

## **ISSUER COMMENT**

20 May 2022



#### **RATINGS**

### Electricite de France

Paris, France
Baa1
LT Issuer Rating
Negative

#### Contacts

Celine Cherubin +33.1.5330.3366

VP-Sr Credit Officer
celine.cherubin@moodys.com

Aurore Haas +33.1.5330.3397
Associate Analyst
aurore.haas@moodys.com

Neil Griffiths- +44.20.7772.5543 Lambeth

Associate Managing Director neil.griffiths-lambeth@moodys.com

## **CLIENT SERVICES**

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

# Electricite de France

Further cut in anticipated nuclear output is credit negative

On 19 May 2022, <u>EDF</u> cut its estimate for French nuclear output in the year to 280-300TWh, 15TWh below the group's February forecast. The reduction stems from extended planned outages for reactors where an ongoing inspection programme has confirmed corrosion faults. EDF has said that, at this stage, no further outages need to be scheduled for 2022 and has confirmed its previous nuclear output estimate for 2023 in the range 300-330 TWh.

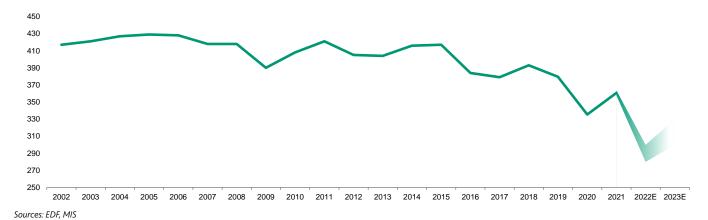
EDF has revised its expected French nuclear output for 2022 three times since the start of the year. On 13 January, the group estimated production of 300-330TWh, down from 330-360TWh. This was further lowered to 295-315TWh on 7 February. Four days later, EDF also sharply cut its output estimate for 2023 to 300-330 TWh, from 340-370 TWh.

If realised, the latest cut in nuclear production will further strain the group's earnings. This is because EDF sells forward its estimated nuclear output before the end of the budget year and, with a fleet dominated by nuclear and hydro power, there is little scope to replace lost production. The group will need to buy back up the sold electricity while European power prices remain high and volatile, with lost nuclear production exacerbating the situation in France.

For illustration, a 15TWh shortfall will result in c. €4.2 billion of extra costs, assuming EDF's c. €62-65/MWh 2022 hedged price and current wholesale price of c. €280/MWh. Absent additional mitigation measures, the lost production will weigh on EDF's financial flexibility and further weaken a credit profile negatively affected by the apparent unpredictability of nuclear output in France.

The risk that EDF again revises its estimates for 2022 and/or 2023 appears elevated. The group has not completed the metallurgical audit driven by the corrosion defects' detection late 2021 yet and has still to receive approval from the ASN's (*Autorité de Sûreté Nucléaire* - French Nuclear Safety Authority) for its planned repair programme. In addition, EDF's track record with regards to its French nuclear fleet's availability is negative, as evidenced by the structural decline of the nuclear output over the last ten years shown below.

Exhibit 1
French nuclear output has been declining over the last decade



Since December 2021, EDF has detected corrosion defects close to the welds on pipes in the safety injection system circuit on its 1,450MW and one 1,300MW nuclear reactor. Since then, the group has carried out preventive checks and assessments on the rest of the fleet, which are still ongoing. Inspection of the entire fleet is expected to spill over into 2023.

With a reported EBITDA of EUR18 billion as of 31 December 2021 and net installed generation capacity of 123 GW as of year-end 2021, EDF is one of Europe's largest integrated utilities, providing electricity generation, distribution and supply services. The group is organised along the following business lines: (1) France - generation and supply, where it is the dominant power generator and supplier; (2) France - regulated, which primarily includes electricity distribution through its subsidiary Enedis; (3) UK, through EDF Energy, the country's largest generator following the acquisition of British Energy; (4) Italy, where it is the third-largest generator through Edison; (5) other international, which mainly consists of Belgium, where EDF Luminus is the second-largest electricity group in the Belgian market, and in the Netherlands; (6) EDF Renouvelables (EDFR), the group's wholly owned investment vehicle for renewables, excluding hydro; and (7) other activities, which include Framatome, EDFT and energy services through Dalkia.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

© 2022 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS. ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE,

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at <a href="https://www.moodys.com">www.moodys.com</a> under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1329521

## **CLIENT SERVICES**

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454

