News Release



Japan Credit Rating Agency, Ltd.

22-D-0067 April 22, 2022

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></affirmation>	AAAp	Stable
OSAKA GAS CO., LTD.	9532	<affirmation></affirmation>	AA+p	Stable
TOHO GAS CO., LTD.	9533	<affirmation></affirmation>	AA+p	Stable
HOKKAIDO GAS CO., LTD.	9534	<affirmation></affirmation>	А	Stable
HIROSHIMA GAS CO., LTD.	9535	<affirmation></affirmation>	А	Stable
SAIBU GAS HOLDINGS CO., LTD.	9536	<affirmation></affirmation>	AA-	Stable

Issuer	Code	СР	
HOKKAIDO GAS CO., LTD.	9534	<affirmation></affirmation>	J-1
HIROSHIMA GAS CO., LTD.	9535	<affirmation></affirmation>	J-1
SAIBU GAS HOLDINGS CO., LTD.	9536	<affirmation></affirmation>	J-1+

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

Rating Viewpoints

- (1) As a result of the review of the 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 HOLDINGS CO., LTD. ("SAIBU GAS HD"); collectively, the "Companies"), JCR affirmed the ratings on the Companies and retained the Stable outlook. When rating utility companies including city gas companies, JCR focuses on the stability of business bases under the government's regulations and protection and maintains this perspective even after the full liberalization of the retail city gas market. Even though the scope of regulations has been narrowed with progress in a series of gas system reforms, JCR views that this has not triggered changes in creditworthiness that would lead to rating revisions for now. The ratings will continue to be based on the assessment of the industry as a whole, and individual companies' moves will be reflected. On a separate note, the big three suppliers span off the gas pipeline business in April 2022, which was carried out as part of the planned system reform. As they wholly own respective network subsidiaries, JCR concludes it reasonable to include the gas pipeline business in the evaluation of group operations for the sake of rating individual companies, and the spin-off does not cause changes in the ratings.
- (2) City gas demand, which was adversely affected the COVID crisis in the fiscal year ended March 2021 (FY2020), is picking up partly because COVID impacts have lessened. As a contributing factor, needs for industrial-use gas are growing as corporate production activities are resuming. Although there still remain somewhat uncertain factors about near-term demand partly because of the COVID-19 pandemic and a drop in car production due to semiconductor shortage, demand is expected to improve in the medium run with the resumption of economic activities, conversion of fuels from oil and coals to gases, etc.



- (3) As five years have passed since the full liberalization of the retail city gas market, the Companies have lost customers to some extent, but growth in the market share of new entrants is now slowing down partly because, unlike the retail electricity market, new entrants are rather limited to power companies. As other possible contributing factors, the tough earnings environment is causing power companies to become more profitability-oriented, and surging fuel prices are making it difficult for them to launch price campaigns. While continued attention must be paid to trends in the sales competition and their impacts on the Companies' earnings, JCR views that competition is becoming less likely to increase going forward.
- (4) LNG procurement is becoming instable again. As it stands, there appear to be no particular obstacles to LNG imports from Russia. Given that the ratio of imports from Russia is small for Japan compared to European nations and that the Japanese government expressed in March 2022 its intension not to withdraw from the Sakhalin 2 oil and gas projects in the Russian Far East, stability in procurement is unlikely to be threatened for the time being. However, the Russia-Ukraine situation is extremely uncertain and allows no optimism, depending on future economic sanctions. LNG supply-demand balance is very tight globally, leaving room to increase resilience in procurement. Therefore, expanding the areas to import from and enhancing the procurement base, including pursuing flexibility and diversity in contracts, remain vital going forward, too. In particular, city gas suppliers with a high procurement ratio from specific areas probably need to take measures from the medium- and long-term perspectives.
- (5) As global moves toward decarbonization are increasing, the commercialization of methanation and CCUS (CO₂ capture, utilization and storage) technologies is regarded as a major challenge to be tackled. As these events will affect business performance and finances only marginally for the time being, necessity to immediately change JCR's views on the city gas industry is small. Yet, impacts on individual companies' medium- and long-term business policy and investment strategies are significant, and JCR will therefore keep an eye on the Companies' future efforts and their outcome, etc.
- (6) Business risks associated with the city gas industry are relatively small, but, given demand fluctuations amid the COVID crisis, instability in LNG procurement due to Russia's invasion of Ukraine, surging prices, etc. since 2020, continued close attention need to be paid to their impacts on the earnings for the industry as a whole. However, considering that gas is an important energy, as well as other factors including the adoption of the fuel cost adjustment system and the full cost principle, JCR predicts that the earnings base is not likely to be harmed drastically and the Companies will keep performing steadily into the future. Meanwhile, investments are expected to increase in the industry as a whole in pursuit of growth. Finances and financial burden arising from investments vary among the Companies, but in any case it is vital for the Companies to keep observing certain financial discipline.

Rationale

Issuer: TOKYO GAS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AAAp Outlook: Stable

- (1) TOKYO GAS is Japan's largest city gas company, supplying gas to the Tokyo metropolitan area. Engaging in a chain of business activities from raw material procurement to gas sales, it has a strong business base and high competitive strength as the industry's leader. It is also focusing on businesses other than city gas, such as electricity, residential services and overseas and ranks high among new power service providers in Japan for electricity retail sales.
- (2) TOKYO GAS ranks among the top in the industry in terms of earnings and cash flow generation capacities. While attention must be paid to trends in the sales competition in the gas business, TOKYO GAS is making progress in the expansion of the electricity business and cost reforms. The overseas business is also increasing contribution, and overall performance will probably improve going forward. Financial base remains solid, with sufficient equity capital. Recently, heavy up-front investments are pushing up D/E ratio to a slightly higher level than its lowest. However, as TOKYO GAS has expressed its intension to maintain financial soundness, including changes in the shareholder return policy, JCR assumes that TOKYO GAS will make medium- and long-term investments while observing certain financial discipline. Based on the above, JCR affirmed the rating on TOKYO GAS with Stable outlook.
- (3) JCR will closely look at the expansion of the earnings and cash flow generation capacities of the overseas business for the time being. Whether TOKYO GAS can realize sufficient returns on its



aggressive investments and reduce their impact on the financial structure will be closely watched. Looking ahead, TOKYO GAS faces the challenge of developing methanation, CCUS and other technologies for the decarbonization of gas itself.

Issuer: OSAKA GAS CO., LTD.

<Affirmation>

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

- (1) OSAKA GAS is Japan's second largest city gas company, supplying gas to six prefectures in the Kinki region as well as to Okayama Prefecture. Engaging in a chain of business activities from raw material procurement to gas sales, it has a strong business base. While primarily operating the gas business, it also diversifies earnings sources into electricity, international energy, life & business solutions ("LBS") and other businesses.
- (2) OSAKA GAS boasts high earnings and cash flow generation capacities in the industry. While attention must be paid to trends in the sales competition in the gas business, OSAKA GAS is expanding the overseas energy business and striving to enhance the earnings base on the whole. Business risks are controlled for the Sabine and Freeport LNG projects in the U.S., which are expected to steadily increase earnings contribution. The LBS business as part of non-energy businesses continues to exhibit stable earnings capacity. Overall performance is projected to remain steady over the medium term. On the financial front, the expansion of investments is likely to weigh on financially, which however is under control with due consideration given to financial soundness through hybrid financing, etc. JCR assumes that OSAKA GAS will keep observing certain financial discipline going forward, too, and will thus be able to maintain the good financial structure. Based on the above, JCR affirmed the rating on OSAKA GAS with Stable outlook.
- (3) JCR will closely look at the expansion of the earnings and cash flow generation capacities of the overseas energy business for the time being. The Sabine Project still has room to increase production and will likely drive future profit growth. Close attention will be paid to whether investments will be made in line with target financial ratios. Looking ahead, OSAKA GAS faces the challenge of developing methanation, CCUS and other technologies for the decarbonization of gas itself.

Issuer: TOHO GAS CO., LTD.

<Affirmation>

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

- (1) TOHO GAS is Japan's third largest city gas company, supplying gas to parts of Aichi Prefecture centering on Nagoya City as well as to parts of Gifu and Mie prefectures. Its service area is one of the nation's three major metropolitan regions and thus has large demand. As it also includes the Chukyo industrial zone, the ratio of industrial-use gas sales mainly to automotive-related industries is high.
- (2) Cash flow generation capacity is highly stable. While attention must be paid to trends in the sales competition in the gas business, TOHO GAS maintains its customer base by expanding services that will help solve the issues of people's lives and businesses in its service area. Moreover, it still has room to develop customers as it is expanding pipeline networks in Gifu and Mie prefectures, enhancing LPG sales to the areas surrounding the Tokai region's three prefectures and so forth, and thus solid performance is expected to continue over the medium term. Financial management is prudent, and financial indicators are at their best levels in the city gas industry. While TOHO GAS is planning to expand investments and loans, JCR assumes that the financial structure will not weaken so significantly in light of cash flow generation capacity. Based on the above, JCR affirmed the rating on TOHO GAS with Stable outlook.
- (3) TOHO GAS intends to make investments of 230 billion yen over the course of four years from FY2022 to FY2025 for future growth, which will be almost equally spent in the core business and strategic businesses such as renewable energy and overseas. Looking ahead, interest-bearing debt is expected to increase. D/E ratio for FY2025 is targeted at 0.6x or so, as opposed to 0.4x or so for the past few years, and JCR will closely watch whether this ratio will come within a certain range.



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 is a city gas company supplying gas primarily to the cities of Sapporo, Otaru, Chitose, Hakodate and Kitami in Hokkaido and enjoys the leading position in local city gas industry. Latent demand for city gas in its service area is large thanks to fuel conversion from kerosene, and demand for commercial-use gas accounts for as much as over 30% due to regional characteristics. HOKKAIDO GAS is also working to strengthen its own power supply and has power plants in the Ishikari LNG terminal and in the basement of the head office.
- (2) Business base in Hokkaido is solid. While attention must be paid to trends in the sales competition in the gas business, HOKKAIDO GAS maintains a high market share by taking advantage of inperson sales to customers and exercising abilities to propose energy service solutions including EMINEL (energy management for interactive eco life) and CEMS (community energy management system). Recently, the electricity business, as well as the gas business, is increasing profit contribution, and thus the earnings base is becoming stronger. Given latent demand for fuel conversion, the redevelopment project in Sapporo, etc., HOKKAIDO GAS' performance is expected to remain steady over the medium and long term. Meanwhile, even though financial indicators are getting better, there still remains some room for improvement. Based on the above, JCR affirmed the ratings on HOKKAIDO GAS and retained the Stable outlook.
- (3) Ordinary profit, which had long stayed at around 2 billion yen, is now on the rise, constantly renewing the record in recent years. A major contributing factor probably is growth in the volume of gas sales despite the tough business environment amid the COVID crisis. On the financial front, large-scale investment projects, including LNG tanks and power generation facilities, have come to a pause. A key to the future rating decisions will be whether HOKKAIDO GAS can further strengthen the financial base by increasing cash flow generation capacity.

Issuer: HIROSHIMA GAS CO., LTD.

<Affirmation>

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

- (1) HIROSHIMA GAS is the Chugoku region's largest city gas company, supplying gas primarily to the cities of Hiroshima, Kure, Onomichi, Mihara, Hatsukaichi and Higashihiroshima in Hiroshima Prefecture. Along with its LPG subsidiaries, it has a strong presence mainly in the western part of the prefecture. With wide-ranging industrial clusters formed in its service area, demand for industrial-use gas accounts for a bit over 50% of the total.
- (2) Cash flow generation capacity is stable. HIROSHIMA GAS maintains the good customer base as the competition environment in its service area is not as severe as in other regions. There are no obstacles to LNG procurement at this point, and multiple means of alternative procurement are secured. Future performance is expected to remain steady, thanks partly to the resumption of the Kaita Biomass power plant, but attention must be paid to changes in the costs of LNG procurement and the impacts of a decrease in the sales of industry-use gas, which account for a large part of the total. Financial indicators are at relatively favorable levels in the city gas market. Given future investment projects and outlook for cash flows, the current financial structure is mostly likely to be maintained. Based on the above, JCR affirmed the ratings on HIROSHIMA GAS and retained the Stable outlook.
- (3) JCR will closely look at the efforts aimed at enhancing foundation for LNG procurement and expanding sales for the time being. Because of a high ratio of LNG procurement from specific regions, it is vital for HIROSHIMA GAS to increase diversity and flexibility of contracts while expanding regions to import from. Moreover, HIROSHIMA GAS' earnings have in a way tended to be affected by trends in the operating status of large industry-use gas customers. Therefore, whether HIROSHIMA GAS can restore the sales volume by acquiring new customers and cultivating demand for the conversion of fuels from oil and coals to gases will be closely watched.



Issuer: SAIBU GAS HOLDINGS CO., LTD.

<Affirmation>

Long-term Issuer Rating: AA-Outlook: Stable Bonds: AA-

Shelf Registration: Preliminary AA-

CP: J-1+

- (1) SAIBU GAS HD is the pure holding company of the Saibu Gas Group, a major city gas group supplying gas to Fukuoka, Kitakyushu, Kumamoto, Nagasaki and other areas in the Kyushu region. Given its strong unity with the operating subsidiaries in terms of management, financing, capital, etc., JCR reflects the Group's overall creditworthiness in its ratings. City gas demand in SAIBU GAS HD's service areas is large, and the ratio of demand for stable and highly profitable household-use gas to the total is fairly high. SAIBU GAS HD is also actively working on the diversification of businesses, including electricity, real estate and foods.
- (2) SAIBU GAS HD's performance is expected to improve going forward. Negative impacts of a trouble that took place at an LNG supplier in FY2021 are temporary ones, and, in addition to the stable real estate business, the electricity and other energy businesses are making greater contribution to overall results. On the other hand, the foods business continues to face tough conditions amid the COVID crisis. When the financial structure can still be improved, SAIBU GAS HD has hardly fully recovered investments through business diversification. Having shifted to a holding company structure, it is working on increasing management efficiency. Improving the business structure by conducting more stringent investment management is vital. Based on the above, JCR affirmed the ratings on SAIBU GAS HD and retained the Stable outlook.
- (3) Going forward, JCR will closely look at SAIBU GAS HD's earnings from such aspects as the strategic use of the Hibiki LNG terminal and improvement of the ailing foods business. Meanwhile, the financial structure pales compared that of the peers, as indicated by equity ratio staying at around 20%. Given SAIBU GAS HD's policy of business diversification, etc., JCR has always considered it vital to strengthen the financial position by, for instance, enhancing capital as a risk buffer. Under these circumstances, SAIBU GAS HD plans to build the Hibiki LNG terminal jointly with Kyushu Electric Power Company, Incorporated, which means that financial requirements may increase further in the future. Therefore, JCR will keep an eye on the medium-term financial strategy.

Shigenobu Tonomura, Tadashi Ono

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 R	lating: A	Outlook: Stable			
Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
Bonds no. 15	JPY 5	Mar. 16, 2016	Mar. 16, 2026	0.395%	Α
Bonds no. 17	JPY 5	Mar. 14, 2017	Mar. 14, 2024	0.250%	Α
Bonds no. 20	JPY 5	Dec. 13, 2018	Dec. 13, 2033	0.800%	Α
Bonds no. 21	JPY 5	Dec. 13, 2018	Dec. 13, 2028	0.405%	Α
Bonds no. 23	JPY 3	Dec. 12, 2019	Dec. 12, 2034	0.510%	Α
Bonds no. 24	JPY 5	Dec. 12, 2019	Dec. 12, 2029	0.280%	Α



Shelf Registration: Preliminary A

Maximum: JPY 30 billion

Valid: two years effective from October 11, 2021

CP: J-1

Maximum: JPY 20 billion

Issuer: HIROSHIMA GAS CO., LTD.

<Affirmation>

Long-term Issuer F	Rating: A	Outlook: Stable			
Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
Bonds no. 11	JPY 5	Jan. 26, 2016	Jan. 26, 2023	0.31%	Α
Bonds no. 13	JPY 8	Sept. 13, 2018	Sept. 13, 2028	0.405%	Α
Bonds no. 14	JPY 8	Oct. 15, 2020	Oct. 15, 2030	0.350%	Α
CP: J-1					

Maximum: JPY 13 billion

Issuer: SAIBU GAS HOLDINGS CO., LTD.

<Affirmation>

Long-term Issuer	Rating: AA-	Outlook: Stable			
Issue	Amount (bn)	Issue Date	Due Date	Coupon	Rating
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-
Bonds no. 17	JPY 10	July 16, 2020	July 13, 2040	0.700%	AA-
Bonds no. 18	JPY 11	Dec. 2, 2021	Dec. 2, 2041	0.670%	AA-

Shelf Registration: Preliminary AA-

Maximum: JPY 50 billion

Valid: two years effective from September 1, 2020

CP: J-1+

Maximum: JPY 50 billion

Rating Assignment Date: April 19, 2022

The assumptions for the credit ratings and the definitions of the rating symbols 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 the rating methodology is shown as "JCR's Rating Methodology" (November 7, 2014), "City Gas" (April 24, 2017), "Rating Methodology for a Holding Company" (January 26, 2015) and "Rating Viewpoints on Pure Companies (Domestic Industrial Corporations)" (July 1, 2003) in Information about JCR Ratings on JCR's website (https://www.jcr.co.jp/en/).

The aforementioned credit ratings of TOKYO GAS CO., LTD., OSAKA GAS CO., LTD. and TOHO GAS CO., LTD 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.

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.)



INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

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

	TOKYO GAS CO.,LTD.
Issuer:	OSAKA GAS CO.,LTD.
	TOHO GAS CO., LTD.
Rating Publication Date:	April 22, 2022

- 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. If the credit rating is a private rating, please see the report for private rating.
- 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. If the credit rating is a private rating, please see the report for private rating.
- 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.

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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 Rule17g-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)(l) 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
 warranty made by the issuer, the publication by the issuer, 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.
- If the credit rating is an Indication, please see the report for Indication.

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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 public or private credit rating, such as one in the ancillary business.

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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.

- 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.

14 Information on the Representations, Warranties, and Enforcement Mechanisms of an Assetbacked 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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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
TOKYO GAS CO., LTD.	Issuer(Long-term)	April 23, 2019	AAAp	Stable
TOKYO GAS CO., LTD.	Issuer(Long-term)	April 20, 2020	AAAp	Stable
TOKYO GAS CO., LTD.	Issuer(Long-term)	April 20, 2021	AAAp	Stable



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
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 23, 2019	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 20, 2020	AA+p	Stable
OSAKA GAS CO., LTD.	Issuer(Long-term)	April 20, 2021	AA+p	Stable

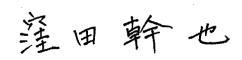


Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
TOHO GAS CO., LTD.	Issuer(Long-term)	November 16, 1999	AAp	
TOHO GAS CO., LTD.	Issuer(Long-term)	January 15, 2001	AAp	
TOHO GAS CO., LTD.	Issuer(Long-term)	February 5, 2002	AAp	
TOHO GAS CO., LTD.	Issuer(Long-term)	October 3, 2002	AA+p	
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
TOHO GAS CO., LTD.	Issuer(Long-term)	April 23, 2019	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 20, 2020	AA+p	Stable
TOHO GAS CO., LTD.	Issuer(Long-term)	April 20, 2021	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.



Mikiya Kubota

General Manager of Corporate Rating Department I



INFORMATION DISCLOSURE FORM

Japan Credit Rating Agency, Ltd.

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

lssuer:	HOKKAIDO GAS CO., LTD. HIROSHIMA GAS CO., LTD. SAIBU GAS HOLDINGS CO., LTD.
Rating Publication Date:	April 22, 2022

- 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. If the credit rating is a private rating, please see the report for private rating.
- 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. If the credit rating is a private rating, please see the report for private rating.
- 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.
- 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.
- 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.
- 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.
- The Types of Data Relied Upon for the Purpose of Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(H) of Rule17g-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
- Overall assessment of the Quality of Information Available and Considered in Determining the Credit Rating as Required by Paragraph (a)(1)(ii)(l) 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 warranty made by the issuer, the publication by the issuer, 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.
 - · If the credit rating is an Indication, please see the report for Indication.
- 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 public or private 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/

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.

 14^{\parallel} Information on the Representations, Warranties, and Enforcement Mechanisms of an Assetbacked 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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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.	Issuer(Long-term)	April 23, 2019	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 20, 2020	A	Stable
HOKKAIDO GAS CO., LTD.	Issuer(Long-term)	April 20, 2021	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.	CP	April 23, 2019	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 20, 2020	J-1	
HOKKAIDO GAS CO., LTD.	CP	April 20, 2021	J-1	
HOKKAIDO GAS CO., LTD.	Shelf Registration	October 11, 2021	<u>A</u>	
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.15	April 23, 2019	A	
HOKKAIDO GAS CO., LTD.	Bonds no.15	April 20, 2020	<u>A</u>	
HOKKAIDO GAS CO., LTD.	Bonds no.15	April 20, 2021	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	March 8, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	April 20, 2017	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	May 2, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	April 23, 2019	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	April 20, 2020	A	
HOKKAIDO GAS CO., LTD.	Bonds no.17	April 20, 2021	A	
HOKKAIDO GAS CO., LTD.	Bonds no.20	December 7, 2018	A	
HOKKAIDO GAS CO., LTD.	Bonds no.20	April 23, 2019	A	
HOKKAIDO GAS CO., LTD.	Bonds no.20	April 20, 2020	A	
HOKKAIDO GAS CO., LTD.	Bonds no.20	April 20, 2021	A	
HOKKAIDO GAS CO., LTD.	Bonds no.21	December 7, 2018	<u>A</u>	
HOKKAIDO GAS CO., LTD.	Bonds no.21	April 23, 2019	A	



Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
HOKKAIDO GAS CO., LTD.	Bonds no.21	April 20, 2020	A	
HOKKAIDO GAS CO., LTD.	Bonds no.21	April 20, 2021	A	
HOKKAIDO GAS CO., LTD.	Bonds no.23	December 6, 2019	A	
HOKKAIDO GAS CO., LTD.	Bonds no.23	April 20, 2020	A	
HOKKAIDO GAS CO., LTD.	Bonds no.23	April 20, 2021	A	
HOKKAIDO GAS CO., LTD.	Bonds no.24	December 6, 2019	A	
HOKKAIDO GAS CO., LTD.	Bonds no.24	April 20, 2020	A	
HOKKAIDO GAS CO., LTD.	Bonds no.24	April 20, 2021	A	



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
	` & ,	2 -		
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 25, 2011	A A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 25, 2012		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.	Issuer(Long-term)	April 23, 2019	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 20, 2020	A	Stable
HIROSHIMA GAS CO., LTD.	Issuer(Long-term)	April 20, 2021	A	Stable
HIROSHIMA GAS CO., LTD.	СР	June 29, 1994	J-1	
HIROSHIMA GAS CO., LTD.	СР	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.	СР	March 13, 2008	J-1	
HIROSHIMA GAS CO., LTD.	СР	March 16, 2009	J-1	
HIROSHIMA GAS CO., LTD.	СР	January 18, 2010	J-1	
HIROSHIMA GAS CO., LTD.	СР	April 25, 2011	J-1	
HIROSHIMA GAS CO., LTD.	СР	April 25, 2012	J-1	
HIROSHIMA GAS CO., LTD.	СР	April 3, 2013	J-1	
HIROSHIMA GAS CO., LTD.	СР	April 3, 2014	J-1	
HIROSHIMA GAS CO., LTD.	СР	April 22, 2015	J-1	
HIROSHIMA GAS CO., LTD.	СР	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.	СР	April 23, 2019	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 20, 2020	J-1	
HIROSHIMA GAS CO., LTD.	CP	April 20, 2021	J-1	
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.11	April 23, 2019	A	
HIROSHIMA GAS CO., LTD.	Bonds no.11	April 20, 2020	A	
HIROSHIMA GAS CO., LTD.	Bonds no.11	April 20, 2021	A	
HIROSHIMA GAS CO., LTD.	Bonds no.13	September 7, 2018	A	
HIROSHIMA GAS CO., LTD.	Bonds no.13	April 23, 2019	A	
HIROSHIMA GAS CO., LTD.	Bonds no.13	April 20, 2020	A	
HIROSHIMA GAS CO., LTD.	Bonds no.13	April 20, 2020 April 20, 2021	A	
HIROSHIMA GAS CO., LTD.	Bonds no.14	October 9, 2020	A	
	Bonds no.14	April 20, 2021		
HIROSHIMA GAS CO., LTD.	Donas no. 14	April 20, 2021	A	



Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	March 15, 2006	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	March 16, 2007	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	March 13, 2008	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	March 16, 2009	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	January 18, 2010	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 25, 2011	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 25, 2012	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 3, 2013	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 3, 2014	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 22, 2015	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	August 9, 2016	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	August 9, 2010 April 20, 2017	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	May 2, 2018	AA-	Stable
	· · · · · · · · · · · · · · · · · · ·			Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 23, 2019	AA-	
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 20, 2020	AA-	Stable
SAIBU GAS HOLDINGS CO.,	Issuer(Long-term)	April 1, 2021	AA-	Stable
SAIBU GAS HOLDINGS CO.,	CP	June 16, 1992	J-1	
SAIBU GAS HOLDINGS CO.,	CP	July 26, 1993	J-1	
SAIBU GAS HOLDINGS CO.,	CP	August 29, 1995	J-1	
SAIBU GAS HOLDINGS CO.,	СР	October 11, 1996	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	October 19, 1998	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	November 16, 1999	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	January 15, 2001	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	February 5, 2002	J-1+	
SAIBU GAS HOLDINGS CO.,	СР	March 14, 2003	J-1+	
SAIBU GAS HOLDINGS CO.,	СР	March 25, 2004	J-1+	
SAIBU GAS HOLDINGS CO.,	СР	March 14, 2005	J-1+	
SAIBU GAS HOLDINGS CO.,	СР	March 15, 2006	J-1+	
SAIBU GAS HOLDINGS CO.,	СР	March 16, 2007	J-1+	
SAIBU GAS HOLDINGS CO.,	СР	March 13, 2008	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	March 16, 2009	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	January 18, 2010	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 25, 2011	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 25, 2012	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 3, 2013	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 3, 2014	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 22, 2015	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	August 9, 2016	J-1+	
SAIBU GAS HOLDINGS CO.,	CP CP	August 9, 2010 April 20, 2017	J-1+	
	CP CP		J-1+	
SAIBU GAS HOLDINGS CO.,		May 2, 2018		
SAIBU GAS HOLDINGS CO.,	CP	April 23, 2019	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 20, 2020	J-1+	
SAIBU GAS HOLDINGS CO.,	CP	April 1, 2021	J-1+	
SAIBU GAS HOLDINGS CO.,	Shelf Registration	September 1, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Shelf Registration	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	December 6, 2013	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	April 3, 2014	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	April 22, 2015	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	August 9, 2016	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	April 20, 2017	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	May 2, 2018	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	April 23, 2019	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	April 20, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.12	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	April 7, 2015	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	April 22, 2015	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	August 9, 2016	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	April 20, 2017	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	May 2, 2018	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	April 23, 2019	AA-	

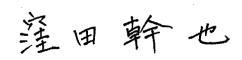


Issuer Name	Issue Name	Publication Date	Rating	Outlook/Direction
SAIBU GAS HOLDINGS CO.,	Bonds no.13	April 20, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.13	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.14	March 10, 2017	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.14	April 20, 2017	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.14	May 2, 2018	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.14	April 23, 2019	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.14	April 20, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.14	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.15	December 7, 2018	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.15	April 23, 2019	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.15	April 20, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.15	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.16	December 7, 2018	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.16	April 23, 2019	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.16	April 20, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.16	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.17	July 10, 2020	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.17	April 1, 2021	AA-	
SAIBU GAS HOLDINGS CO.,	Bonds no.18	November 26, 2021	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.



Mikiya Kubota

General Manager of Corporate Rating Department I