



Rating Action: Moody's affirms EDF's issuer rating; downgrades EDF's BCA to ba1 from baa3; changes the outlook to stable

02 Jun 2023

Paris, June 01, 2023 -- Moody's Investors Service (Moody's) has today affirmed the Baa1 long-term issuer rating and senior unsecured ratings of Electricite de France (EDF). It has also affirmed EDF's senior unsecured MTN program ratings at (P)Baa1. Concurrently, the Baseline Credit Assessment (BCA) has been downgraded to ba1 from baa3. Moody's has also downgraded EDF's perpetual junior subordinate debt and program ratings to Ba2 and (P)Ba2 from Ba1 and (P)Ba1 respectively. Finally, Moody's has affirmed the Baa3 long-term issuer ratings for EDF Trading Limited (EDFT), Edison S.p.A. (Edison) and EDF Energy Holdings Ltd (EDF Energy).

At the same time, Moody's has affirmed the Prime-2 short-term Commercial Paper and backed Commercial Paper ratings for EDF.

The outlook on EDF, EDFT, Edison and EDF Energy has been changed to stable from negative.

A full list of affected ratings is provided towards the end of this press release.

RATINGS RATIONALE

Today's rating action reflects Moody's view that EDF's lower BCA is offset by a high probability of support from EDF's sole shareholder upon renationalization, the Government of France (Aa2 stable).

The downgrade of the BCA to ba1 reflects (1) EDF's slow progress in recovering output; (2) the high sensitivity of earnings and financial metrics to potential production shortfalls in the context of high and volatile wholesale electricity prices and the group's significant debt burden; (3) stalled progress towards new regulation supportive of credit quality, in a broader context of discussions around European market design; and (4) exposure to an ambitious new nuclear programme.

Following the renationalization to be completed in early June 2023, nuclear will remain the priority of EDF's strategic roadmap. The company's focus will continue to be the recovery in nuclear output from the existing fleet after a record low of 279TWh in 2022. However, the targeted improvement in the nuclear fleet availability appears to be modest, with nuclear output expected to be between 300-330TWh in 2023 and 315-345TWh in 2024. This compares with an historical output exceeding 400TWh, the future production still being affected by corrosion repairs and extensive planned 10-year inspections. In addition to the 10-year inspections, the rating agency also notes that EDF's electricity output has been gradually declining since 2016 as a result of outages for regular refueling and maintenance operations, which have become longer. Moody's expects the trend to continue as a consequence of fleet ageing and stricter safety requirements. In addition, even if Moody's recognises that the corrosion faults were unexpected and associated repairs difficult to assess, these faults evidenced the group's earnings vulnerability to potential shortfalls in production, given the prevalence of nuclear in France's generation mix. In 2022, the decrease in nuclear output by c. 82TWh caused a EUR-29.1 billion extra cost because EDF had to buy on markets the power the group had committed to deliver. Moody's considers that given the relatively short history of French nuclear assets and associated difficulties in predicting their availability over time, the likelihood of unexpected new defaults requiring immediate fix has increased.

The nuclear fleet underperformance has occurred in a context of the group's high leverage, resulting from a decade of negative free cash-flow (FCF), regardless the level of power prices. At the end of December 2022, EDF reported a EUR64.5 billion net financial debt, up EUR21.5 billion. Over 2023-25, the rating agency expects EDF to benefit from the current elevated prices, even with the continuous reduction in power prices in the French market towards more normalized levels since December 2022. However, Moody's anticipates that net debt will further grow and trend towards c. EUR70 billion, as a result of a reverse in working capital requirement and rising capex affected by the recent global inflation.

Since 2020, the French government has considered and discussed with the European Commission (EC) options to replace the ARENH regime, a mechanism which forces EDF to deliver up to 150 TWh (100 TWh in 2023) at a price set up by the government (EUR42/MWh since 2012) at the alternative suppliers' option and which will terminate by the end of 2025. As part of broader discussions around a new electricity market design in Europe, France has committed to align with the current proposals, encouraging long term PPAs for the existing nuclear output, which will rule out the previously contemplated nuclear regulation. If the EC approves such a scheme, EDF will benefit in the near term from the current levels of power prices which significantly exceed nuclear production costs. However, Moody's considers that the relatively high volatility of power prices over time could have negative implications if market conditions were to become unfavourable, given the group's generation mix remaining predominantly merchant.

The French government also expects EDF to further develop new nuclear power plants, in France and internationally, and to ensure the completion of the two projects under construction. EDF will gradually build, own and operate between six and fourteen European Pressurized Reactors 2 (EPR2) in France from 2024, supplemented with the group's objective to become a global nuclear reactor supplier through its subsidiary Framatome. Given the c. EUR10 billion cost overrun and 14-year delay for the most advanced EPR under construction at Flamanville (France), as well as the high risk that the second EPR currently under construction at Hinkley Point (UK) experiences a new c. 15 month schedule overrun, Moody's believes that the risks borne by EDF by committing to these projects could further strain EDF's financial flexibility.

The rating affirmation reflects that EDF's credit quality remains underpinned by support from its shareholder, the Government of France, as demonstrated by the recent renationalization, the government's decision to convert into shares the Oceane bonds, as well as the subscription to a capital increase completed in April 2022, reflecting the 84% ownership at that time.

EDF falls under Moody's Government-Related Issuers Methodology and its Baa1/P-2 ratings incorporate an expectation that the Government of France would continue to provide support if needed. The issuer and senior unsecured ratings incorporate a three-notch uplift from the ba1 BCA for such potential government support, capturing the credit quality of the Government of France, and Moody's assessment of there being "high" probability of government support in the event of financial distress, as well as "high" default dependence.

The ba1 BCA is underpinned by (1) the scale and breadth of EDF's businesses across the energy value in France, which account for more than 75% of its EBITDA on average over 2017-21, 2022 being not representative given the material reported loss; (2) the contribution to earnings from its domestic regulated activities and renewables business, which together account for around one-third of the group's EBITDA, as a result of new connections and additional capacity driven by the energy transition plan outlined in the multi-year energy programme; and (3) its geographical diversification given its sizeable positions in Italy and in the United Kingdom.

These positives are balanced by (1) EDF's fixed-cost merchant power generation in France and the UK, which exposes it to power prices volatility and unpredictability, which could be exacerbated with production shortfall, as illustrated by the large moves since October 2021; (2) a significant capital spending programme in a context of high leverage, which structurally results in negative FCF; and (3) the construction risk associated with the Flamanville new nuclear reactor in France and the Hinkley Point C (HPC) new nuclear project in the UK.

The Ba2 perpetual junior subordinated debt ratings, which is one notch below EDF's ba1 BCA, reflects (1) the feature of the hybrids that receive basket 'C' treatment, i.e. 50% equity or "hybrid equity credit" and 50% debt for financial leverage purposes; and (2) that the Baa1 senior unsecured rating benefits from three notches of uplift based on Moody's expectations for potential extraordinary government support. The difference in ratings takes into account Moody's view that, in a distressed scenario, support from the French State could entail distinctions between deeply subordinated notes and senior unsecured bonds.

The affirmation of EDFT's Baa3 rating takes into account the criticality of EDFT's role within EDF business mix. In the context of liquidity risks exacerbated in 2022 and cash flow volatility that characterizes wholesale energy trading, EDFT's credit profile is supported by its strategic importance derived from its exclusive right to transact energy for EDF on the European wholesale energy markets. This is evidenced by the cash pooling and credit lines granted by EDF to its subsidiary and access to contingency funding from EDF in case of emergency. Moody's expects that EDF will continue to provide support to EDFT as the latter pursues its mandate to optimize the group's access to wholesale energy markets. The rating agency also notes that several governments across Europe have acted to provide direct financial support to utilities facing issues associated with their trading operations in 2022.

The affirmation of Edison's Baa3 rating reflects the strong improvement in the company's credit profile, following the full exit from E&P activities and the strategic focus on gas and renewable capacity in Italy. This also takes into account the company's improved, solid balance sheet since 2016; a positive momentum in earnings growth and stronger cashflow generation on the back of increased electricity generation capacity; the optimised flexibility and appropriate indexation of gas contracts; and the long-term exposure to wholesale power prices in Italy, Government of (Baa3 negative). Moody's recognises Edison's autonomy, from a managerial, reporting, and operational perspective, even if Edison is significantly integrated with EDF, with the latter expected to continue to tightly oversee Edison's operations.

The affirmation of EDF Energy's Baa3 rating reflects its close integration into the EDF group and the importance of nuclear within EDF group, as evidenced by the majority of financing needs being procured by EDF through cash and equity injection, resulting in a solid financial profile with low leverage. EDF Energy's credit quality is based upon (1) its scale and business risk profile as a major UK integrated utility; (2) it not being responsible for the funding of qualifying nuclear liabilities associated with existing plants, except costs related to unused fuel, under the agreements signed with the British government; (3) the company's recovery in its nuclear fleet's availability, supplemented with a two-year lifetime extension for two reactors (2.2 GW); (4) its exposure to volatile power prices as a result of a predominantly fixed-cost generation fleet; and (5) the risks associated with construction of the HPC new nuclear plant.

RATIONALE FOR THE STABLE OUTLOOK

The stable outlook reflects Moody's expectation that EDF's leverage will stabilise in the next 18-24 months, as a result of favourable market conditions, on the back of elevated power prices, and that nuclear output in France will gradually recover towards 350 TWh.

LIQUIDITY

Liquidity remains good in the next 18 months for EDF. EDF's strong liquidity is supported by EUR29.4 billion of available cash and financial assets and a total of EUR14 billion of undrawn committed credit facilities as of 31 December 2022. These include EUR2.6 billion credit facilities maturing within one year. These sources are sufficient to cover the group's EUR4 billion debt maturities and negative FCF over the next 18 months.

FACTORS THAT COULD LEAD TO AN UPGRADE OR DOWNGRADE OF THE RATINGS

Upward rating pressure is unlikely in the near term, given EDF's business mix, earnings exposure to volatile power prices and nuclear fleet's availability, as well as commitment to nuclear projects on the long term. Nevertheless, upward rating pressure could develop over time if there were an improved track record in the availability of the French

existing nuclear fleet, solid evidence that EDF can develop new nuclear plants on time and budget and that the French government will further support the financing of the forthcoming construction, and EDF managed to deliver at least neutral free cash flow on a sustainable basis.

The ratings could be downgraded if (1) EDF's credit metrics appear likely to fall persistently below guidance for a Ba1 BCA, namely funds from operations (FFO)/net debt in the mid to high teens in percentage terms on a sustainable basis; (2) a change in the group's relationship with the French government were to cause us to remove the uplift for government support; or (3) there were to be a significant downgrade of France's government rating.

The ratio guidance for a Ba1 BCA might be revised if EDF's risk profile evolves.

EDFT's rating could be upgraded following an upgrade to EDF's BCA. A downgrade of EDF's BCA would likely result in a corresponding downgrade of EDFT's rating. EDFT's rating could also be downgraded following financial performance issues (for example, trading losses) or an increase in external debt at EDFT.

Edison's rating could be upgraded following an upgrade to EDF's BCA. A downgrade of EDF's Ba1 BCA would likely result in a corresponding downgrade of its Italian subsidiary's rating. Edison's rating could also be downgraded if Edison's operating performance or capitalisation were to deteriorate significantly, namely for instance FFO/net debt being sustainably below the historical average.

EDF Energy's rating could be upgraded following an upgrade to EDF's BCA. Any downgrade of EDF's Ba1 BCA would likely result in a corresponding downgrade of its UK subsidiary's rating. EDF Energy's rating could also be downgraded if EDF Energy's operating performance or capitalisation were to deteriorate, or it were no longer considered financially and operationally integrated within the EDF group as a result of a change in EDF's strategy or financial policy.

Any change in outlook or ratings for EDF would likely be reflected in an equivalent change for EDFT, Edison and EDF Energy.

With a net installed generation capacity of 123 GW as of year-end 2022, 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 Luminus is the second-largest electricity group in the Belgian market; (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. From 8 June 2023, EDF will be fully state-owned.

LIST OF AFFECTED RATINGS

Issuer: Electricite de France

Affirmations:

....Commercial Paper, Affirmed P-2

....Backed Commercial Paper, Affirmed P-2

....LT Issuer Rating, Affirmed Baa1

....Senior Unsecured Medium-Term Note Program, Affirmed (P)Baa1

...Backed Senior Unsecured Medium-Term Note Program, Affirmed (P)Baa1

...Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

...Senior Unsecured Shelf, Affirmed (P)Baa1

...Backed Senior Unsecured Shelf, Affirmed (P)Baa1

Downgrades:

...Baseline Credit Assessment, Downgraded to ba1 from baa3

...Junior Subordinated Regular Bond/Debenture, Downgraded to Ba2 from Ba1

...Junior Subordinated Medium-Term Note Program, Downgraded to (P)Ba2 from (P)Ba1

Outlook Actions:

...Outlook, Changed To Stable From Negative

Issuer: Edison S.p.A.

Affirmations:

...LT Issuer Rating, Affirmed Baa3

Outlook Actions:

...Outlook, Changed To Stable From Negative

Issuer: EDF Energy Holdings Ltd

Affirmations:

...LT Issuer Rating, Affirmed Baa3

Outlook Actions:

...Outlook, Changed To Stable From Negative

Issuer: EDF Trading Limited

Affirmations:

...LT Issuer Rating, Affirmed Baa3

Outlook Actions:

...Outlook, Changed To Stable From Negative

The principal methodologies used in rating Electricite de France were Unregulated Utilities and Unregulated Power Companies published in May 2017 and available at <https://ratings.moodys.com/rmc-documents/75129>, and Government-Related Issuers Methodology published in February 2020 and available at <https://ratings.moodys.com/rmc-documents/64864>. The principal methodology used in rating EDF Energy Holdings

Ltd and Edison S.p.A. was Unregulated Utilities and Unregulated Power Companies published in May 2017 and available at <https://ratings.moodys.com/rmc-documents/75129>. The principal methodology used in rating EDF Trading Limited was Trading Companies published in June 2022 and available at <https://ratings.moodys.com/rmc-documents/389871>. Alternatively, please see the Rating Methodologies page on <https://ratings.moodys.com> for a copy of these methodologies.

REGULATORY DISCLOSURES

For further specification of Moody's key rating assumptions and sensitivity analysis, see the sections Methodology Assumptions and Sensitivity to Assumptions in the disclosure form. Moody's Rating Symbols and Definitions can be found on <https://ratings.moodys.com/rating-definitions>.

For ratings issued on a program, series, category/class of debt or security this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series, category/class of debt, security or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the issuer/deal page for the respective issuer on <https://ratings.moodys.com>.

For any affected securities or rated entities receiving direct credit support from the primary entity(ies) of this credit rating action, and whose ratings may change as a result of this credit rating action, the associated regulatory disclosures will be those of the guarantor entity. Exceptions to this approach exist for the following disclosures, if applicable to jurisdiction: Ancillary Services, Disclosure to rated entity, Disclosure from rated entity.

The ratings have been disclosed to the rated entity or its designated agent(s) and issued with no amendment resulting from that disclosure.

These ratings are solicited. Please refer to Moody's Policy for Designating and Assigning Unsolicited Credit Ratings available on its website <https://ratings.moodys.com>.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Moody's general principles for assessing environmental, social and governance (ESG) risks in our credit analysis can be found at https://ratings.moodys.com/documents/PBC_1288235.

The Global Scale Credit Rating on this Credit Rating Announcement was issued by one of Moody's affiliates outside the UK and is endorsed by Moody's Investors Service Limited, One Canada Square, Canary Wharf, London E14 5FA under the law applicable to credit rating agencies in the UK. Further information on the UK endorsement status and on the Moody's office that issued the credit rating is available on <https://ratings.moodys.com>.

Please see <https://ratings.moodys.com> for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the issuer/deal page on <https://ratings.moodys.com> for additional regulatory disclosures for each credit rating.

Celine Cherubin
VP - Senior Credit Officer
Infrastructure Finance Group
Moody's France SAS
96 Boulevard Haussmann
Paris, 75008
France
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

Neil Griffiths-Lambeth
Associate Managing Director
Infrastructure Finance Group
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

Releasing Office:
Moody's France SAS
96 Boulevard Haussmann
Paris, 75008
France
JOURNALISTS: 44 20 7772 5456
Client Service: 44 20 7772 5454

© 2023 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 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 credit 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, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com 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.