

Japan Credit Rating Agency, Ltd. (JCR) announces the following credit rating.

JCR's Rating Review of Major Oil Distributors

Issuer	Code	Long-Term Issuer Rating		Outlook
Idemitsu Kosan Co., Ltd.	5019	<Rating Change>	From A to A+	from Positive to Stable
JXTG Holdings, Inc.	5020	<Rating Change>	From A+ to AA-	from Positive to Stable
COSMO ENERGY HOLDINGS COMPANY, LIMITED	5021	<Outlook Change>	BBB	from Stable to Positive

Issuer	Code	CP	
Idemitsu Kosan Co., Ltd.	5019	<Affirmation>	J-1
JXTG Holdings, Inc.	5020	<Rating Change>	From J-1 to J-1+
COSMO ENERGY HOLDINGS COMPANY, LIMITED	5021	<Affirmation>	J-2

(See page 4 and beyond for details about ratings on individual bonds, etc.)

Rating Viewpoints

- (1) JCR has reviewed ratings for major oil distributors and upgraded the long-term issuer ratings on both Idemitsu Kosan Co., Ltd. and JXTG Holdings, Inc. by 1 notch with rating outlook revision from Positive to Stable. JCR affirmed the long-term issuer rating on COSMO ENERGY HOLDINGS COMPANY, LIMITED and revised the rating outlook from Stable to Positive.
- (2) Business performance of major oil distributors has been stable in general. Margin of oil products which has the largest impact on them improved in the fiscal year ended March 2018 (FY2017) against the backdrop of tightened domestic supply-demand balance and has been maintained since FY2018. In the face of the declining domestic demand, they are reducing the worsening of supply-demand balance through production adjustment and exports. The transaction volume of resold products among domestic companies decreased along with progress of industrial reorganization, which then reduced downward pressure on the price of oil products. The flow of imports has not expanded due to various restrictions. JCR sees that they will continue enjoying a solid business performance through securing an enough margin of oil products. As their large-scale capital investments have finished, it is unlikely that their financial structure will worsen for the time being, although the improvement has slowed down since FY2018. JCR reflected these developments in the rating review this time.
- (3) Following creation of JXTG Holdings, Inc. through integration of JX Holdings, Inc. and TonenGeneral Sekiyu K.K. in April 2017, Idemitsu Kosan and SHOWA SHELL SEKIYU merged in April 2019. As a result, JXTG Group has approximately 50% share for domestic fuel oil sales, while Idemitsu SHOWA SHELL Group has approximately 30% market share. Going forward, the 2 big groups will keep order in the industry, which can lead to reduction of excessive competition. Synergistic effects from management integration led to the improvement of their business performance and further synergic effects can be created.
- (4) Domestic demand for oil products, on the other hand, has been on the decline in the long run, and will continue to decline by 1% to 3% annually. This declining rate may expand, depending on progress of declining population and spread of eco-car and energy-saving equipment. It is necessary to reduce refining capacity in Japan in a stepwise manner in addition to adjusting production volume to demand in order to keep the supply-demand balance. In July 2019, JXTG Group, the largest group in Japan, announced that it would terminate refinery operations at one of

its refineries in October 2020. JCR will continue watching whether each company can maintain an adequate supply-demand balance by reduction of supply capacity.

- (5) From the chronological point of view, their financial structure has been improving. However, there are differences in the level among companies, and there is a company which has large room for the improvement. Their business performance is susceptible to crude oil price. There were cases where they recorded losses due to inventory valuation losses of oil business or deterioration in the profit of oil exploration business in the past decline of crude oil price. For this reason, JCR sees that it remains important to strengthen their equity capital in preparation for fluctuations of business results in the future. They will be also required to make investments in new businesses and growth areas towards changes in their business portfolio to combat the declining demand for oil products in the long run. JCR will pay attention to whether they can further improve their financial structure, while keeping a balance between their investments and returning a profit to their shareholders, in the face of these challenges.

Rationale

Issuer: Idemitsu Kosan Co., Ltd.

<Rating Change>

Long-term Issuer Rating: from A to A+
Outlook: from Positive to Stable
Bonds: from A to A+

<Affirmation>

CP: J-1

- (1) In April 2019, Idemitsu Kosan Co., Ltd. (the “Company”) conducted management integration with SHOWA SHELL SEKIYU K.K. and its share for the domestic fuel oil sales increased to approximately 30%, which is the 2nd largest after JXTG Group. Through the absorption-type company split for the Company to take over all businesses of SHOWA SHELL SEKIYU K.K. conducted in July 2019, the 2 companies’ organizations and businesses of were united. In addition to the fuel oils and basic chemicals as the core businesses, it has a strong business base in the resource development business of oil and coal. It is also engaging in functional materials business such as lubricants and electronic materials, power generation, solar panel, and other businesses.
- (2) Through the management integration, the Company firmly established its position as one of the 2 big groups in the oil distribution industry. Going forward, the order in the industry will be maintained by progress of industrial reorganization, which is then expected to increase the stability of margins of fuel oils. The earnings capacity will be further strengthened through expansion of synergies from the integration. Although the profits from the basic chemicals and resource business are susceptible to market conditions, the Company’s business performance will remain solid for the time being, supported by fuel oil business. Its financial base was also strengthened by the management integration. Based on these factors, JCR upgraded the ratings on the Company by 1 notch with revision of the rating outlook from Positive to Stable.
- (3) Its ordinary profit for FY2019 (excluding the inventory valuation effect) is forecast to reach 228.5 billion yen. This amount is roughly equivalent to the estimated amount for FY2018, which was announced by the Company, although a simple comparison before the management integration cannot be possible. In and after FY2020, full-scale operations at the Nghi Son Refinery in Vietnam and expansion of synergies from the integration will push up the profit.
- (4) As of the end of the 1st quarter of FY2019, its equity ratio and DER both improved to 31.1% and 0.9x from 29.1% and 1.1x as of the end of FY2018, respectively, before the integration. Going forward, cash-outs are expected for the purpose of replacement investment, strategic investment and return of the profit to the shareholders, but these cash-outs will be roughly covered by the operating cash flow. JCR sees that the Company’s financial structure will continue to gradually improve.

Issuer: JXTG Holdings, Inc.

<Rating Change>

Long-term Issuer Rating: from A+ to AA-
Outlook: from Positive to Stable
Bonds: from A+ to AA-
Shelf Registration: from Preliminary A+ to Preliminary AA-

CP: from J-1 to J-1+

- (1) JXTG Holding, Inc. (the “Company”) is a pure holding company of JXTG Group, which was created through management integration between JX Holdings, Inc. and TonenGeneral Sekiyu K.K. JXTG Group has 3 core businesses: energy business centering on petroleum refining and marketing and petrochemicals; oil and natural gas exploration and production business; and metals business including mine development, copper smelting and refining, electronic materials processing, and recycling. The Group holds 50% share for the domestic fuel oil sales for the mainstay petroleum refining and marketing business. As the Company assumes formation of the Group’s management policies, allocation of the management resources and business management, and its integrity with the Group is strong, JCR reflects the Group’s overall creditworthiness in the Company’s rating.
- (2) The Company enjoys a strong business base as the top group in the oil distribution industry. In the petroleum refining and marketing business, stability of business environment has increased along with progress of industrial reorganization and the Company keeps a good margin of oil products. The steady realization of synergies from the management integration is boosting the earnings capacity. The downside risk of business performance was reduced by the measures to improve operations and reduce costs at the Caserones Copper Mine, which was a concern. JCR sees that the Company’s consolidated business performance will remain solid for the time being. It has also improved its financial structure and will keep the current level of the structure going forward. Based on these factors, JCR upgraded the ratings on the Company by 1 notch with revision of the rating outlook from Positive to Stable.
- (3) Its consolidated operating profit for FY2019 (excluding the inventory valuation effect) is forecast to slightly decline (3.0% year-on-year) to 500 billion yen. While the oil and natural gas exploration and production business and metals business are expected to increase their profits, the profit of the energy business is expected to decline due partly to elimination of gains on the sale of the cell culture material business which was recorded in FY2018. Although the profit will remain susceptible to crude oil price in and after FY2020, the stable margins of oil products will support the business performance.
- (4) As of the end of the 1st quarter of FY2019, its consolidated ratio of equity attributable to owners of the parent company to the total assets and DER stood at 30.6% and 0.9x, respectively. Since FY2017, these ratios have remained roughly unchanged. It is assumed that the Company will continue its investments for expansion of growth businesses, but these expenditures will be roughly covered by the cash flows from the core businesses for the time being. Its equity ratio will also increase through profit accumulation.

Issuer: COSMO ENERGY HOLDINGS COMPANY, LIMITED

<Outlook Change>

Long-term Issuer Rating: BBB
 Outlook: from Stable to Positive

<Affirmation>

Subordinated Loan: BB+
 Shelf Registration: Preliminary BBB
 CP: J-2

- (1) COSMO ENERGY HOLDINGS COMPANY, LIMITED (the “Company”) is a pure holding company of COSMO ENERGY Group. The Group engages in oil exploration and manufacture of petrochemical products as well as the mainstay refining and distribution of oil products. The Company has been focusing its attention on renewal energy centering on wind power generation in response to moves towards nonuse of fossil fuels. It assumes optimization of the Group’s business portfolio and support for execution of operation for each operating company. Given the strong management integrity, JCR reflects the Group’s overall creditworthiness in the Company’s rating.
- (2) The Company’s consolidated business performance will remain solid for the time being. The margin of oil products will remain stable thanks to progress of industrial reorganization. The sales volume will further increase along with the start of the supply of the product to Kygnus Sekiyu K.K. In the oil exploration and production business, the earnings capacity was increased by start of production at the Hail oil field. Its financial indicators have improved along with the stable recording of profits. These indicators, however, remain at a low level. Based on these factors, JCR affirmed

the ratings on the Company and revised the rating outlook from Stable to Positive. JCR will confirm its future financial management and further improvement of financial structure to be reflected in the rating.

- (3) Its ordinary profit for FY2019 (excluding the inventory valuation effect) is forecast to reach 106 billion yen, which is roughly equivalent to the recorded amount for FY2018. While the operating profits from the petroleum and petrochemical businesses will increase thanks to the increasing sales volume, the profit from the oil exploration and production business will decrease due partly to control of production volume at the Hail oil field. In and after FY2020, its profit will change depending on fluctuations in crude oil price, but JCR sees that its consolidated business performance will remain stable in general.
- (4) As of the end of FY2018, its DER (after consideration of equity content of the subordinated loan) improved to 2.5x from 2.8x as of the end of FY2017. Under the current medium-term management plan, it set forth a policy to make its financial structure sound as a key policy. Given this policy, JCR sees that its financial structure will continue improving. As the investments in FY2019 are expected to increase than those in FY2018, however, the improving pace will slow down. JCR will pay attention to whether the Company can realize the further improvement in and after FY2020.

Hiroyuki Chikusa, Masayoshi Mizukawa

Rating

Issuer: Idemitsu Kosan Co., Ltd.

<Rating Change>

Long-term Issuer Rating: A+ Outlook: Stable

Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
bonds no.1	JPY 10	Sept. 20, 2012	Sept. 20, 2019	1.01%	A+
bonds no.4	JPY 20	Aug. 4, 2014	Aug. 4, 2021	0.541%	A+
bonds no.5	JPY 10	Dec. 5, 2017	Dec. 5, 2022	0.200%	A+
bonds no.6	JPY 10	Sept. 19, 2018	Sept. 19, 2025	0.270%	A+
bonds no.7	JPY 10	Sept. 19, 2018	Sept. 19, 2028	0.414%	A+

<Affirmation>

CP: J-1

Maximum: JPY 750 billion

Issuer: JXTG Holdings, Inc.

<Rating Change>

Long-term Issuer Rating: AA- Outlook: Stable

Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
bonds no.1	JPY 10	Aug. 3, 2017	Aug. 3, 2022	0.140%	AA-
bonds no.2	JPY 10	Aug. 3, 2017	Aug. 3, 2027	0.405%	AA-
bonds no.3*	JPY 10	Dec. 17, 2010	Dec. 17, 2020	1.497%	AA-
bonds no.4*	JPY 30	Dec. 14, 2012	Dec. 14, 2022	1.145%	AA-
bonds no.6*	JPY 15	July 19, 2013	July 19, 2023	1.119%	AA-
bonds no.8*	JPY 10	June 4, 2014	June 4, 2021	0.518%	AA-
bonds no.9*	JPY 15	June 4, 2014	June 4, 2024	0.820%	AA-
bonds no.10*	JPY 10	Dec. 9, 2014	Dec. 9, 2021	0.409%	AA-
bonds no.11*	JPY 15	Dec. 9, 2014	Dec. 9, 2024	0.715%	AA-
bonds no.12*	JPY 10	July 28, 2016	July 28, 2021	0.070%	AA-
bonds no.13*	JPY 10	July 28, 2016	July 28, 2026	0.300%	AA-
bonds no.14*	JPY 10	July 28, 2016	July 28, 2036	0.830%	AA-
bonds no.2**	JPY 10	Dec. 5, 2012	Dec. 5, 2019	0.850%	AA-
bonds no.3**	JPY 10	Dec. 5, 2012	Dec. 5, 2022	1.222%	AA-
bonds no.4**	JPY 10	June 25, 2013	June 25, 2020	0.999%	AA-
bonds no.6**	JPY 15	Mar. 20, 2014	Mar. 19, 2021	0.713%	AA-
bonds no.7**	JPY 10	Oct. 23, 2014	Oct. 23, 2024	0.925%	AA-

* bonds of former JX Holdings, Inc.

** bonds of former TonenGeneral Sekiyu K.K.

Shelf Registration: Preliminary AA-

Maximum: JPY 100 billion

Valid: two years effective from June 23, 2019

CP: J-1+

Maximum: JPY 1,150 billion

Issuer: COSMO ENERGY HOLDINGS COMPANY, LIMITED

<Outlook Change>

Long-term Issuer Rating: BBB Outlook: Positive

<Affirmation>

Issue	Amount (bn)	Execution Date	Maturity Date	Interest Rate	Rating
Subordinated loan	JPY 60	Apr. 1, 2015	Mar. 31, 2075	(Note)	BB+

Note: 6M Euroyen LIBOR + initial spread for each interest period beginning on any day from the Execution Date to February 2020. 6M Euroyen LIBOR + initial spread + 1.00% step-up interest rate for each interest period beginning on any day in and after March 2020.

Shelf Registration: Preliminary BBB

Maximum: JPY 100 billion

Valid: two years effective from July 2, 2019

CP: J-2

Maximum: JPY 200 billion

Rating Assignment Date: August 19, 2019

The criteria used for identifying matters which serve as assumptions for the assessment of the credit status, and the criteria used for setting of grades indicating the results of the assessments of the credit status are published as "Types of Credit Ratings and Definitions of Rating Symbols" (January 6, 2014) in Information about JCR Ratings on JCR's website (<https://www.jcr.co.jp/en/>).

Outline of methodology for determination of the credit rating is shown as "JCR's Rating Methodology"(November 7, 2014), "Petroleum" (May 21, 2013), "Nonferrous Metals" (July 13, 2011), "Rating Methodology for a Holding Company" (January 26, 2015), "Rating Viewpoints on Pure Holding Companies (Domestic Industrial Corporations)" (July 1, 2003), and "Ratings of Hybrid Securities" (September 10, 2012) in Information about JCR Ratings on JCR's website (<https://www.jcr.co.jp/en/>).

Glossary:

A preliminary rating is a credit rating assigned as a preliminary evaluation while material terms for issue to be rated are not yet finalized. When the issuing terms are finalized, JCR will confirm them and will assign a credit rating anew. The rating level of the final rating may be different from that of the preliminary rating, depending on the final content of the terms, etc.

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JCR publishes its press releases regarding the rating actions both in Japanese and in English on the same day. In case that it takes time to translate rating rationale, JCR may publicize the summary version, which will be replaced by the full translated version within three business days. (Regarding Structured Finance products, JCR only publicize the summary version in English.)

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INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

Disclosure Required by Paragraph (a)(1)(ii) of Rule 17g-7

Issuer:	Idemitsu Kosan Co., Ltd.
Rating Publication Date:	August 22, 2019

1 The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release.

2 The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.

A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.

B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.

C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.

E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

4 The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.

5 Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.

6 Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.

7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule 17g-7

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.

8 The Types of Data Relied Upon for the Purpose of Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(H) of Rule 17g-7

- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.

A) Audited financial statements presented by the rating stakeholders

B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

9 Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule 17g-7

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the publication by the issuer or some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.

10 Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of credit rating, such as one in the ancillary business.

11 Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.

B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.

C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's

business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.

E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.

F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.

G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

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Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

<https://www.jcr.co.jp/en/service/company/regu/nrsro/>

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Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.

B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.

C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.

D) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.

E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

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Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

Japan Credit Rating Agency, Ltd.

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The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	June 5, 2007	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	August 27, 2008	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	August 28, 2009	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	September 9, 2010	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	December 12, 2011	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	September 11, 2012	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	October 10, 2013	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	October 15, 2014	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	November 25, 2015	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	November 30, 2016	A-	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	August 28, 2017	A-	Positive
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	August 27, 2018	A	Stable
Idemitsu Kosan Co., Ltd.	Issuer(Long-term)	December 18, 2018	A	Positive
Idemitsu Kosan Co., Ltd.	CP	June 5, 2007	J-1	
Idemitsu Kosan Co., Ltd.	CP	August 27, 2008	J-1	
Idemitsu Kosan Co., Ltd.	CP	August 28, 2009	J-1	
Idemitsu Kosan Co., Ltd.	CP	September 9, 2010	J-1	
Idemitsu Kosan Co., Ltd.	CP	December 12, 2011	J-1	
Idemitsu Kosan Co., Ltd.	CP	September 11, 2012	J-1	
Idemitsu Kosan Co., Ltd.	CP	October 10, 2013	J-1	
Idemitsu Kosan Co., Ltd.	CP	October 15, 2014	J-1	
Idemitsu Kosan Co., Ltd.	CP	November 25, 2015	J-1	
Idemitsu Kosan Co., Ltd.	CP	November 30, 2016	J-1	
Idemitsu Kosan Co., Ltd.	CP	August 28, 2017	J-1	
Idemitsu Kosan Co., Ltd.	CP	August 27, 2018	J-1	
Idemitsu Kosan Co., Ltd.	CP	December 18, 2018	J-1	
Idemitsu Kosan Co., Ltd.	CP	August 5, 2019	J-1	
Idemitsu Kosan Co., Ltd.	Bonds no.1	September 13, 2012	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.1	October 10, 2013	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.1	October 15, 2014	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.1	November 25, 2015	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.1	November 30, 2016	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.1	August 28, 2017	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.1	August 27, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.1	December 18, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.4	July 29, 2014	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.4	October 15, 2014	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.4	November 25, 2015	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.4	November 30, 2016	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.4	August 28, 2017	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.4	August 27, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.4	December 18, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.5	November 29, 2017	A-	
Idemitsu Kosan Co., Ltd.	Bonds no.5	August 27, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.5	December 18, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.6	September 12, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.6	December 18, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.7	September 12, 2018	A	
Idemitsu Kosan Co., Ltd.	Bonds no.7	December 18, 2018	A	

Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Hiroyuki Chikusa, have responsibility to this Rating Action and to the best of my knowledge:

- A) No part of the credit rating was influenced by any other business activities.
- B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
- C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

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Hiroyuki Chikusa

General Manager of Corporate Rating Department II

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INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

Disclosure Required by Paragraph (a)(1)(ii) of Rule 17g-7

Issuer:	JXTG Holdings, Inc.
Rating Publication Date:	August 22, 2019

1 The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release.

2 The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.

A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.

B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.

C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.

E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

4 The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.

5 Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.

6 Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.

7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule 17g-7

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.

8 The Types of Data Relied Upon for the Purpose of Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(H) of Rule 17g-7

- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.

A) Audited financial statements presented by the rating stakeholders

B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

9 Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule 17g-7

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the publication by the issuer or some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.

10 Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of credit rating, such as one in the ancillary business.

11 Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.

B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.

C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's

business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.

E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.

F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.

G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

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Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

<https://www.jcr.co.jp/en/service/company/regu/nrsro/>

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Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.

B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.

C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.

E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

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Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

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The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
JXTG Holdings, Inc.	Issuer(Long-term)	April 1, 2010	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	June 6, 2011	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	September 11, 2012	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	September 17, 2013	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	August 28, 2014	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	August 27, 2015	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Issuer(Long-term)	December 21, 2016	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	April 3, 2017	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	September 29, 2017	A+	Stable
JXTG Holdings, Inc.	Issuer(Long-term)	August 27, 2018	A+	Positive
JXTG Holdings, Inc.	CP	April 1, 2010	J-1	
JXTG Holdings, Inc.	CP	June 6, 2011	J-1	
JXTG Holdings, Inc.	CP	September 11, 2012	J-1	
JXTG Holdings, Inc.	CP	September 17, 2013	J-1	
JXTG Holdings, Inc.	CP	August 28, 2014	J-1	
JXTG Holdings, Inc.	CP	August 27, 2015	J-1	
JXTG Holdings, Inc.	CP	August 31, 2016	J-1	
JXTG Holdings, Inc.	CP	April 3, 2017	J-1	
JXTG Holdings, Inc.	CP	September 29, 2017	J-1	
JXTG Holdings, Inc.	CP	August 27, 2018	J-1	
JXTG Holdings, Inc.	Shelf Registration	June 21, 2019	A+	
JXTG Holdings, Inc.	Bonds no.3	December 10, 2010	A+	
JXTG Holdings, Inc.	Bonds no.3	June 6, 2011	A+	
JXTG Holdings, Inc.	Bonds no.3	September 11, 2012	A+	
JXTG Holdings, Inc.	Bonds no.3	September 17, 2013	A+	
JXTG Holdings, Inc.	Bonds no.3	August 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.3	August 27, 2015	A+	
JXTG Holdings, Inc.	Bonds no.3	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.3	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.3	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.3	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.3	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.4	December 7, 2012	A+	
JXTG Holdings, Inc.	Bonds no.4	September 17, 2013	A+	
JXTG Holdings, Inc.	Bonds no.4	August 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.4	August 27, 2015	A+	
JXTG Holdings, Inc.	Bonds no.4	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.4	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.4	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.4	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.4	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.6	July 12, 2013	A+	
JXTG Holdings, Inc.	Bonds no.6	September 17, 2013	A+	
JXTG Holdings, Inc.	Bonds no.6	August 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.6	August 27, 2015	A+	
JXTG Holdings, Inc.	Bonds no.6	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.6	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.6	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.6	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.6	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.8	May 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.8	August 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.8	August 27, 2015	A+	
JXTG Holdings, Inc.	Bonds no.8	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.8	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.8	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.8	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.8	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.9	May 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.9	August 28, 2014	A+	
JXTG Holdings, Inc.	Bonds no.9	August 27, 2015	A+	

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
JXTG Holdings, Inc.	Bonds no.9	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.9	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.9	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.9	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.9	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.10	December 3, 2014	A+	
JXTG Holdings, Inc.	Bonds no.10	August 27, 2015	A+	
JXTG Holdings, Inc.	Bonds no.10	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.10	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.10	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.10	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.10	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.11	December 3, 2014	A+	
JXTG Holdings, Inc.	Bonds no.11	August 27, 2015	A+	
JXTG Holdings, Inc.	Bonds no.11	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.11	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.11	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.11	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.11	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.12	July 22, 2016	A+	
JXTG Holdings, Inc.	Bonds no.12	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.12	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.12	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.12	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.12	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.13	July 22, 2016	A+	
JXTG Holdings, Inc.	Bonds no.13	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.13	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.13	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.13	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.13	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.14	July 22, 2016	A+	
JXTG Holdings, Inc.	Bonds no.14	August 31, 2016	#A+	Negative
JXTG Holdings, Inc.	Bonds no.14	December 21, 2016	A+	
JXTG Holdings, Inc.	Bonds no.14	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.14	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.14	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.2(TonenGeneral Sekiyu)	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.2(TonenGeneral Sekiyu)	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.2(TonenGeneral Sekiyu)	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.3(TonenGeneral Sekiyu)	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.3(TonenGeneral Sekiyu)	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.3(TonenGeneral Sekiyu)	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.4(TonenGeneral Sekiyu)	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.4(TonenGeneral Sekiyu)	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.4(TonenGeneral Sekiyu)	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.6(TonenGeneral Sekiyu)	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.6(TonenGeneral Sekiyu)	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.6(TonenGeneral Sekiyu)	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.7(TonenGeneral Sekiyu)	April 3, 2017	A+	
JXTG Holdings, Inc.	Bonds no.7(TonenGeneral Sekiyu)	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.7(TonenGeneral Sekiyu)	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.1	July 28, 2017	A+	
JXTG Holdings, Inc.	Bonds no.1	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.1	August 27, 2018	A+	
JXTG Holdings, Inc.	Bonds no.2	July 28, 2017	A+	
JXTG Holdings, Inc.	Bonds no.2	September 29, 2017	A+	
JXTG Holdings, Inc.	Bonds no.2	August 27, 2018	A+	

Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Hiroyuki Chikusa, have responsibility to this Rating Action and to the best of my knowledge:

- A) No part of the credit rating was influenced by any other business activities.
- B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
- C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

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INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

Disclosure Required by Paragraph (a)(1)(ii) of Rule 17g-7

Issuer:	COSMO ENERGY HOLDINGS COMPANY, LIMITED.
Rating Publication Date:	August 22, 2019

1 The Symbol, Number, or Score in the Rating Scale used to Denote Credit Rating Categories and Notches and, the Identity of the Obligor or the Identity and a Description of the Security or Money Market Instrument as Required by Paragraph (a)(1)(ii)(A) of Rule 17g-7

- Please see the news release.

2 The version of the procedure or methodology used to determine the credit rating; as Required by Paragraph (a)(1)(ii)(B) of Rule 17g-7

- Please see the news release.

3 The Main Assumptions and Principles used in Constructing the Procedures and Methodologies used to Determine the Credit Rating as Required by Paragraph (a)(1)(ii)(C) of Rule 17g-7

- The credit rating methodology assumes, in principle, to be applied to assess the likelihood of a given debt payment in light of its issuer's condition and business environment, etc. in the relevant future. There is certain limitation, however, in the time horizon that the rating foresees.
- The credit rating methodology assumes, in principle, that the factors posted in the below are particularly important for such likelihood to be determined, and that the rating determination is made by evaluating each of them not only quantitatively but also employing qualitative analyses.

A) Business Bases

The likelihood of a given debt payment is highly conditional to its issuer's business bases - how they can be maintained/ expanded into the future and thereby secure earnings and cash flows in adequacy and in a sustainable way.

B) Financial Grounds and Asset Quality

The likelihood of debt payment is highly dependent on the degree of the issuer's indebtedness and loss absorption capacity in terms of equity capital. Also notable is that a financial institution might see a significant loss of financial grounds as a result of changes in value of the assets under its possession.

C) Liquidity Positions

The likelihood of debt payment is highly dependent on the adequacy of the issuer's cash and other sources of repayment (liquidity positions).

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The likelihood of debt payment is affected one way or the other by the issuer's related parties such as parent company, subsidiary, guarantor, and the government of the issuer's business domicile, etc. - by their own conditions and/ or position of support/ assistance for the issuer.

E) Order of Seniority in Debt Payment

The likelihood of debt payment can be different between given debts of the same issuer. The likelihood of debt payment for an individual debt is dependent on the issuer's discretion, and/ or its rank relative to other debts of the same issuer in the order of seniority in principal/ interest payment which is determined by design as financial product or by laws, etc.

4 The Potential Limitations of the Credit Rating as Required by Paragraph (a)(1)(ii)(D) of Rule 17g-7

- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- The objective of the credit rating herewith presented does not include any concerns other than the likelihood of debt payment, such as risks of price changes, market liquidity, etc.
- The credit rating herewith presented is necessary to be reviewed along with possible changes of the issuer of rated objects in its business performance and/ or circumstances which include regulatory environment, and hence subject to possible alteration.

5 Information on the Uncertainty of the Credit Rating as Required by Paragraph (a)(1)(ii)(E) of Rule 17g-7

- The information used for the determination of credit rating as herewith presented is obtained by JCR from the issuer of rated objects and other sources that JCR trusts in terms of accuracy and reliability but possibly contains errors due to human, non-human or other causes. Consequently, the credit rating determined on the grounds of such information does not constitute, explicitly or implicitly, any representation or warrant of JCR on the information itself or any consequences of its use in terms of accuracy, relevance, timeliness, wholeness, market value, or usefulness for any specific purposes.

6 Use of Due Diligence Services of a Third Party in Taking the Rating Action as Required by Paragraph (a)(1)(ii)(F) of Rule 17g-7

- There is no use of any third-party due diligence service in the determination of the credit rating herewith presented.

7 Use of Servicer or Remittance Reports to Conduct Surveillance of the Credit Rating Required by Paragraph (a)(1)(ii)(G) of Rule 17g-7

- There is no use of any servicer or remittance report to conduct surveillance of the credit rating herewith presented.

8 The Types of Data Relied Upon for the Purpose of Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(H) of Rule 17g-7

- The information posted in the below, which includes data, is used for the determination of the credit rating herewith presented.

A) Audited financial statements presented by the rating stakeholders

B) Explanations of business performance, management plans, etc. presented by the rating stakeholders

9 Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(I) of Rule 17g-7

- JCR holds its basic policies for securing the quality of information as a base of due diligence for the determination of credit ratings. The information used as a base for the determination of credit rating herewith presented satisfies such policies, which include the audit by an independent auditor, the publication by the issuer or some independent media or, otherwise, JCR analyst's scrutiny, etc.
- JCR sees no particular weakness in the quality of information used for the determination of the credit rating herewith presented as compared to the information used in other cases of the credit rating for comparable issuers or ratable objects.

10 Information Relating to Conflicts of Interest as Required by Paragraph (a)(1)(ii)(J) of Rule 17g-7

- JCR receives payment of compensation for the determination of the credit rating herewith presented from either one of those parties who are issuer, underwriter, depositor or sponsor.
- JCR did not receive in the last fiscal year in the past payment of compensation from the same party for any kind of JCR's service other than the determination of credit rating, such as one in the ancillary business.

11 Explanation or Measure of the Potential Volatility of the Credit Rating as Required by Paragraph (a)(1)(ii)(K) of Rule 17g-7

A) Business Bases

The credit rating is subject to alteration if there is improvement or deterioration of the issuer's business bases, since its revenue, etc. may improve or deteriorate by the change in its business management policies, clients' preferences, competitive situation, or a technological innovation. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the business bases is large.

B) Financial Grounds and Asset Quality

The credit rating is subject to alteration if the issuer increases/ decreases its debt/ capital or vice versa and thereby makes its individual debt payment liability less or more bearable and its loss absorption capacity into the future decreased or increased. Also, the changes in the quality of asset under the issuer's holding may affect the credit rating, since such changes could raise or lower the likelihood of future loss of the issuer's financial grounds. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change in the financial grounds and/ or asset quality is large.

C) Liquidity Positions

The credit rating is subject to alteration if there is a change in the issuer's financial management policy or in the relations with fund procurement sources and the change thereby makes its liquidity positions improve or deteriorate. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is large.

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's

business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.

E) Order of Seniority in Debt Payment and Non-Payment Forgiven by Contract

The credit rating is subject to alteration if there is a change in the rated debt's status in the order of seniority relative to other debts caused by the improvement/ deterioration of the issuer's financial condition. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large. Also, in case of the financial products for which non-payment of interest/ principal is contractually permissible, the credit rating is subject to alteration if and when the likelihood of such non-payment is projected to increase or decrease. The resultant alteration of the credit rating could be by a notch but often as much as a few notches.

F) Rise and Fall in General Economy and Markets

The credit rating is subject to alteration if there is a rise/ fall in the general economy and/ or the markets inducing the issuer's revenues/ expenses to increase/ decrease and vice versa, etc. The resultant alteration of the credit rating is usually by a notch, with possibility of a few notches if and when the change is exceptionally large.

G) Various Events

The credit rating is subject to alteration on occurrence of various events, such as change in the issuer's major shareholders, M&A and other organizational change, accident, violation of the law, litigation, legal/ regulatory change, natural disaster, etc., which are unforeseeable at the time when the credit rating is determined, causing a significant change on the issuer's business bases, financial grounds, etc. The resultant alteration of the credit rating could be by a notch but more often than not as much as a few notches.

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Information on the Content of the Credit Rating, Including the Historical Performance of the Credit Rating and the Expected Probability of Default and the Expected Loss in the Event of Default as Required by Paragraph (a)(1)(ii)(L) of Rule 17g-7

- Historical records of the credit rating herewith presented are posted in the end of this paper.
- The credit rating herewith presented by JCR is its summary opinion with regard to the likelihood of given debt payment and hence not necessarily a perfect representation of such likelihood. The credit rating is not intended to estimate the probability of default or the loss on given default, either.
- Facts of the probability of default are posted as Form NRSRO Exhibit 1 on the JCR website under the URL:

<https://www.jcr.co.jp/en/service/company/regu/nrsro/>

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Information on the Sensitivity of the Credit Rating to Assumptions Made as Required by Paragraph (a)(1)(ii)(M) of Rule 17g-7

A) Business Bases

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's business bases and powers of earning or cash flow generation, etc. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's business bases on some drastic change in the operational environments, etc.

B) Financial Grounds and Asset Quality

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's financial grounds and asset quality. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's financial grounds and/ or asset quality on some drastic change in its business bases.

C) Liquidity Risks

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the issuer's liquidity positions. The resultant change of the credit rating is most likely by a notch, as JCR speculates, but possibly as much as a few notches if the development is rapid in improvement or deterioration of the issuer's liquidity positions on some drastic change in its financial management policy or relations with fund procurement sources, etc.

D) Related Parties' Status and Stance of Support/ Assistance for the Issuer

The credit rating is subject to alteration if there is a change in the issuer's parent company or subsidiary, guarantor or other provider of credit enhancement, or the government of the issuer's business domicile, or other related parties' own conditions and/ or position of support/ assistance for the issuer, and the change thereby makes its business bases, financial grounds and/ or liquidity positions improve or deteriorate, and/ or making the effectiveness of guarantee and other credit enhancement improve or deteriorate. The resultant alteration of the credit rating is usually a notch, with possibility of a few notches if and when the change is large.

E) Rise and Fall in General Economy and Markets

The credit rating herewith presented could be changed if and when the assumptions made at the time of its determination turn out to be inaccurate with regard to the prospects of general economy and markets. JCR expects the change should be most likely by a notch but could be as much as a few notches, should the economy or the markets change so greatly.

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Information on the Representations, Warranties, and Enforcement Mechanisms of an Asset-backed Security as Required by Paragraph (a)(1)(ii)(N) of rule 17g-7

- The credit rating herewith presented is not for an ABS product, and hence no relevant issue.

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The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Issuer(Long-term)	October 1, 2015	BBB	Stable
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Issuer(Long-term)	September 13, 2016	BBB	Negative
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Issuer(Long-term)	October 2, 2017	BBB	Negative
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Issuer(Long-term)	August 27, 2018	BBB	Stable
COSMO ENERGY HOLDINGS COMPANY, LIMITED	CP	October 1, 2015	J-2	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	CP	September 13, 2016	J-2	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	CP	October 2, 2017	J-2	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	CP	June 4, 2018	J-2	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	CP	August 27, 2018	J-2	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Shelf Registration	July 2, 2019	BBB	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Loan(subordinated)	October 1, 2015	BB+	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Loan(subordinated)	September 13, 2016	BB+	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Loan(subordinated)	October 2, 2017	BB+	
COSMO ENERGY HOLDINGS COMPANY, LIMITED	Loan(subordinated)	August 27, 2018	BB+	

Attestation Required by Paragraph (a)(1)(iii) of Rule 17g-7

I, Hiroyuki Chikusa, have responsibility to this Rating Action and to the best of my knowledge:

- A) No part of the credit rating was influenced by any other business activities.
- B) The credit rating was based solely upon the merits of the obligor, security, or money market instrument being rated.
- C) The credit rating was an independent evaluation of the credit risk of the obligor, security, or money market instrument.

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