



PT SORIK MARAPI GEOTHERMAL POWER SECOND PARTY OPINION ON GREEN FINANCE FRAMEWORK

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Disclaimer

Our assessment relies on the premise that the data and information provided by the client 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.

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DNV applies its own management standards and compliance policies for quality control, in accordance with ISO IEC 17029:2019 - Conformity Assessment - General principles and requirements for validation and verification bodies, 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)

DNV'S INDEPENDENT ASSESSMENT

Scope and Objectives

PT Sorik Marapi Geothermal Power ("Sorik Marapi" or the "Customer") is one of the largest geothermal energy development projects in Indonesia situated in the Mandailing Natal Regency, North Sumatera Province. The Company is a majority owned subsidiary of KS Orka Renewables Pte Ltd. ('KS Orka'), a project developer focusing exclusively on the development of geothermal resources, which acquired a 95% stake in Sorik Marapi in 2016. KS Orka is sponsored by Kaishan Group, a leading manufacturer of air compressors globally, and is a publicly listed company on the Shenzhen Stock Exchange. Sorik Marapi is the legal holder of the right to manage and develop geothermal resources in Sorik Marapi – Roburan – Sampuraga Geothermal Work Area in Mandailing Natal, North Sumatera, having a Geothermal Permit since 2015.

Sorik Marapi has developed a Green Finance Framework ("Framework") with the aim to raise Green Finance Instruments ("GFIs") to finance or refinance new and existing projects as part of its sustainable business strategies and commitment to environmental well-being, as described in the Framework. The Framework is in alignment with the stated Standards and Principles (collectively the "Principles & Standards"):

- Green Loan Principles ("GLP") issued by the Loan Market Association ("LMA") / Asia-Pacific Loan Market Association ("APLMA") / Loan Syndications and Trading Association ("LSTA") in February 2023
- Green Bond Principles ("GBP") issued by the International Capital Markets Association ("ICMA") in June 2021

DNV Business Assurance Singapore Pte. Ltd ("DNV") has been commissioned by Sorik Marapi to review its Framework and provide a Second Party Opinion on the Framework, based on the Principles & Standards.

Our methodology to achieve this is described under 'Work Undertaken' below. We were not commissioned to provide independent assurance or other audit activities.

No assurance is provided regarding the financial performance of instruments issued via the Customer's Framework, the value of any investments, or the long-term environmental benefits of the transaction. Our objective has been to provide an assessment that the Framework has met the criteria established on the basis set out below.

Responsibilities of the Management of Sorik Marapi and DNV

The management of Sorik Marapi 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 Sorik Marapi management and other interested stakeholders in the bond as to whether the bond is aligned with the GBP. In our work we have relied on the information and the facts presented to us by Sorik Marapi. 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 Sorik Marapi's management and used as a basis for this assessment were not correct or complete.

Basis of DNV's Opinion

We have adapted our assessment methodology to create the Sorik Marapi-specific Eligibility Assessment Protocol (henceforth referred to as "Protocol"). Our Protocol includes a set of suitable criteria that can be used to underpin DNV's opinion.

As per our Protocol, the criteria against which the Framework has been reviewed are grouped under the four core components:

1. Use of Proceeds

The Use of Proceeds criteria are guided by the requirement that an issuer of a bond / a borrower of a loan must use the funds raised to finance or refinance or to repay equity of eligible activities. The eligible activities should produce clear environmental and social benefits.

2. Process for Project Evaluation and Selection

The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a bond / a borrower of a loan should outline the process it follows when determining eligibility of an investment using Green Bond/Loan proceeds and outline any impact objectives it will consider.

3. Management of Proceeds

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

4. Reporting

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

No assurance is provided regarding the financial performance of instruments issued via the Framework, the value of any investments, or the long-term environmental benefits of the transaction. Our objective has been to provide an assessment that the Framework has met the criteria established on the basis set out below.

Work Undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by Sorik Marapi 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:

- Creation of a Protocol, adapted to the purpose of the bond and loan, as described above and in Schedule 3 to this Assessment;
- Assessment of documentary evidence provided by Sorik Marapi on the bond and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Review of published materials by Sorik Marapi and Sorik Marapi's website;
- Discussions with Sorik Marapi's management, and review of relevant documentation and evidence related to the criteria of the Protocol; and
- Documentation of findings against each element of the criteria.

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

Findings and DNV's Opinion

DNV's findings on the alignment with Principles & Standards are listed below:

1. Use of Proceeds

Sorik Marapi intends to use the net proceeds of the GFIs to finance and/or refinance, in whole or in part, eligible green projects.

The Framework defines the following eligible project categories.

- Renewable energy

DNV undertook an analysis of the associated project type to determine the eligibility as Green and in line with the Principles & Standards. DNV concludes that the eligible categories outlined in the Framework are consistent with the categories outlined in the Principles & Standards.

2. Process for Project Evaluation and Selection

Sorik Marapi has set up an evaluation and selection process, in the form of a Green Finance Working Group (GFWG) that will make decisions on the eligibility criteria.

The GFWG will be comprised of the Chief Financial Officer (CFO), the General Manager of SMGP Plant, and representatives from Legal and Compliance, HR and Services, Finance and Accounting, Stakeholders and Permitting, Corporate Communication, Maintenance and Facility, Construction, Corporate OHS, and Corporate Environment. GFWG will have various responsibilities in the project evaluation and selection process as outlined in the Framework.

DNV concludes that Sorik Marapi's Framework appropriately describes the process for Project Evaluation and Selection in line with the Principles & Standards.

3. Management of Proceeds

Sorik Marapi describes the process for management of net proceeds under this Framework:

Sorik Marapi will maintain a Green Finance Register, which contains the list of Eligible Green Projects as well as relevant information on all Green Finance Instruments issued, including issuance size, ISIN, pricing date, and maturity date.

Sorik Marapi also describes the treatment of unallocated proceeds. The framework states that pending full allocation of an amount equal to the net proceeds of outstanding Green Financing Instruments, the unallocated proceeds will be held in temporary investments such as cash and cash equivalents as per Sorik Marapi's standard liquidity policy.

DNV has reviewed the evidence presented and concludes that the Framework appropriately describes the process for Management of Proceeds in line with the Principles & Standards.

4. Reporting


The framework explains the metrics and key information that is to be included in the Green Finance Report, consisting of (i) the allocation reporting and (ii) the impact reporting. Where possible, Sorik Marapi will align impact metrics with the suggestions made in ICMA Harmonised Framework for Impact Reporting (June 2023).² Calculation methodologies and key assumptions will also be disclosed.

On the basis of the information provided by Sorik Marapi and the work undertaken, it is DNV's opinion that the Framework meets the criteria established in the Protocol and that it is aligned with the stated definition

² [Handbook-Harmonised-framework-for-impact-reporting-June-2023-220623.pdf \(icmagroup.org\)](#)

of Green Financing Instruments within the Green Bond Principles 2021 (with June 2022 appendix I) and the Green Loan Principles 2023.

For DNV Business Assurance Singapore Pte Ltd
Singapore / 14 June 2024



Jerus D'Silva
Lead Verifier



Vigilia Ang
Verifier

Schedule 1. Description of Categories to be financed or refinanced through Sorik Marapi's Green Financing Instruments

Eligible Green Project Categories	Eligible Criteria and Description	DNV Findings
Renewable Energy	<p>Investments and expenditures related to the development, construction, and operation of geothermal sources, including:</p> <ul style="list-style-type: none"> - Geothermal electricity generation facilities with direct emissions of <100g CO₂/kWh - Geothermal exploration - Geothermal transmission and supporting infrastructure 	<p>DNV finds the criteria listed under this category to be aligned with the Principles & Standards for Eligible Green Projects.</p>

Exclusion Criteria

Sorik Marapi's financing proceeds shall not be utilized towards the following activities:

- Activities that relate to fossil fuel
- Activities that relate to nuclear
- Activities that are deemed illegal under host country laws or international conventions and agreements, or subject to international bans

Schedule 2. Contributions to UN SDGs

Eligible Project Categories	UN SDGs	DNV Findings
Renewable Energy	SDG 7 Affordable and Clean Energy SDG 9 Industry, Innovation, and Infrastructure	DNV is of the opinion that the eligible category outlined in the Framework contributes to the achievement of the UN SDGs.

Schedule 3. Eligibility Assessment Protocol

1. Use of Proceeds

Ref.	Criteria	Requirements	DNV Findings
1a	Type of Bond /Loan	<p>The Bond/Loan must fall in one of the following categories, as defined by the Principles & Standards:</p> <ul style="list-style-type: none"> • Green Use of Proceeds Bond • Green Use of Proceeds Revenue Bond • Green Project Bond • Green Securitized Bond • Loan instrument made available for Green project (Green use of loan proceeds) 	<p>The Framework states that the net proceeds raised from any Green Finance Instrument issued under this Framework, or an equivalent amount, will finance/or refinance, in whole or in part, be allocated exclusively to new or existing projects that meet the criteria defined.</p> <p>Eligible Green Projects will refer to operational expenditures (opex) with a 36-months look back period prior to the issuance of the Green Finance Instrument. A look-back period is not defined for capital expenditures (capex) in line with market practice.</p> <p>The reviewed evidence confirms that the Green Financing Instruments meet the criteria under the Principles & Standards, and DNV confirms this process to be well aligned with the Principles & Standards.</p>
1b	Green Project Categories	<p>The cornerstones of Green Bonds and Loans are the utilization of the proceeds of the bonds or the loans which should be appropriately described in the legal documentation for the security.</p>	<p>Eligible project category presented by Sorik Marapi is as follows:</p> <ul style="list-style-type: none"> • Renewable energy <p>The above-mentioned project category meets the Eligible Green Project Categories in the Principles & Standards and is confirmed by DNV to be well aligned with the Principles & Standards.</p>
1c	Environmental Benefits	<p>All designated Green Project categories should provide clear environmentally sustainable benefits, which, where feasible, will be quantified or assessed by the Issuer.</p>	<p>The Framework states that Sorik Marapi seeks to maximise its effort to fulfil the growing energy needs in Indonesia, while also contributing to the country's goal for geothermal energy to represent an increasing share of the national energy mix. With Indonesia having the second-largest geothermal installed capacity in the world and 40% of the world's geothermal potential, Sorik Marapi aims to contribute to the ambitious national sustainability target of achieving a 31% renewable energy mix by 2050.</p> <p>The estimated and observed benefits of the Eligible Green Projects to which net proceeds of GFI have been allocated will be reported in the impact report, aligned as much as possible with the suggested metrics in the</p>

			<p>ICMA Harmonized Framework for Impact Reporting (June 2023).</p> <p>These benefits include:</p> <ul style="list-style-type: none"> - Annual GHG emissions avoided - Annual geothermal power generation - Increased capacity of geothermal plant <p>DNV confirms that the proposed use of proceeds will be expected to deliver meaningful environmental benefits.</p>
1d	Refinancing Share	In the event that a proportion of the proceeds may be used for refinancing, 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>The Framework states that Eligible Green Projects will refer to operational expenditures (opex) with a 36-months look back period prior to the issuance of the Green Finance Instrument. A look-back period is not defined for capital expenditures (capex) in line with market practice.</p> <p>Sorik Marapi will ensure a level of allocation to the Eligible Green Projects matches exactly or exceeds the balance of net proceeds of its outstanding GFI.</p> <p>Under the annual allocation reporting, it is stated that Sorik Marapi will report the total outstanding of the GFI issued under the framework, including the share of financing vs re-financing.</p> <p>The proposed management of net proceeds from the GFIs is confirmed by DNV to be expected to meet the criteria under the Principles & Standards.</p>

2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	DNV Findings
2a	Investment-Decision Process	<p>The Issuer of a Green Bond and Loan should outline the decision-making process it follows to determine the eligibility of projects using Green Bond and Loan proceeds. This includes, without limitation:</p> <ul style="list-style-type: none"> • The environmental objectives of the eligible Green Projects; • The process by which the issuer determines how the projects fit within the eligible Green Projects categories; and • Complementary information on processes by which the issuer identifies 	<p>Sorik Marapi has set up a Green Finance Working Group (GFWG) to ensure that eligible projects and assets are reviewed and selected in accordance with eligibility criteria set out.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>From the Framework</p> <p><i>Any potentially Eligible Green Projects to be financed and/or refinanced with Green Finance Instruments will be evaluated and selected by the Green Finance Working Group (GFWG).</i></p> </div> <p>The GFWG will have responsibility for the project evaluation and selection process. The GFWG will be comprised of the Chief Financial Officer (CFO), the General Manager of SMGP Plant, and representatives from Legal and Compliance, HR and Services, Finance and Accounting, Stakeholders and Permitting, Corporate Communication, Maintenance and Facility and Construction, Corporate OHS, and Corporate Environment.</p> <p>The framework states that the role of GFWG includes the annual review and validation of the list of eligible green projects, validation of annual reporting for investors, monitoring of on-going development of GBP and GLP, as well as, the review of the framework to</p>

		and manages perceived environmental and social risks associated with the relevant project(s).	reflect any changes with regards to Sorik Marapi's sustainability strategies and initiatives. DNV confirms this process for project selection and evaluation to be well aligned with the Principles & Standards.
2b	Issuer/ Borrower's Environmental and Governance Framework	<p>Issuers are also encouraged to:</p> <ul style="list-style-type: none"> • Position the relevant information within the context of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability. • Provide information, if relevant, on the alignment of projects with official or market-based taxonomies, related eligibility criteria • Have a process in place to identify mitigants to known material risks of negative environmental and/or social impacts from the relevant project(s). 	<p>Sorik Marapi is a leading geothermal energy provider in Indonesia, and is expected to become the fourth largest in the world by 2050. Sorik Marapi seeks to maximise its efforts to fulfil growing energy needs and contribute to increasing geothermal energy share of the national energy mix.</p> <p>The framework describes Sorik Marapi's environmental management plan to monitor and mitigate any potential negative environmental impacts. An environmental management system based on ISO14001: 2015 has been developed and ensures that certain procedures are undertaken in all operating activities such as environmental aspect-impact assessment (EAIA), geohazard assessments and H₂S fixed gas detector for detection and monitoring in real time.</p> <p>Sorik Marapi have sought to enhance its environmental management practices in line with best market standards and this has been recognised with awards for their efforts. Sorik Marapi was awarded "Blue" Proper from Ministry of Environment and Forestry Indonesia for the period 2021-2022 and 2022-2023 as well as "Pratama Rating of Subroto Award" from the Ministry of Energy and Mineral Resources, Indonesia for the period 2022-2023.</p> <p>The framework describes the efforts of Sorik Marapi to mitigate any potential social impacts involving its employees and the local community. Sorik Marapi is focused on enhancing aspects of occupational health and safety (OHS) at its site, including HSE drilling audits, as well as health, safety and environmental management systems. Sorik Marapi also recognises its responsibility to mitigate the potential health and safety risks to those living in local Mandailing Natal community, undertaking comprehensive improvements to health and safety procedures such as installing gas detection and monitoring systems and designing safety procedures for well opening. Sorik Marapi also strives to improve the welfare of the local community by prioritising recruiting local works and engaging with local vendors, as well as implements Corporate Social Responsibility (CSR) programs.</p> <p>The framework describes Sorik Marapi ESG governance structure in place to ensure integrated sustainability across all its operations.</p> <p>DNV confirms that Sorik Marapi's environmental, social, and governance (ESG) strategies and grouping of projects with eligibility criteria, are well aligned with the Principles & Standards.</p>

3. Management of Proceeds

Ref.	Criteria	Requirements	DNV Findings
3a	Tracking Procedure	<ul style="list-style-type: none"> (Bond) The net proceeds of Green 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 Green Projects. (Loan) The proceeds of Green Loans should be credited to a dedicated account or otherwise tracked by the borrower in an appropriate manner, so as to maintain transparency and promote the integrity of the product. Where a green loan takes the form of one or more tranches of a loan facility, each green tranche(s) must be clearly designated, with proceeds of the green tranche(s) credited to a separate account or tracked by the borrower in an appropriate manner. 	<p>The evidence reviewed shows how Sorik Marapi plans to manage the net proceeds from the Green Finance Instruments, in accordance with the evaluation and selection process in the Principles & Standards.</p> <p>From the Framework <i>Sorik Marapi will maintain a Green Finance Register, which contains the list of Eligible Green Projects as well as relevant information on all Green Finance Instruments issued, including issuance size, ISIN, pricing date, and maturity date.</i></p> <p>It is also evident in the Framework for Annual Reporting that, with regards to Allocation Reporting, Sorik Marapi will report on the following:</p> <p>From the Framework</p> <ul style="list-style-type: none"> <i>The size of the Eligible Green Register</i> <i>The total outstanding of the Green Finance Instruments issued under the Framework</i> <ul style="list-style-type: none"> <i>The allocation of the proceeds towards the Eligible Green Register, including, when possible;</i> <i>The list of eligible green projects (re)financed per category;</i> <i>Descriptions of the Eligible Green Projects financed, such as project locations, amount allocated;</i> <i>Selected examples of projects financed (e.g., case studies)</i> <i>A breakdown of what is being financed (assets, capex, opex and investments);</i> <i>Share of financing vs refinancing</i> <i>The balance of unallocated Proceeds</i> <p>DNV confirms that the Framework outlines processes to track proceeds and allocations to the nominated projects, that are well aligned with the Principles & Standards.</p>
3b	Tracking Procedure	So long as the Green Bonds or Loans are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible green investments or loan disbursements made during that period.	<p>The Framework covers the tracking procedure as follows:</p> <p>From the Framework <i>Sorik Marapi will ensure a level of allocation to the Eligible Green Projects matches or exceeds the balance of net proceeds of its outstanding Green Finance Instruments. Sorik Marapi will aim to fully allocate proceed within 24 months from issuance of each Green Finance Instrument on a best-efforts basis. If Eligible Green Projects no longer meet the eligibility criteria set out above or exit the register, bringing the Green Finance Register below the value of the outstanding Green Finance Instruments, Sorik</i></p>

			<p><i>Marapi will strive to replace these with Eligible Green Projects as soon as reasonably practicable.</i></p> <p>DNV confirms that the Framework outlines processes to track proceeds and allocations to the nominated projects, that are aligned with the Principles & Standards.</p>
3c	Temporary Holdings	Pending such investments or disbursements to eligible Green Projects, the Issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	<p>The Framework explains the treatment of unallocated proceeds as follows:</p> <p>From the Framework <i>Pending full allocation of an amount equal to the net proceeds of outstanding Green Financing Instruments, the unallocated proceeds will be held in temporary investments such as cash and cash equivalents as per Sorik Marapi's standard liquidity policy.</i></p> <p>DNV confirms that the Framework outlines instruments to which unallocated proceeds will be invested, that are well aligned with the Principles & Standards.</p>

4. Reporting

Ref.	Criteria	Requirements	DNV Findings
4a	Periodical Reporting	<ul style="list-style-type: none"> • Issuers should make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments. • The annual report should include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects, the amounts allocated, and their expected impact. • Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the amount of detail that can be made available, the GBP recommend that information is presented in generic terms or on an 	<p>Sorik Marapi has confirmed that it will disclose the allocation of net proceeds of the Green Finance Instruments and publish updates of the allocation of the proceeds, as well as impact report.</p> <p>From the Framework <i>To enable monitoring and provide insights into prioritised areas, Sorik Marapi will publish a Green Finance Report which will be publicly available on KS Orka's website within one year from the issuance of any Green Finance Instrument and will be updated annually, until full allocation, and in case of any material developments.</i></p> <p>The Framework details the key information to be included in the Green Finance Report, consisting of (i) the allocation reporting and (ii) the impact reporting.</p> <p>Where possible, Sorik Marapi will align impact metrics with the suggestions made in ICMA Harmonised Framework. Calculation methodologies and key assumptions will also be disclosed.</p> <p>DNV confirms that the proposed reporting is consistent with the criteria set out in the Principles & Standards.</p>

		aggregated portfolio basis (e.g. percentage allocated to certain project categories).	
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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 group. All rights reserved.