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Research Update:

France-Based Integrated Energy Company EDF Downgraded To 'A/A-1' On Weaker Business Profile; Outlook Negative

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Overview

- We believe Electricité de France's (EDF's) business fundamentals have weakened, and we now assess its business risk profile as strong rather than excellent.
- We consider that there is a high likelihood that the French government would provide timely and sufficient extraordinary support to EDF in the event of financial distress.
- We are lowering our ratings on EDF to 'A/A-1' from 'A+/A-1' and removing them from CreditWatch.
- The negative outlook reflects that on France as well as the additional risks we see as potentially hampering the group's business risk profile and cash flow generation.

Rating Action

On May 13, 2016, S&P Global Ratings lowered its long-term corporate credit rating on French power utility Electricité de France S.A. (EDF) to 'A' from 'A+' and removed it from CreditWatch, where it was placed with negative implications on Feb. 26, 2016. The 'A-1' short-term rating was affirmed. The outlook is negative.

We additionally lowered our rating on the EDF's senior unsecured debt to 'A' from 'A+' and our rating on the junior subordinated hybrid securities to 'BB+' from 'BBB'.

We also took the following related rating actions:

- We lowered our long-term corporate credit ratings on EDF's U.K. subsidiaries EDF Energy PLC and EDF Energy Customers PLC to 'BBB' from 'A-' and our short-term corporate credit rating on EDF Energy PLC to 'A-2' from 'A-1'. The outlook on these two entities is negative.
- We lowered our ratings on EDF's Italian subsidiary Edison SpA to 'BBB-/A-3' from 'BBB+/A-2'. The outlook is negative.
- We lowered our long-term counterparty credit and financial strength ratings on EDF's captive insurance subsidiary, Wagram Insurance Co. Ltd., to 'BBB' from 'A-'. The outlook is negative.

Our rating actions on EDF do not change our ratings on French transmission network RTE, which remain $^{1}A+/A-1'$ with a stable outlook.

Rationale

The rating action primarily reflects our view that EDF's exposure to volatile commodity prices is greater than we previously anticipated, and the recent marked deterioration in fuel commodities prices and European energy prices will deteriorate the group's earnings and free operating cash flow generation. We therefore believe that operating fundamentals have weakened for EDF. We nevertheless believe that EDF's recently announced measures, including a \leqslant 4 billion capital increase, scrip dividends paid to the French state, asset disposals, and a cost-cutting plan, will help reduce EDF's adjusted debt over the next three years, which is a key supporting factor for the rating.

Our lower assessment of EDF's business risk profile to strong from excellent reflects the increasing share of revenues that EDF derives from unregulated activities following the partial liberalization of the French energy market. This comes at a time of a sharp decrease in power prices, well below the regulated reference price ("ARENH"), which we until recently considered as a sustainable floor price for power in France. This is because we now consider the coal generation and power interconnection lines, notably with Germany, as increasingly being the main price setters for power in France. The downward revision therefore also reflects the lower-than-anticipated protected patterns of the French power market, given the higher exposure to fuel commodity prices and the mostly outright production profile of EDF, through its nuclear reactor fleet and hydro plants, which together account for about 80% of the group's annual output. To some extent, the rating action also reflects the group's heavy reliance on nuclear, and therefore some technology concentration compared to peers.

These additional market challenges come at a time of high investment needs. EDF's sizable investment plans include massive maintenance and upgrade expenditures on the existing nuclear fleet and new nuclear build in France ("grand carénage"). EDF estimates a total investment of €51 billion over 2014-2025 for this program, down from €55 billion previously. We anticipate that, at current power prices, these investments will translate into heavily negative free operating cash flows in the next two to three years, before the capital increase and asset disposals. We also think cost recovery prospects on these investments are now less certain than previously, due to the group's increased exposure to wholesale prices. Yet, EDF has limited flexibility to cancel or postpone them, due to French energy policy and nuclear watchdog prescriptions on safety upgrades.

Although we factor into our assessment the implementation of a CO2 price floor in France from 2018 and we recognize the political willingness to implement a capacity market, we also consider that there is a lack of flexibility to create a materially more favorable market design in France, due to affordability issues and EU limitations.

Despite the ongoing challenges that are hurting the group's credit quality, we still place value on EDF's significant size, the contribution from its

regulated network activities in France, and its low carbon generation fleet, which may benefit from a higher carbon price over time. We also see some flexibility in EDF's cost structure, notably because the management did not implement hard cuts in previous years, especially in comparison with sector peers. Another degree of financial flexibility lies in the asset disposal program. This is supported by EDF's international assets in non-core markets, which we believe have high value but low EBITDA contribution. The group also owns RTE, the French power transmission network, which it is now preparing to sell.

As part of our assessment of EDF's significant financial risk profile, we benchmark EDF's credit metrics, notably our adjusted funds from operations (FFO)-to-debt and debt-to-EBITDA ratios, against our medial volatility table, as defined in our criteria. We use this approach because EDF derives more than one-third of its earnings from France's regulated activities, with a strong regulatory advantage. We believe our expectations of negative free operating cash flow generation until 2019 should be more than compensated by asset disposals, the announced capital increase (€4 billion), and scrip dividends over the next three years. Our assessment of the financial risk profile is also underpinned by EDF's excellent market access and its proactive and prudent management of liabilities. Our adjusted credit metrics on EDF are particularly affected by the relative weight of EDF's nonfinancial obligations, which have no effective maturity and bear no interest. At the same time, we believe some volatility may emerge from potential changes in actuarial assumptions used to value these obligations, notably on nuclear provisions, and a potential risk of deterioration in our adjusted credit metrics.

We also see a risk that some potentially sizable unfavorable events could weaken EDF's credit quality, if they occur. However, because of their still-uncertain outcomes, we don't currently factor them into our base case. These notably include the quality concerns about EDF's flagship Flamanville nuclear power plant in Normandy, and the outcome of its investment decision regarding its Hinkley Point C nuclear project in the U.K.

We have lowered our management and governance score to fair from satisfactory to reflect our view that increasing uncertainties surround the group's strategy. This is based on the current lack of clarity in French energy policy and the governance interference, including the unexpected departure of EDF's CFO this year on disagreement over Hinkley Point C and the pressure from the unions on strategic decisions.

We have maintained our assessment that there is a high likelihood of exceptional government support in case of financial distress, following the recent announcements from the French government regarding the capital increase, scrip dividends, the likely change in the law to facilitate the disposal of RTE, as well as numerous public statements by government representatives. The involvement of the French government and presidency in EDF's strategy and financial health is a key driver in our assessment. We reflect this support in an uplift of three notches from the 'bbb' stand-alone

credit profile (SACP; from two previously), according to our methodology. Our assessment of a high likelihood of extraordinary support is derived from our view of the important role of EDF for the France and the very strong link with the French government. That said, we would likely revise downward our assessment of the likelihood for extraordinary government support if we do not see an effective and timely implementation of the remedy measures.

In our base case, we assume:

- Power prices of €30 per megawatt-hour (/MWh) in France and of £35/MWh in the U.K. over 2016-2018;
- A gradual decrease in market shares in France over 2016-2018;
- Continuous EBITDA growth of about 2% per year in French regulated activities;
- A capital increase of €4 billion taking place by February 2017, as announced by the group;
- Dividends paid in shares to the French government in 2016 and 2017;
- Asset disposals of about €5 billion spread over 2016-2017;
- Net investments averaging €11.5 billion per year over 2016-2018, including the acquisition of Areva NP, materializing in 2017; and
- No final investment decision on Hinkley Point C.

Based on these assumptions, we arrive at the following credit measures:

- FFO to debt falling to about 16% from 2017; and
- A decrease in adjusted debt to about €70 billion by 2017.

Liquidity

We base our assessment of EDF's liquidity as strong on our projection that EDF's liquidity sources will exceed liquidity uses by more than 1.5x over the next 12-24 months. Our assessment is further supported by EDF's consistently substantial cash balances, solid relationships with banks, and ample and proven access to capital markets, even under dire conditions.

We estimate the following principal liquidity sources:

- €20 billion cash and highly liquid marketable securities as of Dec. 31, 2015, excluding cash from subsidiaries that are not integrated in the group's cash-pooling system;
- €9.8 billion in available committed credit lines maturing beyond 12 months;
- Proceeds from the announced €4 billion capital increase; and
- Estimated FFO in 2016 of about €12 billion.

We estimate the following principal liquidity uses:

- Short-term debt of about €11.5 billion, including €5.4 billion of commercial paper;
- Estimated capex net of disposals of about €12 billion; and
- Annual dividend cash payments of about €600 million.

We also expect proceeds from asset disposals to further strengthen the group's financial flexibility and liquidity profile.

Outlook

The negative outlook reflects the negative outlook on France, but also the additional risks we see as potentially hampering the group's business risk profile and credit metrics. These could include further negative developments on nuclear newbuilds (notably Flamanville) and an investment decision on Hinckley Point C. The negative outlook also stresses the credit metrics on EDF, which remain weak for the rating.

Downside scenario

We could lower the ratings on EDF by one notch if EDF does not manage to implement effectively and timely the announced measures, including asset disposals, the planned capital increase, or efficiency gains. We also believe that a decision to go ahead on the Hinkley Point C nuclear newbuild would likely lead to a one-notch rating downgrade given the embedded high execution risks and significant investment needs.

A one-notch downgrade of France would also trigger a downgrade of EDF. Similarly, a downward revision of our assessment of the likelihood of extraordinary government support could lead to a downgrade.

Upside scenario

Rating upside is remote at this stage, as it would hinge on a two-notch upgrade of France or a two-notch upward revision of EDF's stand-alone credit profile. We would, however, stabilize the outlook if we see EDF effectively delivering on its remedy actions and business plan, combined with no further deterioration in power prices in France and in the U.K. Under its current profile, we also consider an adjusted FFO-to-debt ratio increasing to above 18% by 2018-2019 as consistent with our 'bbb' SACP. We see this occurring only if EDF is able to structurally generate positive discretionary cash flows over the next few years.

An outlook revision to stable would also depend on a similar action on the rating of France.

Ratings Score Snapshot

Corporate Credit Rating: A/Negative/A-1

Business risk: Strong
• Country risk: Low

Industry risk: IntermediateCompetitive position: Strong

Financial risk: Significant

• Cash flow/Leverage: Significant

Anchor: bbb

Modifiers

- Diversification/Portfolio effect: Neutral (no impact)
- Capital structure: Neutral (no impact)
- Liquidity: strong (no impact)
- Financial policy: Neutral (no impact)
- Management and governance: Fair (no impact)
- Comparable rating analysis: Neutral (no impact)

Stand-alone credit profile: bbb

- Unsupported group credit profile: bbb
- Entity status within group: parent
- Sovereign rating: AA (unsolicited)
- Likelihood of government support: high (+3 notches from SACP)

Related Criteria And Research

Related Criteria

- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers - December 16, 2014
- Methodology For Linking Short-Term And Long-Term Ratings For Corporate,
 Insurance, And Sovereign Issuers May 07, 2013
- Criteria Clarification On Hybrid Capital Step-Ups, Call Options, And Replacement Provisions October 22, 2012
- Hybrid Capital Handbook: September 2008 Edition September 15, 2008
- Methodology And Assumptions: Assigning Equity Content To Corporate Entity And North American Insurance Holding Company Hybrid Capital Instruments April 01, 2013
- Key Credit Factors For The Unregulated Power And Gas Industry March 28, 2014
- Key Credit Factors For The Regulated Utilities Industry November 19, 2013
- Corporate Methodology: Ratios And Adjustments November 19, 2013
- Methodology: Industry Risk November 19, 2013
- Group Rating Methodology November 19, 2013
- Corporate Methodology November 19, 2013
- Management And Governance Credit Factors For Corporate Entities And Insurers November 13, 2012
- 2008 Corporate Criteria: Rating Each Issue April 15, 2008
- Rating Government-Related Entities: Methodology And Assumptions March 25, 2015
- Country Risk Assessment Methodology And Assumptions November 19, 2013
- Use Of CreditWatch And Outlooks September 14, 2009
- Stand-Alone Credit Profiles: One Component Of A Rating October 01, 2010

Ratings List

Downgraded; CreditWatch/Outlook Action;	Ratings Affirmed To	From
Electricite de France S.A.		
Corporate Credit Rating	A/Negative/A-1	A+/Watch Neg/A-1
Senior Unsecured	A	A+/Watch Neg
Junior Subordinated	BB+	BBB/Watch Neg
Commercial Paper	A-1	A-1
Wagram Insurance Co. Ltd.		
Corporate Credit Rating	BBB/Negative/	A-/Watch Neg/
Financial Strength Rating	BBB/Negative/	A-/Watch Neg/
EDF Energy Customers PLC		
Corporate Credit Rating	BBB/Negative/	A-/Watch Neg/
EDF Energy PLC		
Corporate Credit Rating	BBB/Negative/A-2	A-/Watch Neg/A-1
Edison SpA		
Corporate Credit Rating	BBB-/Negative/A-3	BBB+/Watch Neg/A-2
Senior Unsecured	BBB-	BBB+/Watch Neg

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Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com and at spcapitaliq.com. All ratings affected by this rating action can be found on the S&P Global Ratings public website at www.standardandpoors.com. Use the Ratings search box located in the left column. Alternatively, call one of the following S&P Global Ratings numbers: Client Support Europe (44) 20-7176-7176; London Press Office (44) 20-7176-3605; Paris (33) 1-4420-6708; Frankfurt (49) 69-33-999-225; Stockholm (46) 8-440-5914; or Moscow 7 (495) 783-4009.

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