



Second Party Opinion

SECOND PARTY OPINION

PT PERUSAHAAN LISTRIK NEGARA (PERSERO) ("PLN")

GREEN FINANCE FRAMEWORK 2021

Prepared by: DNV Business Assurance Australia Pty. Ltd.

Location: Sydney, Australia

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Disclaimer

Our assessment relies on the premise that the data and information provided by PT Perusahaan Listrik Negara (Persero) 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.dnvgl.com)

DNV'S INDEPENDENT ASSESSMENT

SCOPE AND OBJECTIVES

PT Perusahaan Listrik Negara (Persero) ("PLN") is Indonesia's national power utility. As of 30 June 2021, they serve over 80.7 million customers, making them one of the largest electric utilities in the world by number of customers. A wholly government-owned corporation and the second largest state company by assets, they are mandated to support national development by providing reliable electricity supply to all regions of the country.

DNV assesses that PLN's Green Finance Framework dated September 2021 ("Framework") meets all the requirements to issue or enter into Use of Proceeds instruments under the International Capital Markets Association ("ICMA") Green Bond Principles 2022 ("GBP"), the ASEAN Green Bond Standards, 2018 (ASEAN GBS) and the Loan Market Association ("LMA")'s Green Loan Principles ("GLP") 2021. PLN can issue green bonds and loans ("Financing") under the Framework.

DNV Business Assurance Australia Pty. Ltd. ("DNV") has been commissioned by PLN to review and provide a Second Party Opinion on the alignment of the Framework with the above principles and standards.

No assurance is provided regarding the financial performance of instruments entered into or issued via the Framework, the value of any investments, or the long term environmental & social 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 PLN AND DNV

The management of PLN 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 PLN management and other interested stakeholders in the Framework as to whether Financing is aligned with the GBP and GLP. In our work we have relied on the information and the facts presented to us by PLN. DNV is not responsible for any aspect of the Framework 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 PLN'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 Framework Assessment Protocol ("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 GBP and GLP components as below:

1. Principle One: Use of Proceeds.

The Use of Proceeds criteria are guided by the requirement that an issuer of a sustainable bond or

loan must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental and/or social benefits.

2. Principle Two: Process for Project Evaluation and Selection.

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

3. Principle Three: Management of Proceeds.

The Management of Proceeds criteria are guided by the requirements that the proceeds from the issuance of each sustainable bond or loan 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.

4. Principle Four: Reporting.

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

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 PLN 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 PLN-specific Protocol, adapted to the purpose of the Framework, as described above and in Schedule 2 to this Assessment;
- Assessment of documentary evidence provided by PLN on the Framework and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Review of PLN's published materials and websites;
- Discussions with PLN 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.

DNV acknowledges that the Framework has been prepared for Financing purposes compliant with the ASEAN GBS, GBP and GLP. DNV notes that these ASEAN GBS have been prepared to provide requirements for specific issuance rather than frameworks for issuance, so no opinion can be provided here in relation to the Framework's compliance with the ASEAN GBS.

FINDINGS AND DNV'S OPINION

DNV's findings for the Framework are listed below:

- 1. Principle One: Use of Proceeds.** PLN intends to use the proceeds of green instruments under the Framework to finance and refinance projects and assets including: Renewables, Energy Efficiency and Clean Transportation. DNV concludes that PLN's nominated projects and assets are aligned with eligible Green categories specified in the GBP and GLP including Renewable Energy.
- 2. Principle Two: Process for Project Evaluation and Selection.** The raised proceeds will be allocated to finance and refinance the assets as set out under Use of Proceeds. DNV has reviewed evidence that demonstrates that PLN regularly assesses opportunities for improvement and devises action plans and initiatives to mitigate negative environmental and social impacts from its operations and has Exclusion Criteria to avoid Environmentally and Socially harmful activities.
- 3. Principle Three: Management of Proceeds.** DNV has reviewed evidence showing how PLN plans to track the receipt and use of proceeds from the Financing, from the time of issuance to the time of disbursement. The full amount of the proceeds will be allocated to the eligible Projects and tracked using PLN's internal financial reporting system and recorded on the Sustainable Development Financing Register. As stated above, DNV provides no assurance regarding the financial performance, the value of any investments in, or the effects of Financing.
- 4. Principle Four: Reporting.** PLN has confirmed that it will report on its website the following:
 - A summary list of all the issuances in the reporting period and outstanding at the reporting date. Key information to be provided will include transaction date, principal amount of proceeds, maturity date, coupon, ISIN, etc.
 - A description and the amount of proceeds allocated to each of the projects funded.
 - A report on the environmental and social impacts of the projects that have been funded. The impact indicators used will depend on the mix of project supported from Financing but can be expected to include the capacity of renewables technologies and their share in the generation mix.

On the basis of the information provided by PLN and the work undertaken, it is DNV's opinion that the Framework meets the criteria established in the Protocol and are aligned with the stated definitions of green bonds and loans under the GBP 2022 and GLP 2021, respectively.

for DNV Business Assurance Australia Pty. Ltd.

Sydney, Australia / 28 September 2021 (updated 13 October 2022)



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SCHEDULE 1: USE OF PROCEEDS SUMMARY

As provided by PLN as at September 2021

Project Category	Project Type	Location
Renewable Energy, Energy Efficiency and Clean Transportation	Solar PV, Wind, Geothermal, Hydro, Bioenergy and Biogas , Battery Storage	Indonesia
Renewable Programmes	Solar Rooftops, EV Charging Stations, Renewable Energy Certificate (REC)	
Renewable PPA Payments	Wind, Geothermal, Hydro	

SCHEDULE 2: GBP AND GLP ELIGIBILITY ASSESSMENT PROTOCOL

1. Use of proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1a	Type of Instrument	The bond or loan must fall in one of the following categories, as defined by the GBP and GLP.	Review of: <ul style="list-style-type: none"> • PLN Green Finance Framework Correspondence with PLN representatives	The reviewed evidence confirms that the instruments issued under the Framework would fall in the categories set out in the GBP and GLP for Renewable Energy, Energy Efficiency and Clean Transportation.
1b	Project Categories	The cornerstone of Green Bonds and Loans is the utilization of the proceeds of the bond or loan which should be appropriately described in the legal documentation for the bond or loan.	Review of: <ul style="list-style-type: none"> • PLN Green Finance Framework Correspondence with PLN representatives	As identified by the Framework, the purpose of Financing is to use the proceeds for the financing or refinancing of Eligible Projects including: Renewable Energy <ul style="list-style-type: none"> - Solar PV - Wind - Geothermal - Hydropower - Bioenergy and Biogas - Dedicated Transmission Energy Efficiency <ul style="list-style-type: none"> - Industrial/Utility Clean Transport <ul style="list-style-type: none"> - EV Charging Stations DNV's assessment concluded that these are aligned with the categories set out under the GBP and GLP.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
1c	Environmental benefits	All designated Green Project categories should provide clear environmentally sustainable and/or social benefits, which, where feasible, will be quantified or assessed by the Issuer.	Review of: <ul style="list-style-type: none"> • PLN Green Finance Framework • PLN Asset Specifications Correspondence with PLN representatives	<p>DNV’s assessment concluded that these project types would present significant environmental benefits and qualify for inclusion GBP and GLP.</p> <p>PLN’s Eligible Projects were evaluated as follows:</p> <p>Renewable Energy</p> <p>Solar PV Solar PV Projects were considered by DNV to be automatically eligible as Renewable Energy projects with environmental benefits associated with mitigating GHG emissions.</p> <p>Wind Wind Energy Projects were considered by DNV to be automatically eligible as Renewable Energy projects with environmental benefits associated with mitigating GHG emissions.</p> <p>Geothermal Geothermal Projects with an emissions intensity of less than 100gCO₂/kWh with ESIA / AMDAL available and local compliance achieved confirmed were considered by DNV to be eligible as Renewable Energy projects with environmental benefits associated with mitigating GHG emissions.</p> <p>Hydropower Hydropower Projects with: <ul style="list-style-type: none"> - Power density of greater than 10W/m² of reservoir area - Run-of-River hydropower projects and - Small Hydro of less than 15MW </p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>with ESIA / AMDAL available and local compliance achieved confirmed were considered by DNV to be eligible as Renewable Energy projects with environmental benefits associated with mitigating GHG emissions.</p> <p>Geothermal Geothermal Projects with an emissions intensity of less than 100gCO₂/kWh with ESIA / AMDAL available and local compliance achieved confirmed were considered by DNV to be eligible as Renewable Energy projects with environmental benefits associated with mitigating GHG emissions.</p> <p>Bioenergy and Biogas Bioenergy and Biogas Projects with an emissions intensity of less than 100gCO₂/kWh, certified sustainable feedstock with ESIA / AMDAL available and local compliance achieved confirmed were considered by DNV to be eligible as Renewable Energy projects with environmental benefits associated with mitigating GHG emissions.</p> <p><u>Energy Efficiency</u></p> <p>Industrial and Utility Scale Energy-efficiency improvements involving changes in processes, reduction of heat losses and/or increased waste heat recovery, including the installation of renewable-powered cogeneration plants.</p> <p><u>Clean Transportation</u></p> <p>EV Charging Stations</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				EV Charging Stations Projects were considered by DNV to be clearly eligible as clean transportation investments and supporting the rollout of infrastructure critical to EV uptake and operation in Indonesia. All EV charging infrastructure investments are considered eligible.
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.	Review of: <ul style="list-style-type: none"> Green Finance Framework Correspondence with PLN representatives	The pool of funding is to be earmarked to existing investments and new investments. Refinancing proportions will be nominated for each issuance.

2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
2a	Investment-decision process	The Issuer of Green finance should outline the decision-making process it follows to determine the eligibility of projects using Sustainable Instrument proceeds. This includes, without limitation: <ul style="list-style-type: none"> A process to determine how the projects fit within the eligible Green Projects categories identified in the Green Bond Principles and Green Loan Principles; 	Review of: <ul style="list-style-type: none"> PLN Green Finance Framework 	<p>PLN's Framework has set out the following for project selection:</p> <p>At the project evaluation and selection stage, the Sustainability Financing Task Force (SFTF) will be responsible for:</p> <ol style="list-style-type: none"> 1. Mapping and reviewing of current and future activities related to environmental and climate-related goals; 2. Mapping the main tasks and functions of each division in alignment with the Green Finance Framework; 3. Mapping the work plans, the constraints, and challenges in the process of preparation, implementation, and post-implementation related to the green financing;

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
		<ul style="list-style-type: none"> The criteria making the projects eligible for using the Sustainable finance proceeds; and The environmental and social sustainability objectives 		<ol style="list-style-type: none"> Taking the necessary steps and provide solutions for the preparation of the Green Financing Platform within the company; Evaluating projects proposed by the POUs with respect to their suitability for inclusion in the green finance debt instrument; Undertake regular monitoring of the asset pool to ensure the eligibility of Green Projects with the criteria set out above in section 2.1, Use of Proceeds, whilst replacing any ineligible Green Projects with eligible new Green Projects; Facilitate regular reporting on any Green issuance in alignment with our Reporting commitments; Manage any future updates to this Framework; and Ensure that the approval of Eligible Green Projects will follow the Company's existing credit/loan/investment approval processes as well as meets the environmental and social risk management requirements of PLN. <p>DNV has reviewed the structure and function of the Project Selection criteria and confirmed it is in line with the criteria set out in the GBP and GLP. DNV confirms that the responsible resources have been identified and the process by which they are to select, review and qualify projects has been set out in a clear and repeatable process.</p>
2b	Issuer's environmental and social and governance framework	In addition to information disclosed by an issuer on its Green finance process, criteria and assurances, Green finance investors may also take into consideration the quality of the issuer's overall framework and performance regarding environmental and social sustainability.	Review of: <ul style="list-style-type: none"> PLN E&S Framework PLN Sustainable Financing Framework (BOD Regulation No. 0068.P/DIR/2020) Correspondence with PLN representatives	<p>From the materials and information provided DNV confirmed that PLN has in place policies related to ESG and stakeholder care in line with the key impacts of their business. Information provided by PLN indicates that they have in place systems and procedures to mitigate environmental and social risks associated with their operations.</p> <p>We have also carried out a high-level media review of PLN. We have found no evidence to suggest that PLN or any of its assets</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>are or have been operating in breach of national or local environmental regulations or good practice at the time of review.</p> <p>Based on the evidence reviewed and the discussion we had with senior managers, we found nothing to suggest that PLN's E&S Framework is not in line with good practice of the industry for the nominated projects and assets under proposed Financing.</p>

3. Management of proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
3a	Tracking procedure	The net proceeds of Green financing 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 operations for Green Projects.	<p>Review of: PLN Sustainable Financing Framework</p> <p>Correspondence with PLN representatives</p>	<p>The evidence reviewed shows how PLN plans to manage Financing proceeds, from the time of issuance to the time of disbursement.</p> <p>The details of the disbursement and the outstanding value will be tracked in PLN's internal accounting and financial reporting system. On an annual basis, the outstanding balance of the instruments will be reviewed.</p> <p>PLN will establish a Sustainable Development Financing Register to assist in tracking projects and proceeds.</p> <p>The use of proceeds will be recorded in a Sustainable Development Financing Register, which will include at least the following information:</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<ol style="list-style-type: none"> 1. Details of Financing. 2. Project documentation, with information including: <ul style="list-style-type: none"> • Summary of project details; • Amount of proceeds allocated to each project; • Expected climate and /or environmental impact of eligible projects; • Aggregate amount of proceeds allocated to projects; • Remaining balance of unallocated proceeds; • Other necessary information. <p>Any proceeds temporarily unallocated will be invested in cash, cash equivalents and/or marketable securities in accordance with PLN's management policies. PLN will endeavour to allocate proceeds within 24 months.</p> <p>DNV concludes that the process set out in the PLN's Green Finance Framework is aligned with the Management of Proceeds as set out in the GBP and GLP.</p>
3b	Tracking procedure	So long as the Green financing is outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible green or social investments made during that period.	Review of: <ul style="list-style-type: none"> • PLN Green Finance Framework Correspondence with PLN representatives	The evidence reviewed shows that PLN plans to manage the proceeds from Financing, from the time of issuance to the time of disbursement and reduce the net balance of proceeds by amounts in line with asset financing and refinancing requirements. Tracking is to be recorded in the Sustainable Development Financing Register.

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
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.	Review of: <ul style="list-style-type: none"> PLN Green Finance Framework Correspondence with PLN representatives	The net proceeds of Financing will be held in temporary investment instruments such as cash, or cash equivalent instruments in accordance with PLN policy. PLN will aim to fully allocated proceeds to Eligible Projects within 24 months of Financing.

4. Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
4	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 Green financing proceeds have been allocated including - 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.	Review of: <ul style="list-style-type: none"> PLN Green Finance Framework Correspondence with PLN representatives	PLN has committed to publish annual reports on their website that will include the following: <ol style="list-style-type: none"> A summary list of all the issuances in the reporting period and outstanding at the reporting date. Key information to be provided will include transaction date, principal amount of proceeds, maturity date, coupon, ISIN, etc. A description and the amount of proceeds allocated to each of the projects funded by the bond or loan, including the list of eligible green projects, the amount of proceeds allocated to each eligible green project category, selected

Ref.	Criteria	Requirements	Work Undertaken	DNV Findings
				<p>examples of projects financed, amount of unallocated proceeds, and, when possible, descriptions of the eligible green projects financed (project locations, amount allocated, etc.).</p> <p>3. A report on the environmental impacts of the projects that have been funded. The impact indicators used will depend on the project supported from the green debt instrument but can be expected to include the capacity of renewable technologies, their share in the generation mix and resulting reductions in GHG emissions.</p> <p>DNV considers the proposed allocation and impact reporting proposed and the means of communication to be aligned with the criteria set out in the GBP and GLP.</p>

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.

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