MOODY'S INVESTORS SERVICE

CREDIT OPINION

5 July 2018

Update

Rate this Research

RATINGS

...

Avangrid, Inc.	
Domicile	Albany, New York, United States
Long Term Rating	Baa1
Туре	LT Issuer Rating - Dor Curr
Outlook	Stable

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Lesley Ritter AVP-Analyst lesley.ritter@moodys.com	+1.212.553.1607
Dexter East <i>Associate Analyst</i> dexter.east@moodys.com	+1.212.553.3260
Jim Hempstead	+1.212.553.4318

MD-Utilities james.hempstead@moodys.com

CLIENT SERVICES

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

Avangrid, Inc.

Update to credit analysis

Summary

Avangrid's (AGR) credit quality reflects the strength of its regulated utility subsidiaries that account for 65% of operating cash flow generation, the largely contracted nature of its unregulated business, and its strong financial ratios with minimal holding company debt. Offsetting these positive attributes are our expectation that AGR's holding company leverage will gradually increase over time and result in weaker but still adequate financial ratios.

Exhibit 1 Historical CFO Pre-W/C, Total Debt and CFO Pre-W/C to Debt (\$MM)



Source: Moody's Financial MetricsTM

Credit strengths

- » Low business risk regulated utilities represent 65% of the company's EBITDA
- » Healthy financial ratios
- » Diversified service territory
- » Unregulated business is majority contracted with long-term agreements with creditworthy counterparties

Credit challenges

- » Sizeable capital expenditure plan across both the utility and renewable segment carries some execution risk
- » Material weakness finding in audited financials point to corporate governance challenges
- » Ring-fenced utilities create separateness and insulation from AGR family

Rating outlook

AGR's stable outlook reflects the strength of its regulated utility subsidiaries that account for 65% of operating cash flow generation, the largely contracted nature of its unregulated business, as well as access to incremental liquidity from a deep-pocketed majority owner. The outlook also takes into account our expectation that its holding company leverage will gradually increase over time and result in lower credit metrics that are more in line with its rating, such as cash flow from operations pre-working capital to debt (CFO pre-WC/D) in the high teens.

Factors that could lead to an upgrade

- » Material improvement in the credit supportiveness of the regulatory frameworks within which AGR's regulated utilities operate
- » Sustained strong financial ratios such that CFO pre-WC/D exceeds 26%, on a sustainable basis

Factors that could lead to a downgrade

- » A deterioration in the credit supportiveness of the regulatory jurisdiction across which AGR's utilities operate
- » A weakening in the company's financial results, such that CFO pre-WC/D falls to the mid-teens and retained cash flow to debt declines to the low teens, on a sustained basis.
- » An increase in the percentage of consolidated operating cash flows derived from the more volatile, non-contracted unregulated segment
- » A material weakening in the credit quality of its majority owner, Iberdrola S.A., or increased dividend payments from AGR to its shareholders.

Key indicators

Exhibit 2 Avangrid, Inc. Indicators [1]

	Dec-14	Dec-15	Dec-16	Dec-17	LTM Mar-18
CFO pre-WC + Interest / Interest	6.9x	6.0x	6.6x	6.0x	6.2x
CFO pre-WC / Debt	39.9%	22.2%	28.6%	23.0%	25.3%
CFO pre-WC – Dividends / Debt	39.8%	22.2%	22.4%	16.0%	17.9%
Debt / Capitalization	20.1%	26.3%	26.0%	31.6%	30.6%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial MetricsTM

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.

Profile

AGR is a diversified utility holding company with total assets of \$31.5 billion (as of 3/31/18). The company's regulated operations account for roughly 65% of operating cash flows with its unregulated, but largely contracted operations, making up the difference. AGR's majority owner is Iberdrola S.A. (ISA Baa1 stable). It owns an 81.5% stake in the company with the remaining 18.5% being held by the public. ISA is a global diversified energy company with total assets of \$128 billion as of 12/31/17. Its primary holdings are located in Spain, the United Kingdom, the United States, Mexico and Brazil.

Exhibit 3



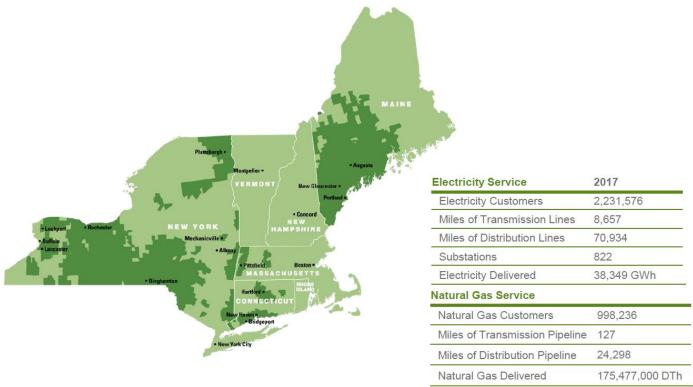
Source: Company presentation

Detailed credit considerations

REGULATED UTILITIES PROVIDE FUNDAMENTAL CREDIT SUPPORT

AGR's ownership of eight low business risk regulated utilities, operating across four different states in the northeastern U.S., and representing a total rate base of \$9.1 billion, provide a strong, predictable, and stable base to the group's overall operating cash flow generation. Together, these utilities represent about 65% of the company's consolidated cash flow generation, and account for 80% of consolidated debt.





Source: Company presentation

AGR's core utility holdings operate in mostly constructive regulatory environments. AGR's New York and Maine-based transmission and distribution (T&D) utilities as well as its FERC regulated transmission segment account for 77% of consolidated rate base, and benefit from the most credit supportive regulatory environment of the consolidated group. Some of the favorable ratemaking mechanisms available in these jurisdictions are the application of a forward looking test year and formulaic equity returns. These allow for transparent and predictable rate setting and for timely recovery of operating and capital costs.

AGR's natural gas distribution companies (LDCs) account for 12% of consolidated rate base. They operate across the somewhat more challenging but improving regulatory jurisdictions of Massachusetts and Connecticut. Although these companies have a history of fully litigated rate cases, they have access to decoupling and infrastructure tracker mechanisms. Decoupling is credit positive since it supports the stability of operating cash flow generation by shielding the companies from the demand volatility associated with weather and customer demand. Similarly, the infrastructure tracker mechanisms are credit positive since they provide for assured recovery of prudent reliability infrastructure spending on a timely basis.

From a credit perspective, AGR's weakest and most challenged utility company is United Illuminating (UI, Baa1 stable), its Connecticut based T&D company, that accounts for 11% of consolidated rate base (when excluding UI's FERC regulated segment). Like its sister companies, it has access to the state's decoupling mechanism but does not benefit from the reliability infrastructure rider available to Connecticut LDCs. Furthermore, the company has a history of experiencing more challenging general rate cases than its sister utilities, that, to date have only been resolved through a fully litigated process.

HISTORICALLY STRONG FINANCIAL RATIOS BUOYED BY LOW DEBT LEVELS AT PARENT AND UNREGULATED SUBSIDIARY WILL WEAKEN OVER TIME

About 80% of the company's consolidated debt is at the company's regulated utilities, that are levered in accordance with their regulatory capital structure of between 40%-45%. The remaining 20% of the debt relates to a limited amount of project finance debt at its unregulated subsidiaries as well as \$1.05 billion of debt at the parent (up from \$600 million a year ago). The relatively low amount of debt at these entities, as well as the healthy operating cash flow generation from the unregulated segment's 6.5 GW portfolio of largely contracted wind farms, results in strong debt coverage and debt to capitalization ratios.

Going forward, we anticipate that the company will continue to gradually increase the leverage at its holding company. AGR is targeting a dividend payout ratio of 65-75% at a time when it is stepping up capex across its largest operating utility and unregulated subsidiaries, and generating lower operating cash flows due to the passage of federal tax reform.

AGR's operating cash flows are forecasted to fund about 80% of its capital investments, with the balance coming from incremental debt at the parent and the utilities, and tax equity at the company's unregulated segment. AGR will also rely on incremental parent debt issuance to fund its dividend. Although not a sustainable long-term approach, with a CFO pre-WC/D of about 23% and debt to capitalization of around 32%, there is some room for incremental leverage, assuming its business mix remains unchanged and it continues to benefit from constructive regulatory relationships across the jurisdictions where it operates.

LARGELY CONTRACTED NATURE OF RENEWABLE ASSETS AND SALE OF NATURAL GAS BUSINESS IMPROVE UNREGULATED SEGMENT'S RISK PROFILE

Following the sale of its natural gas trading and storage business, AGR's unregulated business, Avangrid Renewables Holdings, Inc. (Renewables), now solely consists of 7.1 GW of generation capacity, with largely contracted renewable sources accounting for 6.5 GW of the total. Importantly, prior to the sale of its natural gas business, Renewables already accounted for 100% of the segment's EBITDA and has a record of producing generally stable operating cash flows. About seventy percent of AGR's generation capacity is contracted under long-term power purchase agreements with an average life of 9 years to credit-worthy offtakers, while 5% to 15% of the balance is hedged.

In 2017, AGR's management announced its plan to exit the natural gas business as it viewed it as non-core and not aligned with the broader company's strategic objectives. Furthermore, as a minor cash flow contributor, generating only about 5% of the company's consolidated cash flow in 2017, it carried materially more business risk than AGR's other segments. On 1 March 2018, AGR closed a transaction to sell Enstor Energy Services, LLC, AGR's gas trading business to CCI US Asset holdings LLC near fair market value (\$66 million subject to working capital, cash and other adjustments). On 1 May 2018, AGR closed a transaction to sell Enstor Gas LLC, its gas storage business, to Amphora Gas Storage, LLC for \$66 million subject to working capital, cash and other adjustments by approximately \$9 million.

MATERIAL WEAKNESS FINDING IN AUDITED STATEMENTS POINTS TO CORPORATE GOVERNANCE CHALLENGES

On 26 March 2018, AGR released its 2017 10-K which included disclosure of a material weakness in an adverse auditor opinion on the effectiveness of the company's internal control over financial reporting, a significant credit negative. Although AGR's 10-K audit was unqualified and required no financial statement restatement, the existence of a material weakness for the second consecutive year demonstrates an inability of AGR's board and management to effectively implement certain specific, satisfactory internal control processes that are standard practice among industry peers.

The 2017 material weakness relates to internal controls over the measurement and disclosure of income taxes. This is an issue initially disclosed in AGR's 2016 10-K and highlighted as one of three material weaknesses at that time. While the other two weaknesses were addressed over the course of 2017, AGR failed to fully remediate the inadequate internal control processes and procedures surrounding measurement and disclosure of income taxes prior to their 2017 audit. The company expects to address the issue through acceleration of the deadline of key activities, increasing its capabilities in the area of income tax accounting resources, and enhancing the automation of income tax processes and controls to allow for more timely completion of enhanced review of internal controls. AGR currently anticipates that all remediation efforts will be completed by 31 December 2018. See Moody's Issuer Comment entitled "Avangrid discloses existence of a "material weakness" in its 10-K for second year in a row, a credit negative" for more details on the matter.

LINK BETWEEN AGR'S CREDIT AND ISA SOFTENS FOLLOWING ITS LISTING ON THE NYSE

The decision to list AGR on the New York Stock exchange and effectively reduce ISA's ownership of the company by roughly 20% in December 2015, leads Moody's to conclude that the historically tight linkage between both companies has softened. Although we acknowledge that AGR is an important component of ISA's overall growth strategy, we believe that AGR is largely run independently. We expect that the company will continue to raise the bulk of its debt through the US capital markets, as well as seek to leverage its listing on the NYSE to raise equity for opportunistic growth potentially diluting ISA's ownership further.

Additionally, the presence of ring fencing provisions at all of its utilities limit ISA's flexibility with regards to its ability to draw distributions from those entities. Furthermore, AGR's decision to refinance the legacy UIL Holding company debt at AGR rather than at ISA is additional evidence of a de-linking of the two companies. That said, we continue to acknowledge that the majority ownership by ISA remains a credit positive, particularly since it provides an additional venue to access liquidity at an advantageous price.

Liquidity analysis

AGR's maintains good access to liquidity. AGR had \$40 million of cash on the balance sheet as of 31 March 2018 and maintains a fiveyear bank credit facility with an aggregate borrowing limit of \$2.5 billion (increased from \$1.5 billion on 29 June, 2018). The bank credit facility, that among other things serves to backstop AGR's \$1 billion commercial paper program, has a termination date of June 2023, does not include an ongoing material adverse change clause, and the only financial covenant is a maximum allowed debt to capital ratio of 65% that AGR comfortably satisfied as of 31 March 2018. As part of the recent upsizing and extension of the bank facility, AGR added a sustainability-linked pricing metric that permits an interest rate reduction for meeting targets related to environmental sustainability and highlights AGR's commitment to enhancing its environmentally friendly business profile.

The consolidated group had \$869 million of availability under the then \$1.5 billion bank credit facility as of 31 March 2018 after giving effect to \$631 million of commercial paper outstanding. AGR's utility subsidiaries have various debt maturities totaling \$491 million coming due in 2018 and 2019. The next AGR level maturity is scheduled for 2020 when \$450 million of senior unsecured notes are due.

AGR employs a centralized approach to managing its liquidity. To the extent possible given certain regulatory restrictions, AGR concentrate its cash at the holding company and primarily conducts its short-term borrowings through AGR. The utilities optimize their cash balances through a virtual money pool arrangement. Under the terms of this agreement utilities may lend to each other but not to their unregulated affiliates or parent. These terms meet a regulatory requirement set at the time of AGR's acquisition of the utility companies which prohibits utilities from lending to unregulated affiliates, including AGR.

Aside from modest cash balances, AGR's principal source of liquidity are its commercial paper program and its bank credit facility under which it may borrow up to \$2 billion. AGR also recently entered into a \$500 million inter-group credit agreement with ISA. The intergroup credit agreement has the same financial covenant as the one listed in the bank facility, and terminates the earlier of 28 June 2023 or the date when ISA ceases to own at least 50% of AGR's outstanding common stock. Proceeds from the inter-group credit facility are used to provide credit support to AGR's CP program and for general corporate purposes.

AGR is also party to a notional cash pooling arrangement along with other ISA subsidiaries. Parties to the agreement may deposit funds with or borrow from the pool, provided that the net balance of funds deposited or borrowed by all pool participants in the aggregate is not less than zero. This agreement provides AGR yet another avenue for liquidity, supplementing its access to the bank market, and debt and equity capital markets.

For LTM 31 March 2018, AGR generated \$1.9 billion in cash flow from operations, invested \$2.3 billion in capital expenditures, and made \$535 million in dividend payments to its shareholders, yielding a \$906 million negative free cash flow balance was financed with \$585 million of incremental long-term debt and short term debt. Over the next 12 to 18 months, we anticipate that the company will remain free cash flow negative and will finance the shortfall through incremental debt.

Rating methodology and scorecard factors

Exhibit 5

Rating Factors				
Avangrid, Inc.				
Regulated Electric and Gas Utilities Industry Grid [1][2]	Curre LTM 3/3 ⁻	Moody's 12-18 Month Forward View As of Date Published [3]		
Factor 1 : Regulatory Framework (25%)	Measure	Score	Measure	Score
a) Legislative and Judicial Underpinnings of the Regulatory Framework	A	A	A	А
b) Consistency and Predictability of Regulation	A	A	A	А
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	Baa	Baa	Baa	Baa
b) Sufficiency of Rates and Returns	Baa	Baa	Baa	Baa
Factor 3 : Diversification (10%)				
a) Market Position	Aa	Aa	Aa	Aa
b) Generation and Fuel Diversity	A	A	A	А
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	6.5x	Aa	5.5x - 6x	А
b) CFO pre-WC / Debt (3 Year Avg)	26.1%	A	19% - 24%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	18.5%	A	15% - 19%	А
d) Debt / Capitalization (3 Year Avg)	28.5%	Aa	30% - 35%	Aa
Rating:			-	
Grid-Indicated Rating Before Notching Adjustment		A2		A3
HoldCo Structural Subordination Notching	-1	-1	-1	-1
a) Indicated Rating from Grid		A3		Baa1
b) Actual Rating Assigned		Baa1		Baa1

 [1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
[2] As of 3/31/2018(L)
[3] This represents Moody's forward view; not the view of the issuer; and unless noted in the text, does not incorporate significant acquisitions and divestitures. Source: Moody's Financial MetricsTM

Appendix

Exhibit 6 Cash Flow and Credit Measures [1] (\$MM)

CF Metrics	2012	2014	2015	2016	2017
As Adjusted					
EBITDA	928	1695	1402	2220	2012
FFO	697	1,343	1,236	1,884	1,741
- Div	2	3	3	401	535
RCF	695	1,340	1,233	1,483	1,206
FFO	697	1,343	1,236	1,884	1,741
+/- ΔWC	108	(144)	(58)	(271)	31
+/- Other	(74)	174	216	(19)	15
CFO	730	1,373	1,394	1,594	1,787
- Div	2	3	3	401	535
- Capex	1,035	1,023	1,058	1,671	2,383
FCF	(307)	347	333	(478)	(1,131)
Debt / EBITDA	4.0x	2.2x	4.7x	2.9x	3.8x
EBITDA / Interest	3.7x	6.4x	4.8x	6.7x	5.7x
FFO / Debt	18.8%	35.3%	18.9%	28.9%	22.8%
RCF / Debt	18.8%	35.2%	18.9%	22.7%	15.8%

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months. Source: Moody's Financial MetricsTM

Exhibit 7 Peer Comparison [1] (\$MM)

		Avangrid, Inc.		1	NextEra Energy, Inc.		0	Dominion Energy, Inc.			Xcel Energy Inc.	
		Baa1 Stable			(P)Baa1 Stable			Baa2 Negative			A3 Stable	
	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	FYE	FYE	FYE	LTM
(in US millions)	Dec-16	Dec-17	Mar-18	Dec-16	Dec-17	Mar-18	Dec-15	Dec-16	Dec-17	Dec-16	Dec-17	Mar-18
Revenue	6,018	5,963	6,070	16,155	17,195	17,086	11,683	11,737	12,586	11,107	11,404	11,409
EBITDA	2,220	2,012	1,998	8,341	7,983	8,049	5,418	5,687	6,479	3,829	4,008	4,018
CFO pre-WC / Debt	28.6%	23.0%	25.3%	21.5%	21.5%	24.5%	14.8%	11.0%	12.1%	19.8%	19.6%	19.7%
CFO pre-WC – Dividends / Debt	22.4%	16.0%	17.9%	15.9%	15.9%	18.1%	9.6%	6.1%	7.0%	15.6%	15.3%	15.4%
Debt / EBITDA	2.9x	3.8x	3.7x	3.7x	4.3x	3.9x	5.5x	6.4x	6.0x	4.2x	4.2x	4.2x
Debt / Capitalization	26.0%	31.6%	30.6%	45.5%	49.3%	42.2%	57.9%	58.0%	61.1%	47.6%	52.8%	52.4%
EBITDA / Interest Expense	6.7x	5.7x	5.6x	7.1x	4.9x	5.5x	5.2x	4.8x	4.4x	5.9x	5.8x	5.8x

[1] All figures & ratios calculated using Moody's estimates & standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade.

Source: Moody's Financial MetricsTM

Ratings

Exhibit 8 Category	Moody's Rating
AVANGRID, INC.	Pioody 3 Rating
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured	Baa1
Commercial Paper	P-2
PARENT: IBERDROLA S.A.	1 2
Outlook	Stable
Issuer Rating	Baa1
Senior Unsecured MTN -Dom Curr	(P)Baa1
ST Issuer Rating	P-2
AVANGRID RENEWABLES HOLDINGS, INC.	1 2
Outlook	Stable
Bkd Issuer Rating	Baa1
BERKSHIRE GAS COMPANY	Dadi
Outlook	Positive
Issuer Rating	A3
Outlook	Stable
Issuer Rating	Baa1
Bkd LT IRB/PC	Baa1
ROCHESTER GAS & ELECTRIC CORPORATION	Dadi
Outlook	Stable
Issuer Rating	A3
Bkd LT IRB/PC	A3
Senior Secured	A1
NEW YORK STATE ELECTRIC AND GAS	,
CORPORATION	
Outlook	Stable
Issuer Rating	A3
Bkd LT IRB/PC	A3
Senior Secured	A3
Senior Unsecured	A3
CENTRAL MAINE POWER COMPANY	
Outlook	Stable
Issuer Rating	A2
Senior Unsecured	A2
Pref. Stock	Baa1
SOUTHERN CONNECTICUT GAS COMPANY	
Outlook	Stable
Issuer Rating	A3
Senior Secured	A1
CONNECTICUT NATURAL GAS CORPORATION	
Outlook	Stable
Senior Unsecured	A3
Source: Moody's Investors Service	

Source: Moody's Investors Service

© 2018 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 ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. 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. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S 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. CREDIT RATINGS AND MOODY'S PUBLICATIONS TO CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S 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 AND MOODY'S 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 OR MOODY'S 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.

CREDIT RATINGS AND MOODY'S 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 the Moody's 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 SUCH RATING OR 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 rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS 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 — 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. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

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 rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

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

REPORT NUMBER 1123254

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