

Rating object	Rating information	
Électricité de France S.A. (Group)	Rating: A-	Outlook: stable
Creditreform ID: 2000000598	Prepared on: December 9, 2016	Monitoring until: withdrawal of the rating
Incorporation: 1946	Publication: December 16, 2016	Rating type: unsolicited
(Main) Industry: Generation, transmission, distribution, supply and trading of energies	Rating systematic: corporate rating	Rating history: www.creditreform-rating.de
Management: Jean-Bernard Lévy, CEO		

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Abstract

Company

Électricité de France S.A. (EDF) is the world's largest power company. The group integrates the businesses of power generation, trading and of the transmission grid. The company can count an average of 37.6 million customers worldwide served by 159,112 employees in 2015. EDF is the first generator of electricity worldwide and of renewables in Europe with 28.3 GW of installed capacity, the first power grid operator in Europe with 100,000 km very high and high voltage lines, 50 border lines and 1.3 million km of low and medium voltage lines, as well as the first nuclear operator in the world with 78 reactors worldwide (of which 58 are in France). The group focuses on R&D and on new energy sources as well as renewables. EDF generates electricity by means of nuclear plants (78% of EDF's production), solar and wind energy, biogas (2% altogether), combined cycle and cogeneration (7%), hydropower (7%) and fossil fuel (excluding gas) (6%).

With revenues amounting to EUR 75.0 billion in 2015 (previous year: EUR 73.4 billion, i.e. +2.2% in absolute terms), the company achieved a net profit of EUR 1.2 billion (previous year: EUR 3.6 billion). Despite the apparent increase in revenue, the company recorded an organic decline of -0.6% due to an unfavourable power price environment. EBITDA amounted to EUR 13.3 billion (previous year: EUR 15.9 billion) and EBIT to EUR 4.3 billion (2014: EUR 7.9 billion). As of December 31, 2015, the total financial debt amounted to EUR 71.6 billion (previous year: EUR 61.5 billion), mostly comprised of bond issues within the framework of its EMTN Program of EUR 45 billion. Total bond issues amount to 48.5 billion EUR and the average maturity of debt is 13 years. The net debt / EBITDA ratio is high at 12.11. The company invested EUR 12.67 billion in 2015.

Rating Result

The current rating attests a good credit quality to EDF, which represents a low to medium default risk in comparison with the sector and the overall economy. The group records stable revenues, strong margins and generates positive cash flows. Nevertheless, the unfavorable market price environment as well as the required investments put pressure on the company's cash flow generation. These negative developments could be offset by the divestiture of some EDF assets, as well as by the capital increase and the control and reduction of the company's opex and capex in the near future (horizon 2018-2020). Any negative development in France's creditworthiness could negatively affect EDF's corporate rating.

Outlook

The yearlong outlook of the rating is stable. This appraisal is based on our expectations that the company will successfully achieve its strategic financial plan and that the current low power-prices will not further deteriorate. We assume support from the French Government in the event of EDF's distress.

Analysts

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Relevant rating factors

Excerpts from the financial ratios analysis 2015	Financial ratios' extract Basis: consolidated annual statement per 31.12 (IFRS)	Standardized balance sheet	
		2014	2015
	Total assets	EUR 255,663 million	EUR 265,992 million
	Turnover	EUR 73,383 million	EUR 75,006 million
	EBITDA	EUR 15,924 million	EUR 13,289 million
	EBIT	EUR 7,984 million	EUR 4,280 million
	EAT	EUR 3,594 million	EUR 1,209 million
	Equity ratio	12.79%	11.81%
	Capital lock-up period	73.93 days	64.64 days
	Short-term capital lock-up	52.35%	64.26%
	Return on investment	2.40%	1.43%
	Net Debt / EBITDA adj.	11.54	12.11
	Ratio of interest expenses to debt	2.35%	2.05%

General rating factors

- + Leading position in France (90% of electricity production)
- + System relevance as operator of public service concessions in France
- + Partially regulated activities (electricity transport and distribution)
- + France's system relevant player and assumed support from the French Government if needed
- + Geographic diversification and diversification of power generation sources
- Capital-intensive business with high investments required
- Exposure to market prices
- Weather dependent (temperatures for electricity production and rainfall for hydropower plants)

Current factors (rating 2016)

- + Stable revenues
- + Good liquidity and cash flow generation
- + Sufficient financing possibilities
- + Good operational performances in 2015
- + Better hydrological conditions in 2016 than in 2015
- Assets impairments
- Currently unfavorable power-prices environment in France, the UK, and in Italy
- Low fixed assets' coverage ratio
- High net debt / EBITDA ratio
- Decline in nuclear production in France in 2016 (until Q3) due to stricter controls
- Original EBITDA-Target 2016 will not be reached

Prospective rating factors

- + Transparent financial strategy (reduction capex, opex, capital increase)
- + Assets disposal to enable a better energy transition
- + Further economies of scale via mergers and acquisitions
- Further negative evolution of the power-price market conditions in Europe
- Increased competition in France
- Significant capex linked to EDF's strategy and to the construction at Hinkley Point C
- Uncertain result of EU proceedings regarding hydropower concessions in France

Best case scenario

Best case scenario:	A
Worst case scenario:	BBB

In our best case scenario for one year, we assume a rating of A. It is assumed that the group controls and reduces its capex und opex and that the announced capital increase takes place as well as the announced asset disposal to finance EDF's growth, which have a favorable impact on the company's cash flow and capital structure.

Note:

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

Worst case scenario

In our worst case scenario for one year, we assume a rating of BBB. It is assumed that the power prices market deteriorates further, putting pressure on EDF's cash flow from 2018 onwards (as the production of 2016 and partially of 2017 has already been sold at 2014 prices) and impeding the company's ability to cover its investments. Further significant investments have a negative impact on the group's financials and on the credit quality of the company.

Business development and outlook

During the business year 2015, the group registered an absolute growth in revenues of 2.2% in comparison with 2014 (organically -0.6%) as well as an EBITDA growth of 1.9% (organically minus 0.6%) up to EUR 17,601 million. Geographically, the group realized 54% of its revenues in France, 15% in UK, 16% in Italy and 16% globally. Approx. 65% of its EBITDA is generated in France. EDF's group EAT decreased to EUR 1.2 billion (2014: EUR 3.6 billion), mainly due to an increase in the depreciations linked to investments and impairments mainly in UK and in Italy. The payout ratio was 56% by the end of 2015. The net cash flow from operating activities amounts to EUR 12.7 billion (2014: EUR 10.6 billion). The opex decreased -1.4% in comparison with 2014.

During the first nine months of 2016, revenues of EDF group decreased by -5% in comparison to Q3-2015 due to the unfavorable environment in Europe and to the mild weather conditions. Furthermore, the termination of regulated tariffs for large and mid-size companies in France from January 1, 2016 (green and yellow tariffs) exposes EDF to market prices and to increased competition. In Q3, the group revised its EBITDA-objective 2016 from EUR 16.3-16.8 billion to EUR 16.0-16.3 billion. The aim of the group is to realize a net debt / EBITDA ratio between of 2x and 2.5x and a payout ratio of 55% to 65%. Investments should be lower at EUR 10.5 billion (2015: EUR 12.7 billion).

The group's short-term strategy is linked to the long-term CAP 2030 strategy and focuses on the proximity to customers and local communities, low carbon generation with a balanced mix of nuclear and renewable energy as well as on international expansion. The installed capacity of renewables should double, from 28 GW to 50 GW until 2030. Opex should fall by 1 billion EUR in 2019 in comparison with 2015 (EUR 5.1 billion). Capex should reach in 2018 max EUR 10.5 billion (2015: EUR 12.7 billion). The asset's disposal plan foresees EUR 10 billion sales until 2020.

Structural risks

The company prepares financial statements in accordance with IAS and IFRS. The group comprises approx. 60 companies located in America, Europe and Asia.

The liquidity of the group is managed by means of a cash-pooling system. In 2015, EDF received EUR 2,066 million in dividends from its subsidiaries. A risk management system is in place.

The main shareholder of the company with 84.9% of shares is the Government of France. Other shareholders are institutional investors (9.3%), individual investors (4.1%), employees (1.6%) and treasury shares (0.1%). The tradable shares are to be found on the Euronext Paris.

Given the systemic relevance of the company, there are, in our opinion, no core risks associated either with the shareholder structure of the company or with the organizational structure of the group. We assume support from the French Government in the event of distress for the company. Part of EDF's strategy consists in a non-organic growth of the group through mergers and acquisitions, which could generate economy of scale and synergies but which also entails structural risks.

Business risks

In 2015, EDF generated approx. 72.8% of its sales from its electricity production business. This sector is deregulated and open to the competition. There are 3 major companies in France operating in this sector: EDF (90% of the electricity production in France), CNR and Endesa. The overall business is dependent on electricity consumption. The main business risks are therefore weather (climatic conditions) and power-price variations on the wholesale markets for energy (carbon, oil, natural gas) and on the CO2 emission quota market. In 2015 and 2016, commodity and power prices declined in Europe, putting pressure on EDF's cash flows and on the overall sector. In France, the gross power prices have been historically low at 25-28 EUR/MWh. Furthermore, the energetic transition and trend towards less nuclear energy will present the main challenges for the company in the future.

The sector is capital intensive as the equipment requires constant investment and entails high fixed costs. The French nuclear fleet needs to be upgraded, which is linked to a substantial investment program. On September 15, 2016, the British Government gave its consent to EDF und China General Nuclear Power Corporation (CGN) to build two new nuclear reactors at Hinkley Point C (HPC) in UK at a total investment of EUR 22 billion. EDF will operate at prices guaranteed by the British government for 35 years from 2025 onwards, which should result in a return of 9% for 70 years (following management opinion), however it may not be sufficient to compensate the cash flow pressure resulting from the low power-price environment.

Furthermore, EDF generated approx. 20.7% of its revenues from its power distribution operations. The company operates four types of public service concessions: public electricity distribution, hydropower, public transmission network and other concessions for heat generation and distribution. The electricity transport (very high and high voltage network grid) is operated by RTE, a subsidiary of EDF, which in its quality of TSO disposes of a natural monopoly in France. The electricity distribution (low and medium network grid) is operated at 95% in metropolitan France by Enedis, also a subsidiary of EDF.

The company is exposed to regulatory risks in all countries where the company operates. In France, the company is regulated by the Commission de Régulation de l'Énergie (CRE). The electricity price provided by EDF to its competitors was determined and fixed from January 1, 2012 (ARENH). On July 22, 2015, the national Assembly adopted the energy transition law for green growth.

Overall, we assess the company as having a low to moderate business-risk profile as the company is a leading energy producer in France and operates partially in a regulated environment. Its business is well-diversified both with regard to its business operations and geographically. Nevertheless, its business requires intensive capex to adapt to the energy transition, which entails high operating risks.

Financial risks

For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. The following descriptions and indicators are based solely on those adjustments.

The group put in place an EMTN program in 1996 amounting to a maximum of EUR 45 billion. In 2015, EDF issued a USD 1.5 billion senior bond (30 years; 4.75% coupon), a senior bond amounting to USD 4,750 million (5 Tranches), and a green bond of USD 1.25 billion dedicated to renewable energy projects (10 years maturity; 3.625% coupon). The average maturity of all EDF bonds is 13 years. The bonds are libeled in EUR, USD, British pounds and other currencies.

Furthermore, the group possesses EUR 9,906 million credit lines: syndicated credit lines amounting to EUR 4,000 million and bilateral lines amounting to EUR 5,906 million. As of December 31, 2015, the credit line from the EIB of EUR 500 million was totally drawn and the second line of EUR 200 million was drawn for EUR 70 million. The group gave guarantees amounting to EUR 1,050 million. In total, the group's financial debt amounts to EUR 71.6 billion.

The overall capital structure of the company could be improved as the company shows a relatively low adjusted equity ratio of 11.81% (when redrawing 100% of goodwill from equity), high equipment intensity and a low assets cover ratio at 48.58%.

The company's funding mainly consists of bonds amounting to EUR 48.5 billion per 31.12.2015 (2014: EUR 43.6 billion), due on average in 13 years. The ratio of net debt on EBITDA is high at 12.11x (2014: 11.54x). The amount of cash and cash equivalents is EUR 4.2 billion and the company generates positive operating cash flows. The overall liquidity of the company can be qualified as good.

Off balance commitments comprise fuel and energy purchase commitments amounting to EUR 29.91 billion, operating contract performance commitments given in the amount of EUR 8.32 billion and operating leases (commitments as lessee) amounting to EUR 3.83 billion.

EDF is exposed to FX-risk and interest rate risks. Therefore, the group uses derivative financial instruments to mitigate the transactional impact of interest rates and foreign currencies on its performance.

In October 2016, EDF issued EUR 5.4 billion senior bonds, among which EUR 1.75 billion green bonds. On the equity side, the French Government approved a capital increase of EUR 4 billion and a EUR 4 billion abandon of cash dividends in April 2016.

Despite its favorable business model and because of its high leverage as well as its low EBITDA interest coverage, we assess the financial risk of EDF as relatively high. The credit risk position of the company is expected to be better in the short and medium term as the company is willing to keep its investments lower in the horizon 2018 (EUR 10 billion per year). The company's investment program is nevertheless significant and the credit risk position of the company could deteriorate in the long term following the construction of HPC. This future investment will put pressure on the cash flow and a further increase of the net debt / EBITDA ratio could have a negative impact on the rating outlook and / or on the rating on a long term perspective.

Financial ratio analysis

Appendix : key ratios

Asset Structure	2013	2014	2015
Fixed asset intensity (%)	70,05	71,53	70,60
Asset turnover	--	0,29	0,29
Asset coverage ratio (%)	48,17	49,66	48,58
Liquid funds to total assets (%)	9,49	9,96	11,73
Capital Structure			
Equity ratio (%)	13,00	12,79	11,81
Short-term-debt ratio (%)	42,88	40,71	43,35
Long-term-debt ratio (%)	20,73	22,73	22,49
Capital lock-up period (in days)	69,10	73,93	64,64
Trade-accounts-payable ratio (%)	5,85	5,81	4,99
Short-term capital lock-up (%)	55,37	52,35	64,26
Gearing	5,96	6,04	6,47
Financial Stability			
Debt / EBITDA adj.	12,57	13,03	13,97
Net Debt / EBITDA adj.	11,20	11,54	12,11
ROCE (%)	14,19	13,35	10,83
Debt repayment period	--	12,94	43,34
Profitability			
Gross profit margin (%)	47,51	49,29	48,30
EBIT interest coverage	1,56	1,52	0,89
EBITDA interest coverage	3,19	3,04	2,77
Ratio of personnel costs to total costs (%)	15,71	16,06	16,70
Ratio of material costs to total costs (%)	52,49	50,71	51,70
Cost income ratio (%)	89,65	89,93	94,80
Ratio of interest expenses to debt (%)	2,53	2,35	2,05
Return on investment (%)	2,64	2,40	1,43
Return on equity (%)	--	11,14	3,77
Net profit margin (%)	4,47	4,90	1,61
Operating margin (%)	11,13	10,88	5,71
Liquidity			
Cash ratio (%)	5,20	4,52	3,63
Quick ratio (%)	46,67	46,75	46,37
Current ratio (%)	69,86	69,94	67,82

Regulatory requirements

The present rating is an unsolicited corporate rating. Creditreform Rating AG was not commissioned by the company with the preparation of the rating. The present analysis was prepared on a voluntary basis.

The rating is based on the analysis of published information and on internal evaluation factors. The quantitative analysis is primarily based on the annual report for 2015, intermediate reports and press releases of the company. The information and documents meet the requirements and are in accordance with the published Creditreform Rating AG's rating methodology. An electronic version of our rating methodology can be found on our website www.creditreform-rating.de.

The rating was prepared by analysts Marie Watelet (lead analyst) and Rudger van Mook (co-analyst).

A Rating Committee of highly qualified analysts of Creditreform Rating AG was called on December 9, 2016. The analysts presented the results of the quantitative and qualitative analyses and provided the Committee with a recommendation for the rating decision. After the discussion of the relevant risk factors, the Rating Committee arrived at a unanimous rating decision.

The rating result and a draft of the present rating report were communicated to EDF on the same day. The final rating report has been sent to EDF on December 15, 2016.

The rating will be monitored as long as CRA removes the rating and sets it to non-rated (n.r.).

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

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

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1. Annual Report
2. Website
3. Internet research.

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