



Obayashi Corporation Sustainability Bond, DNV Periodic Review (#3)



SECOND PARTY OPINION

OBAYASHI CORPORATION SUSTAINABILITY BOND DNV PERIODIC REVIEW (#3)

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Table of Contents

I. Scope and Objectives	4
II. Responsibilities of Obayashi and DNV.....	5
III. Basis of DNV’s opinion	6
IV. Work undertaken	7
V. Findings and DNV’s opinion	8
Schedule-1 Sustainability Bond Nominated Projects & Assets Outline	18
Schedule-2 Sustainability Bond Eligibility Assessment Protocol	20
(1) Use of Proceeds	20
(2) Process for Project Selection and Evaluation	23
(3) Management of Proceeds	25
(4) Reporting	26

Issue Log	Description
May 30 th , 2019	Second Party Opinion - Sustainability bond eligibility pre-issue assessment report
June 29 th , 2020	Sustainability Bond Periodic Review (#1)
June 30 th , 2021	Sustainability Bond Periodic Review (#2) Use of Proceeds: JPY 3.86 billion out of JPY 10 billion has been allocated
June 30 th , 2022 (This Issue)	Sustainability Bond Periodic Review (#3) Use of Proceeds: JPY 9.81 billion out of JPY 10 billion has been allocated (See Schedule-1 for details of target Project Portfolio 01, 02, 03) Environmental benefits: <ul style="list-style-type: none"> - Addition of construction progress and operation status as planned for renewable energy business - Progress as planned to acquire Green Building certification (LEED Gold) of Obayashi Next-Generation Training Facility - Hydrogen production plant has been completed and started hydrogen production using renewable energy (geothermal power generation) - Social impact: <ul style="list-style-type: none"> - Providing vocational training opportunities (51 people), Provision of qualification allowances to those responsible for maintenance and renewal of disaster response/social infrastructure (497 people) - Progress as planned toward the acquisition of WELL certification for Obayashi next-generation Training Facility as a wellness building with sustainability Ongoing project: Obayashi Next Generation Training Facility and Onshore Wind Power are underway as planned



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

On June 20th, 2019, Obayashi Corporation (hereinafter “Obayashi” or “Issuer”) issued Obayashi Sustainability Bond (hereinafter “BOND”). The issuance value for the BOND is 10.0 billion JPY, and its redemption period is 5 years. DNV Business Assurance Japan Co., Ltd. (hereinafter referred to as “DNV”) conducted a sustainability bond eligibility assessment by using the Sustainability Bond Guidelines (SusBG)^{*1} in accordance with Green Bond Principles (GBP)^{*2} and Social Bond Principles (SBP)^{*3}. DNV also considered the requirements of the Green Bond Guidelines, 2017^{*4} (MOE, Japan 2017) and Climate Bond Standard Version 2.1^{*5} during its assessment.

*1: Sustainability Bond Guidelines (International Capital Market Association ICMA 2018)

*2: Green Bond Principles (International Capital Market Association ICMA 2018)

*3: Social Bond Principles (International Capital Market Association ICMA 2018)

*4: Green Bond Guidelines, 2017 (Ministry of the Environment)

*5: Climate Bond Standard Version 2.1 (Climate Bond Initiative)

Obayashi Green Vision 2050, the medium-to-long-term vision adopted in 2011, was updated to Obayashi Sustainability Vision 2050. The Sustainability Vision expands on the Green Vision by incorporating promotion of ESG management and achievement of SDGs. Also, Obayashi established action plans to solve the specified 6 ESG material issues and published their approaches. (Refer to: Appendix-3)

Obayashi has allocated the proceeds from Obayashi Sustainability Bond to the following sustainability projects (portfolio) and assets as scheduled *

*Allocation of the proceeds from Sustainability Bond includes financing and / or refinancing. See Schedule-1 for details.

- **Environmentally friendly “Wellness Building” under the concept of “Smart Buildings that are good for all people”**
- **Secure skilled workers for construction industry and strengthen trust relationship with suppliers**
- **Renewable Energy businesses based on the action plans of “Obayashi Green Vision 2050”**

DNV has been commissioned by Obayashi to provide the initial and periodic reviews of Obayashi’s eligibility of the BOND. Our criteria and information to achieve the purpose are described under ‘Work Undertaken’ shown below. This periodic review was done based on the information and documents provided by Obayashi as well as the interview conducted



with them on June 3rd, 2022. We do not provide any independent assurance or other types of audit activities.

In this report, no assurance is provided regarding the financial performance of the Issuer, the value of any investments in the BOND, or the long-term environmental benefits arising from the nominated projects. Our objective of the review is to provide an assessment that the usage of the proceeds of the BOND has met the criteria established on the basis set forth below.

II. Responsibilities of Obayashi and DNV

The management of Obayashi provided the information and data used by DNV during this review. Our statement represents an independent opinion and is intended to inform Obayashi management and other stakeholders interested 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 data presented to us by Obayashi. 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 and/or data provided by Obayashi and used as the basis for this assessment were found to be not correct or complete.

III. Basis of DNV's opinion

To provide as much flexibility for the issuer, Obayashi, as possible, we have adapted our Sustainability Bond Guidelines (SusBG)^{*1} (considering Green Bond Principles (GBP)^{*2} and Social Bond Principles (SBP)^{*3}), while referencing the requirements of Green Bond Guidelines, 2017^{*4} and Climate Bonds Standard 2.1v^{*5} assessment methodologies, to create the Obayashi-specific Sustainability Bond Eligibility Assessment Protocol (henceforth referred to as "Protocol").

The Obayashi-specific Protocol (eligibility) has the capacity for potential application of the Bond under the Green Bond Guidelines, 2017 and Climate Bond Standard with their Technical. Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion. The overarching principle behind the criteria is that a sustainability bond should "enable capital-raising and investment for new and existing projects with environmental and social benefits".

As per our Protocol, the criteria against which the BOND has been reviewed are grouped under the four Principles:

- **Principle One: Use of Proceeds.** The Use of Proceeds criteria are guided by the requirement that an issuer of a sustainability bond must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental and social 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 sustainability bond should outline the process it follows when determining eligibility of an investment using Sustainability Bond proceeds, 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 sustainability bond 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.** 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.

*1: Sustainability Bond Guidelines (2018, International Capital Market Association)

*2: Green Bond Principles (2018, International Capital Market Association)

*3: Social Bond Principles (2018, International Capital Market Association)

*4: Green Bond Guidelines, 2017 (2017, Ministry of the Environment, Japan)

*5: Climate Bonds Standard | version 2.1 (Climate Bonds Initiative)

IV. Work undertaken

Our work constituted a comprehensive review of the available information, based on the understanding that the information was provided to us by Obayashi 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 includes initial assessment and periodic assessment.

Initial Assessment (pre-BOND issuance):

- Creation of an Obayashi -specific Protocol, adapted to the purpose of the BOND, as described above and in Schedule-2 of this Assessment.
- Assessment of supporting documents provided by Obayashi on the BOND and supplemented assessment by a comprehensive desktop research. These checks refer to current assessment best practices and standards methodology.
- Discussions with Obayashi and review of relevant documentation.
- Documentation of findings against each element of the criteria.

Periodic Assessment (post-BOND issuance):

- Evaluation of the supporting documents provided by Obayashi and related to the BOND issuance, high level desktop research, document reviews, and interviews with key personnel of the Issuer. These checks refer to best practices in current assessment and standard methodologies.
- Discussions with Obayashi management and review of relevant documentation.
- Field survey and inspection, if required.
- Review of the nominated projects and assets as described in Schedule 2.
- Documentation of findings in detail.

Our opinion as detailed below is a summary of these findings.

V. Findings and DNV's opinion

DNV's findings are listed below:

Principle One: Use of Proceeds

Obayashi has reported usage of the proceeds [BOND proceeds : 10.0 billion JPY (net proceed 9.94 billion JPY)] of the BOND to refinance and/or finance the projects and assets including:

Eligible Sustainability Projects:

Wellness Buildings (Project 01)

- Project 01-1 : Obayashi Technical Research Institute ZEB : 0.4 billion JPY
(Net Zero Energy Building, Refinanced)
- Project 01-2 : Obayashi Next-Generation Training Facility : 4.96 billion JPY
(in Yokohama)

Vocational Training and Subsidies (Project 02)

- Project 02-1 : Training & Subsidies for Young Workers : 0.91 billion JPY

Renewable Energy (Project 03)

- 03-1 : R&D for CO₂-free Hydrogen Production
and logistics system: 0.4 billion JPY
(Refinanced: 0.25b-JPY in Sep 2019 & financed: 0.15b-JPY Mar 2020)
 - 03-2 : Otsuki Biomass Power Plant and
 - 03-3 : Kamikita Ogawara Onshore Wind Power : 3.14 billion JPY
- | | |
|--------------|---------------------------|
| Sub Total | : 9.81 billion JPY |
| Balance | : 0.13 billion JPY |
| Total | : 9.94 billion JPY |

Schedule-1 indicates the list and details of sustainability projects 01-03

DNV reviewed the eligibility of the nominated projects and assets to meet the criteria for the project categories above.

Project Portfolio 01 : Wellness Building

Project 01-1: Obayashi Technical Research Institute ZEB



[Project-1 Obayashi Technical Research Institute * Roof-Top Solar Power
Kiyose-city ,Tokyo, BELS (ZEB) : Mar 27, 2019 & WELL (Gold) : Nov 21, 2017]

Project 01-2: New Environmentally Friendly “Wellness Building” under the concept of “smart buildings that are good for all people”

Obayashi has evaluated and selected the building which meets the criteria against the “process for project evaluation and selection” in their sustainability bond framework.

The nominated project is “**Obayashi Next-Generation Training Facility**”, which is intended to nurture innovation and corporate culture. It will be the first high-rise building in Japan made of wooden materials including its structures and be fire-resistant. The atmosphere from wooden materials is expected to bring-in relaxation and comfort to people with its humidity-adjustment feature. The building will also enhance people’s health and well-being by its unique design and technologies that incorporate natural environments.

In addition, by leveraging various environment-friendly technologies, the building is expected to reduce energy consumption by over 50% (ZEB Ready) and aims to obtain WELL and LEED certifications just like the above-mentioned Project 01-1 Obayashi Technical Research Institute. As planned, Obayashi has obtained the preliminary certification of WELL and the preliminary certification of LEED certification (Gold) in 2020.

Obayashi Next-Generation Training Facility construction has been completed in Mar.2022



[Project 01-2 Next-Generation Training Facility in Yokohama]
(Construction: from March 2020 to March 2022) completed in Mar.2022

Project Portfolio 02 : Secure skilled workers for construction industry and strengthen trust relationships with suppliers

Project 02 : Vocational training and subsidy for developing of the young skilled workers



2019年度スーパー職長・スーパーオペレーター認定式

[Project 02 Vocational training operation and subsidy
for developing of the young skilled workers

Vocational training school, accommodation, field training, in Yashio-city, Saitama
FY2019 Certification ceremony for Obayashi senior site manager and operator]

Project Portfolio 03 : Renewable energy business based on the action plan of “Obayashi Green Vision 2050”

Project 03-1 : R&D for CO₂-Free Hydrogen Production and Logistics System

This project consists of CO₂-free hydrogen production including pilot manufacturing plant construction and logistics systems (production, storage and distribution). CO₂-free hydrogen is generated by renewable energy source, using geothermal power generation. Obayashi has launched this project according to the joint research agreement with Tuaropaqui Trust in December 2018, who owns geothermal power station in New Zealand. This CO₂-free hydrogen pilot manufacturing plant (hydrogen production capacity; 22.5kg/h) has been completed in March 2021.

Project 03-2: Otsuki Biomass Power Plant

Commercial operation started in December 2018, and as of June 2022, it is operating smoothly.



[Project 03-2 Otsuki Biomass Power Plant]

(Commercial Operations started on December 2, 2018 / Located in Otsuki-city, Yamanashi)

Outline

Rated output	14.5MW (net 12.5MW)
fuel	Biomass (Wood chip only*) * exception for emergency operation
Location	Otsuki city, Yamanashi prefecture
Commercial operation	From 2 nd Dec 2018



Project 03-3 : Kamikita Ogawara Onshore Wind Power Plant

Kamikita Ogawara Onshore Wind Power Plant will be located in Rokkasho in Aomori-prefecture and have 6 towers of wind power generation. Its total rated power is estimated at max. 20.4MW (3.4MW/tower), and its capacity utilization rate is estimated at 22 to 25%. The construction of the facility has been completed in FY2021 and the commercial operation started in April 2022.

Principle Two: Process for Project Evaluation and Selection

The BOND's proceeds have been allocated solely to refinance and/or finance the projects and assets as defined in Schedule 1, as scheduled. DNV has reviewed evidence that demonstrates that Obayashi regularly assesses opportunities for improvement and devises action plans and initiatives to mitigate negative environmental and social impacts from its construction and operations.

Principle Three: Management of Proceeds

DNV has reviewed evidence indicating how Obayashi traced the proceeds from the Bond, from the time of issuance to the time of disbursement. In this periodical review, the management-of-proceeds documents provided by Obayashi were confirmed at the end of FY 2021 (Mar. 2022). The full amount of the proceeds fund is managed in cash or cash equivalents till disbursement. The details of the disbursement and the outstanding value are tracked using Obayashi's internal protocol. At the end of each financial period (fiscal year), Obayashi reviews the outstanding balance of the BOND. DNV confirmed with the evidence provided by Obayashi that 0.65 billion JPY has been allocated at the end of FY 2021 (Mar. 2022) as refinance, and 0.91 billion JPY out of the balance has also been allocated to the talent management programs (Project 02) to secure skilled workers in construction industry, and then, 0.15 billion JPY has been allocated to R&D for CO₂-Free Hydrogen Production and Logistics System (Project 03-1), 4.96 billion JPY has been allocated to the construction of Next-Generation Training Facility (Project 01-2), 3.14 billion JPY has been allocated to Otsuki Biomass Power Plant and Kamikita Ogawara Onshore Wind Power Plant (Project 03-2 and Project 03-3), therefore, 9.81 billion JPY has been allocated.

As stated above, DNV provides no assurance regarding the financial performance of the Bond, the value of any investments in the Bond, or its long-term environmental impacts.



Principle Four: Reporting

Obayashi has confirmed that they publish and maintain a dedicated section on the Sustainability Bond in its website. This includes a detailed description of the projects and value of the proceeds invested, as well as the associated qualitative and quantitative environmental impacts [CO₂ emission reduction from Renewable Energy, Energy Efficiency (Green Buildings)].

DNV confirmed that the sustainability projects have actual environmental and/or social benefits and if they were calculated properly by applying the methods specified by Obayashi before the issuance of sustainability bonds.

Schedule-1 shows the qualitative and quantitative assessments of environmental and/or social benefits by Obayashi sustainability bond projects, some of which have started commercial operations.

For the current status of each project, please refer to Table-1 shown below.

Table-1 Progress of Projects (Result of FY2021)

(Unit: billion JPY)

Project		Proceeds to be allocated	Allocated in FY2019	Allocated in FY2020	Allocated in FY2021	Balance / Status	Environmental/Social Benefits
01-1	Obayashi Technical Research Institute (ZEB)	0.4	0.4	0	0	0/ complete (refinance)	Promote well-being residence and work environment (Maintaining / improving the health and productivity of building users of wellness architecture)
01-2	Obayashi Next-Generation Training Facility	5.0	0	0.34	4.62	0.041/ ongoing Financed in Apr. 2022	
02	Vocational training and subsidy for talent management of young skilled workers	1.0	0.21	0.33	0.37	0.09/ ongoing	Nurture skilled workers who manage social infrastructure and help us respond to natural disasters
03-1	R&D for CO ₂ -Free Hydrogen Production and Logistics System	0.4	0.4	0.0	0.0	0/ complete (refinance:0.25, new:0.15)	Renewable energy (R&D)
03-2	Otsuki Biomass Power Plant (operating)	3.14	0	2.18	0.96	0 / complete 03-2: financed, 03-3: start commercial operations in Apr. 2022	Renewable energy (Reduction of CO ₂ emission)
03-3	Kamikita Ogawara Onshore Wind Power Plant (operating)						
Total		9.94	1.01	2.85	5.95	0.127	-

On the basis of the information provided by Obayashi and the work undertaken, it is DNV's opinion that the BOND meets the criteria established in the Protocol and that it is aligned with the stated definition of sustainability bonds within the Sustainability Bond Guidelines (SusBG) in accordance with the Green Bond Principles (GBP) and the Social Bond Principles (SBP) which is to "enable capital-raising and investment for new and existing projects with environmental and/or social benefits".

DNV Business Assurance Japan K.K.

June 30th, 2022



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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.

Schedule-1 Sustainability Bond Nominated Projects & Assets Outline

No.	Project Portfolio	Nominated projects and assets	Green Project category	Social Project category (target population, social benefit)	Fund amount/ Allocated amount	Remarks (location, plan, size, etc)
01	Environmentally friendly "Wellness Building" under the concept "smart buildings that are good for all people"	01-1 : Obayashi's Technical Research Institute *refinance	Energy Efficiency building (comparable with certified Green, low-carbon building)	Promoting Well-being residence and work environment (Population who use wellness building, Improvement of Health, Work Efficiency)	0.4b-JPY (allocation completed, refinance)	Kiyose, Tokyo. Built in 2014. WELL certification (gold, 2017), BELS (ZEB, 2019), CASBEE (S-class, 2013), LEED-EBOM-Platinum (2013), Part of the repayment funds for long-term debt for ZEB
		01-2 : Sustainability eligible project (Wellness Building, TBA)			5.0b-JPY/ 4.96b-JPY has been allocated (as of Mar. end 2022)	Obayashi Next-Generation Training Facility in Yokohama (completed in 2022) : External evaluation agency confirmed eligibility for wellness building (LEED and WELL preliminary certification, 2020)
02	Secure skilled workers for construction industry and strengthen trust relationship with suppliers	02-1 : Vocational training and subsidy	—	Providing educational and vocational training (skilled workers, secure to maintain/upgrade infrastructure and respond to natural disaster)	1.0b-JPY/ 0.91b-JPY has been allocated (as of Mar. end 2022).	Various location in Japan, 2019-2023, management (operational and maintenance) cost of vocational training and subsidy to the skilled workers certified by Obayashi.
03	"Renewable energy business based on the action plan of "Obayashi Green Vision 2050"	03-1 : R&D for CO ₂ Free Hydrogen Production and Logistics *partially refinance	Renewable energy (R&D)	—	0.25b-JPY (allocation completed, refinance) + 0.15b-JPY (new allocation completed)	New Zealand, 2018-2019. R&D including the construction of pilot plant.



No.	Project Portfolio	Nominated projects and assets	Green Project category	Social Project category (target population, social benefit)	Fund amount/Allocated amount	Remarks (location, plan, size, etc)
		03-2 : Otsuki Biomass Power Plant	Renewable energy (Bioenergy)	–	3.14b-JPY has been allocated	Otsuki, Yamanashi, Dec 2018 started commercial operation, 14.5MW (subordinated loan)
		03-3 : Kamikita Ogawara Onshore Wind Power Plant	Renewable energy (Onshore wind power)	–		Rokkasho, Aomori. started commercial operation in Apr. 2022, max20.4MW (subordinated loan)
					Allocation amount up to FY2021: 9.81b-JPY Total bond proceeds : 10.0b-JPY(Net Proceeds: 9.94b-JPY)	



Schedule-2 Sustainability Bond Eligibility Assessment Protocol

Obayashi Sustainability Bond Framework and Amendment to Shelf Registration Statement are published as explanation materials to investors.

(1) Use of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Type of bond	<p>The bond must fall in one of the following categories, as defined by the Sustainability Bond Guidelines in accordance with Green and Social Bond Principles:</p> <ul style="list-style-type: none"> • Sustainability Use of Proceeds Bond • Sustainability Use of Proceeds Revenue Bond • Sustainability Project Bond • Sustainability Securitized Bond 	<p>Documents reviewed:</p> <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Amendment to Shelf Registration Statement <p>Discussions with Obayashi management</p>	<p>The reviewed evidence confirms that the BOND falls in the category:</p> <p>Sustainability Use of Proceeds Bond.</p>
1b	Sustainability Project Categories	<p>The cornerstone of a Sustainability Bond is the utilization of the proceeds of the bond which should be appropriately described in the legal documentation for the security.</p>	<p>Documents reviewed:</p> <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Amendment to Shelf Registration Statement - Project documents (including asset specifications) <p>Discussions with Obayashi management</p>	<p>As identified by the purpose of the BOND, Green and/or Social project and assets, is to use the proceeds to finance and refinance for projects falling under the following categories:</p> <ul style="list-style-type: none"> -Green and Social, Wellness Buildings (2projects) <ul style="list-style-type: none"> • Obayashi Technical Research Institute • Obayashi "Next-Generation Training Facility" (Yokohama city) - Vocational Training and subsidy (1project) <ul style="list-style-type: none"> • Vocational Training and subsidy - Renewable energy (3 projects) <ul style="list-style-type: none"> • R&D for CO₂ Free hydrogen production and logistics

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<ul style="list-style-type: none"> Otsuki biomass power plant (Woody biomass) Kamikita ogawara onshore wind power (started operation in Apr. 2022) <p>DNV's assessment concluded that these assets would present a low risk of CO₂ emissions and relative to environmental negative effect quantify and qualify for inclusion under the Green Bond Principles within the Renewable Energy category and Energy Efficiency category, as well as Social aspects under the Social Bond Principles (Social contribution and target population of each project). Above information is included in legal documents such as Amendment to Shelf Registration Statement. DNV concluded that 1b requirement is satisfied.</p>
1c	Environmental , social benefits	All designated Sustainability Project categories should provide clear environmentally, socially sustainable benefits, which, where feasible, will be quantified or assessed by the issuer.	<p>Documents reviewed:</p> <ul style="list-style-type: none"> Obayashi Sustainability Bond Framework Project documents (including asset specifications (e.g. BELS, WELL), social issues (secure skilled workers and technology) and countermeasure in construction industry faces, environmental impact report) Renewable energy CO₂ emission reduction evaluation spread sheet <p>Discussions with Obayashi management</p>	<p>DNV notes that Wind power project and Biomass power project can present risks of land use and ecology system through construction and operation. DNV reviewed Obayashi's provided document and confirmed that Obayashi already identified the environmental risk and addressed appropriate countermeasure. Obayashi has clearly demonstrated those projects will contribute to environmental benefits such as CO₂ emission reduction. Obayashi also provided documents to DNV which are related to the social issues and countermeasures for construction industry that align with Social Bond Principles (Social contribution and target population of each project).</p> <p>DNV concluded that 1c requirement is satisfied.</p>
1d	Refinancing share	In the event that a proportion of the proceeds may be used for refinancing,	Documents reviewed:	The proceeds of the BOND, in their entirety (10 billion JPY), will be allocated to sustainability project.



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<p>it is recommended that issuers provide an estimate of the share of financing vs. re-financing, and where appropriate, also clarify which investments or project portfolios may be refinanced.</p>	<ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Amendment to Shelf Registration Statement <p>Discussions with Obayashi management</p>	<p>Following project will be refinanced (Refinance share is disclosed in Annual Report).</p> <ul style="list-style-type: none"> -Refinance to the Wellness Buildings project portfolio -Refinance to renewable energy project portfolio

(2) Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Investment-decision process	<p>The issuer of a Sustainability Bond should outline the decision-making process it follows to determine the eligibility of projects using Sustainability Bond proceeds. This includes, without limitation:</p> <ul style="list-style-type: none"> • A process to determine how the projects fit within the eligible Sustainability Projects categories identified in the Sustainability Bond Guidelines considering Green and Social Bond Principles; • The criteria making the projects eligible for using the Sustainability Bond proceeds; and • The environmental and social sustainability objectives 	<p>Documents reviewed:</p> <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Obayashi document (internal protocol and procedures) <p>Discussions with Obayashi management.</p>	<p>As per the Obayashi Sustainability bond framework, the issuer has set out the following criteria including Sustainability Bond Guidelines (ICMA 2018) and Green Bond Guidelines (MOE, 2017) for project selection :</p> <p>“Eligible sustainability project” means alignment with their corporate philosophy and environmental and social policy including</p> <ul style="list-style-type: none"> -Promote the renewable energy business -Promote environmentally responsible real estate development projects <p>whose eligible criterial is stated in ‘Obayashi Green Vision 2050’. In this sustainability bond, Obayashi has decided eligible project overarching it and considering the compliance with GBP 2018 as follows.</p> <p>Those nominated projects and assets are discussed with Obayashi’s related department and responsibilities (e.g. ESGs & SDGs department, Financial department, Environmental department, CSR committee representatives (representative director, President))</p> <p>DNV concluded that 2a requirement is satisfied through interview, discussion and document review.</p>
2b	Issuer’s environmental and social and governance framework	<p>In addition to information disclosed by an issuer on its Sustainability Bond process, criteria and assurances, Sustainability Bond investors may also take into consideration the quality of the issuer’s overall framework and performance regarding environmental sustainability.</p>	<p>Documents reviewed:</p> <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Obayashi corporate philosophy, environmental and social policies <p>Discussions with Obayashi management</p>	<p>As per the interview and review documents provided by Obayashi, DNV confirmed that Obayashi has addressed to achieve sustainable society through its business based on the Obayashi Green Vision 2050 established in 2011, ESG materiality. Obayashi has published and disclose OBAYASHI Corporate Report and web site including its sustainable activities and initiatives described above.</p>



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
			https://www.obayashi.co.jp/en/sustainability/environment.html https://www.obayashi.co.jp/en/sustainability/esg.html	https://www.obayashi.co.jp/en/sustainability/environment.html https://www.obayashi.co.jp/en/sustainability/esg.html DNV confirmed and found nothing to suggest that Obayashi's environmental and social activity is not in line with their activity to contribute sustainable environment and society through its projects in sustainability bond

(3) Management of Proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Tracking procedure-1	The net proceeds of Sustainability Bonds should be credited to a sub-account, moved to a sub- portfolio or otherwise tracked by the issuer in an appropriate manner and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for Sustainability Projects.	<p>Documents reviewed:</p> <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Procurement scheme - Amendment to Shelf Registration Statement (draft) - Obayashi's internal protocol (e.g. accounting management procedure, document control procedure) - Records of fund allocation in FY2019,2020,2021 <p>Discussions with Obayashi management</p>	<p>DNV confirmed by reviewing documents and interviewing that Obayashi plans to trace the proceeds from the Bond, from the time of issuance to the time of disbursement are appropriate. The full amount of the proceeds will be managed by Obayashi's financial department with existing accounting system and using sustainability bond request for approval document form.</p> <p>DNV confirmed Obayashi internal process can manage and track the outstanding balance of the sustainability bond proceeds.</p> <p>DNV concluded that 3a requirement is satisfied.</p>
3b	Tracking procedure-2	So long as the Sustainability Bonds are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible sustainability investments or loan disbursements made during that period.	<p>Documents reviewed:</p> <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Obayashi's internal protocol (e.g. accounting management procedure) - Records of fund allocation in FY2019,2020,2021 <p>Discussions with Obayashi management</p>	<p>DNV reviewed documents and interviewed that Obayashi plans to trace at the proceeds from the Bond, from the time of issuance to the time or disbursement period, and reduce the net balance of proceeds by amounts in line with the projects and assets debt refinance schedule. At the end of each financial period (at least every one quarter), the outstanding balance of the Bond will be reviewed by Obayashi financial department.</p> <p>DNV concluded that 3b requirement is satisfied.</p>



Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3c	Temporary holdings	Pending such investments or disbursements to eligible Sustainability Projects, the issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	Documents reviewed: <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Amendment to Shelf Registration Statement (draft) - Records of fund allocation in FY2019, 2020,2021 Discussions with Obayashi management	The net proceeds of the Bond will be placed in an existing accounting system and managed by financial department using request for approval document form for sustainability bond proceeds. The net proceeds of the bond also will be fully and immediately disbursed where possible or held in cash or cash equivalent until disbursement to the nominated projects and assets as per the Obayashi sustainability bond framework. DNV concluded that 3c requirement is satisfied.

(4) Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4a	Periodical reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, issuers should provide at least annually a list of projects to which Sustainability Bond proceeds have been allocated including <ul style="list-style-type: none"> - when possible with regards to confidentiality and/or competitive considerations - a brief description of the projects and the amounts disbursed, as well as the expected environmentally sustainable impact. 	Documents reviewed: <ul style="list-style-type: none"> - Obayashi Sustainability Bond Framework - Environmental benefit evaluation spread sheets (CO₂ emission reduction evaluation spread sheet) Discussions with Obayashi management	Obayashi will publish the annual report including a dedicated section on the sustainability bond in OBAYASHI Corporate Report or website. This will include description of the projects and value of the proceeds invested, as well as the associated qualitative and quantitative environmental and social impacts. Obayashi plans to report on the total amount of CO ₂ emission reduction evaluation based on the operation records (e.g. amount of electricity generation per year, MWh/y) as environmental benefits and green projects progress, as well as trained and/or certified numbers of skilled workers as its social contributions. DNV concluded that 4a requirement is satisfied. Details are described in Section V table-1



Obayashi Code of Conduct

The guidelines help us realize the Obayashi Philosophy and continue being an enterprise trusted by all stakeholders.

- 1 Fulfill our social mission
 - (1) Provide high-quality buildings, infrastructure, and services
 - (2) Foster an environmentally responsible society
 - (3) Value every one of our associates
 - (4) Build stronger mutual trust with suppliers
 - (5) Build good relationships with communities

- 2 Ensure strict adherence to corporate ethics
 - (1) Comply with laws and regulations and take a sensible course of action
 - (2) Promote fair and free competition
 - (3) Maintain appropriate relationships with stakeholders
 - (4) Avoid all contact with antisocial forces
 - (5) Ensure appropriate information disclosure and transparency of management



Obayashi Environmental Policy and Vision

(i) Environmental Policy

-Principles

As a good corporate citizen, Obayashi considers active efforts and continuous improvement of environmental issues to be integral components of business management. We envision our future society, seeking to contribute to a realization of sustainable society.

-Policies

- 1 We strive to protect the environment, acting in full compliance with all environmental statutes and ordinances, communicating with local communities.
- 2 We gather our knowledge for realization of resilient society that integrates the elements of low-carbon, recycling-oriented and respecting the natural world.
- 3 We use the expertise we have acquired through our environmental protection activities, developing even more effective technologies and implementing new businesses to realize sustainable society.

We sincerely focus on our business, with our affiliates, subcontractors and suppliers, holding targets and vision to realize a sustainable society.

(ii) Vision (Obayashi Green Vision 2050)

Our medium- to long-term environmental vision, "Obayashi Green Vision 2050," which was established by using back casting methodology in February 2011, outlines the future course of our business activities in terms of helping to build a sustainable society. It sets forth specific action plans and numerical CO₂ emissions reduction targets that will be crucial to achieving our vision for society in 2050.

Our vision for society in 2050 is what we call a "3+1 Society," an approach that integrates the elements of "low-carbon," "recycling-oriented" and "respect for the natural world," predicated on "safety and security." To achieve that, we have established a concrete action plan and are moving forward with various initiatives.

Obayashi ESG materiality

Upon the start of Medium-Term Business Plan 2017, Obayashi set its sights on Vision for the Future. Inspired by it, we are better clarifying and promoting initiatives to solve social challenges and realize a sustainable society. In FY2019.3, we have set out six ESG materialities.

1. Establish Environmentally Responsible Society

- Response to climate change (pursue a decarbonized society)
- Contribution to the establishment of recycling-oriented society (promoting effective use of resources through the 3 R's (reduce, reuse, recycle))
(Impact on our business)
- Expansion of construction demand through development of environmentally related technology and generation of new businesses
- Delay in response to stricter environmental laws and regulation, increase in the costs of environment management, decline in competitiveness

2. Enhance Quality Control and Technological Capabilities

- Improvement in construction management skills to maintain high quality
- Development of ground-breaking technology to meet many different needs and resolve problems
(Impact on our business)
- Improvement in productivity, strengthening of competitiveness, and increase in business opportunities
- Loss of trust, decline in competitiveness, loss of business opportunities

3. Ensure Occupational Health and Safety

- Comprehensive occupational health and safety management system
- Promotion of safety training and other efforts
(Impact on our business)
- Securing talented human resources, strengthening the supply network of excellent suppliers
- Deterioration in trust in the company from ordering customers and decline in productivity due to occurrence of accidents



4. Develop and Retain Human Resources

- Hiring diverse human resources, comprehensive flexible personnel and training systems to respond to globalization
- Promoting diversity and establishing a workplace environment that is easy for anyone to work in effectively
(Impact on our business)
- Securing talented human resources, improving organizational capabilities, and expanding business domains
- Outflow of talented human resources, decline in productivity, increasing organizational rigidity

5. Implement Rigorous Compliance

- Promoting management that places highest priority on compliance with laws and regulations
- Improvement of the system of internal controls
(Impact on our business)
- Improvement of trust in the company by society, improvement in organizational capabilities, strengthening of business base
- Suspension/cessation of business activities, loss of trust, loss of business opportunities

6. Conduct Responsible Supply Chain Management






- Ensuring that everyone understands the procurement guidelines and strictly adheres to them
- Conducting surveys of the procurement process and conditions
(Impact on our business)
- Improving competitiveness by building a strong network with suppliers and strengthening the ability to respond in the BCP (business continuity plan) in the event of a disaster
- Suspension/cessation of business due to halting of procurement, and a loss of trust and loss of business opportunities from the occurrence of human rights issues and other problems

Obayashi Sustainability projects and SDGs contributions

Obayashi identified the social issues and their countermeasures which Obayashi group executes. Obayashi has identified “ESG issues (materiality)” (classified into 6 categories) based on the above (Appendix-3).

Obayashi aligns sustainability projects to its ESG materiality, initiatives, and SDGs contributions, as shown in the following table. Obayashi makes further alignments in their other business areas, which are disclosed in its web site and OBAYASHI Corporate Report 2018.

Table: ESG Materiality, Initiatives, and SDGs Contributions

No.	Project Portfolio	Nominated projects and assets	Green Project category	Social Project category	SDGs Contribution
01	Environmentally friendly “Wellness Building” under the concept “smart buildings that are good for all people”	01-1 : Obayashi's Technical Research Institute	Energy Efficiency building (comparable with certified Green building, low-carbon building)	Promoting Well-being residence and work environment	 
		01-2 : Sustainability eligible project (Wellness Building)			
02	Secure skilled workers for construction industry and strengthen trust relationship with suppliers	02-1 : Vocational training and subsidy	–	Providing Educational and vocational training	 
03	“Renewable energy business based on the action plan “Green Vision 2050”	03-1 : R&D for CO ₂ -Free Hydrogen Production and Logistics System	Renewable Energy (*R&D)	–	
		03-2 : Otsuki Biomass power	Renewable Energy (Bioenergy)	–	
		03-3 : Kamikita ogawara onshore wind power	Renewable Energy (Onshore wind power)	–	

- SDGs 3 : Good Health and Well-being
- SDGs 11 : Sustainable Cities and Communities
- SDGs 4 : Quality Education
- SDGs 9 : Industry, Innovation and Infrastructure
- SDGs 7 : Affordable and Clean Energy