MOODY'S
INVESTORS SERVICE

CREDIT OPINION
24 April 2024

Send Your Feedback

Contacts

Ozlem Kose +1.212.553.1486
Analyst
ozlem.kose@moodys.com

Kurt Krummenacker +1.212.553.7207
Associate Managing Director
kurt.krummenacker@moodys.com

CLIENT SERVICES

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

Alabama Municipal Electric Authority

Update to credit analysis

Summary

Alabama Municipal Electric Authority's (AMEA, A1 stable) credit quality benefits from power sales contracts with creditworthy participants until 2045, five years after the debt maturity in 2040. The credit quality also reflects AMEA's strong financial performance with 7.0x fixed obligation charge coverage (FOCC) in the fiscal year ended September 30, 2023 (fiscal 2023) and sufficient liquidity supported by the implementation of energy charge adjustments (ECAs). AMEA's recent participation in prepaid power transactions is credit positive because these transactions improve resource visibility and reduce power costs. The requirements service agreement (RSA) with Southern Power Company (Baa1 stable) will provide visibility into power supply upon the expiration of the authority's power supply contract with Alabama Power Company (APC, A1 stable), the main power provider, at year-end 2025.

The credit profile negatively reflects AMEA's high carbon transition risk, with coal accounting for 39% of fuel supply in fiscal 2023. However, we expect the coal exposure to be completely eliminated from the authority's fuel mix by 2026 upon the expiration of the power supply contract with APC.

Credit strengths

» Power sales contracts that extend past the debt maturity in 2040 with participant members that have a strong credit quality

» Power supply contracts with investment-grade suppliers through 2035

» Improved rate policies and demonstrated willingness to improve the liquidity profile

» Competitive wholesale rates in the region

Credit challenges

» High exposure to carbon transition risk, with coal accounting for 39% of fuel supply in fiscal 2023

» Weak rate covenant with sum-sufficient net revenue coverage of debt service and surety-funded debt service reserve fund

» Load growth constrained by flat population growth and enacted legislation, which limits participants from extending their electric distribution system beyond their assigned service territories

Rating outlook

The stable outlook reflects our expectation the authority's financial performance will remain robust, driven largely by ECAs that automatically trigger revenue increases to ensure that budgeted revenue is achieved.

Factors that could lead to an upgrade

» Substantial improvement in the weighted average participant credit quality

» Strong liquidity profile such that days cash on hand nears 200 days on a consistent basis

» Continued sound resource planning demonstrated by successful extension of long-term power supply arrangements with creditworthy counterparties through debt maturity for a substantial portion of AMEA's power needs

Factors that could lead to a downgrade

» Decline in the weighted average participant credit quality

» Significant deterioration in the credit quality of AMEA's main power supplier

» Decrease in liquidity to less than 90 days cash on hand

» A fixed obligation charge coverage (FOCC) of less than 2.0x on a sustained basis

Key indicators

Exhibit 1
Alabama Municipal Electric Authority
Fiscal 2018-2023

	2018	2019	2020	2021	2022	2023
Total Sales (MWh)	3,229,206	3,202,141	3,073,186	3,097,412	3,205,555	3,203,298
Debt Outstanding ($000)	30,335	28,750	26,270	25,220	24,155	23,065
Adjusted Debt Ratio (%)	36.2	33.5	36.9	37.7	35.2	30.5
Adjusted Days Liquidity on Hand (incl. Bank Lines) (days)	133	147	154	176	134	118
Fixed Obligation Charge Coverage (x)	2.14	1.96	3.05	3.57	6.20	7.04
Debt Service Coverage - Bond ordinance (x)	1.77	1.86	2.27	2.16	5.17	5.94

Source: Moody's Ratings

Profile

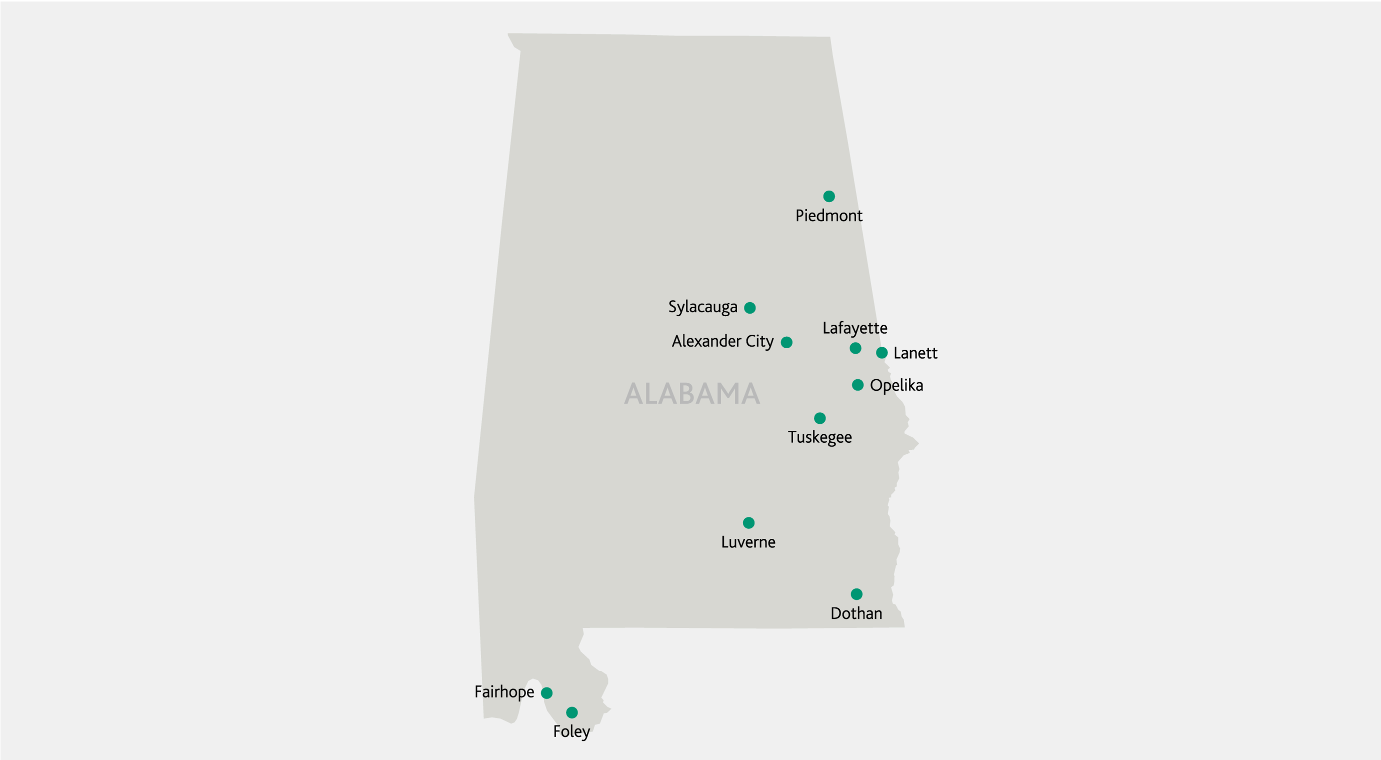
Alabama Municipal Electric Authority (AMEA) is a joint action agency that provides electricity to its 11 participant members that are mostly located in southeastern and southern Alabama, under a full-requirements, take-and-pay power sales contract that expires in 2045. AMEA's members serve around 136,000 retail electric customers within a service territory with a population of 199,000.

AMEA owns a 95 MW GE LM6000 peaking facility, which has generally performed in line with peaking facilities with availability factors above 95% since commercial operations began in May 2004. There is no long term services agreement but all internal work related to the combustion turbines is done by either General Electric or TransCanada (certified OEM service providers). Rest of the plant servicing is done mostly through local contractors, and AMEA performs its own O&M.

AMEA purchases firm network integration transmission services under the Southern Company Open Access Transmission Tariff to deliver electric power to serve the AMEA members' loads.

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

Exhibit 2
AMEA's participant members are located in the state of Alabama



Source: AMEA

Detailed credit considerations

Revenue-generating base

AMEA's credit profile incorporates our expectation of predictable cash flow from a pool of creditworthy municipal members, supported by a robust contractual structure.

AMEA generates all of its revenue pursuant to a full-requirements power sales contract with its 11 participant members (weighted average credit quality of A1) through 2045. The contracts authorize the authority to set rates that will produce sufficient revenue to cover each participant's share of operating, capital and debt service costs. We expect the weighted average participant credit quality to remain at current levels given the quality and stability of the participants' local economies. None of the participating members currently own any generation capacity and purchase all of their bulk power and energy from the authority and Southeastern Power Administration (SEPA). The top three participants generated almost 80% of the authority's revenue in fiscal 2023: the Utilities Board of the City of Foley, AL (Aa2) accounted for around 41% of revenue; the City of Dothan, AL (GOLT rating Aa2), around 26%; and the City of Opelika, AL (GOLT rating Aa2), around 12%.

In terms of resource risk management, AMEA has managed its portfolio well by entering into contracts with investment-grade counterparties until year-end 2035. Under AMEA's power supply contract, APC is currently the authority's main power provider, accounting for 75% and 59% of total energy and capacity in fiscal 2023, respectively. The remainder comes from:

- 25 MW of capacity and energy pursuant to the Southern Power natural gas PPA expiring in 2025;
- AMEA's 95 MW peaking power project;
- SEPA allocations;
- 100 MW of a solar energy pursuant to a PPA, expiring in 2043, with the Blackbear Solar plant located near Montgomery, fully owned by Lightsource Renewable Energy US; and

» 50 MW of capacity and energy under a fixed-price PPA with Morgan Stanley Capital Group Inc. (MSCG, Aa3 stable) expiring in 2025. The authority also executed a five-year fixed-price PPA for 200 MW of baseload capacity and energy with MSCG starting January 1, 2026. The PPA includes an option for MSCG to extend the term for an additional five years at the same fixed price.

Upon the termination of the power supply contract with APC at year-end 2025, Southern Power will provide 100% of AMEA's energy and capacity requirements (other than the capacity and energy met by the authority's other resources and any future solar or energy-only resources the authority decides to purchase) until year-end 2035.

In 2023, the authority improved its resource visibility further by participating in two prepaid power transactions with Energy Southeast, A Cooperative District of which AMEA being its sole member. Under the contracts, on average, 90,532 MWh/month of energy will be provided over a 30-year period. This roughly corresponds to one-third of AMEA's participants' current energy needs. Under the contracts, energy will be sold on a pay-as-you-go basis at a fixed contract price with a discount until year-end 2025. Staring 2026, the contract will reflect a discounted index price.

AMEA secured around 9% savings through the prepaid power contracts and expects a 25% reduction in its power supply cost starting January 2026 under the RSA with Southern Power Company. These improvements should eventually benefit the participants due to the decrease in rates and thus improve the competitiveness of the authority.

Financial operations and position

AMEA's financial performance will remain strong in fiscal 2024, similar to that in fiscal 2023. In fiscal 2023, the authority maintained its low leverage levels with an adjusted debt ratio (including net pension liabilities) just below 31%. In fiscal 2023, FOCC also improved slightly to 7.0x from 6.2x in fiscal 2022, mainly reflecting reduced plant operating expenses and increase in interest income. The implementation of ECAs since 2013, which automatically trigger revenue increases to ensure that budgeted revenue is achieved, has supported resilient credit metrics and increased liquidity, enabling AMEA to better withstand unexpected events that could significantly affect its credit quality.

To help the members from historically high natural gas prices in 2022, AMEA transferred $6 million from its unrestricted reserves to the members through the authority's fuel adjustment factor on the monthly power billings. Around the same time, AMEA also established a hedging program to protect itself and its members from energy and natural gas price fluctuations. AMEA oversees all hedging activities through a hedge committee. While AMEA incurred around $6.9 million expenses from its first natural gas swap transaction in fiscal 2023, in the long run, the use of hedging programs will directly benefit the members, especially during the years when gas prices show significant volatility.

Liquidity

AMEA maintains sufficient liquidity at 118 days cash on hand (or $74.3 million in unrestricted cash and investments) as of the end of fiscal 2023. Designed to enhance reserves through non-peak periods, Factor C, one of the ECAs, help AMEA maintain strong liquidity. Starting fiscal 2022, the authority decided to deactivate Factor C as the contribution from Factor C adjustments is not needed anymore because of strong financial performance. However, Factor C is still part of the rate structure, and the authority can activate it if there is a need in the future.

Debt and other liabilities

As of fiscal 2023, AMEA had a manageable leverage profile, with $23.1 million in 2020 Series A Taxable Power Supply Revenue Refunding Bonds outstanding. The adjusted debt ratio (which includes net pension liabilities) was low at 31% in fiscal 2023 and is likely to continue to decline as AMEA has no plan to increase leverage over the next five years.

Legal security

AMEA's 2020 Series A Taxable Power Supply Revenue Refunding Bonds are secured by the revenue AMEA receives under its take-and-pay, all-requirements power sales contracts with its 11 participant members. Payments under these agreements are established at a level sufficient to cover expenses and debt service; these contracts expire in 2045, five years after the bond maturity.

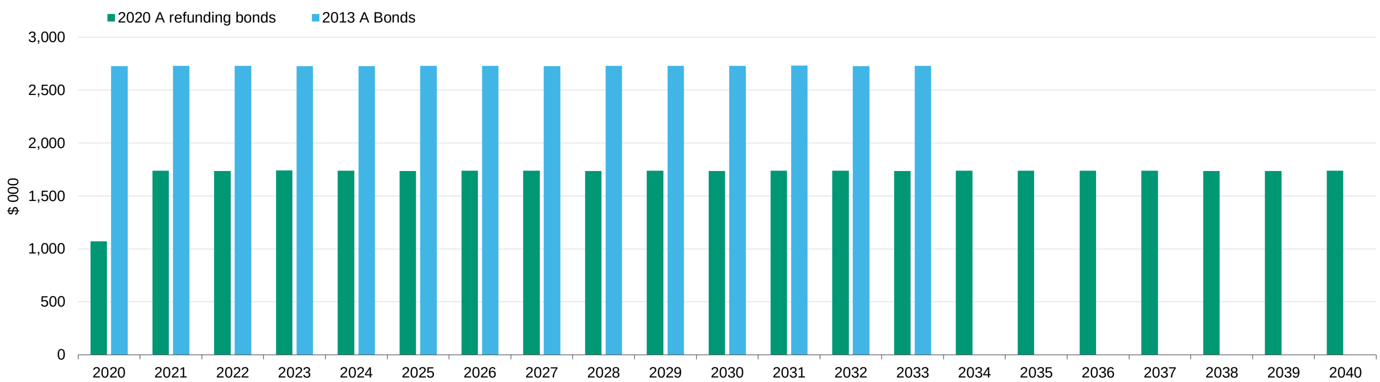
The rate covenant on the bonds is sum-sufficient, and the debt service reserve requirement sized at maximum annual debt service of around $1.7 million is surety-funded. Each member has agreed, pursuant to its contract, to pay deficiencies on a pro rata basis if net revenue is insufficient to meet debt service. The security package also includes an interest in all funds established by the authority including construction funds, operating and maintenance funds, general reserve funds and debt service reserve funds.

Debt structure

All debt is fixed rate and debt service payments are flat through the bond maturity. In 2020, the authority refinanced its 2013 Series A bonds, which extended debt maturity to 2040 from 2033 in conjunction with the extension of the members' agreements until 2045. As Exhibit 3 shows, annual debt service averages $1.7 million per year, versus $2.7 million before the refunding, resulting in debt service savings of around $1 million.

Exhibit 3

Decreased annual debt service obligations following the issuance of refunding bonds



Source: AMEA

Debt-related derivatives

None.

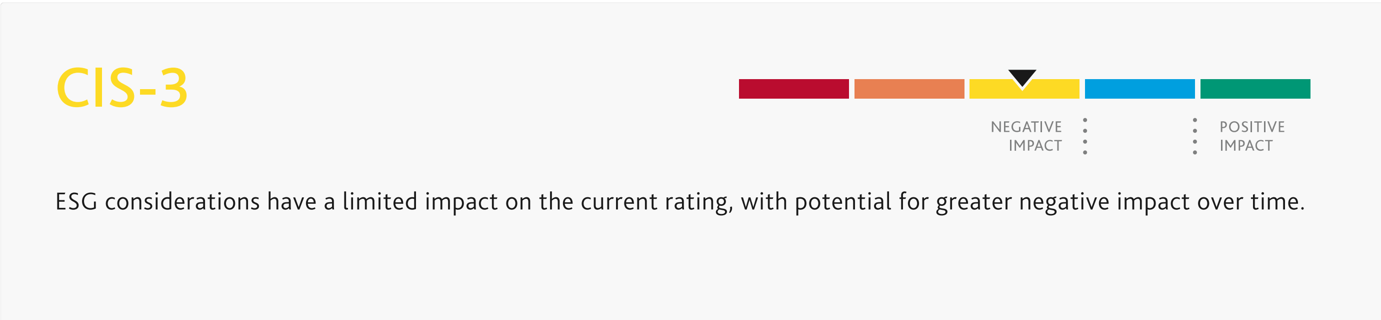
Pensions and OPEB

Pension cost and liability is not a source of pressure for AMEA and will remain manageable. AMEA contributes to the Employees' Retirement System of Alabama, a defined benefit retirement plan administered by the state of Alabama. AMEA's reported net pension liability as of fiscal 2023 was $3.1 million, compared with Moody's-adjusted net pension liability of $4.9 million in the same period. Under our standard adjustments, we value liabilities completely independent of asset composition or return expectation, using a market-based discount rate for high-quality taxable bonds as a proxy for the risk of pension benefits. The discount rate under our standard adjustments was 5.17%, versus 7.45% per AMEA's annual actuarial funding valuation report as of fiscal 2023.

ESG considerations

Alabama Municipal Electric Authority's ESG credit impact score is CIS-3

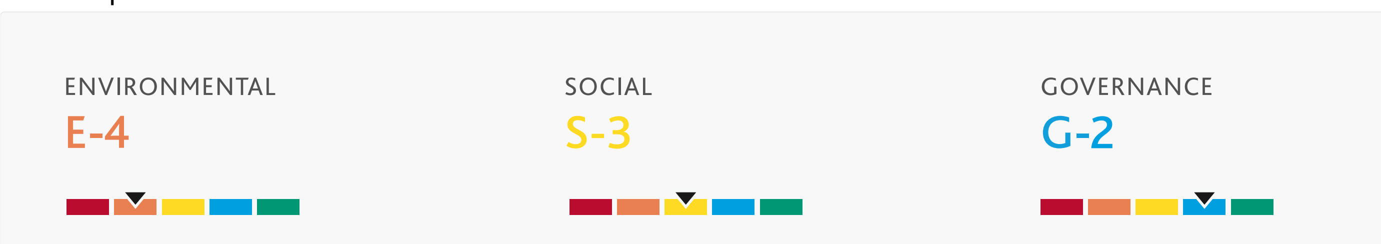
Exhibit 4
ESG credit impact score



Source: Moody's Ratings

AMEA's ESG Credit Impact Score of **CIS-3** indicates that ESG considerations have a limited impact on the current credit rating, with greater potential for future negative impact over time.

Exhibit 5
ESG issuer profile scores



Source: Moody's Ratings

Environmental

AMEA's **E-4** issuer profile score largely reflects its dependence on coal-fired generation to meet the energy needs of its participants. That said, AMEA's coal exposure declined to 39% in fiscal 2023 from 45% in fiscal 2015 and we expect it to be eliminated from the authority's fuel mix by 2026 upon the expiration of the power supply contract with Alabama Power Company (A1 stable). Additionally, AMEA has high exposure to physical climate risks as the service area has high heat stress exposure, in addition to medium risks for hurricanes and typhoons, water stress and wildfire.

Social

AMEA's **S-3** issuer profile score considers public concerns regarding carbon emissions and moderately negative exposure relating to responsible production, which considers its sizable amount of energy sourced from nuclear assets.

Governance

AMEA's **G-2** issuer profile score reflects governance quality that is broadly in line with other joint action agencies and does not pose a particular risk.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Methodology and scorecard

The principal methodology used in this rating was the US Municipal Joint Action Agencies methodology, published in December 2022. The scorecard-indicated outcome for fiscal 2021-2023 is A1, in line with the assigned rating on the revenue bonds.

Exhibit 6
Rating factors
Alabama Municipal Electric Authority

Factor	Subfactor	Score	Metric
1. Participant Credit Quality and Cost Recovery Framework	a) Weighted Average participant credit quality. Unregulated rate setting including participants. Cost recovery structure and governance.	A1	
2. Resource Risk Management	a) Resource Diversity. Asset quality and complexity. Resource supply contract terms and counterparty credit quality. Wholesale market purchase exposure	A	
3. Competitiveness	a) Cost competitiveness relative to regional peers	A	
4. Financial Strength and Liquidity	a) Adjusted days liquidity on hand (days)	A	143
	b) Adjusted debt ratio (3-year avg) (%)	Aaa	34%
	c) Fixed obligation charge coverage ratio (3-year avg) (x)	Aaa	5.6
5. Willingness to Recover Costs with Sound Financial Metrics	a) Rate Setting Record. Timeliness of rate recovery. Stability and strength of financial metrics	Aa	
Notching Conventions		**Notch**	
	1 - Contractual Structure and Legal Environment	0	
	2- Participant Diversity and Concentration	0	
	3 - Construction Risk	0	
	4 - Financing Structure	-0.5	
	5 - Unmitigated Exposure to Wholesale Power Markets	0	
Scorecard Indicated Outcome:		**A1**	

Source: Moody's Ratings

© 2024 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 OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") 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 MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS 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 MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS 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 OR OTHERWISE MAKES AVAILABLE ITS MATERIALS 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 MATERIALS 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 MATERIALS 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. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS 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 credit rating process or in preparing its Materials.

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. 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.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

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 India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER 1395652

CLIENT SERVICES

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

Moody's INVESTORS SERVICE