

Electricite de France (EDF)

The rating on Electricite de France (EDF) mainly reflects the group's strong market position and solid business profile, but also an ageing nuclear fleet in France and the UK, risks related to the new nuclear commissioning and structurally negative free cash flows (FCF). The IDR incorporates a one-notch uplift due to likely state support.

The Negative Outlook continues to reflect our expectations that funds from operations (FFO) net leverage will remain under pressure over the rating horizon, mainly due to the large negative FCF and lower nuclear output. Fitch forecasts a small breach of its leverage sensitivity over 2021-2023. However, we see potential upsides to our rating case, especially if the favourable price trend persists.

The potential nuclear reform in France remains a key issue for EDF, but we believe that an agreement is now unlikely before the French presidential elections in April 2022.

Key Rating Drivers

Exhausted Leverage Headroom: We expect average FFO net leverage to reach 4.1x over 2021-2023, from 3.5x in 2020, slightly breaching our negative sensitivity of 4.0x. This is mainly related to heavily negative Fitch-defined FCF in the region of EUR6 billion-8 billion a year. We expect the growth in EBITDA to be more than offset by rising capex, for which we see limited flexibility, driven by maintenance of existing nuclear, investments in new nuclear, and the development of renewables and a distribution grid.

Structurally Negative FCF: We expect the negative FCF to be only partially compensated by managerial actions. These include planned disposals of EUR3 billion in 2020-2022 and possible transactions needed to achieve the management's target of reported net debt/EBITDA of about 3x. We conservatively included dividends distributions in our rating case, but we see some upside related to the potential continuation of scrip dividends for the state beyond 2021 and the conversion into equity of the convertible bond in 2022.

The structure of FCF and the sizeable exposure of the generation activity to price and volume risks are the key weaknesses of EDF's Standalone Credit Profile of 'bbb+'.

Improving Price Environment: We believe EDF is one of the key beneficiaries of the improving power price environment, with one-year forward prices in France more than 50% higher than a year ago. This is mainly driven by the surge in CO2 prices, which would benefit EDF, given its clean asset base. We expect EDF to start seeing benefits from 2021, as the company recently upgraded its nuclear output estimates to 345TWh-365TWh from 330TWh-360TWh.

The benefits will increase from 2022, as hedges made in less favourable price environments gradually roll off. We forecast on average higher EBITDA than the previous Fitch rating case (15% for 2021-2022), but this largely depends on electricity prices.

Uncertainties Around Market Reform: Negotiations with the EU about the nuclear market reform are continuing, particularly with regard to the price of nuclear generation and EDF's group structure. The French state and EDF intend to protect the full integration of the group, but we understand that the EU requires a stricter separation between businesses, which caused very long negotiations.

An implementation of the reform before the presidential elections of April 2022 is now unlikely in our view. This creates additional uncertainties, also related to the approach of any new government.

Ratings

Rating Type	Rating	Outlook	Last Rating Action
Long-Term IDR	A-	Negative	Affirmed 19 Jul 21
Short-Term IDR	F2		Affirmed 19 Jul 21
Standalone Credit Profile	bbb+		Affirmed 19 Jul 21

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

Related Research and Applicable Criteria

[Parent and Subsidiary Linkage Rating Criteria \(August 2020\)](#)

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

[Corporate Rating Criteria \(December 2020\)](#)

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

[Sector Navigators - Addendum to the Corporate Rating Criteria \(April 2021\)](#)

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Potential Benefits from Reform: The market reform should see the introduction of a higher and fixed remuneration for nuclear output. The reform should resolve key problems of the ARENH mechanism. This has a reference price at EUR42/MWh that is directly or indirectly applicable to most of EDF's French electricity sales and does not provide protection from a market downturn, while capping the price for most of the nuclear production sold.

Strong Performance in 1H21: EDF posted solid results in 1H21, with reported EBITDA showing an organic growth of around 30% to EUR10.6 billion. This was mainly driven by a higher nuclear output in France (up 7.7TWh yoy), a mix of positive tariffs, volumes and grid connections for French regulated activities, and the contribution from the trading activity. Based on Fitch's definitions, we estimate a broadly neutral FCF for the period, which indicates a positive trend for the company.

UK Output to Remain Flat: Nuclear generation in the UK decreased in 1H21 by 8% to 20.9TWh, mainly due to the maintenance schedule. We expect generation to remain relatively low at around 43TWh over the forecast period, as a result of the recent closure of the Dungeness B power station, and additional closures scheduled at end-2021 for Hunterston and mid-2022 for Hinkley Point B. These account for about a quarter of the UK's nuclear capacity. The contribution of the UK to the consolidated EBITDA should fall below 5% over the plan.

New Nuclear Project Risk Remains: At the Flamanville power station in France, fuel loading would occur at best by end-2022. This implies an increase of construction costs by EUR1.5 billion (in 2015 real terms, excluding interest during construction) from previous estimates. Following a review in January 2021, Hinkley Point C, EDF's other key nuclear project, saw an increase in construction costs of GBP0.5 billion (2015 real terms) from previous estimates.

Further delays and extra costs for these projects are likely and may further weaken the economics of new nuclear. The recent incident in Taishan may also have implications for other nuclear projects based on the same technology, if the investigation reveals any serious problems. We expect new nuclear projects to be structured differently in terms of regulatory frameworks and EDF's financial involvement, with a much lower burden on the group's financial profile.

Healthy Nuclear Provision Coverage: In 1H21, the value of assets dedicated to cover nuclear provisions increased by EUR2.1 billion compared to end-2020 to EUR35.9 billion. This represents 111.8% of the related provisions. Conservatively, we included some allocations to dedicated assets in our base case (which we deduct from FFO), but we do not expect significant cash-outs over the rating horizon.

Uplift due to GRE: The IDR reflects a one-notch uplift for the strength of its links with the sovereign under our government-related entities (GRE) rating criteria. This is due to the French state's direct involvement in supporting the nuclear market reform, triggering a 'Moderate' assessment for support track record. Other factors for the uplift are 'Strong' control, as well as 'Moderate' socio-political and 'Weak' financial implications of a default for the French state.

In the absence of an agreement with EU in the short term, we expect France to continue pursuing a solution to go beyond the ARENH mechanism and ensure a fair remuneration system for EDF's nuclear production. EDF is a key instrument for the country's ambitions in terms of energy transition, in our view. We could review our GRE assessment if the government's approach or commitment towards EDF were to be different from our expectations.

Financial Summary

(EURm)	Dec 19	Dec 20	Dec 21F	Dec 22F	Dec 23F
Gross revenue	71,317	69,031	70,412	71,820	73,256
Operating EBITDAR	14,765	16,502	16,301	16,013	16,233
FFO margin (%)	14.9	16.9	15.4	15.9	16.4
FFO net leverage (x)	3.5	3.5	3.9	4.1	4.3
FFO interest coverage (x)	6.2	6.9	5.7	6.0	5.9

F - Forecast

Source: Fitch Ratings, Fitch Solutions

Rating Derivation Relative to Peers

We estimate EDF's regulated and contracted EBITDA at 40%-45% of the total, well below that of peers Engie S.A. (A-/Stable), Enel S.p.A. (A-/Stable) and Iberdrola, S.A. (BBB+/Stable). The weaker business profile (also due to higher operational risk entailed in the investment plan) and the large negative FCFs expected across the business plan drive the lower debt capacity for EDF compared to peers. For the FFO net leverage, the threshold between 'A-' and 'BBB+' is 4.2x for both Enel and Iberdrola, 4.2x (nuclear adjusted) for Engie and 3.0x for EDF (on a standalone credit profile basis).

As a consequence, the standalone credit profile of EDF is lower than Enel and Engie's ratings, notwithstanding a broadly similar FFO net leverage, while Iberdrola has a 'BBB+' rating but with a higher leverage. EDF's IDR has from a one-notch uplift due to the application of the GRE criteria.

The ratings of EDF's subsidiaries in the UK reflect the application of Fitch's Parent and Subsidiary Rating Criteria and our view of their strong links with EDF.

Navigator Peer Comparison

Issuer	Business profile										Financial profile		
	IDR/Outlook	Operating Environment	Management and Corporate Governance	Position and Cash Flow Profile	Regulation	Market Trends and Risks	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility	Importance		
Electricite de France (EDF)	A-/Neg	aa	a-	bbb	bbb	bbb	a-	bb+	bbb+	bbb+	Higher		
Enel S.p.A.	A-/Sta	bbb+	a-	a	bbb+	bbb	a	bbb+	bbb+	bbb+	Moderate		
Energie Baden-Wuerttemberg AG (EnBW)	BBB+/Sta	aa-	a	bbb+	bbb+	bbb+	a-	bbb+	bbb+	bbb+	Lower		
Engie S.A.	A-/Sta	aa	a-	a-	a-	bbb+	a-	bbb+	bbb+	bbb+			
Iberdrola, S.A.	BBB+/Sta	a	a-	a	bbb	bbb	a	bbb	bbb	bbb			

Source: Fitch Ratings.

Name	Business profile										Financial profile		
	IDR/Outlook	Operating Environment	Management and Corporate Governance	Position and Cash Flow Profile	Regulation	Market Trends and Risks	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	Financial Flexibility			
Electricite de France (EDF)	A-/Neg	4.0	0.0	-2.0	-2.0	-2.0	0.0	-4.0	-1.0	-1.0			
Enel S.p.A.	A-/Sta	-1.0	0.0	1.0	-1.0	-2.0	1.0	-1.0	-1.0	0.0			
Energie Baden-Wuerttemberg AG (EnBW)	BBB+/Sta	4.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0			
Engie S.A.	A-/Sta	3.0	-1.0	-1.0	-1.0	-2.0	-1.0	-2.0	-1.0	0.0			
Iberdrola, S.A.	BBB+/Sta	2.0	1.0	2.0	-1.0	-1.0	2.0	-1.0	-1.0	1.0			

Source: Fitch Ratings.

Worse positioned than IDR In line with IDR Better positioned than IDR

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Positive Rating

Action/Upgrade:

- Visibility on the introduction of the market reform for nuclear in France, with an increase in cash-flow predictability, and stronger credit metrics than those outlined in the negative sensitivities below may result in the Outlook being revised to Stable; and
- We do not anticipate an upgrade as reflected in the Negative Outlook. However, developments that may lead to an upgrade include FFO net leverage below 3.0x on a sustained basis; FFO interest cover above 6.0x on a sustained basis; sustained reduction in negative FCF and nuclear-market reform in France leading to higher cash-flow visibility, or stronger links with the government.

Factors that Could, Individually or Collectively, Lead to Negative Rating

Action/Downgrade:

- FFO net leverage above 4.0x on a sustained basis;
- FFO interest cover below 5.0x on a sustained basis;
- A sustained decline in electricity prices in France, the UK and Italy and/or further cuts to production;
- Insufficient visibility on the implementation of nuclear-market reform in France, in the absence of any other measure enhancing earnings' visibility, and further delay and extra-costs in new nuclear development; and
- Weaker links with the French state.

Liquidity and Debt Structure

Strong Liquidity: At 30 June 2021, EDF had readily available cash comprising cash and cash equivalents of EUR5.9 billion, (Fitch-defined) liquid assets of EUR10.2 billion and committed undrawn facilities of EUR11.1 billion, including EUR1.8 billion that is maturing within a year. This means that EDF can cover scheduled debt maturities of EUR8.3 billion for the period of July 2021 to December 2022, and expected negative Fitch-defined FCF of about EUR11.5 billion for the same period without resorting to additional debt issuance.

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.

Liquidity and Debt Maturities

Electricite de France (EDF) – Liquidity Analysis

(EURm)	2021F	2022F	2023F
Available liquidity			
Beginning cash balance	19,512	5,172	-4,290
Rating case FCF after acquisitions and divestitures	-5,617	-5,182	-6,576
Hybrid debt issuance	1,250		
Total available liquidity (A)	15,145	-9	-10,865
Liquidity uses			
Debt maturities	-9,973	-4,280	-2,091
Total liquidity uses (B)	-9,973	-4,280	-2,091
Liquidity calculation			
Ending cash balance (A+B)	5,172	-4,290	-12,957
Revolver availability	9,302	9,302	9,302
Ending liquidity	14,474	5,012	-3,655
Liquidity score (x)	2.3	2.2	-0.7

F – Forecast

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

Scheduled debt maturities (EURm)	Original 30 June 2021
2021	3,979
2022	4,280
2023	2,091
2024	5,673
2025	2,271
Thereafter	50,279
Total	68,573

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

Key Assumptions

- French nuclear output at 350TWh-360TWh for 2021-2023
- French hydro output at 35TWh-40TWh for 2021-2023
- Market prices in France at EUR55-EUR60/MWh in 2021-2023
- French regulated activities' EBITDA to grow at a CAGR of about 6%, as indicated by the company
- UK nuclear output averaging 43TWh in 2021-2023
- Market prices in the UK and Italy broadly in line with forward levels, margins include hedging already in place
- Cash tax as per guidance; cost of new funding (senior unsecured) at 2% up to 2023
- Annual allocations to dedicated assets conservatively assumed during the period, even if not needed now
- Broadly neutral trend of working capital
- Annual net capex of about EUR17.0 billion in 2021-2023
- Cash dividends paid in 2022-2023, based on a pay-out of 50%
- Disposals and additional initiatives aimed at strengthening the balance sheet for a cumulative amount of about EUR3 billion in 2021-2023

Financial Data

(EURm)	Historical		Forecast		
	Dec 19	Dec 20	Dec 21	Dec 22	Dec 23
Summary income statement					
Gross revenue	71,317	69,031	70,412	71,820	73,256
Revenue growth (%)	3.4	-3.2	2.0	2.0	2.0
Operating EBITDA (before income from associates)	14,020	15,725	15,604	15,316	15,536
Operating EBITDA margin (%)	19.7	22.8	22.2	21.3	21.2
Operating EBITDAR	14,765	16,502	16,301	16,013	16,233
Operating EBITDAR margin (%)	20.7	23.9	23.2	22.3	22.2
Operating EBIT	8,295	2,784	5,604	4,816	4,536
Operating EBIT margin (%)	11.6	4.0	8.0	6.7	6.2
Gross interest expense	-2,541	-2,278	-2,311	-2,293	-2,448
Pretax income (including associate income/loss)	7,217	1,718	3,872	3,102	2,667
Summary balance sheet					
Readily available cash and equivalents	20,779	19,512	19,547	19,900	20,832
Total debt with equity credit	65,267	66,442	71,469	76,554	83,638
Total adjusted debt with equity credit	71,227	72,658	77,045	82,130	89,214
Net debt	44,487	46,930	51,922	56,654	62,806
Summary cash flow statement					
Operating EBITDA	14,020	15,725	15,604	15,316	15,536
Cash interest paid	-2,042	-1,973	-2,311	-2,293	-2,448
Cash tax	-922	-983	-1,964	-1,007	-1,179
Dividends received less dividends paid to minorities (inflow/(out)flow)	194	166	-124	-154	-152
Other items before FFO	-671	-1,332	-358	-411	286
Funds flow from operations	10,596	11,638	10,847	11,452	12,043
FFO margin (%)	14.9	16.9	15.4	15.9	16.4
Change in working capital	452	-1,679	-207	403	-279
Cash flow from operations (Fitch defined)	11,048	9,959	10,640	11,855	11,764
Total non-operating/nonrecurring cash flow	222	98			
Capex	-16,031	-15,428			
Capital intensity (capex/revenue) (%)	22.5	22.3			
Common dividends	-58	0			
Free cash flow	-4,819	-5,371			
Net acquisitions and divestitures	-69	426			
Other investing and financing cash flow items	2,967	4,080	961	1,903	1,390
Net debt proceeds	1,977	2,479	5,027	5,085	7,085
Net equity proceeds	-14	5	625	450	424
Total change in cash	42	1,619	35	353	932
Leverage ratios					
Total net debt with equity credit/operating EBITDA (x)	3.1	3.0	3.4	3.7	4.1
Total adjusted debt/operating EBITDAR (x)	4.8	4.4	4.8	5.2	5.5
Total adjusted net debt/operating EBITDAR (x)	3.4	3.2	3.6	3.9	4.3
Total debt with equity credit/operating EBITDA (x)	4.6	4.2	4.6	5.0	5.4
FFO adjusted leverage (x)	5.3	5.1	5.6	5.7	5.9
FFO adjusted net leverage (x)	3.8	3.7	4.2	4.3	4.5
FFO leverage (x)	5.2	4.9	5.4	5.6	5.8
FFO net leverage (x)	3.5	3.5	3.9	4.1	4.3
Calculations for forecast publication					
Capex, dividends, acquisitions and other items before FCF	-15,936	-14,904	-17,218	-18,939	-19,730
Free cash flow after acquisitions and divestitures	-4,888	-4,945	-6,578	-7,085	-7,966
Free cash flow margin (after net acquisitions) (%)	-6.9	-7.2	-9.3	-9.9	-10.9
Coverage ratios					
FFO interest coverage (x)	6.2	6.9	5.7	6.0	5.9
FFO fixed charge coverage (x)	4.8	5.2	4.6	4.8	4.8
Operating EBITDAR/interest paid + rents (x)	5.4	6.1	5.4	5.3	5.1
Operating EBITDA/interest paid (x)	7.0	8.1	6.7	6.6	6.3
Additional metrics					
CFO-capex/total debt with equity credit (%)	-7.6	-8.2	-10.3	-8.4	-8.3
CFO-capex/total net debt with equity credit (%)	-11.2	-11.7	-14.2	-11.3	-11.1

Source: Fitch Ratings, Fitch Solutions

How to Interpret the Forecast Presented

The forecast presented 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

Factor Levels	Sector Risk Profile	Operating Environment	Business Profile				Financial Profile			Issuer Default Rating
			Management and Corporate Governance	Revenue Visibility	Regulatory Environment	Market Position	Asset Base and Operations	Profitability and Cash Flow	Financial Structure	
aaa										AAA
aa+										AA+
aa										AA
aa-										AA-
a+										A+
a										A
a-										A-
bbb+										BBB+
bbb										BBB
bbb-										BBB-
bb+										BB+
bb										BB
bb-										BB-
b+										B+
b										B
b-										B-
ccc+										CCC+
ccc										CCC
ccc-										CCC-
cc										CC
c										C
d or rd										D or RD

Bar Chart Legend:			
Vertical Bars = Range of Rating Factor		Bar Arrows = Rating Factor Outlook	
Bar Colours = 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.
	Systemic Governance	aa	Systemic governance (eg rule of law, corruption, government effectiveness) of the issuer's country of incorporation consistent with 'aa'.
b-			
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.
bbb-	Volatility of Profitability	bb	Lower stability and predictability of profits than utility peers.
bb+			
bb			
bb-			

Financial Flexibility

a	Financial Discipline	a	Clear commitment to maintain a conservative policy with only modest deviations allowed.
a-	Liquidity	a	Very comfortable liquidity; no need to use external financing in the next 12 months even under a severe stress scenario. Well-spread debt maturity schedule. Diversified sources of funding.
bbb+	FFO Interest Coverage	bbb	4.5x
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

a+	Asset Quality	bbb	Mid-range asset quality not likely to affect opex and capex requirements compared with peers.
a	Asset Diversity	a	High diversification by geography, generation source, supplied product, multi-jurisdictional utility or regional multi-utility.
a-	Carbon Exposure	a	Energy production mostly from clean sources and low carbon exposure (< 300gCO2/kWh).
bbb+			
bbb			

Financial Structure

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

Credit-Relevant ESG Derivation

				Overall ESG	
key driver	0	issues	5		
➤ Emissions from operations	0	issues	4		
➤ Fuel use to generate energy	0	issues	3		
➤ Water used by hydro plants or by other generation plants; effluent management	13	issues	2		
➤ Impact of waste from operations	1	issues	1		
➤ Plants' and networks' exposure to extreme weather	0	issues	1		
➤ Product affordability and access	0	issues	1		

Showing top 6 issues

Credit-Relevant ESG Derivation

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

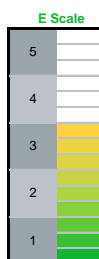
- ➔ Electricite de France (EDF) has exposure to emissions regulatory risk but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to energy productivity risk but this has very low impact on the rating.
- ➔ Electricite de France (EDF) has exposure to water management risk 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.

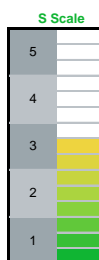
The Environmental (E), Social (S) and Governance (G) tables break out the individual components of the scale. The right-hand box shows the aggregate E, S, or G score. General Issues are relevant across all markets with Sector-Specific Issues unique to a particular industry group. Scores are assigned 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).

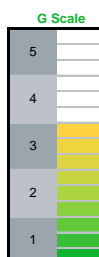
Social (S)

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



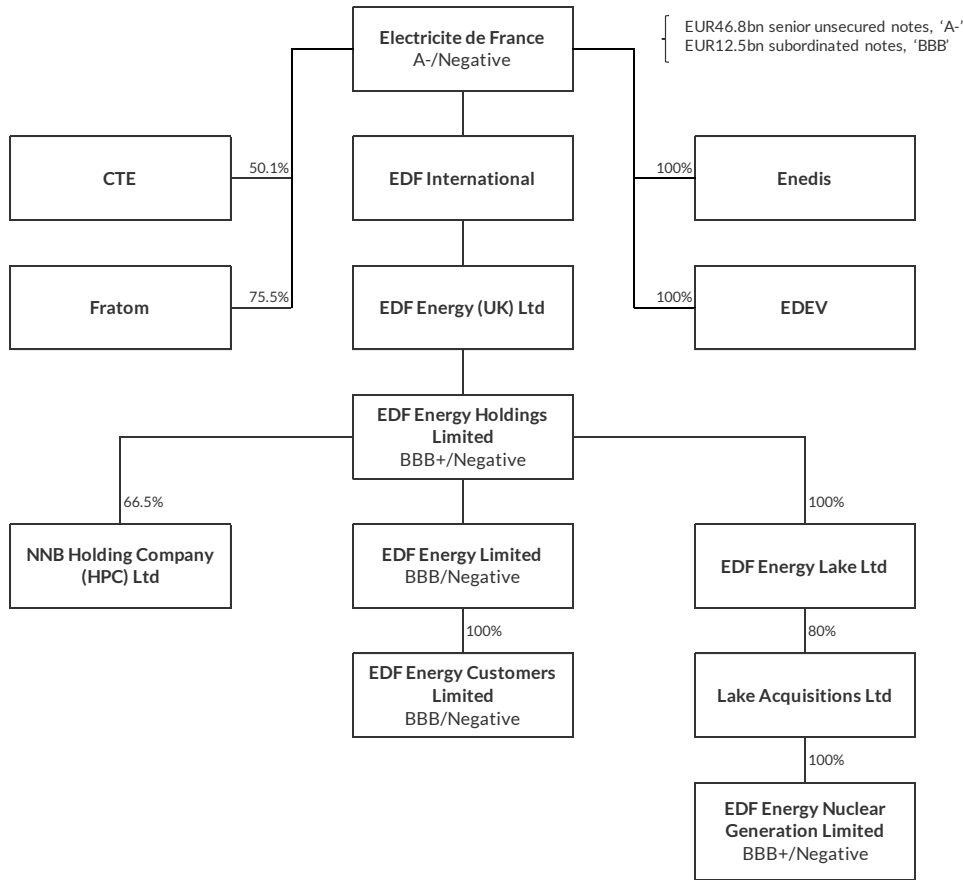
Governance (G)

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, EDF, as of 30 June 2021

Peer Financial Summary

Company	Issuer default Rating	Financial statement date	Gross revenue	Operating EBITDAR	FFO margin (%)	FFO net leverage (x)	FFO interest coverage (x)
Electricite de France (EDF)	A-						
	A-	2020	69,031	16,502	16.9	3.5	6.9
	A-	2019	71,317	14,765	14.9	3.5	6.2
	A-	2018	68,976	14,759	14.9	3.2	5.8
Enel S.p.A.	A-	2017	69,632	12,592	11.2	3.9	4.4
		2020F	79,770	17,900	13.4	4.0	5.9
	A-	2019	77,694	17,905	13.1	3.8	4.9
	BBB+	2018	75,672	16,333	13.3	3.9	4.9
Energie Baden-Wuerttemberg AG (EnBW)	BBB+	2017	74,639	15,735	13.9	3.4	5.2
		2020F	21,539	2,659	7.6	3.1	8.4
	A-	2019	18,765	2,312	7.0	4.0	6.8
	A-	2018	20,618	2,154	6.5	2.5	6.0
Engie S.A.	A-	2017	21,974	1,986	7.3	1.9	3.7
	A	2020	55,751	8,486	11.3	3.1	8.3
	A	2019	60,058	9,672	12.2	3.1	8.6
	A	2018	56,967	9,123	10.5	3.4	7.0
Iberdrola, S.A.	A	2017	59,576	9,145	10.3	3.5	7.1
	BBB+	2020	33,145	10,010	22.0	4.4	8.8
	BBB+	2019	36,438	10,104	20.0	4.4	7.9
	BBB+	2018	35,076	9,498	20.8	4.3	7.4
	BBB+	2017	31,263	7,468	16.4	5.7	5.9

Source: Fitch Ratings, Fitch Solutions

Fitch Adjusted Financials

Fitch Adjustments and Reconciliation Table for Electricite de France (EDF)

(EURm)	Notes and Formulas	Reported Values	Sum of Adjustments	Other Adjustments	Adjusted Values
31 December 2020					
Income Statement Summary					
Revenue		69,031			69,031
Operating EBITDAR		16,174	328	328	16,502
Operating EBITDAR After Associates and Minorities	(a)	16,340	328	328	16,668
Operating Lease Expense	(b)	0	777	777	777
Operating EBITDA	(c)	16,174	-449	-449	15,725
Operating EBITDA After Associates and Minorities	(d) = (a-b)	16,340	-449	-449	15,891
Operating EBIT	(e)	2,864	-80	-80	2,784
Debt and Cash Summary					
Total Debt with Equity Credit	(f)	65,591	851	851	66,442
Lease-Equivalent Debt	(g)	0	6,216	6,216	6,216
Other Off-Balance-Sheet Debt	(h)	0			0
Total Adjusted Debt with Equity Credit	(i) = (f+g+h)	65,591	7,067	7,067	72,658
Readily Available Cash and Equivalents	(j)	19,512			19,512
Not Readily Available Cash and Equivalents		1,786			1,786
Cash Flow Summary					
Operating EBITDA After Associates and Minorities	(d) = (a-b)	16,340	-449	-449	15,891
Preferred Dividends (Paid)	(k)	0			0
Interest Received	(l)	35			35
Interest (Paid)	(m)	-1,008	-965	-965	-1,973
Cash Tax (Paid)		-983			-983
Other Items Before FFO		-127	-1,205	-1,205	-1,332
Funds from Operations (FFO)	(n)	14,257	-2,619	-2,619	11,638
Change in Working Capital (Fitch-Defined)		-1,679			-1,679
Cash Flow from Operations (CFO)	(o)	12,578	-2,619	-2,619	9,959
Non-Operating/Nonrecurring Cash Flow		98			98
Capital (Expenditures)	(p)	-16,007	579	579	-15,428
Common Dividends (Paid)		0			0
Free Cash Flow (FCF)		-3,331	-2,040	-2,040	-5,371
Gross Leverage (x)					
Total Adjusted Debt/Operating EBITDAR ^a	(i/a)	4.0			4.4
FFO Adjusted Leverage	(i)/(n-m-l-k+b)	4.3			5.1
FFO Leverage	(i-g)/(n-m-l-k)	4.3			4.9
Total Debt with Equity Credit/Operating EBITDA ^a	(i-g)/d	4.0			4.2
(CFO-Capex)/Total Debt with Equity Credit (%)	(o+p)/(i-g)	-5.2%			-8.2%
Net Leverage (x)					
Total Adjusted Net Debt/Operating EBITDAR ^a	(i-j)/a	2.8			3.2
FFO Adjusted Net Leverage	(i-j)/(n-m-l-k+b)	3.0			3.7
FFO Net Leverage	(i-g-j)/(n-m-l-k)	3.0			3.5
Total Net Debt with Equity Credit/Operating EBITDA ^a	(i-g-j)/d	2.8			3.0
(CFO-Capex)/Total Net Debt with Equity Credit (%)	(o+p)/(i-g-j)	-7.4%			-11.7%
Coverage (x)					
Operating EBITDA/(Interest Paid + Lease Expense) ^a	a/(-m+b)	16.2			6.1
Operating EBITDA/Interest Paid ^a	d/(-m)	16.2			8.1
FFO Fixed-Charge Coverage	(n-l-m-k+b)/(-m-k+b)	15.1			5.2
FFO Interest Coverage	(n-l-m-k)/(-m-k)	15.1			6.9

^aEBITDA/R after dividends to associates and minorities.

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

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