

CREDIT OPINION

9 October 2020


Contacts

Grayson Nichols +1.214.979.6851
 VP-Senior Analyst
 grayson.nichols@moodys.com

Eric Harper +1.312.706.9972
 VP-Senior Analyst
 eric.harper@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

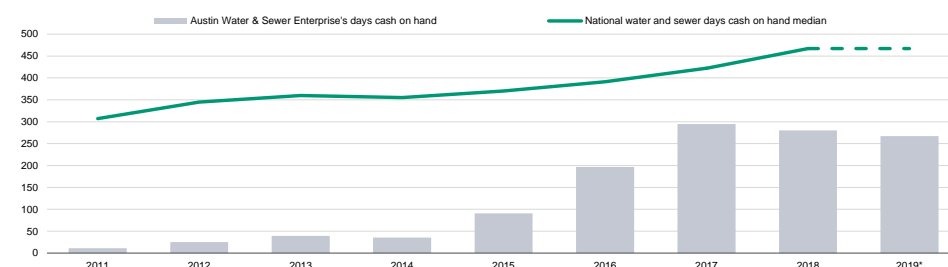
Austin (City of) TX Water & Wstwtr Sys

Update to credit analysis

Summary

The [City of Austin \(TX\) Water and Wastewater System's](#) (Aa2 stable, prior subordinate and separate lien) credit profile benefits from a very large and diverse customer base with strong institutional presence, sufficient water resources and system capacity, as well as favorable financial operations that have recently bolstered liquidity levels. Challenges of the credit profile include an above average debt level as well as sizable capital improvement plan that calls for additional debt.

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. The coronavirus crisis is not a currently a key driver for this rating action. We do not see any material immediate credit risks for Austin's Water & Wastewater System given the year-to-date revenue resiliency, a sound liquidity position, and the essential nature of the enterprise.

Exhibit 1
Austin's liquidity has significantly improved but remains below national medians


*2018 national median days cash on hand held constant for fiscal 2019 comparison

Source: City of Austin CAFRs; Moody's Investors Service

Credit strengths

- » Strong service area and customer base
- » Historical rate increases have afforded good debt service coverage levels
- » Improved days cash on hand; creation of water stabilization reserve fund adds additional liquidity

Credit challenges

- » Below average liquidity for rating category
- » Above average debt profile with plans for additional debt

Rating outlook

The stable outlook reflects the expectation that sound coverage will continue, supported by periodic rate increases and manageable future borrowing plans. The outlook also incorporates the expectation that the system will prudently maintain its infrastructure and water supply.

Factors that could lead to an upgrade

- » Sustained trend of healthy operating surpluses leading to improved liquidity and debt service coverage
- » Substantial decline in system's debt burden

Factors that could lead to a downgrade

- » Poor operating performance leading to sustained weakness in liquidity or debt service coverage
- » Significant increase in debt burden

Key indicators

Exhibit 2

Austin (City of) Water & Sewer Enterprise, TX					
System Characteristics					
Asset Condition (Net Fixed Assets / Annual Depreciation)	30 years				
System Size - O&M (\$000)	\$256,518				
Service Area Wealth: MF % of US median	118.20%				
Legal Provisions					
Rate Covenant (x)	1.25x				
Debt Service Reserve Requirement	No explicit DSFF				
Management					
Rate Management	Aa				
Regulatory Compliance and Capital Planning	Aaa				
Financial Strength					
	2015	2016	2017	2018	2019
Operating Revenue (\$000)	\$522,033	\$563,046	\$602,734	\$581,648	\$563,101
System Size - O&M (\$000)	\$208,307	\$217,546	\$233,592	\$250,224	\$256,518
Net Revenues (\$000)	\$313,726	\$345,500	\$369,142	\$331,424	\$306,583
Net Funded Debt (\$000)	\$2,325,269	\$2,187,768	\$2,192,962	\$2,140,191	\$2,045,985
Annual Debt Service (\$000)	\$221,310	\$184,750	\$227,382	\$210,284	\$163,595
Annual Debt Service Coverage (x)	1.4x	1.9x	1.6x	1.6x	1.9x
Cash on Hand	91 days	196 days	295 days	280 days	267 days
Debt to Operating Revenues (x)	4.5x	3.9x	3.6x	3.7x	3.6x

Debt service coverage calculations vary from the coverage calculations required under the City's bond ordinances; Debt service coverage in prior reports vary because of adjustments
 Source: City of Austin CAFRs; US Census Bureau; Moody's Investors Service

Profile

The water and wastewater system predominantly serves the [City of Austin](#) (Aa1 stable) as well as additional areas in [Travis](#) (Aaa stable) and [Williamson](#) (Aa1 stable) counties.

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.moody's.com for the most updated credit rating action information and rating history.

Detailed credit considerations

Service area and system characteristics: large and strong service area with institutional presence

The system's large and diverse service area as well as ample supply and treatment capacity are expected to remain strengths of the credit profile. Lake Travis and Buchanan are the system's two major water supply storage reservoirs and are managed by the [Lower Colorado River Authority](#) (LCRA) (A2 stable) and have roughly 2 million acre feet of storage capacity. The system owns and operates three water treatment plants and storage and transportation infrastructure. The total combined treatment capacity for the water system of 335 million gallons per day (MGD) far exceeds the fiscal 2019 average daily use of 129.7 MGD. The city has two main wastewater treatment plants with a total combined permitted capacity of 150 MGD, which provides sufficient capacity for ongoing operations given an average usage of 106 MGD.

[Samsung Electronics Co., Ltd](#) (Aa3 stable), Travis County Water Control and Improvement District, the [University of Texas System, TX](#) (Aaa stable), NXP Semiconductors, N.V., as well as various water and municipal utility districts (MUDs) make up the system's largest water customers. The system's major customers have not changed significantly in recent years and accounted for a modest portion (roughly 5%) of the system's operating revenue. The number of customers has risen modestly in each of the last five years to 239,291 for fiscal 2019, yet water consumption has remained fairly steady over the past decade, which is significantly impacted by better technology that uses less water, and generally more conservative consumption habits. Residential retail customers make up the majority of the customer base.

According to Moody's Economy.com, the coronavirus crisis will weaken the Austin-Round Rock metro area economy, but the ability of IT and other professionals to work from home will provide some cushion in the near term. Longer term, the well-educated labor force, high concentration of technology businesses, relatively low costs of doing business compared with other high-tech centers, and fast population growth will yield above-average performance.

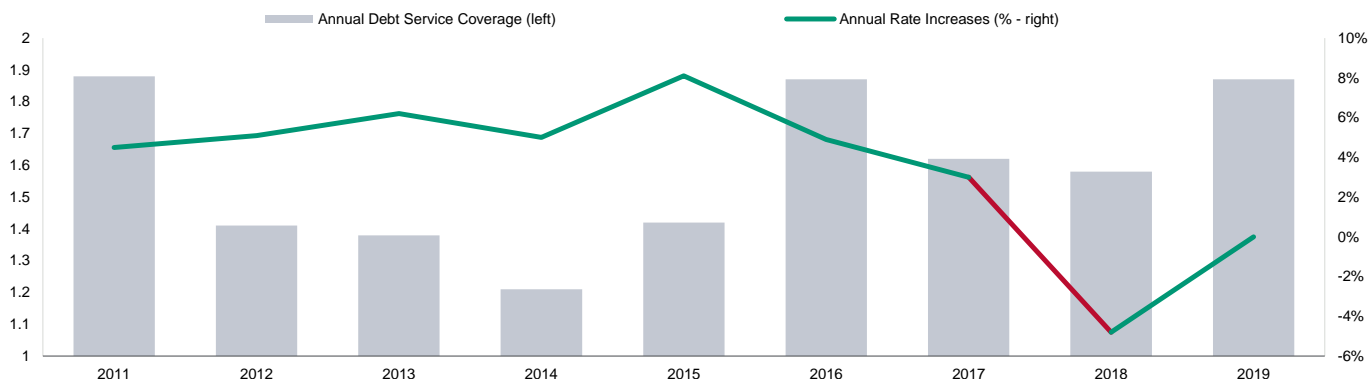
Population growth has also remained strong for the City of Austin and surrounding area. The current estimate of 1,014,490 residents for the city reflects a strong 20%+ growth since the 2010 US census. Historically the wealth profile of the city's residents has remained above state and national levels. The 2018 American Community Survey indicates above average income levels, evidenced by a per capita income and median family income of 123.8% and 118.2% of national levels, respectively. The August 2020 unemployment rate for the city of 5.6% indicates an increase from historic lows in June 2019 of 2.6% driven by pandemic. Although high, the unemployment rates remains below the state (7%) and national (8.5%) levels for the same time period, further highlighting some resiliency from the pandemic.

Debt service coverage and liquidity: debt service coverage and liquidity to remain satisfactory

Stable system and financial operations are expected to yield satisfactory debt service coverage and liquidity levels over the next couple of fiscal years. Net revenue declined in fiscal 2019 to \$306.6 million, which was partially driven by city council's decision to reduce rates by 4.8% for water and sewer services in March 2018. Despite the drop in net revenues, debt service coverage remained solid at 1.87, mainly due a decrease in annual requirements in fiscal 2019. Compared to the system's maximum annual debt service of \$206.9 million in fiscal 2024, fiscal 2019 net revenues provide a weaker but still adequate 1.5 times coverage. Management reports that the pandemic has had a minimal impact to the system's financial operations, with only a 1.8% reduction of service revenue in comparison to budget. Management currently projects roughly 1.71 time debt service coverage for fiscal 2020, which is slightly below the long-term internal target of 1.85 times. Management anticipates similar financial operations and coverage in fiscal 2021 and then anticipates to return to internal targets in fiscal 2022. There are no plans to increase rates until fiscal 2023 and 2025 at around 3% each.

Exhibit 3

Debt service coverage remains adequate through 2019 despite 4.8% rate reduction in 2018 No planned rate increases until 2023 and 2025



Debt service coverage calculations vary from the coverage calculations required under the City's bond ordinances; Debt service coverage in prior reports vary because of adjustments
Source: City of Austin's (TX) CAFRs

Liquidity

Management has taken significant steps to increase its liquidity position in recent years and plans to maintain satisfactory levels going forward. Given solid operating performance, liquidity has improved to a satisfactory **267 days of unrestricted cash on hand** at fiscal year end 2019. In addition, the system created a water revenue stabilization fund reserve in 2013 which had \$47.8 million at fiscal year-end 2019, or a solid 130 water days cash on hand (or approximately 68 days cash on hand in comparison to total operations). The fund is restricted for water service revenue shortfalls of 10% or greater in any given year. City Council approval is required to tap the fund and if used, only 50% of the balance is available for a single year. Importantly, the reserve provides the system with additional operating flexibility.

Although the system's policy is to maintain at least 60 days cash on hand, management targets 245 days. The fiscal 2019 unrestricted cash position of 267 days exceeded this target and reserves are expected to be maintained at this level for the foreseeable future. The water revenue stabilization fund is anticipated to exceed its target of 120 water days cash on hand at fiscal year 2019 and also be maintained at that level for the near term future.

Debt and legal covenants: debt profile expected to remain high given robust capital plan

The system's debt profile is expected to remain high given plans for additional debt, but is still considered manageable for the system. The system has a sizable \$2.27 billion in total debt outstanding, or an above average 4x operating revenue. The majority of the system's debt (\$2.25 billion) is separate lien debt (open working lien). The system also has roughly \$20.25 million in Prior Subordinate Lien debt outstanding.

The system's capital improvement plan calls for \$971 million in capital spending over the next five years. Wastewater projects account for roughly 60% of the total plan. Significant improvements in the plan include South Austin Regional Wastewater Treatment Plant improvements, Davis Water Treatment Plant improvements, and infrastructure for advanced metering. A healthy portion of the planned spending will be focused on upgrades to existing facilities versus construction of new facilities. **Management plans to cash fund roughly 40% of the capital plan through annual operations with the remaining 60% being debt funded.**

Despite the robust capital plan, the system's debt profile remains manageable given anticipated rate increases as well as early debt retirement initiatives. Also of note, management plans to dedicate the majority of capital recovery fees to debt defeasance, which is estimated at roughly \$35 million annually. Management has completed defeasances every year since 2017 and plans to continue to use this as a rate and debt management strategy going forward.

Legal security and covenants

The separate lien debt, together with the prior subordinate lien obligations, are equally and ratably secured by a parity lien on and pledge of the net revenues of the water and wastewater system.

Under the system's master ordinance, the system's additional bonds test and rate covenant are both set at 1.25 times average annual debt service. If coverage falls below this level, City Council has to increase rates in order to comply with the covenant by the next year. Under the master ordinance, the city has the option to fund a debt service reserve fund, but has chosen not to since 2013.

Debt structure

Debt amortization is below average with roughly 47% of the outstanding principal is retired in 10 years. All debt matures in fiscal 2051. The current debt service schedule is declining in nature, which will allow for additional debt capacity in future years without impacting projected debt service coverage levels.

The system, along with the city's [electric utility](#) (Aa3 stable), uses a tax-exempt commercial paper program with liquidity support through a \$400 million line of credit through the [JPMorgan Bank, N.A.](#) (Aa2 stable). Management's practice is to issue commercial paper notes throughout the year for capital projects and then subsequently take the debt long with bond issuances. The line of credit was just renewed in September 2020 and expires in September of 2022.

Debt-related derivatives

System exposure to interest rate risk remains low given the modest variable rate debt amount (roughly 4% of debt profile). The system has one outstanding variable rate issue (Series 2008). There is \$97.2 million outstanding and the bonds are supported by a letter of credit from [Barclays Bank PLC](#) (A1 stable) with an expiration date of October 28, 2022. The LOC is sized for the outstanding principal amount of the bonds and provides sufficient coverage while the bonds are in the weekly rate mode. In association with the 2008 bonds, the system entered into a swap agreement with [Goldman Sachs Bank USA](#) (A1 stable). The system pays a fixed rate of 3.6% and receives SIFMA. The mark to market for this swap was a negative \$20.2 million, as of September 30, 2020.

Pensions and OPEB

Apportioned unfunded liabilities associated with the City of Austin Employees' Retirement and Pension Fund, a single employer defined benefit pension plan, is expected to continue to grow given overall weak contributions into the system on an annual basis. The system contributed roughly 11% of the total plan's contributions in fiscal 2019, which generates a proportional Moody's Adjusted Net Pension Liability of \$364.8 million, or a manageable 0.7 times operating revenue. Continued growth of these unfunded liabilities would be unfavorable for the credit profile.

The city is currently in progress of creating a formal plan to make changes to 2 of the 3 plans (employees and police officers) within the next fiscal year. Although no concrete details are available at this time, likely changes would be in the form of increased contributions and creating new benefit tiers for new hires. All three plans were created under Texas law, therefore the state governs benefit and contribution provisions. In general, amendments to the plans would require the legislature's approval, but some amendments can be made if approved by all three parties (city council, the pension boards, and members). The credit profile incorporates that the city will successfully navigate the reform process to help subdue growth in long term unfunded liabilities.

ESG considerations

Environmental

Given its location, the Austin area is exposed to risks related to changes in drought-like patterns. The system maintains drought management plans that curtail water usage when in a period of drought conditions. Management also maintains a long term capital plan in order for facilities to remain in compliance with the Texas Commission on Environmental Quality and the Environmental Protection Agency.

Social

Please see the "service area and system characteristics" section above for more detail on social considerations.

We regard the coronavirus outbreak as a social risk under this framework, given the substantial implications for public health and safety. We do not see any material immediate credit risks for Austin's Water & Wastewater System given the year-to-date revenue resiliency, a sound liquidity position, and the essential nature of the enterprise.

Governance

We believe management of the city's water and wastewater system will remain stable, demonstrated by appropriate and timely rate setting measures, prudent and conservative budgeting and forecasting of revenue, as well as maintenance of multiyear planning.

Moody's notes that despite the presence of a debt service reserve, the establishment of a rate stabilization reserve is a positive influencing factor. Rate increases are subject to City Council approval.

© 2020 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 INVESTORS SERVICE, INC. AND/OR ITS CREDIT RATINGS AFFILIATES ARE MOODY'S 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 INVESTORS SERVICE 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 MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S INVESTORS SERVICE 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 \$2,700,000. 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 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 61 003 399 657 AFSL 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 JPY125,000 to approximately JPY250,000,000.

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

Contacts

Grayson Nichols +1.214.979.6851
VP-Senior Analyst
grayson.nichols@moodys.com

CLIENT SERVICES

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