

# MOODY'S

## INVESTORS SERVICE

### New Issue: Moody's assigns A1 to Alaska state airport system's Series 2016 A&C and (P)A1 to Series 2016B&D revenue bonds; affirms A1 on outstanding revenue bonds

Global Credit Research - 25 Nov 2015

#### Approximately \$467 million of rated debt outstanding

ALASKA (STATE OF) AIRPORT ENTERPRISE  
Airports  
AK

#### Moody's Rating

ISSUE		RATING
International Airports System Delayed Delivery Revenue Refunding Bonds Series 2016B Non-AMT (Delayed Delivery)		(P)A1
<b>Sale Amount</b>	\$85,865,000	
<b>Expected Sale Date</b>	12/09/15	
<b>Rating Description</b>	Revenue: Government Enterprise	
International Airports System Delayed Delivery Revenue Refunding Bonds Series 2016D AMT (Delayed Delivery)		(P)A1
<b>Sale Amount</b>	\$6,365,000	
<b>Expected Sale Date</b>	12/09/15	
<b>Rating Description</b>	Revenue: Government Enterprise	
International Airports System Revenue Refunding Bonds Series 2016C AMT (Current Delivery)		A1
<b>Sale Amount</b>	\$11,950,000	
<b>Expected Sale Date</b>	12/09/15	
<b>Rating Description</b>	Revenue: Government Enterprise	
International Airports System Revenue Refunding Bonds Series 2016A Non-AMT (Current Delivery)		A1
<b>Sale Amount</b>	\$81,710,000	
<b>Expected Sale Date</b>	12/09/15	
<b>Rating Description</b>	Revenue: Government Enterprise	

#### Moody's Outlook STA

NEW YORK, November 25, 2015 --Moody's Investors Service has assigned an A1 rating to the Alaska (State of) Airport Enterprise International Airports System Revenue Refunding Bonds Series 2016A Non-AMT (Current Delivery) and Series 2016C AMT (Current Delivery) and a provisional A1 to the International Airports System Delayed Delivery Revenue Refunding Bonds Series 2016B Non-AMT (Delayed Delivery) and 2016D AMT (Delayed Delivery). The provisional designation will be removed when the bonds settle in July 2016. At the same time, Moody's affirmed the A1 rating on the enterprise's outstanding revenue bonds. The Alaska International Airport System (AIAS) includes the Ted Stevens Anchorage International Airport (ANC) and the Fairbanks International Airport (FAI).

#### SUMMARY RATING RATIONALE

The A1 rating reflects the airport system's strong market position as a major air cargo activity point, air transportation hub for the state, and key transportation asset for the State of Alaska (GO rated Aaa negative) and the Municipality of Anchorage (GO rated Aa2 stable). In addition, the rating also considers the change in the airport system's market position due primarily to the slowdown in global air cargo trends. The system's financial strength has remained constrained by the marked reduction in air freight activity at the airport and a more robust recovery does not appear likely in the near term.

## OUTLOOK

The stable outlook is based on the airport system's stable enplanement levels, relatively stable operating revenues, and management's proactive steps to use financial resources to reinforce the debt service reserve fund and to manage airline costs.

## WHAT COULD MAKE THE RATING GO UP

- Substantial and sustained increase in air cargo and passenger activity levels
- Cost per enplanement to near median levels
- Maintaining current levels of financial liquidity

## WHAT COULD MAKE THE RATING GO DOWN

- Failure to maintain liquidity above the US airport median levels by Moody's calculation
- Weakening of the debt service reserve fund
- Sharp reduction in passenger or cargo activity levels that pressures airport costs further

## STRENGTHS

- Near-monopoly status of highly essential transportation service to state economy
- Substantial cargo revenues limit exposure to passenger airlines
- Solid liquidity position provides for significant financial flexibility
- Future debt requirements are limited for at least the next eight years and management has been aggressive in finding ways to reduce leverage

## CHALLENGES

- Drop in oil prices weakens state finances and holds back service area's development
- Concentration in Alaska Airlines for passenger enplanements which encompasses over 60% of total enplanements for the system
- Above average debt level due to recent large capital expenditures
- Airline cost per enplanement is expected to rise over the next few years
- Continued decline in cargo tonnage in recent years

## RECENT DEVELOPMENTS

The Series 2016 bonds are part of the system's restructuring of its debt portfolio to reduce annual debt service costs, which in turn reduces annual costs to airlines. The current refunding bonds result in a delay in some principal payment, though the final maturity remains the same. The transaction will reduce the ability of the system to layer in future debt if needed, but the ample capacity and newer facilities at the system's airport reduce the likelihood that capital projects will be required.

The system has felt pressure to reduce airline rates and charges given weakness in the global air cargo trends. In past years, this has included utilizing system liquidity to lower rates and resulting in debt service coverage below 1.0 times as calculated on a Moody's net revenue basis. Unaudited results for FY2015 show the system reaching sum sufficient net revenue coverage as cargo increased 9.5% and enplanements increased 4.5%.

## DETAILED RATING RATIONALE

### REVENUE GENERATING BASE

Enplanements at the system were up 4.5% in FY2015. Air service by commercial airlines has not changed significantly for the system. The growth in enplanements was driven by economic recovery in the region along with competition between airlines driving down ticket prices. Cargo activity saw a significant turnaround in FY 2015. Cargo landed weight, as measured by certified maximum gross take-off weight (CMGTW), increased by 9.5% in FY 2015 following a decline of 3.4% in FY 2014. The trend reversal was driven largely by sustained low oil prices, however, turmoil over a labor agreement at west coast shipping ports also provided some uplift as cargo saw delays in delivery to the US.

The recently completed Master Plans for both ANC and FAI show budgeted annual cargo growth of 2.9% and 1.3%, respectively through 2030. Meanwhile, enplanement projections forecast annual growth of 1.1% for ANC and 1.3% for FAI. We believe enplanement and cargo levels will remain stable but enplanements will be challenged to see positive growth due to weakness in the Alaska economy as the energy sector negotiates a lower oil price environment and lower growth in China. Lower oil prices will weigh on economic conditions in the state, but they will likely provide an offsetting boost to tourism. We believe these projections are conservative estimates of the system's future performance, since over the past five years, the compound average growth in enplanements has been 2.5% for the system. Cargo tonnage for ANC is projected to grow 4.6% annually from 2015 to 2020. Due to the continued decrease of cargo at the airport, this forecast of a significant rebound in growth will be difficult to achieve.

Cargo activity remains well below pre-recession levels and there is little evidence to suggest that will change in the medium term. Unlike most other rated airports, cargo revenues represent the bulk of aviation revenues at Anchorage, accounting for approximately two-thirds of airline derived revenues and over 50% of total operating revenues. Total CMGTW at the airport declined 22.1% in FY 2009 then rebounded somewhat in fiscal years 2010 and 2011 with 12.1% and 5.1% growth, respectively. However CMGTW declined again in 2014 by 3.4% before increasing 9.5% in 2015. The fact that these declines come despite improving global economic conditions demonstrate how air cargo trends at Anchorage remain volatile.

Looking forward we expect air cargo growth will be below average in the near term due to a number of factors. While economic growth has been resilient, trade between North America and Asia is likely to be pressured as China's growth rate slows and on-shoring/near-shoring trends marginally reduce global shipping. Moody's Economy.com expects China's GDP to grow at 6.3% in 2016, still robust but lower than recent growth rates including 9.3% in 2011. Air cargo demand has been affected by excess capacity in sea-borne trade since the downturn which has lowered shipping rates. Long-term we expect growth to return to historic levels, but Anchorage's competitive position may also be reduced as aircraft range increases. Further, continued low oil prices will weaken the state's financial resources but may ultimately help the authority as fuel expense makes up a major part of airline operating expenses.

### FINANCIAL OPERATIONS AND POSITION

The current rating recognizes that the airport system's finances are quite stable and have limited expectation of strong improvement. Passenger enplanement levels have shown stability in recent years with a CAGR of 2.5% over the past five years and an increase in FY2015 of 4.5%. Since the economic downturn, the airport has been deliberate in using excess reserves to reinforce the funding of the debt service reserve fund and to reduce debt service requirements. As a result, the debt service reserve now has \$25.0 million of cash toward the approximately \$43 million requirement. The reserve also contains sureties of \$2.0 million from Ambac Assurance Corp (ratings withdrawn) and \$29.2 million from National Public Finance Guarantee Corp (A3, negative).

Through amortization and the use of cash to pay down additional debt and fund the debt service reserve, leverage has declined markedly. Total debt outstanding has fallen from \$644.7 million in 2006 to \$466.5 million as of October 15, 2015, resulting in debt per O&D enplanement, which uses debt net of the debt service reserve amount, decreasing from \$246 to \$154 in that time. System leverage remains well-above Moody's median of \$76 for 2014, as a result of large debt taken on in 2006 for the terminal redevelopment project. With no additional debt planned in the next five years and low long-term capital needs we expect these metrics will continue to improve. Given the importance of cargo operations here this leverage metric will typically remain higher than at similarly rated airports where revenues are more focused on passenger traffic.

The use of cash to pay debt service has kept cost per enplanement low, but we expect costs to remain elevated,

and to escalate moving forward. After this sale annual debt service requirements will be structured to a flat level through 2036, but operating expenses increased 6.1% in FY 2014, due to higher costs for deicing materials and higher expenditures for snow removal. Cost per enplanement for passenger airlines has been kept low by the system due to the airport's use of cash and excess reserves to reduce annual debt service requirements since 2009, though this trend stopped in FY2015. While Moody's considered prudent the system's use of excess construction funds to pay debt service, it has significantly masked the system's elevated cost structure as days cash on hand has fallen from almost 650 days in 2009 to just 438 in 2014. Rising costs could pressure both cargo and passenger activity levels down, further impacting the airport's market position.

The use of cash and PFCs to pay debt service also reduces our calculation of debt service coverage by net revenues. The debt service coverage of 0.97 times in FY 2014 is indicative of this and not of an inability of the system to fully recover its costs. By the bond indenture calculation, the system's debt service coverage remains at its minimum covenant of 1.25 times, which is typical for an airport with a residual rate-making methodology.

#### Liquidity

Liquidity decreased in FY2014 by almost \$40 million due to one-time expenditures to optionally redeem system bonds, but unaudited FY2015 results show an increase of \$7 million. The increase in liquidity has helped temper the system's multi-year drop in days cash on hand, which fell below 600 days in FY2014. Liquidity has steadily declined from 727 days in 2007 to 438 days. We expect liquidity will continue to decline as management targets a level of cash reserves equal to approximately one year's operating expenses following completion of Anchorage's major capital projects. Our rating incorporates the expectation that management will continue to move toward a level of days cash on hand closer to 400 days, which will somewhat limit its financial flexibility, but should also coincide with lower leverage.

#### DEBT AND OTHER LIABILITIES

The system maintains its current 10-year capital improvement program (CIP), which was approved in the airline operating agreement, with some project additions totaling approximately \$28.7 million, including \$12.2 million of TSA funded checked-baggage system recapitalizations at ANC and FAI, to a total 10-year cost of \$448 million. Management reports its CIP plan is for the most part within original schedule and cost of the initial 10-year CIP plan. The plan is limited and does not anticipate additional debt through 2023. This will allow leverage to continue to fall off significantly. Other than pavement and facilities upkeep projects, a significant piece of the CIP for ANC includes the repurposing of the Kulis Air National Guard base. The airport is working to make the space commercially viable and will fill the leasable space with airport compatible tenants. For FAI, The Aircraft Rescue and Firefighting Facility ("ARFF") is a major rehabilitation, along with an update to the airport's master plan, both of which were recently completed within schedule and budget.

#### Debt Structure

Of the system's total debt outstanding of \$487.3 million roughly 11% is variable rate debt, which the system has not swapped.

Revenue Bonds, Series 1999A \$11,290,000

Revenue Bonds, Series 1999B \$735,000

Revenue Bonds, Series 1999C \$1,915,000

Revenue Bonds, Series 2003A \$505,000

Revenue Bonds, Series 2003B \$21,900,000

Revenue Bonds, Series 2006A \$69,830,000

Revenue Bonds, Series 2006B \$70,760,000

Revenue Bonds, Series 2006D \$103,675,000

VRDO Refunding Bonds, Series 2009A \$50,000,000

Revenue Refunding Bonds, Series 2010A \$112,095,000

Revenue Refunding Bonds, Series 2010B \$12,470,000

Revenue Refunding Bonds, Series 2010C \$12,565,000

Revenue Refunding Bonds, Series 2010D \$19,540,000

Debt-Related Derivatives

None.

Pensions and OPEB

The financial impact of unfunded and OPEB obligations of this issuer are minor and thus not currently a major factor in our assessment of its credit profile.

## MANAGEMENT AND GOVERNANCE

The airport currently operates under a ten-year operating agreement with the airlines which adds to the stability of the airport's revenues. The agreement began on July 1, 2013 and keeps the current residual rate-setting methodology in place. The agreement allows for mid- and end-year rate adjustments to allow the airport to meet its financial obligations and limits capital spending by including an affirmative majority-in-interest provision that 50% of the signatory airlines must approve any projects that total more than \$500 million or that have over \$100 million of funding from the rate base.

The agreement initially pre-approved \$420 million of capital projects in the ten year period, which was increased by approximately \$28.7 million, including \$12.2 million of TSA funded checked-baggage system recapitalizations at ANC and FAI, to a total 10-year \$448 million program, including approximately \$275.9 of projects scheduled for the first half of the system's 10-year capital plan (CIP), from FY2014 to FY2018. The five-year CIP is approximately 66% funded by FAA Airport Improvement Program grants and includes no additional debt. This light spending program is heavily focused on pavement maintenance with \$134.9 million, or 69% of the total plan, scheduled for pavement reconstruction at Anchorage. The remainder includes smaller expenditures on equipment and annual improvement projects.

## KEY STATISTICS

- Type of Airport: O&D
- Rate-making methodology: Residual
- FY 2015 System-wide Enplanements: 3.18 million
- 5-Year Enplanement CAGR 2010-2015: 2.5%
- FY 2015 vs. FY 2014 Enplanement growth: 4.5%
- FY 2015 vs. FY 2014 Cert. Max. Gross T/O Weight growth: 9.5%
- % O&D vs. Connecting, FY 2015: 98%
- Largest Carrier by Enplanements, FY 2015 (share): Alaska (61%)
- Airline Cost per Enplaned Passenger, FY 2014: \$10.87
- Debt per Enplaned Passenger, FY 2014: \$154.39
- Debt Service Coverage, Net Revenues Basis, FY 2014: 0.97x
- Debt Service Coverage, Bond Ordinance, FY 2014: 1.25x

## METHODOLOGY SCORECARD FACTORS:

Publicly Managed Airports and Related Issuers

The A1 rating differs from the grid indicated rating of A3 due to the authority's operating revenue diversity from cargo revenues, the strategic location and essentiality of the authority's international cargo operations and our expectation that debt service coverage by net revenues will be at or above 1.0 times going forward, in line with

unaudited FY2015 results.

Factor 1 - Market Position- Size of Service Area: Baa (736,000)

Factor 1 - Market Position- Economic Strength/Diversity of Area: A

Factor 1 - Market Position- Competition for Travel: Aaa

Factor 1 - Market Position- Total Enplanements: A (3,043,991)

Factor 2 - Service Offering- Stability of Traffic Performance: Aa

Factor 2 - Service Offering- Stability of Costs: A

Factor 2 - Service Offering- Carrier Base: Baa (61%)

Factor 3 - Financial Metrics - Debt Service Coverage by Net Revenues (Residual): Ba (0.97x)

Factor 3 - Financial Metrics - Debt per O&D Passenger (Regional): Ba (\$154.39)

Preliminary Grid Indicated Rating: A3

Factor 4 - Liquidity - 0 Notches

Factor 5 - Connecting Traffic - 0 Notches

Factor 6 - Potential for Increased Leverage - 0 Notches

Factor 7 - Debt Service Reserves - 0 Notches

Grid Indicated Rating: A3

Note: The grid is a reference tool that can be used to approximate credit profiles in the airport industry in most cases. However, the grid is a summary that does not include every rating consideration. Please see Publicly Managed Airports and Related Issuers for more information about the limitations inherent to grids.

## OBLIGOR PROFILE

The authority is an enterprise system of the State of Alaska. The airport system manages two international airports, Ted Stevens Anchorage International Airport and Fairbanks International Airport. The authority is managed by the Department of Transportation. The authority is overseen by the Aviation Advisor Board, which is an 11 member board appointed by the Governor of the State.

## LEGAL SECURITY

Net revenues of the airport. The debt service reserve has \$25 million of cash toward the approximately \$43 million requirement, in addition to sureties of \$2.0 million from Ambac Assurance Corp (ratings withdrawn) and \$29.3 million from National Public Finance Guarantee Corp (A3 negative).

## USE OF PROCEEDS

The 2015 Series Bonds will refund existing bonds of the authority and lower the debt service of the authority by an average of \$15 million per year, or 4.0% present value savings.

## RATING METHODOLOGY

The principal methodology used in this rating was Publicly Managed Airports and Related Issuers published in November 2015. Please see the Credit Policy page on [www.moodys.com](http://www.moodys.com) for a copy of this methodology.

## REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt 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 rating action on the support provider and in relation to each particular 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 ratings tab on the issuer/entity page for the respective issuer on [www.moodys.com](http://www.moodys.com).

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

Please see [www.moodys.com](http://www.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 ratings tab on the issuer/entity page on [www.moodys.com](http://www.moodys.com) for additional regulatory disclosures for each credit rating.

### **Analysts**

Earl Heffintrayer  
Lead Analyst  
Public Finance Group  
Moody's Investors Service

Chee Mee Hu  
MANAGING DIRECTOR  
Public Finance Group  
Moody's Investors Service

Kurt Krummenacker  
Additional Contact  
Public Finance Group  
Moody's Investors Service

### **Contacts**

Journalists: (212) 553-0376  
Research Clients: (212) 553-1653

Moody's Investors Service, Inc.  
250 Greenwich Street  
New York, NY 10007  
USA

**MOODY'S**  
INVESTORS SERVICE

© 2015 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 CREDIT RATINGS AND RESEARCH PUBLICATIONS PUBLISHED BY MOODY'S ("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 DO NOT 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 FOR RETAIL INVESTORS TO CONSIDER MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS IN MAKING ANY 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.

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.moody's.com](http://www.moody's.com) under the heading "Investor Relations — Corporate Governance — Director and Shareholder



## Affiliation Policy.”

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 clients. It would be dangerous for “retail clients” to make any investment decision based on MOODY’S credit rating. If in doubt you should contact your financial or other professional adviser.

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.