

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

JCR's Rating Review of City Gas Companies

Issuer	Code	Long-Term Issuer Rating		Outlook
TOKYO GAS CO., LTD.	9531	<Affirmation>	AAAp	Stable
OSAKA GAS CO., LTD.	9532	<Affirmation>	AA+p	Stable
TOHO GAS CO., LTD.	9533	<Affirmation>	AA+p	Stable
HOKKAIDO GAS CO., LTD.	9534	<Affirmation>	A	Stable
HIROSHIMA GAS CO., LTD.	9535	<Affirmation>	A	Stable
SAIBU GAS CO., LTD.	9536	<Affirmation>	AA-	Stable

Issuer	Code	Short-term Issuer Rating/CP	
HOKKAIDO GAS CO., LTD.	9534	<Affirmation>	J-1
HIROSHIMA GAS CO., LTD.	9535	<Affirmation>	J-1
SAIBU GAS CO., LTD.	9536	<Affirmation>	J-1+

(See page 5 and beyond for details about ratings on individual bonds, etc.)

Rating Viewpoints

- JCR reviewed its ratings on city gas companies (TOKYO GAS CO., LTD., OSAKA GAS CO., LTD., TOHO GAS CO., LTD., HOKKAIDO GAS CO., LTD., HIROSHIMA GAS CO., LTD. and SAIBU GAS CO., LTD.). There are large differences in competitive environments of service areas in the environment of liberalization of energy business. In regions where there are new entrants, shift of existing customers to new entrants has been continuing for household-use city gas. Although it is necessary to confirm impact of the shift of customers on their customer bases and earnings over a medium term, JCR sees that their fundamental earnings capacity will be maintained for the time being. On the financial side, JCR assumes that their financial structure will remain stable, even after incorporating into the assessment the forecasts that some city gas companies are expected to make high level growth investments. Taking the above into consideration, JCR affirmed ratings on all of the city gas companies with the same rating outlook as before.
- Two years have passed since full liberalization of retail city gas market, and the number of shifts of customers to new entrants for household use city gas has reached a certain level in regions where the local electric power companies newly entered the market. However, the impact on profit of city gas companies has been reduced by factors including their increasing revenue from wheeling service and reduction of various costs. While city gas companies are appealing for price through combined menu of electricity and gas, they have a policy to avoid excessive price competition. Given this policy, JCR assumes that it is unlikely that the current earnings base will rapidly collapse. JCR will continue to pay attention to their efforts to retain their customer bases through providing services and added value other than price to customers, leveraging their strength in having direct contacts with customers for sales, and the impact on their revenue.

- (3) For electricity retail sales business, city gas companies have been steadily acquiring customers, but some companies are facing limited contributions from this business to the business performance due partly to impact from competition with other companies and burden of sales promotion costs. Over a medium and long term, however, this business can bring profits to them through expansion of customer base and normalization of income and expenses. Some companies are strengthening their earnings bases through strengthening businesses other than energy or fostering new businesses that can create synergies with energy business. It is considered that there are few cases where diversification into these businesses other than city gas business will lead to good results in a short period of time, and therefore it is necessary to judge business diversification from a medium- and long-term perspective.
- (4) City gas companies are ongoingly engaging themselves in maintenance and expansion of pipeline network including investments in trunk lines in domestic gas business, core business for them. All city gas companies have a certain potential demand, although there are differences in regions. Therefore, demand development using new pipeline network remains an important issue for city gas companies to maintain and expand their customer bases. As the top 2 companies plan to make high level of capital investments in overseas energy business, domestic power facilities, etc. towards diversification of their business portfolio, over a short and medium term, their interest-bearing debt will increase. In light of their current good financial balance and strong cash flow generating ability, however, JCR does not consider that those investments will lead to a significant worsening of their financial structure.
- (5) JCR has been valuing city gas companies' stability of business bases under the government regulations and protection in rating on them to date. JCR sees that it is unnecessary to change the basic views even in the changing competitive environment after full liberalization of retail city gas market in April 2017 and that credit standing of the industry will remain stable for the time being. However, gas system reforms have progressed and gaps among regions in terms of competitive environment are expanding. Going forward, JCR will apprehend substantive changes to thickness of business bases, cash flow generating ability, outlook for financial structures, and so on to be reflected in their rating.

Rationale

Issuer: TOKYO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating:	AAAp
Outlook:	Stable

- (1) TOKYO GAS CO., LTD. (the "Company") is a city gas company in Japan with Tokyo metropolitan area as its service area. Covering businesses from raw materials procurement and overseas upstream business to gas sales in an integrated manner, it has strong business base and high competitive strength as the largest company in the city gas industry. With large potential demand in the service area, the Company is actively working on new demand development mainly in northern Kanto region by strengthening the production and supply infrastructure. Focusing its attention on businesses other than city gas such as electricity and overseas businesses, it is making efforts to raise profit ratio of these businesses.
- (2) The Company keeps stability of income structure in the face of continued competition with other energy suppliers including Tokyo Electric Power Group in the area of retail sales of city gas and electricity. As its earnings bases of electricity and overseas businesses have been strengthened, while the shift of its gas customers to new entrants is increasing, JCR sees that the Company will be able to secure the high level cash flow generation ability. On the financial side, JCR assumes that it will keep the current good financial structure, while managing the high level investments including investments in growth areas. Taking the above into consideration, JCR affirmed the rating on the Company with Stable outlook.
- (3) The gas sales after full liberalization of retail city gas market have been slightly weak due to continued shift of existing customers to new entrants. Thanks partly to contributions from the overseas upstream projects, however, there has been no significant impact on the substantive profit excluding effects from slide time lag and amortization of net actuarial gain (loss). Although growth of profit of electricity business has been stagnant due to burden of sales expenses in the expansion phase, the number of supplies has been steadily growing. JCR will pay attention to the maintaining and expanding of the customer base along with the new demand development for gas business. JCR will also check its achievements in the investments for domestic infrastructure,

overseas business, real estate development for leasing, etc. from a medium- and long-term perspective.

Issuer: OSAKA GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AA+p
Outlook: Stable

- (1) OSAKA GAS CO., LTD. (the "Company") is the 2nd largest city gas company in Japan with 6 prefectures in Kinki region as its service area. Mainly engaging in gas business, which covers from raw materials procurement to gas sales in an integrated manner, as its core business, the Company has diversified its income sources into electricity, international energy and life & business solutions businesses.
- (2) The shift of its gas customers to new entrants is increasing in the face of continued competition with The Kansai Electric Power Company, Incorporated in the area of retail sales of city gas and electricity, putting downward pressure on earnings capacity of its domestic gas business. The impact on the profit, however, has not been significant. Meanwhile, acquisition of electricity customers has been steadily progressing, and the Company generated good results in expansion of its customer account with that of gas customers combined. JCR is paying attention to the retention of earnings base of gas business and strengthening of diversified businesses. On the financial side, JCR assumes that it will keep the current good financial structure, while managing the high level investments anticipated for the time being. Taking the above into consideration, JCR affirmed the rating on the Company with Stable outlook.
- (3) Given that the gas sales after full liberalization of retail city gas market have been slightly weak due to continued shift of existing customers to new entrants, JCR sees it is necessary to continue closely watching trend of sales volume due to progress of competition. Its profit excluding effects from slide time lag slightly decreased. JCR sees, however, that the Company will be able to secure a certain level of profit for the time being, backed by the diversified businesses such as domestic electricity business which can use abundant power facilities and international energy business in which parts of upstream projects will enter into a recovery phase. JCR will also continue to check effects from investments in power generation business both in Japan and abroad.

Issuer: TOHO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AA+p
Outlook: Stable

- (1) TOHO GAS CO., LTD. (the "Company") is the 3rd largest city gas company in Japan with parts of Aichi Prefecture centering on Nagoya City as well as parts of Gifu and Mie prefectures as its service area. It enjoys large demand, as its service area is one of the nation's three major metropolitan regions. The service area also includes the Chukyo industrial zone, resulting in a large ratio of industrial-use gas sales with users centering on automotive-related industries to the total sales volume.
- (2) Competition with Chubu Electric Power Company, Incorporated in the area of retail sales of city gas and electricity has been continuing, and the pace of the shift of its city gas customers to new entrants has not declined. However, there have been no significant changes to the gas sales volume, and the impact of the shift on the profit is considered to be limited. Thanks partly to its new demand development by expanding the service area and efforts to retain customers through measures such as sales of gas in a set with electricity sales, JCR assumes that the Company will be able to secure a certain level of earnings for the time being. Given the conservative financial management, JCR sees that it will keep the good financial structure as compared with those of other city gas companies. Taking the above into consideration, JCR affirmed the rating on the Company with Stable outlook.
- (3) The decline of the current gas sales volume is not large, despite the impact from the shift of the customers to new entrants. Its profit excluding effects from slide time lag has also been stable. Given that the ratio of profit from domestic energy business (city gas, LPG, and electricity) to the total is high, JCR sees that maintaining and expanding the customer base, leveraging its strength in having direct contacts with customers, is an issue for the Company for the time being. JCR will

check trend of the shift of its customers to new entrants and its achievements in the efforts to strengthen businesses other than the domestic energy set forth under the medium-term management plan, from a medium- and long-term perspective.

Issuer: HOKKAIDO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating:	A
Outlook:	Stable
Bonds:	A
Shelf Registration:	Preliminary A
CP:	J-1

- (1) HOKKAIDO GAS CO., LTD. (the "Company") is a city gas company that supplies gas to users primarily in Sapporo, Otaru, Chitose, Hakodate and Kitami and has the leading position in Hokkaido's city gas industry. There is a large potential demand for city gas thanks to fuel conversion from kerosene in the service area, and gas demand for commercial use accounts for as large as more than 30% of the total volume, reflecting the service areas' industrial characteristics.
- (2) Since full liberalization of retail city gas market, there have been no entrants to city gas sales for household use in the service area and there have been no significant changes to the competitive environment. The increasing trend of gas sales will continue against the backdrop of strong demand for fuel conversion. JCR sees that expansion of earnings base through these demands will lead to the profit expansion over a medium term. Acquisition of customers for low voltage power is also good, helping improve the present business performance. On the financial side, large-scale capital investments have been made intermittently in recent years, but the financial structure will improve going forward along with finish of such capital investments. Taking the above into consideration, JCR affirmed the rating on the Company with Stable outlook.
- (3) The growth of current profit is stagnant due to the increasing burden of depreciation expenses for expansion of tanks at the Ishikari LNG terminal and construction of new gas-powered electricity generation facilities. It has extended pipeline network mainly in inner-city area of Sapporo City together with the expansion of LNG tank and is actively working on demand development. As a result, the number of customers and gas sales are on the rise. The gas-powered electricity generation facilities are helping the Company to secure competitive strength in electricity retail business. JCR will continue to check conditions of recovery of investments in these new and large-scale facilities.

Issuer: HIROSHIMA GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating:	A
Outlook:	Stable
Bonds:	A
CP:	J-1

- (1) HIROSHIMA GAS CO., LTD. (the "Company") is the largest city gas company in Chugoku region that supplies gas to users primarily in Cities of Hiroshima, Kure, Onomichi, Mihara, Hatsukaichi and Higashihiroshima. Including its LPG subsidiaries, the Company has a strong presence mainly in western area of Hiroshima Prefecture. With wide-ranging industrial clusters formed in its service area, demand for industrial-use gas accounts for more than 50% of the total volume.
- (2) Since full liberalization of retail city gas market, there have been no entrants to city gas sales for household use in the service area and there have been no significant changes to the competitive environment. Its gas sales volume is significantly growing through taking in demand for large-scale fuel conversion for industrial use, expanding the earnings base of gas business. JCR assumes that its profit excluding effects from slide time lag will gradually expand along with the increasing sales volume. Its financial management is conservative. Given that there are also no large-scale capital investment plans, JCR sees that its financial structure will continue to improve. Taking the above into consideration, JCR affirmed the rating on the Company with Stable outlook.
- (3) JCR sees that the Company will keep on increasing the gas sales volume for the time being through new demand development for household use, taking in demand for fuel conversion for

industrial use, and expansion of wholesale supply. In the fiscal year ended March 2019, it integrated gas shop business that had been conducted by multiple group companies into a newly established subsidiary to strengthen contacts with customers. This is expected to bring good effects to household use gas sales. The Company plans to start operation of the biomass power generation business in the Kaita branch through a joint venture with The Chugoku Electric Power Company, Incorporated in March 2021. This business will help increase the profit over a medium term.

Issuer: SAIBU GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating:	AA-
Outlook:	Stable
Bonds:	AA-
Shelf Registration:	Preliminary AA-
CP:	J-1+

- (1) SAIBU GAS CO., LTD. (the "Company") is a city gas company supplying gas to Fukuoka, Kitakyushu, Kumamoto, Nagasaki and other areas. Although the scattered service areas make the Company's operations somewhat inefficient, demand there is large thanks to population concentration and industrial clusters. Also, stable and profitable household demand accounts for a relatively large portion of the total demand. The Company also focuses its attention on businesses other than gas energy including real estate and renewable energy businesses, diversifying the earnings sources.
- (2) Competition with Kyushu Electric Power Company, Incorporated in the area of retail sales of city gas and electricity has been continuing, and the pace of the shift of its city gas customers to new entrants has not declined. However, the overall gas sales volume is stable, and the impact of the shift on the profit is considered to be limited. JCR sees that the Company will be able to keep the stable profit and cash flows, partly backed by the real estate business. In the face of increasing business risk due to liberalization of energy business and expansion of businesses other than gas, there is much room for improvement of the financial structure, but the financials are expected to gradually improve for the time being, because there are no large-scale investment plans. Taking the above into consideration, JCR affirmed the rating on the Company with Stable outlook.
- (3) Although it remains necessary to watch impact from progress of competition on the gas sales volume, the overall gas sales volume has been solid thanks partly to acquisition of large-scale corporate customers and expansion of wholesale supply. JCR sees that maintaining the earnings bases of gas business, leveraging its strength in having direct contacts with customers, growth of real estate business along with appropriate risk management, making new businesses profitable, and so on are issues for the Company for the time being.

Shigenobu Tonomura, Yasuhisa Aono

Rating

Issuer: TOKYO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AAAp Outlook: Stable

Issuer: OSAKA GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AA+p Outlook: Stable

Issuer: TOHO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AA+p Outlook: Stable

Issuer: HOKKAIDO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: A Outlook: Stable

Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
bonds no.11	JPY 5	Sept. 5, 2011	Sept. 3, 2021	1.238%	A

bonds no.13	JPY 5	Dec. 19, 2013	Dec. 18, 2020	0.554%	A
bonds no.15	JPY 5	Mar. 16, 2016	Mar. 16, 2026	0.395%	A
bonds no.16	JPY 3	Mar. 16, 2016	Mar. 16, 2020	0.140%	A
bonds no.17	JPY 5	Mar. 14, 2017	Mar. 14, 2024	0.250%	A
bonds no.20	JPY 5	Dec. 13, 2018	Dec. 13, 2033	0.800%	A
bonds no.21	JPY 5	Dec. 13, 2018	Dec. 13, 2028	0.405%	A

Shelf Registration: Preliminary A

Maximum: JPY 30 billion

Valid: two years effective from October 11, 2017

CP: J-1

Maximum: JPY 20 billion

Issuer: HIROSHIMA GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: A Outlook: Stable

Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
bonds no.7	JPY 5	Mar. 3, 2005	Mar. 19, 2020	2.05%	A
bonds no.10	JPY 5	Sept. 5, 2014	Sept. 3, 2021	0.391%	A
bonds no.11	JPY 5	Jan. 26, 2016	Jan. 26, 2023	0.31%	A
bonds no.12	JPY 5	Dec. 21, 2016	Dec. 21, 2020	0.23%	A
bonds no.13	JPY 8	Sept. 13, 2018	Sept. 13, 2028	0.405%	A

CP: J-1

Maximum: JPY 13 billion

Issuer: SAIBU GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AA- Outlook: Stable

Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
bonds no.9	JPY 10	Oct. 22, 2010	Oct. 22, 2020	1.056%	AA-
bonds no.11	JPY 10	Jan. 25, 2012	Jan. 25, 2022	1.141%	AA-
bonds no.12	JPY 10	Dec. 13, 2013	Dec. 13, 2023	0.808%	AA-
bonds no.13	JPY 10	Apr. 14, 2015	Apr. 14, 2025	0.555%	AA-
bonds no.14	JPY 5	Mar. 16, 2017	Mar. 16, 2027	0.380%	AA-
bonds no.15	JPY 10	Dec. 13, 2018	Dec. 13, 2038	0.820%	AA-
bonds no.16	JPY 10	Dec. 13, 2018	Dec. 13, 2028	0.355%	AA-

Shelf Registration: Preliminary AA-

Maximum: JPY 50 billion

Valid: two years effective from August 30, 2018

CP: J-1+

Maximum: JPY 50 billion

Rating Assignment Date: April 18, 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) and "City Gas" (April 24, 2017) in Information about JCR Ratings on JCR's website (<https://www.jcr.co.jp/en/>).

The aforementioned credit ratings are unsolicited. Except in cases of a credit rating for a sovereign, JCR indicates affix "p" after a rating symbol to distinguish it from a rating with solicitation. The undisclosed information, which has material influence on the credit rating, was obtained from the rating stakeholder.

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:	TOKYO GAS CO.,LTD. OSAKA GAS CO.,LTD. TOHO GAS CO., LTD.
Rating Publication Date:	April 23, 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 does not receive 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/>

13

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 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 order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to 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
TOKYO GAS CO., LTD.	Issuer(Long-term)	April 20, 2017	AAAp	Negative
TOKYO GAS CO., LTD.	Issuer(Long-term)	May 2, 2018	AAAp	Negative
TOKYO GAS CO., LTD.	Issuer(Long-term)	August 10, 2018	AAAp	Stable

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
OSAKA GAS CO., LTD.	Issuer(Long-term)	November 16, 1999	AAAp	
OSAKA GAS CO., LTD.	Issuer(Long-term)	January 15, 2001	AAAp	
OSAKA GAS CO., LTD.	Issuer(Long-term)	February 5, 2002	AAAp	
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 14, 2003	AA+p	
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 25, 2004	AA+p	
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 14, 2005	AA+p	
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 15, 2006	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 16, 2007	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 13, 2008	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	March 16, 2009	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	January 18, 2010	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 25, 2011	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 25, 2012	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 3, 2013	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 3, 2014	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 22, 2015	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 22, 2016	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 20, 2017	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	May 2, 2018	AA+p	Stable

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
TOHO GAS CO., LTD.	Issuer(Long-term)	November 16, 1999	AAp	
TOHO GAS CO., LTD.	Issuer(Long-term)	January 15, 2001	AAp	
TOHO GAS CO., LTD.	Issuer(Long-term)	February 5, 2002	AAp	
TOHO GAS CO., LTD.	Issuer(Long-term)	October 3, 2002	AA+p	
TOHO GAS CO., LTD.	Issuer(Long-term)	March 14, 2003	AA+p	
TOHO GAS CO., LTD.	Issuer(Long-term)	March 25, 2004	AA+p	
TOHO GAS CO., LTD.	Issuer(Long-term)	March 14, 2005	AA+p	
TOHO GAS CO., LTD.	Issuer(Long-term)	March 15, 2006	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	March 16, 2007	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	March 13, 2008	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	March 16, 2009	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	January 18, 2010	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 25, 2011	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 25, 2012	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 3, 2013	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 3, 2014	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 22, 2015	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 22, 2016	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 20, 2017	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	May 2, 2018	AA+p	Stable

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

I, Mikiya Kubota, 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.

窪田 幹也

Mikiya Kubota

General Manager of Corporate Rating Department I

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INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

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

Issuer:	HOKKAIDO GAS CO., LTD. HIROSHIMA GAS CO., LTD. SAIBU GAS CO., LTD.
Rating Publication Date:	April 23, 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.

12

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 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 order of seniority in repayment of interests and principal. JCR assumes the resultant change of the credit rating is most likely by a notch. The change could be as much as a few notches if the issuer's financial structure differs so much and thereby the balance between debts shifted so greatly. Rating change is also possible in case of the financial products for which non-payment of interest/ principal is contractually permissible, if and when the assumptions made at the time of its determination turns out to be inaccurate. The change of the credit rating is assumed to 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.

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The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	March 15, 2006	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	March 16, 2007	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	March 13, 2008	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	March 16, 2009	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	January 18, 2010	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 25, 2011	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 25, 2012	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 3, 2013	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 3, 2014	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 22, 2015	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 22, 2016	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 20, 2017	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	May 2, 2018	A	Stable
HOKKAIDO GAS CO., LTD.	CP	September 27, 1995	J-1	
HOKKAIDO GAS CO., LTD.	CP	October 22, 1996	J-1	
HOKKAIDO GAS CO., LTD.	CP	November 16, 1999	J-1	
HOKKAIDO GAS CO., LTD.	CP	January 15, 2001	J-1	
HOKKAIDO GAS CO., LTD.	CP	February 5, 2002	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 14, 2003	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 25, 2004	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 14, 2005	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 15, 2006	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 16, 2007	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 13, 2008	J-1	
HOKKAIDO GAS CO., LTD.	CP	March 16, 2009	J-1	
HOKKAIDO GAS CO., LTD.	CP	January 18, 2010	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 25, 2011	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 25, 2012	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 3, 2013	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 3, 2014	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 22, 2015	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 22, 2016	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 20, 2017	J-1	
HOKKAIDO GAS CO., LTD.	CP	May 2, 2018	J-1	
HOKKAIDO GAS CO., LTD.	Shelf Registration	October 11, 2017	A	
HOKKAIDO GAS CO., LTD.	Shelf Registration	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	August 30, 2011	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	April 25, 2012	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	April 3, 2013	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	April 3, 2014	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	April 22, 2015	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	April 22, 2016	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	April 20, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.11	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.13	December 13, 2013	A	
HOKKAIDO GAS CO., LTD.	Bonds no.13	April 3, 2014	A	
HOKKAIDO GAS CO., LTD.	Bonds no.13	April 22, 2015	A	
HOKKAIDO GAS CO., LTD.	Bonds no.13	April 22, 2016	A	
HOKKAIDO GAS CO., LTD.	Bonds no.13	April 20, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.13	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.15	March 10, 2016	A	
HOKKAIDO GAS CO., LTD.	Bonds no.15	April 22, 2016	A	
HOKKAIDO GAS CO., LTD.	Bonds no.15	April 20, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.15	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.16	March 10, 2016	A	
HOKKAIDO GAS CO., LTD.	Bonds no.16	April 22, 2016	A	
HOKKAIDO GAS CO., LTD.	Bonds no.16	April 20, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.16	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	March 8, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	April 20, 2017	A	

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
HOKKAIDO GAS CO., LTD.	Bonds no.17	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.20	December 7, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.21	December 7, 2018	A	

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	March 15, 2006	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	March 16, 2007	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	March 13, 2008	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	March 16, 2009	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	January 18, 2010	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 25, 2011	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 25, 2012	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 3, 2013	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 3, 2014	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 22, 2015	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 22, 2016	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 20, 2017	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	May 2, 2018	A	Stable
HIROSHIMA GAS CO., LTD.	CP	June 29, 1994	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 18, 1997	J-1	
HIROSHIMA GAS CO., LTD.	CP	November 16, 1999	J-1	
HIROSHIMA GAS CO., LTD.	CP	July 10, 2000	J-1	
HIROSHIMA GAS CO., LTD.	CP	January 15, 2001	J-1	
HIROSHIMA GAS CO., LTD.	CP	February 5, 2002	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 14, 2003	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 25, 2004	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 14, 2005	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 15, 2006	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 16, 2007	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 13, 2008	J-1	
HIROSHIMA GAS CO., LTD.	CP	March 16, 2009	J-1	
HIROSHIMA GAS CO., LTD.	CP	January 18, 2010	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 25, 2011	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 25, 2012	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 3, 2013	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 3, 2014	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 22, 2015	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 22, 2016	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 20, 2017	J-1	
HIROSHIMA GAS CO., LTD.	CP	May 2, 2018	J-1	
HIROSHIMA GAS CO., LTD.	Bonds no.7	February 18, 2005	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	March 14, 2005	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	March 15, 2006	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	March 16, 2007	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	March 13, 2008	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	March 16, 2009	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	January 18, 2010	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 25, 2011	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 25, 2012	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 3, 2013	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 3, 2014	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 22, 2015	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 22, 2016	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	April 20, 2017	A	
HIROSHIMA GAS CO., LTD.	Bonds no.7	May 2, 2018	A	
HIROSHIMA GAS CO., LTD.	Bonds no.10	August 28, 2014	A	
HIROSHIMA GAS CO., LTD.	Bonds no.10	April 22, 2015	A	
HIROSHIMA GAS CO., LTD.	Bonds no.10	April 22, 2016	A	
HIROSHIMA GAS CO., LTD.	Bonds no.10	April 20, 2017	A	
HIROSHIMA GAS CO., LTD.	Bonds no.10	May 2, 2018	A	
HIROSHIMA GAS CO., LTD.	Bonds no.11	January 20, 2016	A	
HIROSHIMA GAS CO., LTD.	Bonds no.11	April 22, 2016	A	
HIROSHIMA GAS CO., LTD.	Bonds no.11	April 20, 2017	A	
HIROSHIMA GAS CO., LTD.	Bonds no.11	May 2, 2018	A	
HIROSHIMA GAS CO., LTD.	Bonds no.12	December 2, 2016	A	

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
HIROSHIMA GAS CO., LTD.	Bonds no.12	April 20, 2017	A	
HIROSHIMA GAS CO., LTD.	Bonds no.12	May 2, 2018	A	
HIROSHIMA GAS CO., LTD.	Bonds no.13	September 7, 2018	A	

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
SAIBU GAS CO., LTD.	Issuer(Long-term)	March 15, 2006	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	March 16, 2007	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	March 13, 2008	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	March 16, 2009	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	January 18, 2010	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	April 25, 2011	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	April 25, 2012	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	April 3, 2013	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	April 3, 2014	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	April 22, 2015	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	August 9, 2016	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	April 20, 2017	AA-	Stable
SAIBU GAS CO., LTD.	Issuer(Long-term)	May 2, 2018	AA-	Stable
SAIBU GAS CO., LTD.	CP	June 16, 1992	J-1	
SAIBU GAS CO., LTD.	CP	July 26, 1993	J-1	
SAIBU GAS CO., LTD.	CP	August 29, 1995	J-1	
SAIBU GAS CO., LTD.	CP	October 11, 1996	J-1+	
SAIBU GAS CO., LTD.	CP	October 19, 1998	J-1+	
SAIBU GAS CO., LTD.	CP	November 16, 1999	J-1+	
SAIBU GAS CO., LTD.	CP	January 15, 2001	J-1+	
SAIBU GAS CO., LTD.	CP	February 5, 2002	J-1+	
SAIBU GAS CO., LTD.	CP	March 14, 2003	J-1+	
SAIBU GAS CO., LTD.	CP	March 25, 2004	J-1+	
SAIBU GAS CO., LTD.	CP	March 14, 2005	J-1+	
SAIBU GAS CO., LTD.	CP	March 15, 2006	J-1+	
SAIBU GAS CO., LTD.	CP	March 16, 2007	J-1+	
SAIBU GAS CO., LTD.	CP	March 13, 2008	J-1+	
SAIBU GAS CO., LTD.	CP	March 16, 2009	J-1+	
SAIBU GAS CO., LTD.	CP	January 18, 2010	J-1+	
SAIBU GAS CO., LTD.	CP	April 25, 2011	J-1+	
SAIBU GAS CO., LTD.	CP	April 25, 2012	J-1+	
SAIBU GAS CO., LTD.	CP	April 3, 2013	J-1+	
SAIBU GAS CO., LTD.	CP	April 3, 2014	J-1+	
SAIBU GAS CO., LTD.	CP	April 22, 2015	J-1+	
SAIBU GAS CO., LTD.	CP	August 9, 2016	J-1+	
SAIBU GAS CO., LTD.	CP	April 20, 2017	J-1+	
SAIBU GAS CO., LTD.	CP	May 2, 2018	J-1+	
SAIBU GAS CO., LTD.	Shelf Registration	August 30, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	October 15, 2010	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	April 25, 2011	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	April 25, 2012	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	April 3, 2013	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	April 3, 2014	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	April 22, 2015	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	August 9, 2016	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	April 20, 2017	AA-	
SAIBU GAS CO., LTD.	Bonds no.9	May 2, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	January 18, 2012	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	April 25, 2012	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	April 3, 2013	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	April 3, 2014	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	April 22, 2015	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	August 9, 2016	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	April 20, 2017	AA-	
SAIBU GAS CO., LTD.	Bonds no.11	May 2, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.12	December 6, 2013	AA-	
SAIBU GAS CO., LTD.	Bonds no.12	April 3, 2014	AA-	
SAIBU GAS CO., LTD.	Bonds no.12	April 22, 2015	AA-	
SAIBU GAS CO., LTD.	Bonds no.12	August 9, 2016	AA-	
SAIBU GAS CO., LTD.	Bonds no.12	April 20, 2017	AA-	

The Historical Performance of the Credit Rating

Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
SAIBU GAS CO., LTD.	Bonds no.12	May 2, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.13	April 7, 2015	AA-	
SAIBU GAS CO., LTD.	Bonds no.13	April 22, 2015	AA-	
SAIBU GAS CO., LTD.	Bonds no.13	August 9, 2016	AA-	
SAIBU GAS CO., LTD.	Bonds no.13	April 20, 2017	AA-	
SAIBU GAS CO., LTD.	Bonds no.13	May 2, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.14	March 10, 2017	AA-	
SAIBU GAS CO., LTD.	Bonds no.14	April 20, 2017	AA-	
SAIBU GAS CO., LTD.	Bonds no.14	May 2, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.15	December 7, 2018	AA-	
SAIBU GAS CO., LTD.	Bonds no.16	December 7, 2018	AA-	

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

I, Mikiya Kubota, 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.

窪田 幹也

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