

Daio Paper Corporation/ Daio Paper Green Bond 2018

## DNV GL GREEN BOND PERIODIC REVIEW



Oct. 2019

DNV GL Business Assurance Japan K.K.

## Objective and Scope

Daio Paper Co., Ltd. (hereinafter called “Daio Paper” or “Issuer”) has commissioned DNV GL Business Assurance Japan Co., Ltd. (hereinafter called “DNV GL”) to conduct periodic review of “Daio Paper Green Bond 2018”. The objective of DNV GL’s periodic review is to conduct an assessment to confirm that the Daio Paper Green Bond (hereinafter called, “the BOND”) meets the identified criteria of the Green Bond Principles and the associated technical criteria, as set out below, and to provide the Issuer with independent second-party opinion on the eligibility of the BOND.

Daio Paper issued the BOND on October 25, 2018, and the amount of the BOND issued was 20.0 billion Japanese Yen. The review team of DNV GL conducted the first green bond periodic review based on the Green Bond Guidelines 2017, which was formulated by the Ministry of the Environment (Japan) (hereinafter called “GBGLs”), and the Green Bond Principles 2018 (hereinafter called “GBP”), with the information of the Issuer as of August 2019. (reviewing period: from June 2019 to October 2019)

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.

## Project description

Daio Paper embarked the Third Medium-term Business Plan from FY2018 to FY2020. The key strategies of this plan include a structural reform of manufacturing process of Pulp and Paper business segment capitalized on Daio Paper’s strength in line with “Radical cross-business structural reform of Paper and Paperboard Business and H&PC Business”, and that is based on “building the foundation of for sustainable growth”. The net proceeds from the BOND issued by Daio Paper is planned to be allocated to the following nominated green projects that are aligned with this Third Medium-term Business Plan, as well as Daio Paper group management philosophy and DAIO Global Environmental Charter:

- Recycling and productive usage of hard-to-recycle recovered paper (Project 01)
  - New facility of biomass power plant (Project 02)
- (each includes development, construction, operation and improvement/expansion)

The BOND is intended to finance investments in the specific project categories below:

- A project categorized in ‘Pollution prevention and control’
- A project categorized in ‘Renewable energy’

In addition, ‘CO2 emission reduction’ is prospected as a secondary benefit.

Total amount of the BOND is JPY 20.0 billion (JPY 15.0 billion of seven-year BOND, and JPY 5.0 billion of ten-year BOND) and Issuer is planning to fully allocate it to the nominated green projects (a part of it has been already allocated). The amount of BOND allocated is reported/disclosed in the Issuer’s Integrated

Report and/or its company website annually. There is no plan to refinance a part of the proceeds of the BOND to some existing projects as of today.

Through the first periodic review of the BOND, it is confirmed that there is no major change in the progress of the nominated green projects. The progress of the nominated green projects and assets is summarized in Table-1 below.

Table-1 Progress of the green projects (as of the end of August, 2019) \*Please refer to Schedule-1 for details.

	Recycling and productive usage of hard-to-recycle recovered paper (Project 01)	New facility of biomass power plant (Project 02)
Location	Mishima Mill, Daio Paper Corporation (Shikokuchuo City, Ehime Prefecture)	Mishima Mill, Daio Paper Corporation (Shikokuchuo City, Ehime Prefecture)
Commercial operation (Year and month)	April of 2020 (scheduled) *Partially in operation	July of 2020 (scheduled)
Amount allocated/unallocated	Approx. JPY 5.6 billion/approx. JPY 3.4 billion (JPY 9.0 billion, initially scheduled)	Approx. JPY 7.3 billion/approx. JPY 3.7 billion (JPY 11.0 billion, initially scheduled)

From a viewpoint of environmental improvement, Project 01 has a plan to reduce waste by promoting usage of hard-to-recycle recovered paper, which is estimated approx.140k ton/year on an input basis. Also, Project 02 is expected to use power generation from waste and thus reduce CO<sub>2</sub> emissions indirectly through construction and operation of approx. 60MW-scale biomass power generation plant. Therefore, the nominated two green projects are considered to contribute ‘waste reduction’, ‘power generation from waste’ and ‘indirect (Scope 2) GHG emission reductions’. In the meantime, from a viewpoint of environmental risk, it is confirmed that the Issuer has conducted environmental surveys and evaluations related to the nominated green projects, in order to comply with the relevant laws and regulations, including environmental laws, and mitigate the adverse environmental effects.

## Responsibilities of the Management of the Issuer and DNV GL

The management of the Issuer has provided the information and data used by DNV GL during the delivery of this review. Our statement represents an independent opinion and is intended to inform the Issuer’s 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 review we have relied on the information and the facts presented to us by the Issuer. DNV GL 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 GL 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 review were not correct or complete.

## Basis of DNV GL's opinion

DNV GL have adapted our GBP<sup>\*1</sup>, GBGLs<sup>\*2</sup> and Climate Bond Standard<sup>\*3</sup> assessment methodologies, which incorporate the requirements of the GBP, to create the Issuer-specific Green Bond Eligibility Assessment Protocol (hereinafter called "Protocol"). Our Protocol includes a set of suitable criteria that can be used to underpin DNV GL's opinion. The overarching principle behind the criteria is that a green bond should "enable capital-raising and investment for new and existing projects with environmental 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 green bond must use the funds raised to finance 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 green bond should outline the process it follows when determining eligibility of an investment using Green 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 green 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: Green Bond Principles (June 2018, International Capital Market Association)

\*2: Green Bond Guidelines (2017, the Ministry of the Environment (Japan))

\*3: Climate Bond Standard (version 2.1, Climate Bonds Initiative)

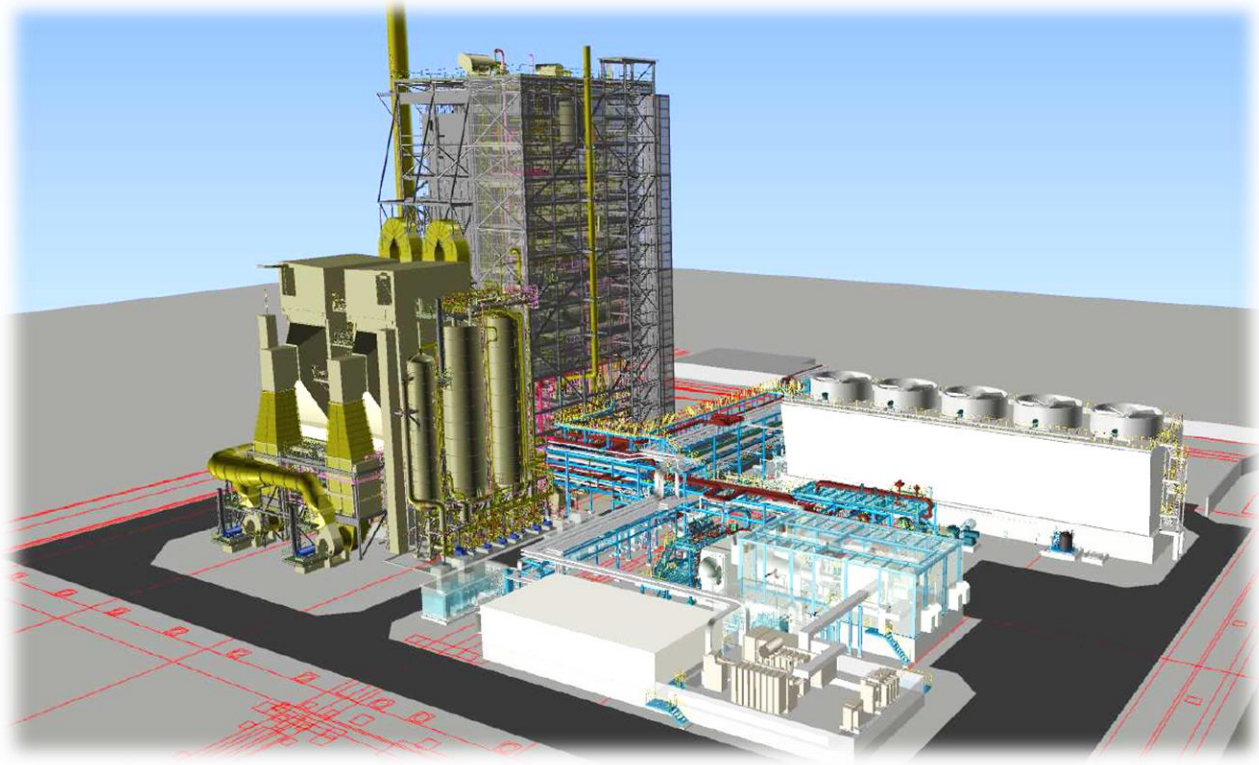


Figure-1 Rendering image of new facility of biomass power plant (Project 02)

## Work undertaken

Our work constituted a high level of 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:

### Initial Assessment:

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

**Periodic Assessment:**

- Evaluation of the supporting documents provided by the Issuer related to bond issuance, high level desktop surveys, document reviews, and interviews with key personnel of the issuer. These checks refer to current assessment best practices and standard methodologies.
- Discussion with the Issuer management and review of relevant documentation.
- Field survey and inspection, if required.
- Review of the nominated projects and assets as described in Schedule 2 as at the time of periodic assessment
- Review and testing where possible of reporting data;
- Documentation of findings for Periodic assessment as detailed in this document.

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

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## Findings

DNV GL's findings are listed below:

### Principle One, Use of Proceed

DNV GL has confirmed that the net proceeds raised by the BOND is planned to be allocated (or has been already allocated partially) to the nominated two green projects that meet the green bond eligibility criteria below:

- 'Pollution prevention and control' (Project 01)
- 'Renewable energy' (Project 02)

Specifically, all of the net proceeds of the BOND are allocated to the installation cost of facilities and the relevant expenses that falls under representative green bond eligibility criteria shown in Schedule-1, "waste reduction", "recycling of waste" (GBP and GBGLs), and "biomass power generation" (GBG). As of the end of August 2019, approximately JPY 5.6 billion has been allocated to Project 01 (recycling and productive usage of hard-to-recycle recovered paper), and approximately JPY 7.3 billion has been allocated to Project 02 (new facility of biomass power plant), and thus totally approximately JPY 12.9 billion has been allocated accordingly.

### Principle Two, Process for Project Evaluation and Selection

DNV GL has confirmed that the nominated two green projects described in the Schedule-1, were evaluated and selected through the appropriate process by the relevant department of the Issuer based on its corporate philosophy and policy of the contribution to the environment, including "DAIO Global Environment Charter". In addition, DNV GL has reviewed evidences demonstrating that the Issuer regularly assesses opportunities for improvement and devises action plans to mitigate negative environmental and social impacts from its operation.

Specifically, as for the negative impact caused by construction and operation of these green projects, DNV GL has confirmed that appropriate countermeasures and practical action plans have been and will be taken by the Issuer after the evaluation of environmental risk, such as air pollution and water pollution. Furthermore, DNV GL confirmed that CO<sub>2</sub> emissions caused by operation of biomass power generation plant were also considered and evaluated as adverse environmental impacts. As a result, negative impacts of CO<sub>2</sub> emissions that could occur incidentally were assessed sufficiently immaterial.

### Principle Three, Management of Proceeds

DNV GL has reviewed and confirmed evidence showing how the Issuer has traced/managed the proceeds from the BOND, from the time of issuance to the time of disbursement. DNV GL has confirmed that the Issuer manages the cash or cash equivalents, which equals to fund, until decision of the proceed allocation and the Issuer periodically reviews the outstanding balance of the BOND. As of the end of August 2019,

approximately JPY 12.9 billion has been allocated, while JPY 20.0 billion has been raised. Unallocated proceeds have been managed in cash or cash equivalents. Note that, as stated above, DNV GL provides no assurance regarding the financial performance of the BOND, the value of any investments in the BOND, or the long-term environmental benefits of the transaction.

## Principle Four, Reporting

DNV GL has confirmed that the Issuer is reporting/disclosing the specific information required by the GBP periodically in the Issuer's Integrated Report and/or its company website. These include description of the project and its progress, allocation and management of the proceeds invested, as well as the associated qualitative and quantitative environmental impacts (the amount of usage of hard-to-recycle recovered paper, biomass power generation, CO<sub>2</sub> emission reductions from each of the nominated green projects).

Note that, after the completion of each green project, the evaluation of environmental impact is planned to be calculated in an appropriate manner based on the operation results, such as operation records, and finally reported. DNV GL is going to conduct periodic reviews until almost all proceeds are fully allocated, and report the quantified metrics, such as the amount of waste reductions, the amount of CO<sub>2</sub> emission reductions, and the output of power generation from waste, in the review report respectively.

As a part of green projects has already commenced operation, the results of the environmental improvement effects during this periodic review are shown below:

Table-2 Progress of environmental improvement effects

	Recycling and productive usage of hard-to-recycle recovered paper (Project 01)	New facility of biomass power plant (Project 02)
Amount of waste reductions (usage of hard-to-recycle recovered paper)	FY2018 Plan: 144,725 ton/year FY2018 Actual: 153,589 ton/year	Scheduled to start operation from July 2020
Amount of CO <sub>2</sub> emission reductions	FY2018 Plan: 38,933 t-CO <sub>2</sub> /year FY2018 Actual: 51,397 t-CO <sub>2</sub> /year	Same as above
Output of power generation from waste	FY2018 Actual: 6,006 MWh/year	Same as above

As a result, it is confirmed through periodic review that Recycling and productive usage of hard-to-recycle recovered paper and the construction of new facility of biomass power plant were planned and implemented according to the relevant GBP.



## DNV GL's opinion

On the basis of the information provided by Daio Paper and the work undertaken, it is DNV GL's opinion that the BOND meets the criteria established in the Protocol and that it is aligned with the stated definition or purpose of green bonds within the Green Bond Principles and Green Bond Guidelines, which is to "enable capital-raising and investment for new and existing projects with environmental benefits".

DNV GL Business Assurance Japan K.K.

25<sup>th</sup> Oct. 2019



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### About DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL 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.

1. Schedule-1 (Nominated assets & Green bond project outline)

Project	Nominated projects and assets	GBP category	GBP Sub category GBP	Funded amount (Plan)		Remarks
01	Recycling and productive usage of hard-to-recycle recovered paper -new fabrication, partial improvement (finance and refinance)	Pollution prevention and control	- Waste prevention - Waste recycling - Greenhouse gas control	Total JPY 20.0 billion (redemption period 7 yrs.: JPY 15.0 billion and 10 yrs.: JPY 5.0 billion)	Allocation plan: JPY 9.0 billion (Allocated as of Aug. 2019: approx. JPY 5.6 billion)	- Location: Mishima Mill, Daio Paper Corporation - Commercial operation: April of 2020 (estimated) *Partially in operation - Amount of waste reductions: approx. 140k ton/y (waste type: hard-to-recycle recovered paper, (including 20 % waste including metal etc, which cannot be recycled is considered) - waste recycle product amount : 140k ton/y×80% - waste re-product type: corrugated paper, etc. - CO <sub>2</sub> emission reductions by waste recycle, comparing with the conventional manner (waste burned by incinerator)
02	Biomass power plant facility construction -new facility construction (finance and refinance)	Renewable energy	Production (Biomass)		Allocation plan: JPY 9.0 billion (Allocated as of Aug. 2019: approx. JPY 5.6 billion)	- Location: Mishima Mill, Daio Paper Corporation - Commercial operation: July of 2020 (estimated) - Biomass fuel type: Black liquor by Kraft process. *1 - Electricity output: approx.60MW - CO <sub>2</sub> emission reduction (as energy source) by biomass electricity generation.

\*1 : Categorized by METI/Agency for natural resources and energy