FFO interest coverage	6.9	8.7	-8.0	3.7	5.4	4.6

F = Forecast

Source: Fitch Ratings, Fitch Solutions

Rating Derivation Relative to Peers

Fitch estimates regulated and contracted EBITDA at 30%-40% of EDF's total under normal business conditions, well below that of peers Engie S.A. (A-/Stable), Enel S.p.A. and Iberdrola, S.A. (both 'BBB+' /Stable). EDF's weaker business profile (also due to higher operational risk entailed in its investment plan and asset base) and the large negative free cash flow (FCF) expected across its business plan in the rating case drive its lower debt capacity versus peers. The FFO net leverage threshold between 'BBB+' and 'BBB' is 4.9x for Enel, Iberdrola and Engie (nuclear-adjusted), while EDF has a threshold of 4.7x between 'bbb-' and 'bb+' (on an SCP basis).

Consequently, EDF's SCP is weaker than the ratings of Engie, Enel and Iberdrola. The IDRs benefit from a two-notch uplift, due to the application of Fitch's GRE Rating Criteria (not a relevant feature for the peers).

Navigator Peer Comparison

Issuer	IDR/Outlook	Business profile							Financial profile		
		Operating Environment	Management and Corporate Governance	Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility	
Electricite de France (EDF)	BBB+/Stable	aa	a-	bbb	bbb	bbb	bbb-	bb	bbb+	bbb+	
Enel S.p.A.	BBB+/Stable	bbb+	a-	a	bbb+	bbb	a	bbb	bbb	a-	
Engie S.A.	A-/Stable	aa	a-	a-	a-	bbb+	a-	bbb+	a-	a	
Iberdrola, S.A.	BBB+/Stable	a	a-	a	bbb	bbb	a	bbb	bbb	a-	

Source: Fitch Ratings.

Relative Importance of Factor: Higher (Red), Moderate (Blue), Lower (Light Blue)

Name	IDR/Outlook	Business profile							Financial profile		
		Operating Environment	Management and Corporate Governance	Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility	
Electricite de France (EDF)	BBB+/Stable	+5	+1	-1	-1	-1	-2	-4	0	0	
Enel S.p.A.	BBB+/Stable	0	+1	+2	0	-1	+2	-1	-1	+1	
Engie S.A.	A-/Stable	+4	0	0	0	-1	0	-1	0	+1	
Iberdrola, S.A.	BBB+/Stable	+2	+1	+2	-1	-1	+2	-1	-1	+1	

Source: Fitch Ratings.

Factor Score Relative to IDR: Worse positioned than IDR (Red), Within one notch of IDR (Blue), Better positioned than IDR (Light Blue)

Rating Sensitivities

Factors that could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

- Sustained record of stabilised nuclear production in France;
- Stronger links with the state; and
- FFO net leverage below 4x on a sustained basis.

Factors that could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

- Long-term reduction of available generation capacity from the existing fleet in France and weaker assessment of EDF's asset base;
- FFO net leverage above 4.7x on a sustained basis;
- Unexpected political measures similar to those taken in 2022; and
- Failure to implement the nationalisation.

Liquidity and Debt Structure

Liquidity Reliant on New External Debt: At 31 December 2022, EDF had readily available cash comprising cash and cash equivalents of EUR10.4 billion, (Fitch-defined) liquid assets of EUR15.3 billion and committed undrawn facilities of EUR14 billion, including EUR2.6 billion that is maturing within a year.

This means that additional external debt would be required in order to cover scheduled debt maturities of EUR27 billion for 2023, and expected negative Fitch-defined FCF of about EUR19.5 billion for the same year.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity.

For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

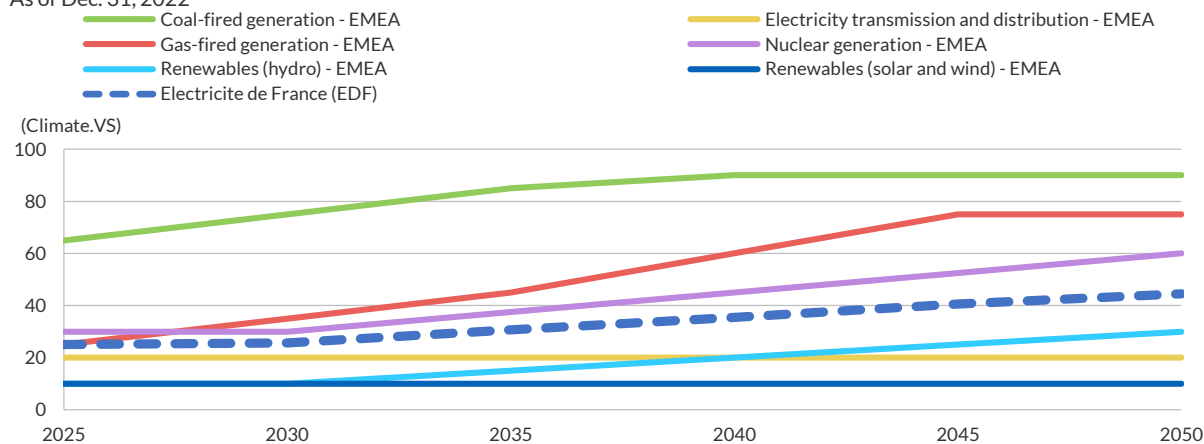
Climate Vulnerability Considerations

Fitch is in consultation with our stakeholders on a proposal to support consistency and transparency in the way Fitch identifies and addresses potentially credit-relevant climate risks in its credit rating process. This would include adding the section below to all Rating Reports. To learn more about the approach, and provide feedback, please see [Climate Vulnerability in Corporate Ratings – Discussion Paper](#) or contact climate.vsfeedback@fitchratings.com.

The FY22 revenue-weighted Climate Vulnerability Score (Climate.VS) for EDF for 2035 is 31 out of 100, suggesting low exposure to climate-related risks in that year. For further information on how Fitch perceives climate-related risks in the utilities sector, see <https://www.fitchratings.com/research/corporate-finance/utilities-long-term-climate-vulnerability-scores-update-09-02-2023>.

Climate.VS Evolution

As of Dec. 31, 2022



Source: Fitch Ratings

Liquidity and Debt Maturities

(EURm)	2023F	2024F	2025F
Available liquidity			
Beginning cash balance	25,651	-15,663	-25,260
Rating case FCF after acquisitions and divestitures	-19,524	-4,059	-8,955
<i>Debt issued since last balance sheet</i>	2,950		
Total available liquidity (A)	9,077	-19,722	-34,216
Liquidity uses			
Debt maturities	-24,740	-5,538	-17,593
Total liquidity uses (B)	-24,740	-5,538	-17,593
Liquidity calculation			
Ending cash balance (A+B)	-15,663	-25,260	-51,809
Revolver availability	11,434	11,434	11,434
Ending liquidity	-4,229	-13,826	-40,375
Liquidity score (x)	0.8	-1.5	-1.3

F - Forecast.

Source: Fitch Ratings, Fitch Solutions

Scheduled debt maturities (EURm)	Original 31 Dec 22
2023	27,140
2024	5,538
2025	17,593
2026	2,554
2027	2,858
Thereafter	44,944
Total	100,627

Source: Fitch Ratings, Fitch Solutions

Key Assumptions

- Absence of further state intervention on ARENH; 15% cap in regulated tariff in 2023 founded through tax offsets, 4% cap in 2024, no tariffs cap thereafter;
- French nuclear output conservatively below the public guidance range in 2023, 315TWh for 2024; and 339TWh in 2025. French hydro output at 40TWh for 2023-2025;
- Market prices at EUR90/TWh from 2024, which should not trigger any windfall tax on nuclear (assuming it would be extended over 2024-2025, which is unconfirmed);
- French regulated activities' EBITDA CAGR of about 1% to 2025;
- UK nuclear output declining, with an average of 34TWh in 2023-2025;
- Cash tax rate as per management guidance;
- No regulatory allocations to dedicated assets for 2023-2025;
- Annual net capex of about EUR22 billion for 2023-2025;
- Scrip dividends for 2023, EUR6.7 billion of cumulative cash dividends in 2024-2025; and
- Disposals of about EUR3 billion a year in 2022-2025.

Financial Data

Electricite de France (EDF)

(EURm)	Historical			Forecast		
	2020	2021	2022	2023	2024	2025
Summary income statement						
Gross revenue	69,031	84,461	143,476	147,780	152,214	156,780
Revenue growth (%)	-3.2	22.4	69.9	3.0	3.0	3.0
EBITDA (before income from associates)	15,725	16,338	-13,613	19,825	23,554	27,673
EBITDA margin (%)	22.8	19.3	-9.5	13.4	15.5	17.7
EBITDAR	15,725	16,338	-13,613	19,825	23,554	27,673
EBITDAR margin (%)	22.8	19.3	-9.5	13.4	15.5	17.7
EBIT	2,784	7,442	-16,142	8,246	11,475	15,094
EBIT margin (%)	4.0	8.8	-11.3	5.6	7.5	9.6
Gross interest expense	-2,278	-2,055	-2,403	-4,793	-4,170	-5,376
Pre-tax income (including associate income/loss)	1,718	6,229	-22,157	3,961	7,813	10,226
Summary balance sheet						
Readily available cash and equivalents	19,512	20,785	25,651	19,287	19,927	19,595
Debt	66,442	69,649	94,766	107,401	111,519	119,972
Lease-adjusted debt	66,442	69,649	94,766	107,401	111,519	119,972
Net debt	46,930	48,864	69,115	88,114	91,592	100,377
Summary cash flow statement						
EBITDA	15,725	16,338	-13,613	19,825	23,554	27,673
Cash interest paid	-1,973	-1,583	-1,995	-4,793	-4,170	-5,376
Cash tax	-983	-2,276	-1,282	-1,338	-2,553	-2,547
Dividends received less dividends paid to minorities (inflow/(out)flow)	166	304	183	-520	-573	-669
Other items before FFO	-1,332	-603	-1,220	-342	1,928	458
Funds flow from operations	11,638	12,218	-17,827	12,877	18,231	19,584
FFO margin (%)	16.9	14.5	-12.4	8.7	12.0	12.5
Change in working capital	-1,679	-1,526	8,301	-14,352	2,137	-371
Cash flow from operations (Fitch defined)	9,959	10,692	-9,526	-1,475	20,368	19,213
Total non-operating/nonrecurring cash flow	98	0	-	-	-	-
Capex	-15,428	-17,045	-17,861	-	-	-
Capital intensity (capex/revenue) (%)	22.3	20.2	12.4	-	-	-
Common dividends	0	-84	-72	-	-	-
Free cash flow	-5,371	-6,437	-27,459	-	-	-
Net acquisitions and divestitures	426	1,253	583	-	-	-
Other investing and financing cash flow items	4,080	5,171	-5,282	-	-	-
Net debt proceeds	2,479	3,740	30,008	10,760	4,699	8,623
Net equity proceeds	5	-3	3,256	2,400	0	0
Total change in cash	1,619	3,724	1,106	-6,364	640	-332
Leverage ratios (x)						
EBITDA leverage	4.2	4.2	-7.1	5.6	4.9	4.4
EBITDA net leverage	3.0	2.9	-5.1	4.6	4.0	3.7
EBITDAR leverage	4.2	4.2	-7.1	5.6	4.9	4.4
EBITDAR net leverage	3.0	2.9	-5.1	4.6	4.0	3.7
EBITDAR net fixed-charge coverage	8.2	10.8	-7.1	4.1	5.6	5.1
FFO adjusted leverage	4.9	5.1	-5.9	6.1	5.0	4.8
FFO adjusted net leverage	3.5	3.6	-4.3	5.0	4.1	4.0
FFO leverage	4.9	5.1	-5.9	6.1	5.0	4.8
FFO net leverage	3.5	3.6	-4.3	5.0	4.1	4.0
Calculations for forecast publication						
Capex, dividends, acquisitions and other items before FCF	-14,904	-15,876	-17,350	-20,795	-27,316	-31,046
Free cash flow after acquisitions and divestitures	-4,945	-5,184	-26,876	-22,270	-6,948	-11,833
Free cash flow margin (after net acquisitions) (%)	-7.2	-6.1	-18.7	-15.1	-4.6	-7.5

(EURm)	Historical			Forecast		
	2020	2021	2022	2023	2024	2025
Coverage ratios (x)						
FFO interest coverage	6.9	8.7	-8.0	3.7	5.4	4.6
FFO fixed-charge coverage	6.9	8.7	-8.0	3.7	5.4	4.6
EBITDAR fixed-charge coverage	8.1	10.5	-6.7	4.0	5.5	5.0
EBITDA interest coverage	8.1	10.5	-6.7	4.0	5.5	5.0
Additional metrics (%)						
CFO-capex/debt	-8.2	-9.1	-28.9	-21.8	-4.5	-6.0
CFO-capex/net debt	-11.7	-13.0	-39.6	-26.6	-5.5	-7.1
CFO/capex	64.6	62.7	-53.3	-6.7	80.2	72.9

Source: Fitch Ratings, Fitch Solutions, company filings

How to Interpret the Forecast Presented

The forecast presented above is based on Fitch Ratings' internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch Ratings to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch Ratings' rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch Ratings' forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch Ratings' own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch Ratings' own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch Ratings may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch Ratings' own internal deliberations, where Fitch Ratings, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch Ratings may update the forecast in future reports but assumes no responsibility to do so. Original financial statement data for historical periods is processed by Fitch Solutions on behalf of Fitch Ratings. Key financial adjustments and all financial forecasts credited to Fitch Ratings are generated by rating agency staff.

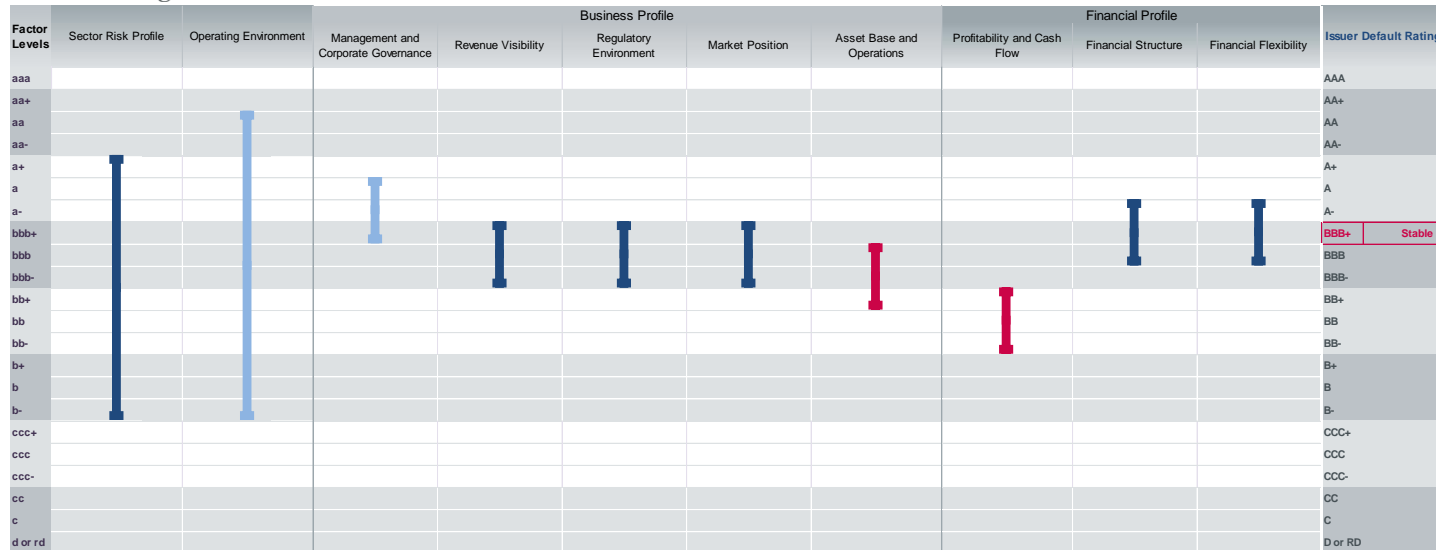
Ratings Navigator

FitchRatings

Electricite de France (EDF)

ESG Relevance:

Corporates Ratings Navigator
EMEA Utilities



Bar Chart Legend:

Vertical Bars = Range of Rating Factor	Bar Arrows = Rating Factor Outlook
Bar Colors = Relative Importance	↑ Positive
■ Higher Importance	↓ Negative
■ Average Importance	↕ Evolving
■ Lower Importance	□ Stable

Operating Environment

aa+	Economic Environment	aa	Very strong combination of countries where economic value is created and where assets are located.
aa	Financial Access	aa	Very strong combination of issuer-specific funding characteristics and the strength of the relevant local financial market.
b-	Systemic Governance	aa	Systemic governance (eg rule of law, corruption, government effectiveness) of the issuer's country of incorporation consistent with 'aa'.
ccc+			

Revenue Visibility

a-	Size and Integration	a	Top-tier position in more than one market. Vertically integrated (typically including generation, transmission, distribution and supply).
bbb+	Earnings from Regulated Network Assets	bbb	Less than 40% of EBITDA comes from high-quality regulated network assets.
bbb	Quasi-Regulated Earnings	bb	Less than 10% of EBITDA comes from quasi-regulated assets or from long-term contracted sales with creditworthy counterparties.
bbb-			
bb+			

Market Position

a-	Fundamental Market Trends	bb	Markets with structural challenges.
bbb+	Generation and Supply Positioning	a	Strong position in the merit order; effective hedging; flexible fuel procurement. Generation balanced with strong position in supply and services.
bbb	Customer Base and Counterparty Risk	bbb	Economy of area served provides structurally stable background; medium counterparty risk; fair collection rates for supply operations.
bbb-			
bb+			

Profitability and Cash Flow

bbb-	Free Cashflow	bb	Structurally negative FCF across the investment cycle.
bb+	Volatility of Profitability	b	Stability and predictability of profits negative outliers relative to utility peers.
bb			
bb-			
b+			

Financial Flexibility

a	Financial Discipline	a	Clear commitment to maintain a conservative policy with only modest deviations allowed.
a-	Liquidity	bb	Liquidity ratio around 1.0x. Less smooth debt maturity or concentrated funding.
bbb+	FFO Interest Coverage	a	5.5x
bbb	FX Exposure	a	Profitability potentially exposed to FX but efficient hedging. Debt and cash flows well matched.
bbb-			

How to Read This Page: The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

Management and Corporate Governance

a+	Management Strategy	a	Coherent strategy and good track record in implementation.
a	Governance Structure	a	Experienced board exercising effective checks and balances. Ownership can be concentrated among several shareholders.
a-	Group Structure	a	Group structure has some complexity but mitigated by transparent reporting.
bbb+	Financial Transparency	bbb	Good-quality reporting without significant failings. Consistent with the average of listed companies in major exchanges.
bbb			

Regulatory Environment

a-	Regulatory Framework and Policy Risk	bbb	Less transparent frameworks, with emerging track record and multi-year tariffs; exposed to political risk. Medium-term predictability.
bbb+	Cost Recovery and Risk Exposure	bbb	Tariff setting that may limit efficiently incurred cost and investment recovery, with moderate regulatory lag, price and volume risk.
bbb			
bbb-			
bb+			

Asset Base and Operations

bbb+	Asset Quality	bb	Low asset quality likely to affect opex and capex requirements. High, but diversified concession renewal risk.
bbb	Asset Diversity	bbb	Partial diversification by geography, generation source, supplied product.
bbb-	Carbon Exposure	a	Energy production mostly from clean sources and low carbon exposure (< 300gCO2/kWh).
bb+			
bb			

Financial Structure

a	FFO Leverage	bbb	5.0x
a-	FFO Net Leverage	bbb	4.5x
bbb+			
bbb			
bbb-			

Credit-Relevant ESG Derivation

				Overall ESG			
Electricite de France (EDF) has 13 ESG potential rating drivers				key driver	0	issues	5
➡	Emissions from operations	driver	0	issues	4		
➡	Fuel use to generate energy	potential driver	13	issues	3		
➡	Water used by hydro plants or by other generation plants; effluent management	potential driver	13	issues	3		
➡	Impact of waste from operations	potential driver	13	issues	3		
➡	Plants' and networks' exposure to extreme weather	not a rating driver	1	issues	2		
➡	Product affordability and access	not a rating driver	0	issues	1		
Showing top 6 issues							

For further details on Credit-Relevant ESG scoring, see page 3.

Credit-Relevant ESG Derivation

Electricite de France (EDF) has 13 ESG potential rating drivers

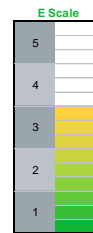
- ➔ Electricite de France (EDF) has exposure to emissions regulatory risk but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to energy productivity risk but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to water management risk but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to waste & impact management risk but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to extreme weather events but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to access/affordability risk but this has very low impact on the rating.

Showing top 6 issues

				Overall ESG Scale
key driver	0	issues	5	
driver	0	issues	4	
potential driver	13	issues	3	
not a rating driver	1	issues	2	
	0	issues	1	

Environmental (E)

General Issues	E Score	Sector-Specific Issues	Reference
GHG Emissions & Air Quality	3	Emissions from operations	Asset Base and Operations; Profitability and Cash Flow
Energy Management	3	Fuel use to generate energy	Asset Base and Operations; Market Trends and Risks; Profitability and Cash Flow
Water & Wastewater Management	3	Water used by hydro plants or by other generation plants; effluent management	Asset Base and Operations; Market Trends and Risks; Profitability and Cash Flow
Waste & Hazardous Materials Management, Ecological Impacts	3	Impact of waste from operations	Asset Base and Operations; Profitability and Cash Flow
Exposure to Environmental Impacts	3	Plants' and networks' exposure to extreme weather	Asset Base and Operations; Profitability and Cash Flow



How to Read This Page

ESG scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant and green (1) is least relevant.

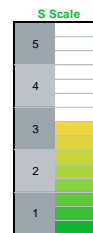
The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned to each sector-specific issue. These scores signify the credit-relevance of the sector-specific issues to the issuing entity's overall credit rating. The Reference box highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

The Credit-Relevant ESG Derivation table shows the overall ESG score. This score signifies the credit relevance of combined E, S and G issues to the entity's credit rating. The three columns to the left of the overall ESG score summarize the issuing entity's sub-component ESG scores. The box on the far left identifies the some of the main ESG issues that are drivers or potential drivers of the issuing entity's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the score.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI) and the Sustainability Accounting Standards Board (SASB).

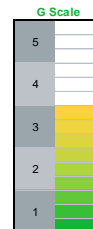
Social (S)

General Issues	S Score	Sector-Specific Issues	Reference
Human Rights, Community Relations, Access & Affordability	3	Product affordability and access	Profitability and Cash Flow; Regulation
Customer Welfare - Fair Messaging, Privacy & Data Security	3	Quality and safety of products and services; data security	Profitability and Cash Flow
Labor Relations & Practices	3	Impact of labor negotiations and employee (dis)satisfaction	Profitability and Cash Flow; Financial Structure; Financial Flexibility
Employee Wellbeing	2	Worker safety and accident prevention	Profitability and Cash Flow; Financial Structure; Financial Flexibility
Exposure to Social Impacts	3	Social resistance to major projects that leads to delays and cost increases	Asset Base and Operations; Profitability and Cash Flow



Governance (G)

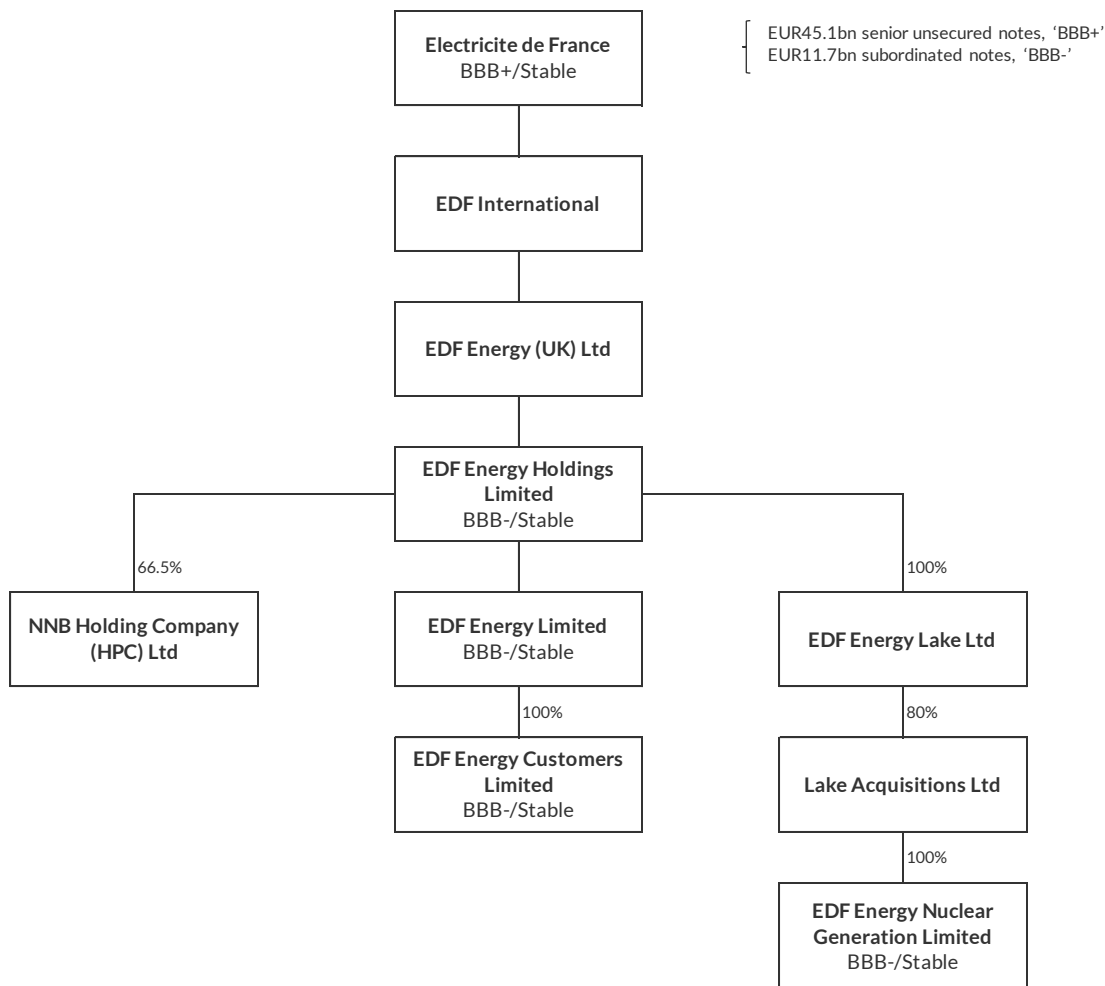
General Issues	G Score	Sector-Specific Issues	Reference
Management Strategy	3	Strategy development and implementation	Management and Corporate Governance
Governance Structure	3	Board independence and effectiveness; ownership concentration	Management and Corporate Governance
Group Structure	3	Complexity, transparency and related-party transactions	Management and Corporate Governance
Financial Transparency	3	Quality and timing of financial disclosure	Management and Corporate Governance



CREDIT-RELEVANT ESG SCALE

How relevant are E, S and G issues to the overall credit rating?	
5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

Simplified Group Structure Diagram



Source: Fitch Ratings, Fitch Solutions, Electricite de France (EDF)

Peer Financial Summary

Company	Issuer Default Rating	Financial statement date	EBITDA	Funds from operations	Free cash flow	FFO net leverage	FFO interest coverage (x)
Electricite de France (EDF)	BBB+						
	BBB+	2022	-13,613	-17,827	-27,459	-4.3	-8.0
	A-	2021	16,338	12,218	-6,437	3.6	8.7
Engie S.A.	A-	2020	15,725	11,638	-5,371	3.5	6.9
	A-	2021	9,365	7,400	-1,707	3.1	9.6
	A	2020	8,003	6,287	675	3.1	8.3
Iberdrola, S.A.	A	2020	7,785	6,267	983	3.1	8.4
	BBB+						
	BBB+	2022	12,983	9,251	-1,891	4.1	5.9
Enel S.p.A.	BBB+	2021	11,795	9,465	-2,670	3.9	10.8
	BBB+	2020	9,811	7,303	-1,165	4.4	8.8
	BBB+						
Enel S.p.A.	A-	2021	18,834	9,459	-7,477	5.4	4.9
	A-	2020	17,594	11,387	-3,062	3.8	5.9
		2019	17,588	10,154	-2,225	3.8	4.9

Source: Fitch Ratings

Fitch Adjusted Financials

(EURm) 31 December 2022	Notes and formulas	Reported values	Sum of adjustments	CORP- Lease treatment	Other adjustments	Adjusted values
Income statement summary						
Revenue		143,476				143,476
EBITDAR		-4,986	-8,627	-802	-7,825	-13,613
EBITDAR after associates and minorities	(a)	-4,803	-8,627	-802	-7,825	-13,430
Lease expense	(b)	0				0
EBITDA	(c)	-4,986	-8,627	-802	-7,825	-13,613
EBITDA after associates and minorities	(d) = (a-b)	-4,803	-8,627	-802	-7,825	-13,430
EBIT	(e)	-16,065	-77	-77		-16,142
Debt and cash summary						
Other off-balance-sheet debt	(f)	0				0
Debt^b	(g)	96,053	-1,287	-4,269	2,982	94,766
Lease-equivalent debt	(h)	0				0
Lease-adjusted debt	(i) = (g+h)	96,053	-1,287	-4,269	2,982	94,766
Readily available cash and equivalents	(j)	25,651				25,651
Not readily available cash and equivalents		3,804				3,804
Cash flow summary						
EBITDA after associates and minorities	(d) = (a-b)	-4,803	-8,627	-802	-7,825	-13,430
Preferred dividends (paid)	(k)	0				0
Interest received	(l)	95	5		5	100
Interest (paid)	(m)	-1,003	-992	77	-1,069	-1,995
Cash tax (paid)		-1,282				-1,282
Other items before FFO		-9,140	7,920		7,920	-1,220
Funds from operations (FFO)	(n)	-16,133	-1,694	-725	-969	-17,827
Change in working capital (Fitch-defined)		8,301				8,301
Cash flow from operations (CFO)	(o)	-7,832	-1,694	-725	-969	-9,526
Non-operating/non-recurring cash flow		0				0
Capital (expenditures)	(p)	-18,324	463		463	-17,861
Common dividends (paid)		-72				-72
Free cash flow (FCF)		-26,228	-1,231	-725	-506	-27,459
Gross leverage (x)						
EBITDAR leverage ^a	(i/a)	-20.0				-7.1
FFO adjusted leverage	(i)/(n-m-l-k+b)	-6.3				-5.9
FFO leverage	(i-h)/(n-m-l-k)	-6.3				-5.9
EBITDA leverage ^a	(i-h)/d	-20.0				-7.1
(CFO-capex)/debt (%)	(o+p)/(i-h)	-27.2%				-28.9%
Net leverage (x)						
EBITDAR net leverage ^a	(i-j)/a	-14.7				-5.1
FFO adjusted net leverage	(i-j)/(n-m-l-k+b)	-4.6				-4.3
FFO net leverage	(i-h-j)/(n-m-l-k)	-4.6				-4.3
EBITDA net leverage ^a	(i-h-j)/d	-14.7				-5.1
(CFO-capex)/net debt (%)	(o+p)/(i-h-j)	-37.2%				-39.6%
Coverage (x)						
EBITDAR fixed-charge coverage ^a	a/(-m+b)	-4.8				-6.7
EBITDA interest coverage ^a	d/(-m)	-4.8				-6.7
FFO fixed-charge coverage	(n-l-m-k+b)/(-m-k+b)	-15.2				-8.0
FFO interest coverage	(n-l-m-k)/(-m-k)	-15.2				-8.0

^aEBITDA/R after dividends to associates and minorities.^bIncludes other off-balance-sheet debt.

Source: Fitch Ratings, Fitch Solutions, Electricite de France (EDF)

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

DISCLAIMER & DISCLOSURES

All Fitch Ratings (Fitch) credit ratings are subject to certain limitations and disclaimers. Please read these limitations and disclaimers by following this link: <https://www.fitchratings.com/understandingcreditratings>. In addition, the following <https://www.fitchratings.com/rating-definitions-document> details Fitch's rating definitions for each rating scale and rating categories, including definitions relating to default. Published ratings, criteria, and methodologies are available from this site at all times. Fitch's code of conduct, confidentiality, conflicts of interest, affiliate firewall, compliance, and other relevant policies and procedures are also available from the Code of Conduct section of this site. Directors and shareholders' relevant interests are available at <https://www.fitchratings.com/site/regulatory>. Fitch may have provided another permissible or ancillary service to the rated entity or its related third parties. Details of permissible or ancillary service(s) for which the lead analyst is based in an ESMA- or FCA-registered Fitch Ratings company (or branch of such a company) can be found on the entity summary page for this issuer on the Fitch Ratings website.

In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001.

Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the "NRSRO"). While certain of the NRSRO's credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see <https://www.fitchratings.com/site/regulatory>), other credit rating subsidiaries are not listed on Form NRSRO (the "non-NRSROs") and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.

Copyright © 2023 by Fitch Ratings, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved.