

CREDIT OPINION

31 March 2017

Update

Rate this Research >>

RATINGS

PAO Novatek

Domicile	Russia
Long Term Rating	Ba1
Type	LT Corporate Family Ratings
Outlook	Stable

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

Contacts

Denis Perevezentsev 7-495-228-6064
 VP-Sr Credit Officer
 denis.perevezentsev@moodys.com

Victoria Maisuradze 7-495-228-6067
 Associate Managing Director
 victoria.maisuradze@moodys.com

PAO Novatek

Update Following Recent Change of Outlook to Stable

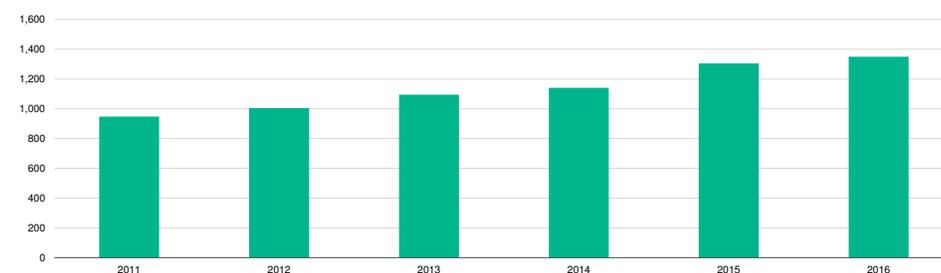
Summary Rating Rationale

Novatek's Ba1 corporate family rating reflects the following factors: (1) its vast conventional low-cost reserves; (2) the company's integrated business model with a high share of processed value added products; (3) a track record of strong production growth in both gas and liquids (gas condensate and oil); (4) strong domestic market position in gas; (5) strong financial metrics and liquidity profile with low leverage; and (6) substantially reduced execution and financing risks related to the development of Yamal LNG project.

The rating is constrained by the company's exposure to the credit profile of Russia and is in line with Russia's sovereign rating and country ceiling for foreign-currency debt of Ba1. The company remains exposed to the Russian macroeconomic environment, despite its high volume of exports, given that all of the company's production facilities are located in Russia.

Exhibit 1

Novatek's Average Daily Production of Hydrocarbons (Mboe / day)



Source: Company data; Moody's Financial Metrics

Credit Strengths

- » Substantial reserves and strong production dynamics at legacy fields and joint ventures
- » Integrated business model with a high share of processed value added products
- » Yamal LNG is fully funded while execution risk has abated
- » Financial metrics will remain strong despite lower prices owing to weak rouble and low costs

Credit Challenges

- » Heightened risk of a prolonged period of low oil prices
- » Exposure to Russian operating environment

Rating Outlook

The stable outlook on Novatek's ratings is in line with the stable outlook for the sovereign rating and reflects our view that company-specific credit factors, including operating and financial performance, market position and liquidity, will remain commensurate with its ratings on a sustainable basis.

Factors that Could Lead to an Upgrade

- » We would consider a rating upgrade if we were to upgrade Russia's sovereign rating and/or raise the foreign-currency bond country ceiling provided that the company's operating and financial performance, market position and liquidity remain commensurate with our current expectations

Factors that Could Lead to a Downgrade

- » Downgrade of Russia's sovereign rating and/or lowering of the foreign-currency bond country ceiling
- » Material deterioration in the company's operating and financial performance, business profile, market position and liquidity
- » Retained cash flow/net debt falling below 30% and debt/EBITDA increasing above 2.0x on a sustained, forward-looking basis

Key Indicators

Exhibit 2

KEY INDICATORS [1]

PAO Novatek

	31/12/2016	31/12/2015	31/12/2014	31/12/2013	31/12/2012
Avg Daily Production (Mboe/d)	1349.7	1305.5	1140.6	1094.5	1005.5
Proved Developed Reserves (Million boe)	4306.8	4670.8	4674.5	4041.5	4174.2
Total Proved Reserves (Million boe)	11627.2	11656.5	11497.8	11436.8	11282.2
Leveraged Full-Cycle Ratio	3.4x	2.4x	3.3x	7.6x	6.0x
E&P Debt / Average Daily Production	\$2,670.7	\$3,784.6	\$3,643.8	\$4,655.4	\$4,378.0
E&P Debt / PD boe Reserves	\$0.8	\$1.1	\$0.9	\$1.3	\$1.1
RCF / Total Debt	56.7%	25.4%	28.2%	42.0%	43.0%
EBITDA / Interest Expense	18.0x	9.4x	12.3x	14.0x	17.7x
E&P Unleveraged Cash Margin / BOE	\$3.7	\$3.6	\$7.5	\$8.5	\$8.0

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

Source: Moody's Financial Metrics™

Detailed Rating Considerations

RESERVES AND GROWING PRODUCTION AT JOINT VENTURES COMPLEMENT OPERATIONS AT LEGACY FIELDS

Novatek holds 39 licences for exploration and production of hydrocarbon fields in Yamalo-Nenets Autonomous District. The company had total proved reserves of approximately 12.8 billion barrels of oil equivalent (boe) under the Securities and Exchange Commission (SEC) classification as of 31 December 2016, which implies a proved reserve life of 24 years. Novatek maintains robust reserve replacement, with organic reserves replacement ratio (excluding disposals) of 168% in 2016 (2015: 148%). We expect Novatek to grow its reserve base further, as the company continues to acquire new licences and carry out extensive exploration works at the Gydan peninsula and the Gulf of Ob.

The company carries out commercial production of natural gas, gas condensate and crude oil at 13 fields, including the company's core Yurkharovskoye and East-Tarkosalinskoye fields, which accounted for 51% and 12% of the company's total gas production and 15% and 11% of liquids production in 2016, respectively.

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.

A significant share of Novatek's production is attributed to its joint ventures: SeverEnergiya and Nortgas, developed jointly with Gazprom Neft PJSC (Ba1 stable), where Novatek holds 53.3% and 50% stakes, respectively, and Terneftegas, a joint venture with TOTAL S.A. (Aa3 stable), with Novatek's share amounting to 51%. Overall, joint ventures contributed 30% to Novatek's gas production and 42% to its liquids production in 2016.

At SeverEnergiya, the company is developing the Samburgskoye and Urengoykoye fields launched in 2012-14 and the Yaro-Yakhinskoye field launched in 2015. The fields have been ramped up to full capacity and allow a total production of approximately 28 billion cubic metres (bcm) of natural gas and more than 7.5 million tonnes (mt) of gas condensate per year. At Nortgas, the company is developing the North-Urengoykoye field with gas and gas condensate production of more than 10 bcm and 1.3 mt, respectively. At Terneftegas, the Termokarstovoye field was launched and ramped up to its full capacity of 2.4 bcm of gas and 0.8 mt of gas condensate in mid-2015.

While gas production at Novatek's largest brownfields (Yurkharovskoye, East-Tarkosalinskoye and Khancheykoye) and Nortgas fields is currently falling as a result of natural decline of the reservoir pressure, this is largely offset by growing production at SeverEnergiya and Terneftegas. Novatek also aims to source future growth from North-Russkoye block of fields, which have a total production potential of 8 bcm of gas per year.

Yarudeyskoye oil field, developed by Novatek's 51%-owned subsidiary Yargeo, was launched in December 2015 and ramped up to full capacity of about 3.5 mt of crude oil per year in early 2016. Coupled with substantial increase in liquids production at SeverEnergiya in 2015, the share of liquids in Novatek's overall hydrocarbon production increased to approximately 19% in 2016, up from 11% in 2014. The share of liquids in revenue increased to 57% in 2016 compared with 35% in 2014. We expect that the share of natural gas in Novatek's total revenue and EBITDA will increase in the future following the launch of its Yamal LNG plant, which the company expects to commence in H2 2017.

RESERVES ARE WELL MONETISED DUE TO INTEGRATED BUSINESS MODEL

Novatek processes unstable gas condensate at its Purovsky Gas Condensate Processing Plant, located in close proximity to its fields, where the company processes it into stable gas condensate and liquefied petroleum gas (LPG). Stable gas condensate is further processed at the company's Gas Condensate Fractionation and Transshipment Complex, located at the port of Ust-Luga on the Baltic Sea, into higher-value refined oil products such as naphtha, jet fuel, gasoil and fuel oil. Increased liquids production allowed the company to fully utilise its Ust-Luga complex and Purovsky plant since H1 2015. Both the Purovsky plant and Ust-Luga complex are currently producing more than their nameplate capacities of 11 million tonnes per annum (mtpa) and 6 mtpa, respectively, having processed 12.4 mtpa and 6.9 mtpa in 2016.

This integrated business model, with a growing share of liquids that are further processed into refined products at the Ust-Luga Complex, allows the company to shift to higher margin liquids sales (oil products, crude oil, LPG, stable gas condensate), which do not fluctuate seasonally and are largely sold in the export markets. As such, the company has somewhat diversified away from gas, which is 100% sold in the domestic market in Russian roubles at regulated prices and exhibits seasonal volatility. The company sells almost 100% of its oil products, more than half of stable gas condensate and one third of crude oil in the export markets. Therefore, growing export sales of higher margin liquids provide the company with an increasing share of foreign-currency revenues, which is particularly beneficial in the view of the sharp depreciation of rouble in 2014-2016.

Novatek is not allowed to sell its natural gas in the export markets: according to the Russian law on gas exports, Gazprom, PJSC (Ba1 stable) has the exclusive right to export gas via its gas pipelines. Although Novatek can sell gas in the domestic market at any price, in practice it cannot deviate substantially from regulated prices at which gas is sold by Gazprom (mostly in the range of \$50-\$60/ thousand cubic metres, depending on the region of sales, or about \$8-\$10/boe), which serve as benchmark prices. Novatek's gas monetisation rests on large medium- and long-term contracts with industrial end-customers (e.g. Russian steelmakers) and power generation companies.

At the same time, the prices at which Novatek sells its liquids are market-based and subject to fluctuations in underlying benchmark crude oil, naphtha and other gas condensate refined products prices, which are substantially higher on a per-boe basis compared with domestic gas sales, despite the recent fall in benchmark crude oil prices.

YAMAL LNG IS FULLY FUNDED WHILE EXECUTION RISK HAS ABATED

Novatek's Yamal LNG project, which embraces the construction of a 16.5-mtpa liquefaction plant and the development of the South-Tambeyskoye field in the Yamal peninsula, will become the backbone of its medium-term growth. As of 31 December 2016, construction of the first train was 88% complete, while overall project completion exceeded 75%. The company intends to start LNG production at the first 5.5-mtpa train in the second half of 2017, while the remaining two trains will be commissioned in 2018 and 2019. We positively note that long-term contracts cover more than 95% of the project's expected production volumes.

Total capex requirements for Yamal LNG are estimated at \$27 billion. Prior to obtaining external project financing, Yamal LNG was fully financed by the shareholders, who contributed approximately \$13.1 billion to the project. In 2016, Yamal LNG signed 15-year syndicated credit line facilities in the amount of \$4 billion equivalent with two major Russian state-owned banks and a \$12 billion equivalent 15-year project financing facilities with Chinese banks. These and a number of other credit facilities of smaller size closed Yamal LNG's financing needs, which eliminates potential risks of this project funding out of Novatek's cash flows. As of 31 December 2016, Novatek had outstanding loans provided to Yamal LNG totalling approximately RUB173.8 billion. These loans will be repaid following the commencement of commercial production from the project's cash flows, available after servicing external debt.

Although Novatek is subject to a US ban on the provision of financing for, and other dealings in, new debt with a maturity of longer than 90 days and all activities related to new debt, the company is not subject to the US technological sanctions, comprising a ban on the provision of goods, services and technology for certain deep-water (greater than 500 feet), Arctic offshore, or shale projects that have the potential to produce oil, encompassing also licence requirements for exports involving certain projects. EU ban on certain services necessary for deep-water oil exploration and production, Arctic oil exploration or production and shale oil projects, apply to all such projects in Russia, which have the potential to produce crude oil, and is therefore relevant for Novatek. Novatek is a producer developing mainly conventional gas, oil and gas condensate deposits and therefore we do not expect that it will be materially affected by the EU technological restrictions.

FINANCIAL METRICS WILL REMAIN STRONG DESPITE LOWER PRICES

Prices for refined oil and gas condensate products sold in the export markets correlate strongly with benchmark oil prices and fell accordingly: in 2016, Novatek's average realised contract prices for stable gas condensate and naphtha fell by 9.1% and 14.2% year on year, respectively, in USD terms. However, the weaker rouble exchange rate cushions the negative impact of lower oil prices. The company has approximately 50% of its revenue in foreign currency compared with only about 5% of its capex, while all of its operating expenses are in Russian roubles. Therefore, its lower US dollar revenues owing to lower oil prices are somewhat offset by the positive impact of the weaker exchange rate on the company's costs and free cash flows, owing to the resultant lower operating expenses and capex.

Weak rouble and largely conventional reserves allow the company to be a low-cost producer. The company estimates its total all-in production costs (including depreciation, lifting costs, transportation and taxes) at approximately \$6.86/boe in 2016 (2015: \$6.83/boe), including lifting costs of \$0.57/boe (2015: \$0.49/boe). Low costs and a substantial share of exports amid the rouble depreciation will allow the company to maintain strong profitability and operating cash flows despite lower prices.

The company's leverage, as measured by Moody's-adjusted debt/EBITDA, fell to 0.7x as of 31 December 2016, compared with 2.6x as of 31 December 2015. In 2016 the company generated strong free cash flows of RUB86.3 billion (as adjusted by Moody's), and repaid RUB142 billion of debt (40% of its total debt as of end-2015). We expect that the company will remain free cash flow positive in 2017, owing to strong operating cash flow generation and lower capex requirements of about RUB40 billion.

Liquidity Analysis

Novatek has strong liquidity profile, which the company further enhanced in 2016, as it repaid a \$600 million Eurobond. As of 31 December 2016, Novatek held a sizeable cash cushion of RUB48 billion, complemented with available credit facilities for a total of RUB165 billion. We estimate that Novatek's sizeable cash balances and robust operating cash flows, which we estimate will amount to approximately RUB120-RUB130 billion in 2017 will allow the company to make short-term debt repayments of RUB55 billion (of which RUB14 billion Eurobond has been repaid in February 2017), to cover its moderate capex programme and to continue making dividend payments as well as ad hoc share buybacks. Novatek has no sizeable debt maturities in 2018-2020.

Profile

Headquartered in Moscow, PAO Novatek is Russia's second-largest independent gas producer and third-largest gas company in Russia, after state-controlled Gazprom and Rosneft. For the year ended 31 December 2016, Novatek reported RUB537.5 billion in revenue and its Moody's-adjusted EBITDA amounted to RUB296.3 billion. In 2016, Novatek produced 66.1 billion cubic meters of gas and 12.4 million tonnes of liquid hydrocarbons.

Novatek's key shareholders are as follows: Mr. Leonid Mikhelson (25% stake), who is also Chairman of the Management Board; Mr. Gennady Timchenko, with a stake of approximately 23%; TOTAL S.A. (Aa3 stable), with a 18.9% stake, with a right to increase the stake to 19.4%; and Gazprom, with a 10% stake. Novatek's free float is estimated to represent approximately 23%.

Rating Methodology and Scorecard Factors

The application of our Global Independent Exploration and Production Industry rating methodology published in December 2011, to Novatek results in an Aa3 rating outcome. Novatek's current rating is below its grid assessment, reflecting the company's exposure to Russia's government credit profile, captured by the Ba1 sovereign rating with a stable outlook and the Ba1 foreign-currency bond country ceiling.

Exhibit 3

Rating Factors PAO Novatek

Independent Exploration & Production Industry Grid [1][2]	Current FY 31/12/2016		Moody's 12-18 Month Forward View As of March 2017 [3]	
	Measure	Score	Measure	Score
Factor 1: Reserves & Production Characteristics (40.0%)				
a) Avg Daily Production (Mboe/d)	1349.7	Aa	1350 - 1400	Aa
b) Proved Developed Reserves (Million boe)	4306.8	Aa	4300 - 4400	Aa
c) Total Proved Reserves (Million boe)	11627.2	Aaa	11500 - 12000	Aaa
Factor 2: Operating & Capital Efficiency (20.0%)				
a) Leveraged Full-Cycle Ratio	3.4x	A	3.5x - 4x	Aa
Factor 3: Leverage and Cash Flow Coverage (40.0%)				
a) E&P Debt / Average Daily Production	\$2,670.7	Aaa	\$2000 - \$2500	Aaa
b) E&P Debt / PD boe Reserves	\$0.8	Aaa	\$0.6 - \$0.7	Aaa
c) RCF / Total Debt	56.7%	Baa	55% - 60%	Baa
d) EBITDA / Interest Expense	18.0x	A	19x - 21x	A
Factor 4: Production Mix Overlay (Composite Score Adjustment)				
a) E&P Unleveraged Cash Margin / BOE	\$3.7	Ca	\$4 - \$6	Ca
Rating:				
Indicated Rating from Grid Factors 1-3		Aa3		Aa2
Unleveraged Cash Margin: Composite Score Adjustment	-0.4	-0.4	-0.4	-0.4
a) Indicated Rating from Grid		Aa3		Aa3
b) Actual Rating Assigned				Ba1

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

[2] As of 31/12/2016; Source: Moody's Financial Metrics™

[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 Metrics™

Ratings

Exhibit 4

Category	Moody's Rating
PAO NOVATEK	
Outlook	Stable
Corporate Family Rating	Ba1
NOVATEK FINANCE LIMITED	
Outlook	Stable
Senior Unsecured	Ba1/LGD4

Source: Moody's Investors Service

© 2017 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 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 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.

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.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. 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 1066976

Contacts

Igor Kartavov
Associate Analyst
igor.kartavov@moodys.com

7-495-228-6073

Victoria Maisuradze
Associate Managing
Director
victoria.maisuradze@moodys.com

7-495-228-6067

Denis Perevezentsev
VP-Sr Credit Officer
denis.perevezentsev@moodys.com

7-495-228-6064

CLIENT SERVICES

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