

Green Bond / Green Bond Programme

Independent External Review Form

Section 1. Basic Information

Issuer name:

Takasago Thermal Engineering Co., Ltd.

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:

3rd unsecured bond

Independent External Review provider's name:

Japan Credit Rating Agency, Ltd.

Completion date of this form:

June 14, 2019

Publication date of review publication:

June 14, 2019

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarise the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBPs:

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

ROLE(S) OF INDEPENDENT EXTERNAL REVIEW PROVIDER

- | | |
|--|--|
| <input type="checkbox"/> Second Party Opinion | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input checked="" type="checkbox"/> Scoring/Rating |
| <input type="checkbox"/> Other (please specify): | |

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)

Takasago Thermal Engineering Co., Ltd. (the Company) is the largest air conditioning equipment construction company established in 1923. The Company has earned a reputation for its indoor air-conditioning control and energy optimization technologies it has developed since its establishment. The Company offers a wide range of services, from general-purpose systems for office buildings etc. to industrial air conditioning system such as clean rooms, and it particularly excels in construction of large-scale office buildings. Together with group companies, it provides one-stop services for the design, construction, maintenance, operation management, and renovation of air conditioning equipment for buildings, factories, and facilities for all uses.

The Company has defined the Group's goal as "Contributing to shifting the world towards a decarbonized society through environmental engineering," and is promoting business activities to realize this goal. With regard to the environment, the Company has formulated the Basic Policy on the Environment. In addition to that, it has formulated and implemented specific activities in line with the objectives of "Establishment of a low-carbon society," "Contribution to a society harmonized with nature," and "Contribution to creating a recycling-oriented society."

The use of proceeds of the bonds which are the subject of this evaluation (the Bonds) is new investment for the construction and related expenses (construction costs, etc.) of the (tentative name) Innovation Center (the Innovation Center) under construction in Tsukubamirai City, Ibaraki Prefecture. All of these investments are for the acquisition and construction of green buildings which attain ZEB, etc. The main use of the Innovation Center is to conduct R&D and demonstrate experiments for environmental engineering, and it is expected to have a ripple effect on the reduction of environmental impacts. JCR confirmed that it has taken appropriate measures to avoid or mitigate the negative environmental impacts that may occur and that the construction of the Innovation Center is unlikely to have serious adverse environmental impacts that outweigh the environmental improvements through the materials relating to the Innovation Center and the interviews to the Company. Based on the above, JCR evaluates that the use of proceeds has a high environmental improvement effect.

The project was selected through an appropriate process with the involvement of a specialized department, and that the management of funds was properly managed using the internal system. Therefore, JCR confirmed that the management and operation system for the green project, which the proceeds of the Bonds are used for, was established and highly transparent. In addition, JCR confirmed that the Company's management takes high priority to the environmental issues.

Based on the JCR Green Finance Evaluation Methodology, JCR assigned "g1" for the preliminary evaluation of the "Greenness Evaluation (use of proceeds)" and "m1" for the preliminary evaluation of the "Management, Operation and Transparency Evaluation." As a result, the JCR assigned "Green 1" for overall "JCR preliminary Green Bond Evaluation."

The Bond is considered to meet the standards for the items required by the Green Bond Principles and the Ministry of the Environment's Green Bond Guidelines.

<https://www.jcr.co.jp/en/greenfinance/>

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (if applicable):

a. On the environmental improvement effects of the project

- i. 100% of the proceeds are used for the construction of the Innovation Center (Office building: ZEB, the whole site: ZEB Ready). In addition, the building is expected to have a ripple effect of reducing environmental impacts by conducting research and development and demonstration experiments for environmental engineering. Therefore it is a project with a high environmental improvement effect.
- ii. The proceeds are used for "green buildings" and "energy conservation" as defined in the Green Bond Principles or the Ministry of the Environment's Green Bond Guidelines, which are recognized as regional, national or international standards or certified.

b. Negative impact on Environment

JCR confirms that, the Company conducted preliminary surveys, including ground surveys and ground surveys at the design stage, as well as notifications and consultations with government agencies in accordance with relevant laws and ordinances, and held briefings with local residents to minimize the negative impacts on the environment in constructing the Innovation Center through the interviews to the Company. JCR confirms that the Company has taken appropriate measures to avoid or mitigate the adverse environmental impacts that may arise.

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input checked="" type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | <input type="checkbox"/> Other (please specify): |

If applicable please specify the environmental taxonomy, if other than GBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

The Company has clear environmental goal, project selection criteria and process to determine the proceeds, which will be in the evaluation report composed by JCR.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (please specify): |

Information on Responsibilities and Accountability

- | | |
|---|---|
| <input type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input checked="" type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (please specify): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

The bond will be used for construction of the Innovation Center. The proceeds will be managed in cash or cash equivalents and will be fully appropriated by March 2020. If not fully appropriated by March 2020, the Company plans to explain how to manage the proceeds that have not been appropriated in its press releases, etc.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (please specify): |

Additional disclosure:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Allocations to future investments only | <input type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input type="checkbox"/> Allocation to a portfolio of disbursements |
| <input type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (please specify): |

4. REPORTING

Overall comment on section (if applicable):

a. Reporting on proceeds allocation

The Company intends to disclose on its website an overview of the project and the amount appropriated for the project and the amount not appropriated for the project, as necessary, until the entire amount of the proceeds has been appropriated and in the event of a significant change in circumstances even after all of the proceeds have been appropriated. The entire amount of the proceeds will be appropriated by March 2020.

b. Impact reporting for environmental benefits

The Company plans to disclose on its website some indicators that show the effect of environmental improvement once a year until the redemption of the Bonds. The Company plans to disclose the progress of the project until its completion.

Use of proceeds reporting:

☒ Project-by-project

☐ Linkage to individual bond(s)

Information reported:

☒ Allocated amounts

☐ Other (please specify):

Frequency:

☒ Annual

☐ Other (please specify):

☐ On a project portfolio basis

☐ Other (please specify):

☐ Green Bond financed share of total investment

☐ Semi-annual

Impact reporting:

☒ Project-by-project

☐ Linkage to individual bond(s)

Frequency:

☒ Annual

☐ Other (please specify):

☐ On a project portfolio basis

☐ Other (please specify):

☐ Semi-annual

Information reported (expected or ex-post):

☒ GHG Emissions / Savings

☐ Decrease in water use

☐ Energy Savings

☒ Other ESG indicators (please specify):

• Status of acquisition of environmental certification

Means of Disclosure

- | | |
|--|---|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input checked="" type="checkbox"/> Other (please specify):
Showing on the Company's website |
| <input checked="" type="checkbox"/> Reporting reviewed | |

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

Takasago Thermal Engineering 's Initiatives for CSR
<https://www.tte-net.com/english/csr/index.html>

JCR's website about green bond evaluation methodology
<https://www.jcr.co.jp/en/greenfinance/>

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|--|--|
| <input type="checkbox"/> Second Party Opinion | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input checked="" type="checkbox"/> Scoring/Rating |
| <input type="checkbox"/> Other (please specify): | |

Review provider(s):

Japan Credit Rating Agency, Ltd.

Date of publication:

June 14, 2019

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

1. **Second Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
2. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
3. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
4. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.