



ANNEX - SECOND PARTY OPINION

OSAKA GAS CO., LTD.

Daigas Group Transition Bond (#2)

Prepared by: DNV Business Assurance Japan K.K.

Location: Kobe, Japan

Date: August 1, 2022

Ref. Nr.: PRJN-414822-2022-AST-JPN-1

This opinion is prepared based on the Daigas Group Green/Transition Finance Framework Second Party Opinion (hereinafter, "Master SPO") (Ref. Nr.: PRJN-333926-2022-AST-JPN-1-rev1 *August 1, 2022), which was assessed against to the Daigas Group Green/Transition Finance Framework (hereinafter, "Framework").

*For more information on the ANNEX - Second Party Opinion, see following DNV website

<https://www.dnv.jp/news/page-227965> Release of a new evaluation service (Master SPO + ANNEX)

Executive Summary

DNV Business Assurance Japan K.K. (hereinafter, "DNV") confirmed that the Daigas Group Transition Bond (#2) issued by Osaka Gas Co., Ltd. (hereinafter, "Osaka Gas"), meets the various principles and guidelines requirements for such bond issuance and is planned to be issued and managed through appropriate internal processes, based on the Framework^{*1} which has been assessed its eligibility^{*2}.

*1: Daigas Group Green/Transition Finance Framework

*2: Daigas Group Green/Transition Finance Framework Second Party Opinion

Table-1 shows an outline of the Daigas Group Transition Bond (#2) and ANNEX - Second Party Opinion. The additional items to be assessed in the ANNEX - Second Party Opinion are Element-1 (Use of Proceeds) and Element-4 (Reporting) which are under the use of proceeds bond (response to the four elements). The conformances against to the criteria for the other elements has already been assessed its eligibility in accordance with Framework.

Table - 1 Daigas Group Transition Bond (#2) ANNEX - Second Party Opinion

Target finance	Daigas Group Transition Bond (#2)	
Target organization	Osaka Gas Co., Ltd.	
Target framework	Daigas Group Green/Transition Finance Framework	
Targeted external review	Daigas Group Green/Transition Finance Framework Second Party Opinion Ref. Nr.: PRJN-333926-2022-AST-JPN-1-rev1 Issued August 1, 2022	
Target criteria	Criteria for Climate Transition Finance	
	<ul style="list-style-type: none"> - Climate Transition Finance Handbook (ICMA, 2020) - Basic Guidelines on Climate Transition Finance (FSA, METI, and MoE, 2021). 	
Climate Transition Finance (response to the four disclosure elements)	Disclosure element-1 (Transition strategy and governance)	- Confirmed reliance on Framework
	Disclosure element-2 (Environmental materiality)	- Confirmed reliance on Framework
Bonds with specific use of proceeds (response to the four elements)	Disclosure element-3 (Science-based strategy)	- Confirmed reliance on Framework
	Disclosure element-4 (Transparency of implementation)	- Confirmed reliance on Framework
		<ul style="list-style-type: none"> - Confirmed reliance on the Framework. Additional assessment was implemented as follows: <ul style="list-style-type: none"> • Solar power generation projects (Izumi, Kagoshima; Kitaibaraki, Ibaraki). • High-efficiency gas-fired power generation project (Himeji Natural Gas Power Plant Units 1 & 2)

Element-2 (Process for project evaluation and selection)	- Confirmed reliance on Framework
Element-3 (Management of proceeds)	- Confirmed reliance on Framework
Element-4 (Reporting)	- Confirmed reliance on Framework. Additional review were carried out as follows: <ul style="list-style-type: none"> • Allocation of proceeds: items and categories • Environmental benefits: Annual CO₂ reduction (t- CO₂/year)

DNV, as an external reviewer, evaluated the eligibility of the use of proceeds and reporting for the Daigas Group Transition Bond (#2), based on an assessment of the Framework and other relevant documents and information provided by Osaka Gas. DNV also confirmed that there were no changes to the other items (in accordance with the framework).

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Revision history

Date of issue	Remarks
1/8/2022 This report (Initial)	Prepared and issued as Daigas Group Transition Bond (#2) ANNEX - Second Party Opinion

Disclaimer

Our assessment relies on the premise that the data and information provided by Issuer to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per Scope of work. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Statement.

Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV Code of Conduct¹ during the assessment and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of statements or data included in the Framework except for this Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assessment process.

¹ DNV Code of Conduct is available from DNV website (www.DNV.com)



I. Scope and Objectives

DNV has been commissioned by Osaka Gas to provide a pre-issuance assessment on the Transition Bond. Our objective has been to implement an assessment on whether Osaka Gas meet the criteria established on CTFH•CTFBG and GBP•GBGLs, which are the criteria for bonds with the specific use of proceeds, to provide ANNEX - Second Party Opinion regarding the eligibility of the Transition Bond.

DNV, as an independent external reviewer, has identified no real or perceived conflict of interest associated with the delivery of this ANNEX - Second Party Opinion for Osaka Gas.

In this report, no assurance is provided regarding the financial performance of the BOND, the value of any investments in the BOND, or the long-term environmental benefits of the transaction.

(1) Scope of review*

The review assessed the following elements and confirmed their alignment with the gist of GBP/GLP:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Use of proceeds | <input type="checkbox"/> Process for Project Evaluation and Selection |
| <input type="checkbox"/> Management of proceeds | <input checked="" type="checkbox"/> Reporting |

* The scope of review is to be applied as a part of the evaluation of the transition finance with use of proceeds.

* DNV has already reviewed the four disclosure elements of CTFH/CTFBG, "Process for Project Evaluation and Selection", and "Management of Proceeds" and has exposed our opinion below. DNV also confirmed through our assessment with Osaka Gas that there were no changes in the Transition Bond to be implemented this time or additional assessments required.

"Daigas Group Green/Transition Finance Framework Second Party Opinion"

Ref. Nr.: PRJN-333926-2022-AST-JPN-rev1 Issued August 1, 2022

(2) Role(s) of review provider

- | | |
|--|--|
| <input checked="" type="checkbox"/> Consultancy (incl. #2 opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Ratings |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

(3) Standards/guidelines to be applied

No.	Standards/guidelines	Scheme owner
1.	Climate Transition Finance Handbook (CTFH) ^{*1}	International Capital Market Association (ICMA), 2020
2.	Basic Guidelines on Climate Transition Finance (CTFBG) ^{*1}	Financial Services Agency, Ministry of Economy, Trade and Industry, Ministry of the Environment, 2021
3.	Green Bond Principles (GBP) ^{*2}	International Capital Market Association (ICMA), 2021
4.	Green Bond Guidelines (GBGLs) ^{*2}	Ministry of the Environment, 2020

*1 Climate transition: The concept of climate transition focuses principally on the credibility of an issuer’s climate change-related commitments and practices (quoted from CTFH and CTFBG).

*2 It confirms compliance with the four core elements (use of proceeds, process for project evaluation and selection, management of proceeds, and reporting) that must be met when implementing as a bond/loan that meets the four elements of transition and has a specific use of proceeds (quoted from CTFBG).



II. Responsibilities of Osaka Gas and DNV

Osaka Gas has provided the information and data used by DNV during the delivery of this review. DNV's ANNEX - Second Party Opinion represents an independent opinion and is intended to inform Osaka Gas and other interested stakeholders in the Osaka Gas Transition Bond (#2) as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by Osaka Gas. DNV is not responsible for any aspect of the nominated projects and assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by Osaka Gas's management and used as a basis for this assessment were not correct or complete.

III. Basis of DNV's Opinion

To provide a more flexible ANNEX - Second Party Opinion for the issuer, Osaka Gas, DNV identified the key assessment targets and carried out assessments in accordance with its procedures.

DNV, as an independent external reviewer, provides ANNEX - Second Party Opinion according to the protocol.

Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the Climate Transition Finance with an use of proceeds bond as the basis for the opinion are as follows:

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

As per our Protocol, the criteria against which the Daigas Group Transition Bond (#2) has been grouped into common elements bellow.

The additional assessment for this ANNEX - Second Party Opinion covers Element 1 and Element 4 out of the four common elements of (2) GBPs/GBGLs.

Part of (1) and (2) has already been assessed for eligibility. Detailed results of the eligibility assessment for such parts of (1) and (2) can be found in the "Daigas Group Green/Transition Finance Framework Second Party Opinion" (Ref. Nr.: PRJN-333926-2022-AST-JPN-1-rev1, issued August 1, 2022).

(1) Four elements of CTFH/CTFBG (disclosure elements)

Principle One: Issuer’s climate transition strategy and governance

The financing purpose should be for enabling an issuer’s climate change strategy.

Principle Two: Business model environmental materiality

The planned climate transition trajectory should be relevant to the environmentally-material parts of the issuer’s business model.

Principle Three: Transition is science-based including targets and pathway

Issuer’s climate strategy should reference science-based targets and transition pathways.

Principle Four: Implementation transparency

Market communication in connection with the offer of a financing instrument which has the aim of funding the issuer’s climate transition strategy should also provide transparency of the underlying investment program.

(2) Four elements of GBP/GBGLs

Principle One: Use of Proceeds **Subject to additional assessment of ANNEX - Second Party Opinion*

The Use of Proceeds criteria are guided by the requirement that an issuer of a transition finance with specific use of proceeds must use the funds raised to bond eligible activities. The eligible activities should produce clear environmental benefits.

Principle Two: Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a transition finance should outline the process it follows when determining eligibility of an investment using the proceeds from transition finance, and outline any impact objectives it will consider.

Principle Three: Management of Proceeds

The Management of Proceeds criteria are guided by the requirements that a transition finance should be tracked within the issuing organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.

Principle Four: Reporting **Subject to additional assessment of ANNEX - Second Party Opinion*

The Reporting criteria are guided by the recommendation that at least Sustainability Reporting to the bond investors should be made of the use of bond proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

IV. Work Undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that this information was provided to us by the issuer in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

The assessment work that forms DNV's opinion includes

i. Pre-funding assessment (ANNEX - Second Party Opinion)

- Assessment of additional documentary evidence provided by Osaka Gas on the Osaka Gas Transition Finance and supplemented assessment by a comprehensive desktop research. These checks refer to current assessment best practice and standards methodologies;
- Discussions with Osaka Gas, and review of relevant documentation;
- Documentation of findings against each element of the criteria to be additionally assessed.

ii. Post-funding assessment (periodic review) (not included in this report*)**

- Interviews with fundraiser managers and review of relevant documentation.
- Site surveys and inspections (if required).
- Documentation of post-issuance assessment results.



V. Findings and DNV's Opinion

DNV's findings and opinion are as described below.

Please see Schedule-1 and Schedule-2 for details.

GBP/GBGLs-1. Use of Proceeds

Osaka Gas has defined the criteria applied to eligible projects as transition projects which meet Transition Strategy and related handbook, principle and guidelines (CTF-H and CTF-BG).

The proceeds of the Daigas Group Transition Bond (#2) will be used for the following three projects (SE-01, SE-02, and TE-01). Please see Schedule-1 for details.

All three projects are eligible projects that are aligned with either or both of the Technology Roadmap in the gas sector (METI, February 2022) and the Transition Roadmap in the power sector, in addition to the Daigas Group Green/Transition Finance Framework.

The amount of proceeds of the Daigas Group Transition Bond (#2) will be disclosed in future documents relating to the bond issuance. DNV confirmed at the time of this assessment that the proceeds will be used mainly for new investments and partly be allocated to refinancing. The actual allocation results will be reported on an annual basis in accordance with GBP/GBGLs-4.Reporting.

Project SE-01: Kuwabarajo Mega Solar (No.4) (solar PVs power plant)

- The Kuwabarajo Mega Solar (No.4) is a project categorized as an onshore solar power plant and is a green project that meets the technical criteria of the referenced Climate Bond Standard.
- Specifically, DNV confirmed that the negative environmental factors were considered and resulted no significant issues are found, and that there are no fossil fuel-based backup sources (if there are fossil fuel-based backup sources, they must be less than 15% of annual electricity generation, including solar power).
- Osaka Gas defines renewable energy, including onshore solar power, as key activity (Green/Transition Eligibility Criteria) to realize the "Daigas Group Roadmap to Carbon Neutrality" and transition targets in its own Daigas Group Green/Transition Finance Framework.
- The annual CO₂ reduction is estimated to be approximately 17,000t-CO₂/year in total with project SE-02 (the amount planned to be allocated from the bond (investment amount) was calculated proportionally to the project amount).



Image-1 Project SE-01 Kuwabarajo Mega Solar (No.4)

Table-1 Project SE-01 Outlines of Kuwabarajo Mega Solar (No.4)

Name of power plant (project name):	Kuwabarajo Mega Solar (No.4)
Location:	Izumi City, Kagoshima Prefecture
Capacity:	Approx. 12,000 kW
Operation started:	April 2020
Date of acquisition:	December 17, 2020
Other:	Acquired through a joint venture with Development Bank of Japan, Inc.
Estimated environmental benefits:	Approx. 17,000 t-CO₂/year (combined with SE-02)

**Project SE-02: Isohara Extra-high Voltage Power Plant (solar PVs power plant),
Kitaibaraki, Ibaraki**

- The Isohara Extra-high Voltage Power Plant in Kitaibaraki City, Ibaraki Prefecture is a project categorized as an onshore solar power plant and is a green project that meets the technical criteria of the referenced Climate Bond Standard.
- Specifically, DNV confirmed that the negative environmental factors were considered and resulted no significant issues are found, and that there are no fossil fuel-based backup sources (if there are fossil fuel-based backup sources, they must be less than 15% of annual electricity generation, including solar power).
- Osaka Gas defines renewable energy, including onshore solar power, as key activity (Green/Transition Eligibility Criteria) to realize the "Daigas Group Roadmap to Carbon Neutrality" and transition targets in its own Daigas Group Green/Transition Finance Framework.
- The annual CO₂ reduction is estimated to be approximately 17,000t-CO₂/year in total with project SE-02 (the amount planned to be allocated from the bond (investment amount) was calculated proportionally to the project amount).



Image-2 Project SE-02 Isohara Extra-high Voltage Power Plant, Kitaibaraki, Ibaraki

Table 2 Project SE-02 Outlines of Isohara Extra-high Voltage Power Plant, Kitaibaraki, Ibaraki

Name of power plant (project name):	Isohara Extra-high Voltage Power Plant
Location:	Kitaibaraki City, Ibaraki Prefecture
Capacity:	Approx. 35,000 kW
Operation started:	January 2021
Date of acquisition:	February 1, 2021
Other:	Acquired through a joint venture with Development Bank of Japan, Inc.
Estimated environmental benefits:	Approx. 17,000 t-CO₂/year (combined with SE-01)

Project TE-01: Himeji Natural Gas Power Plant

- The Himeji Natural Gas Power Plant is a gas turbine combined cycle power generation system using BAT with higher power generation efficiency than "(B) Power generation technologies that have already started construction as a commercial plant (including trial operation period, etc.) and those that have been decided to be adopted as commercial plants and are in the environmental assessment procedure" in the "Commercialization and development status of state-of-the-art power generation technologies (BAT reference table)" (April 2014).
- The power generation facility (gross thermal efficiency: approx. 64% based on lower calorific value) is equipped with a high-efficiency gas turbine with an inlet temperature of 1650°C class using liquefied natural gas (LNG) and a heat recovery steam generator, and plans to achieve a CO₂ emission factor: 0.307 kg-CO₂/kWh. This means that the Himeji Natural Gas Power Plant has top-class power generation efficiency and environmental performance compared to fossil fuel-based thermal power plants in Japan (approx. half of the average CO₂ emission factor* of domestic thermal power plants) and will indirectly contribute to the replacement (fuel conversion) of inefficient and relatively high CO₂ emissions fossil fuel-based thermal power plant.

*Source: Average emission factor for thermal power in FY2030: 0.60 kg-CO₂/kWh (Outlook for energy supply and demand in FY2030, "Global Warming Prevention Plan" (Cabinet decision on October 22, 2021) Schedule-1: List of measures concerning energy-derived carbon dioxide)
- The facility uses gas turbines that can be modified and converted to a low-carbon power source through hydrogen co-firing in the future.
- Environmental impact assessments have been completed and appropriate measures and investigations are planned during construction and after starting operation based on the assessment results, etc.
- In view of the above, the Himeji Natural Gas Power Plant is a transition project that is aligned with both the "Daigas Group Roadmap to Carbon Neutrality" and the Technology Roadmap in the gas sector and the Transition Roadmap in the power sector.
- The annual CO₂ reduction is estimated to be approximately 1.14 million t-CO₂/year.

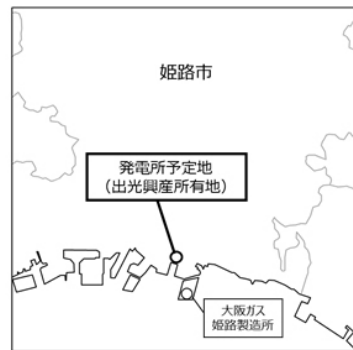
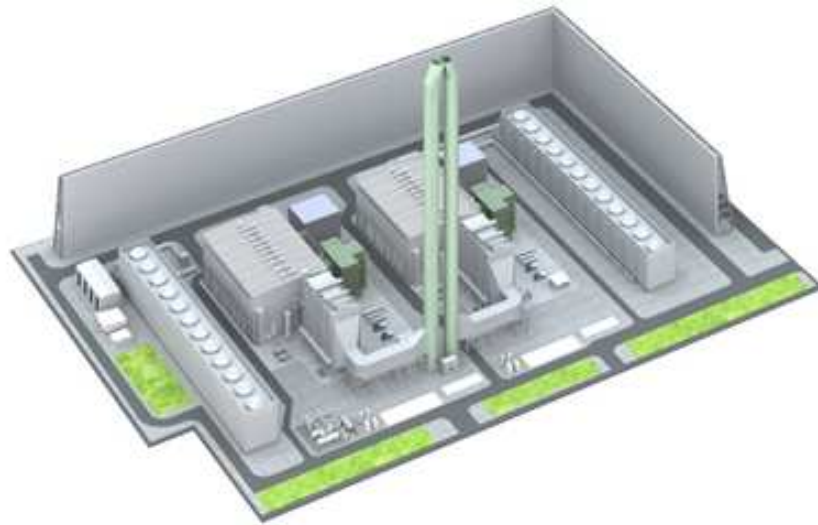


Image (Figure)-3 Project TE-01 Himeji Natural Gas Power Plant (Himeji, Hyogo prefecture)

Table-3 Project TE-01 Outlines of Himeji Natural Gas Power Plant

Name of power plant (project name):	Himeji Natural Gas Power Plant
Location:	1-22, Megahida-cho, Shikama-ku, Himeji, Hyogo (Land owned by Idemitsu Kosan), etc. *Adjacence to Osaka Gas Himeji LNG Terminal
Capacity:	1.25 million kW (0.62 million kW x 2 units)
Operation started:	Unit 1: January 2026; Unit 2: May 2026
Fuel:	Liquefied Natural Gas (LNG)
Estimated environmental benefits:	Approx. 1.14 million t-CO₂/year (after starting commercial operation of Units 1 and 2)



GBP/GBGLs-4. Reporting

DNV confirms that Osaka Gas will report on the Transition Bond (#2) until the proceeds are allocated, and disclose information on the status of the allocation, the projects to which the proceeds have been allocated or the environmental benefits. DNV also confirmed that environmental benefits will be reported until the completion of the redemption or repayment of the Transition Bond.

DNV confirmed that, even after allocation have been completed, Osaka Gas plans to report any changes in transition strategy or pathways, or any major changes in the allocation plan or project implementation status, in a timely manner in Osaka Gas's reporting.

The report will be disclosed on the issuer's website.

<Allocation status>

- ◆ Allocated Amount per eligible criteria
- ◆ Balance of unallocated amount
- ◆ Estimated amount of the portion of the proceeds allocated as refinancing

<Environmental benefits>

- ◆ Environmental benefits will be disclosed within the confidentiality, to the extent practicable, and in consideration of the characteristics of the project, including an overview of the project (including progress, completion, operation, etc.) and the environmental benefits (e.g., t-CO₂/year) for each eligible criterion.

*Report the calculation results of environmental benefits based on estimated values before starting commercial operation, and the actual power generation after starting commercial operation.

Use of Proceeds reporting:

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other *(please specify)*:

Information reported:

- Allocated amounts
- GB refinanced share of total investment
- Other *(please specify)*:

Frequency:

- Annual
- Semi-annual
- Other *(please specify)*:

Impact reporting (Environmental Impact):

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other *(please specify)*:

Frequency:

- Every year
- Every six months
- Other *(please specify)*:

Information reported (expected or ex-post):

- GHG Emissions / Savings
- Energy savings
- Other ESG indicators *(please specify): Equipment completion of installation, size, year of operation, etc.*

Means of Disclosure

- Information published in financial report (Integrated Report)
- Information published in sustainability report
- Information published in ad hoc documents
- Other *(please specify): on Osaka Gas web site*
- Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review)

vi. Assessment Conclusion

On the basis of the information provided by Osaka Gas and the work undertaken, it is DNV's opinion that the Daigas Group Transition Bond (#2) meets the criteria established in the Protocol, and that it is aligned with the following stated definition or purpose of the bonds that specify the use of proceeds within the CTFH/CTFBG and GBP/GBGLs:

"provide an investment opportunity with transparent sustainability credentials"

"enable capital-raising and investment for new and existing projects with environmental benefits"

DNV Business Assurance Japan K.K.

August 1, 2022



Mark Robinson

Manager, Sustainability Services
DNV Business Assurance, Australia



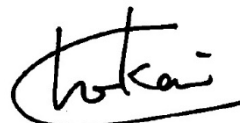
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About DNV

Driven by our purpose of safeguarding life, property and the environment, DNV enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

Disclaimer

Responsibilities of the Management of the Issuer and the Second-Party Opinion Providers, DNV: The management of Issuer has provided the information and data used by DNV during the delivery of this review. Our statement represents an independent opinion and is intended to inform the Issuer management and other interested stakeholders in the Bond as to whether the established criteria have been met, based on the information provided to us. In our work we have relied on the information and the facts presented to us by the Issuer. DNV is not responsible for any aspect of the nominated assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV shall not be held liable if any of the information or data provided by the Issuer's management and used as a basis for this assessment were not correct or complete.

Schedule-1 Daigas Group Transition Bond (#2) Eligible Projects

Eligible Criteria (partly extracted from the framework)		No.	Project Overview			
1)	Decarbonization of gas energy: hydrogen utilization (methanation, direct use), biogas *Not allocated this time					
2)	Decarbonization of power generation	Renewable power generation	(Expenditure on the development, construction, operation and refurbishment of solar power plants).	SE-01	Acquisition of domestic solar power plants *Refinancing (or lookback) planned	Project name (name of power plant): Kuwabarajo Mega Solar (No.4) Location: Izumi City, Kagoshima Prefecture Capacity: Approx. 12,000 kW Operation started: April 2020 Date of acquisition: December 17, 2020
				SE-02	<Estimated environmental benefits> Approx. 17,000 t-CO ₂ /year	Project name (name of power plant): Isohara Extra-high Voltage Power Plant, Kitaibaraki, Ibaraki Location: Kitaibaraki City, Ibaraki Prefecture Capacity: Approx. 35,000 kW Operation started: January, 2021 Date of acquisition: February 1, 2021
	Thermal power generation	(Reduction of CO ₂ emissions from thermal power sources by adopting state-of-the-art CO ₂ efficient power generation technologies using the best economically available technologies such as gas turbine combined cycle power generation)	TE-01	Himeji Natural Gas Power Plant *New allocations planned	Project name (name of power plant): Himeji Natural Gas Power Plant Location (planned): 1-22, Megahida-cho, Shikama-ku, Himeji, Hyogo (Land owned by Idemitsu Kosan), etc. Capacity: 1.25 million kW (0.62 million kW x 2 units) Operation started: Unit 1, January 2026; Unit 2, May 2026 - A gas turbine combined cycle power generation system using BAT with power generation efficiency higher than "(B) Power generation technologies that have already started construction as a commercial plant (including trial operation period, etc.) and those that have been decided to be adopted as commercial plants and are in the environmental assessment procedure" in	

3)	Low-carbonization	Advanced utilization of natural gas and CHP	Conversion from oil, coal, etc. to natural gas			<p>the "Commercialization and development status of state-of-the-art power generation technologies (BAT reference table)" (April 2014)</p> <ul style="list-style-type: none"> - The power generation facility (gross thermal efficiency: approx. 64% based on lower heating value) is equipped with a high-efficiency gas turbine with an inlet temperature of 1650°C class using liquefied natural gas (LNG) and a heat recovery steam generator (boiler), and achieved a CO₂ emission factor: 0.307 kg-CO₂/kWh. - Can be modified and converted to a low-carbon power source through hydrogen co-firing/single-firing in the future
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