



PT PERUSAHAAN LISTRIK NEGARA (PLN)

SUSTAINABLE FINANCING FRAMEWORK



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Sustainable 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 are 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 be 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 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 Conduct during the assessment and maintain independence where required by relevant ethical requirements.

DNV'S INDEPENDENT ASSESSMENT

Scope and Objectives

PT Perusahaan Listrik Negara ("PLN" or the "Customer") is a state-owned enterprise committed to delivering affordable electricity for public consumption, serving over 94 million customers. It is Indonesia's second-largest state enterprise by assets and plays a key role in national development by ensuring reliable electricity across the country. Its long-term strategy is guided by environmental and social considerations, aligned with the United Nations' Sustainable Development Goals 2030 Agenda. PLN is fully dedicated to supporting these goals by providing innovative, affordable, inclusive, and clean energy solutions for the people of Indonesia. As such, PLN is committed to a responsible business model and sustainable finance is key for PLN to achieve this transition.

PLN has developed a Sustainable Financing Framework ("Framework") with the aim to raise Sustainable Finance Instruments ("SFIs") 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 2025
- Social Loan Principles ("SLP") issued by the LMA / APLMA / LSTA in 2025
- Green Bond Principles ("GBP") issued by the International Capital Markets Association ("ICMA") in 2025
- Social Bond Principles ("SBP") issued by the ICMA in 2025
- ASEAN Green Bond Standards ("ASEAN GBS") issued by the ASEAN Capital Markets Forum ("ACMF") in October 2018
- ASEAN Social Bond Guidelines ("ASEAN SBG") issued by the ACMF in October 2018
- ASEAN Sustainability Bond Guidelines ("ASEAN SBG") issued by the ACMF in October 2018

DNV Singapore Pte Ltd ("DNV") has been commissioned by the PLN 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 any other independent assurance or other audit activities, other than those described under "Work Undertaken"

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 bond as to whether the Framework is aligned with the Principles & Standards. 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 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 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 PLN-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/Social 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 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 Protocol, adapted to the purpose of the Framework, as described above and in Schedule 3 to this Assessment;
- Assessment of documentary evidence provided by PLN 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 PLN and PLN's website;
- Discussions with PLN'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

PLN intends to use the net proceeds of the SFIs to finance and/or refinance new and/or existing eligible projects.

The Framework defines the following eligible project categories.

Green project categories:

- Renewable energy – generation
- Renewable energy – storage
- Renewable energy – transmission & distribution
- Climate change adaptation
- Energy efficiency
- Clean transportation
- Green buildings
- Environmentally sustainable management of living natural resources and land use

Social project categories:

- Affordable basic infrastructure
- Socioeconomic advancement and empowerment

DNV undertook an analysis of the associated project type to determine the eligibility as Green/Social 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

PLN has set up an evaluation and selection process which is summarise in the process below:

PLN's green and social projects are proposed by Project Originating Units (POUs), but their evaluation is handled independently by the Sustainability Financing Task Force (SFTF). The SFTF manages project selection, fund allocation, monitoring, and reporting, with oversight from a Steering Committee of senior directors.

The SFTF will be structured into three components: the Steering Committee, the Implementation Committee, and several Working Groups. The Steering Committee will oversee the overall preparation and implementation of the framework and address any challenges that may impede its execution. Each member of the Steering Committee will also be responsible for the performance of the Implementation Committee and the Working Groups under their supervision.

The Steering Committee comprises senior management representatives from the Company, specifically:

- Director of Finance (Chair)
- Director of Legal and Human Capital Management
- Director of Project Management and New and Renewable Energy
- Director of Transmission and System Planning

- Director of Retail and Commercial
- Director of Risk Management
- Director of Distribution

At the evaluation stage, the SFTF aligns projects with environmental and climate goals, maps division roles, addresses challenges, develops the Green Financing Platform, and ensures only eligible projects are included. It also updates the Framework, manages reporting, and enforces compliance with PLN's financial approval and environmental/social risk standards. DNV has confirmed this process aligns with established Principles and Standards.

DNV concludes that PLN's Framework appropriately describes the process for Project Evaluation and Selection.

3. Management of Proceeds

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

PLN's Budget Division allocates proceeds, while the Treasury Division manages and tracks them through an internal system. All funds will finance or refinance eligible projects, with proportions disclosed if refinancing is involved. Proceeds are recorded in a Sustainable Financing Register, detailing bond/loan information, project allocations, impacts, and balances. Each issuance is expected to be fully allocated within two years (or as agreed), with a three-year look-back for refinanced projects. The SFTF reviews project eligibility annually, reallocating funds if projects are cancelled or no longer meet criteria, ensuring proceeds remain fully allocated. Pending proceeds may be temporarily invested in cash, equivalents, or marketable securities, reviewed quarterly.

DNV has reviewed the evidence presented and concludes that the Framework appropriately describes the process for Management of Proceeds.

4. Reporting

PLN's Sustainability Financing Task Force (SFTF) oversees reporting on the use and impact of proceeds, publishing allocation and impact reports until funds are fully allocated or until maturity if material changes occur. Reports are shared with lenders or related parties, with direct reporting for private debt when required. Allocation reporting covers issuance details (e.g., transaction date, amount, maturity, ISIN) and how proceeds are distributed across eligible green and social projects, including examples, categories, unallocated funds, and project details where possible. Environmental and social benefits, along with calculation methods and assumptions, will also be disclosed.

Based on the limited assurance procedures conducted, nothing has come to our attention that causes us to believe that the Framework is not, in all material respects, in accordance with the Pre-Issuance requirements of the associated green/social project category, and the Principles & Standards.

For DNV Business Assurance Singapore Pte Ltd

31 March 2026



Kobrat Chotruangprasert
Quality Reviewer



Vigilia Ang
Lead Verifier

Schedule 1. Description of Categories to be financed or refinanced through the PLN's Framework

Eligible Green Project Categories	Eligible Criteria and Description	DNV Findings
Renewable Energy - Generation	<p>Renewable energy generation, including:</p> <ul style="list-style-type: none"> • Wind • Solar PV and CSP • Tidal • Hydropower if it complies with one of the following criteria: <ul style="list-style-type: none"> ○ The electricity generation facility is a run-of-river plant and does not have an artificial reservoir, OR ○ lifecycle GHG emissions from the generation of electricity by the entire facility <100gCO₂/kWh ○ The electricity generation facility is using a reservoir with a power density >5 W/m² • Geothermal with lifecycle GHG emissions from the generation of electricity from the entire facility <100gCO₂/kWh • Bioenergy and biogas with: <ul style="list-style-type: none"> ○ Lifecycle GHG emissions from the generation of electricity from the entire facility <100gCO₂/kWh ○ Bioenergy sustainability certification in accordance with the provisions of applicable laws and regulations ○ If the energy source comes from biogasses, have management and monitoring procedures as well as a contingency plan to minimise methane leakage; ○ If the energy source comes from an energy plantation under control, carry out sustainable management of biomass fuel supply meet relevant laws and regulations. • Manufacture of green hydrogen with life-cycle GHG emissions lower than 3 tCO₂e/tH₂ 	<p>Renewable energy is recognised as an eligible Green project category under established Principles and Standards, contributing to the environmental objective of climate change mitigation.</p> <p>Specifically, renewable energy generation from wind, solar PV and CSP and tidal are typically classified as green under various taxonomies, including the Indonesia Taxonomy for Sustainable Finance and the ASEAN Taxonomy</p> <p>For renewable energy generation from hydropower, geothermal, bioenergy and biogas, the additional lifecycle emissions threshold of <100gCO₂e/kWh described in the Framework is also aligned with various national and regional taxonomies.</p> <p>The lifecycle GHG emissions threshold set for the manufacturing of hydrogen is also aligned with various regional taxonomies.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>

<p>Renewable Energy - Storage</p>	<ul style="list-style-type: none"> • Grid-connected electricity storage, such as battery energy storage systems (BESS) and pumped hydropower storage. 	<p>Energy storage system, including pumped hydropower, as well as utility-scale battery energy storage are recognised as eligible project under various taxonomies.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>
<p>Renewable Energy - Transmission & Distribution</p>	<p>Electricity transmission infrastructure and equipment which complies with at least one of the following criteria:</p> <ul style="list-style-type: none"> • Direct connection, or expansion of existing direct connection, of low carbon electricity generation below the threshold of 100g CO₂e/kWh to a substation or network; • More than 67% of newly enabled generation capacity in the system is below the generation threshold value of 100g CO₂e/kWh over a rolling five-year period; • The average system grid emissions factor, calculated as the total annual emissions from power generation connected to the system, divided by the total annual net electricity production in that system, is below the threshold value or 100g CO₂e/kWh over a rolling five year period. <p>Distribution systems (including substations) provided that:</p> <ul style="list-style-type: none"> • The transformer and distribution substation prioritise the use of smart meters on the consumer side, or • The transformer and distribution substation prioritise the use of renewable energy. 	<p>Electricity transmission infrastructure dedicated or supporting the transmission of renewable energy is recognised as an eligible Green project category under established Principles and Standards, contributing to the environmental objective of climate change mitigation.</p> <p>Specifically, the criteria listed in the Framework is aligned with various taxonomies and industry standards.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>
<p>Climate change adaptation</p>	<ul style="list-style-type: none"> • Adaptation solutions (identified through Climate Risk and Vulnerability Assessments (CRVAs) or similar assessment) which allow energy infrastructure to operate in projected flooding, storm conditions or higher temperatures to ensure energy security. 	<p>Adaptation solutions identified through Climate Risk and Vulnerability Assessments (CRVAs) strengthen energy infrastructure against projected flooding, storms, and rising temperatures. By ensuring continued energy security under changing climate conditions, these</p>

		<p>measures directly support the environmental objective of climate change adaptation.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>
Energy Efficiency	<ul style="list-style-type: none"> Industrial/utility 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 Retrofit of distribution systems, transmission lines or substations to reduce energy use and/or technical losses (except for capacity expansion) 	<p>Energy Efficiency is recognised as an eligible Green project category under established Principles and Standards contributing to the environmental objective of climate change mitigation.</p> <p>The action of upgrading production equipment and retrofitting systems, especially to the latest technology also contributes to improvement of energy efficiency in the production process.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>
Clean Transportation	<p>Infrastructure for the operation of road vehicles (cars, trucks, motorcycles) with zero tailpipe CO₂ emissions:</p> <ul style="list-style-type: none"> Electric vehicle charging stations and supporting electric infrastructure; Electricity grid connection upgrades; Hydrogen fuelling stations; <p>Electrical infrastructure and installations dedicated to public passenger transport, such as trains and buses.</p> <p>Infrastructure enabling low carbon water transport:</p> <ul style="list-style-type: none"> infrastructure dedicated to electricity charging, hydrogen based refuelling of vessels 	<p>Electric Vehicles and its associated charging infrastructures are considered a form of clean transportation, producing zero tailpipe emissions and are widely recognised as eligible green investments under various sustainability frameworks and taxonomies. It is also noted that hydrogen fuelling stations is automatically green under TKBI.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>

	<ul style="list-style-type: none"> • infrastructure is dedicated to the performance of the port's own operations with zero direct (tailpipe) CO₂ emissions 	
Green Buildings	<p>Buildings that have received, or expect to receive based on its design, construction and operational plans, certification according to the following third party verified green building standards, such as:</p> <ul style="list-style-type: none"> • LEED (Gold and above) • BREEAM (Excellent and above) • EDGE (advanced) • Green Mark (GoldPLUS and above) 	<p>Green buildings are deemed to be environmentally beneficial and contribute meaningfully to climate change mitigation.</p> <p>It is noted that green building certification scheme listed in the Framework are recognised global and national schemes in the industry. DNV considers the stated benchmarks for Green Buildings to deliver a genuine contribution to climate change mitigation and to provide tangible environmental benefits through enhanced energy efficiency in the built environment.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>
Environmentally sustainable management of living natural resources and land use	<ul style="list-style-type: none"> • Biodiversity protection programs: the development of protected areas around power plants, transmission lines, or electricity infrastructure sites to conserve native flora and fauna. • Reforestation projects: planting trees around electricity infrastructure sites to restore degraded land and enhance local biodiversity. • Sustainable land management: implementing erosion control, soil restoration, and sustainable farming practices in affected areas by the company operations. 	<p>The projects are recognised as an eligible Green project category under established Principles and Standards contributing to the environmental objective of Natural resource conservation as well as Biodiversity.</p> <p>These projects promote ecosystem rehabilitation, biodiversity protection, reforestation, and sustainable land management to strengthen natural habitats and ensure ecological balance.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>

Eligible Social Project Categories	Eligible Criteria and Description	DNV Findings
Affordable Basic Infrastructure	<p>Rural Electrification projects supporting Indonesia’s universal electricity access targets, targeting (in order of priority):</p> <ol style="list-style-type: none"> 1. Electrification of villages with no access to electricity at all 2. Electrification of villages currently served by LTSHE (Solar Home Systems) where the battery units have exceeded their technical lifespan (more than 3 years); 3. Electrification of villages served by non-PLN providers with unreliable electricity supply; 4. Electrification of hamlets that have not yet been electrified. <p>This will be achieved through new Local renewable power generation (including solar PV, mini-hydro, wind), grid expansion projects and compact battery-based distribution systems (for ultra-remote areas where grid expansion is not viable).¹</p>	<p>The projects under this project category provide affordable basic infrastructure, specifically electricity, to targeted populations in rural areas of Indonesia. Guided by the order of priority set by PLN, the initiative ensures that communities with the most urgent needs are addressed first, followed by efforts to enhance reliability of supply. This approach aligns with PLN’s overarching goal of achieving universal electricity access across Indonesia.</p> <p>In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.</p>
Socioeconomic advancement and empowerment	<ul style="list-style-type: none"> • Micro and Small Enterprises Development through SOE Houses (SOE House Management): Providing dedicated spaces for small businesses to operate, access resources, and receive mentorship. • Empowering Villages and Tourism Areas: Offering training and business support to small enterprises in rural and tourism-dependent communities. • Economic Inclusion for Vulnerable Groups: Extending training and financial support to businesses owned by persons with disabilities, indigenous groups, and economically disadvantaged individuals. • PLN Peduli for Micro and Small Enterprises Development: A dedicated funding program for small businesses to help expand operations and enhance their financial sustainability 	<p>The activities under this project category focus on socioeconomic advancement and empowerment by strengthening micro and small enterprises across Indonesia. Through these initiatives, small businesses gain access to dedicated spaces, resources, and mentorship, while targeted training and support programs uplift enterprises in rural and tourism-dependent communities. Special emphasis is placed on economic inclusion, extending opportunities to vulnerable groups such as persons with disabilities, indigenous populations, and economically disadvantaged individuals.</p>

¹ This excludes fossil-fuels related assets, such as diesel generators.

		In conclusion, DNV considers the proposed activity to be aligned with the criteria for eligible green projects under the Principles & Standards.
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Exclusion Criteria

For the avoidance of doubt, none of the proceeds from the green, social or sustainability financing transactions will be used to finance fossil fuel generation, including enhancements or refurbishment of existing capacity, even where this reduces emissions and improves environmental sustainability. Particularly, no funding will be granted to coal-related projects. Similarly, none of the proceeds will be used to finance nuclear power generation. To that extent, any expenditure relating to any of the following activities will be systematically excluded:

- Nuclear power generation and distribution assets
- Coal or gas fired power generation assets
- Exploration and development of new oil and gas fields
- Landfill operations and any incineration of any unsorted waste assets
- Any project having a connection with fossil fuels (energy production based on solid or liquid fossil fuels, as well as storage and transport dedicated to fossil fuels) as well as underlying investments in research and development
- Any project resulting in deforestation of primary forests, modified natural forests or mangroves
- Any project that is likely to be prejudicial to indigenous people

Schedule 2. Contributions to UN SDGs

Eligible Project Categories	UN SDGs	DNV Findings
Renewable Energy - Generation	SDG 7: Affordable and clean energy SDG 13: Climate action	DNV is of the opinion that the eligible category outlined in the Framework contributes to the achievement of the UN SDGs.
Renewable Energy - Storage	SDG 7: Affordable and clean energy SDG 13: Climate action	
Renewable Energy - Transmission & Distribution	SDG 7: Affordable and clean energy SDG 13: Climate action	
Climate change adaptation	SDG 13: Climate action	
Energy Efficiency	SDG 7: Affordable and clean energy SDG 13: Climate action	
Clean Transportation	SDG 11: Sustainable cities and communities SDG 13: Climate action	
Green Buildings	SDG 11: Sustainable cities and communities SDG 13: Climate action	
Environmentally sustainable management of living natural resources and land use	SDG 15: Life on land	
Affordable Basic Infrastructure	SDG 7: Affordable and clean energy SDG 10: Reduced inequalities	
Socioeconomic advancement and empowerment	SDG 8: Decent work and economic growth SGD 10: Reduced inequalities	

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/Social Use of Proceeds Bond • Green/Social Use of Proceeds Revenue Bond • Green/Social Project Bond • Green/Social Securitized Bond • Loan instrument made available for Green/Social project (Green/Social use of loan proceeds) 	<p>The Framework supports the issuance of Green, Social, and Sustainability Loans and Bonds. Specifically, financing transactions under this Framework may be structured as public offerings or private placements, issued in either bearer or registered format, and may take the form of senior unsecured or subordinated instruments.</p> <p>The reviewed evidence confirms that the SFIs meet the criteria under the Principles & Standards, and DNV confirms this process to be well aligned with the Principles & Standards.</p>
1b	Green/Social Project Categories	<p>The cornerstones of Green/Social 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 categories presented by PLN are as follows:</p> <p>Green project categories:</p> <ul style="list-style-type: none"> • Renewable energy – generation • Renewable energy – storage • Renewable energy – transmission & distribution • Climate change adaptation • Energy efficiency • Clean transportation • Green buildings • Environmentally sustainable management of living natural resources and land use <p>Social project categories:</p> <ul style="list-style-type: none"> • Affordable basic infrastructure • Socioeconomic advancement and empowerment

			<p>The above-mentioned project category meets the Eligible Green and Social Project Categories in the Principles & Standards. DNV confirms this to be well aligned with the Principles & Standards.</p>
1c	Environmental and Social Benefits	All designated Green/Social Project categories should provide clear environmentally sustainable benefits/social benefits, which, where feasible, will be quantified or assessed by the Issuer.	<p>The following environmental/social benefits are expected from the eligible project categories stated in the Framework.</p> <p>Renewable energy – generation</p> <p>Renewable energy generation reduces greenhouse gas emissions by replacing fossil fuels with cleaner sources like solar, wind, and hydro power. It helps conserve natural resources by relying on abundant, sustainable inputs rather than depleting finite reserves. Additionally, renewable energy improves air quality and protects ecosystems, supporting healthier communities and biodiversity.</p> <p>Renewable energy – storage</p> <p>Renewable energy storage delivers important environmental benefits by making clean power more reliable and accessible. By storing excess electricity from sources like solar and wind, it reduces dependence on fossil fuel backup systems, cutting greenhouse gas emissions. Storage also helps stabilise the grid, minimising energy waste and supporting a smoother integration of renewables, which ultimately protects ecosystems and improves air quality.</p> <p>Renewable energy – transmission & distribution</p> <p>Renewable energy transmission and distribution provide key environmental benefits by ensuring that clean power generated from sources like solar, wind, and hydro can reach communities efficiently. Expanding and modernising grids reduces energy losses, making renewable electricity more sustainable and minimising the need for fossil fuel backup. Additionally, reliable distribution of renewables supports wider adoption, which lowers greenhouse gas emissions, improves air quality, and helps protect ecosystems on a larger scale.</p>

			<p>Climate change adaptation</p> <p>Adaptation solutions that strengthen energy infrastructure against flooding, storms, and other potential physical climate risks help reduce environmental damage by preventing spills, leaks, or hazardous failures during extreme events. Resilient infrastructure minimises disruption to ecosystems and communities, protecting natural habitats while maintaining sustainable energy security.</p> <p>Energy efficiency</p> <p>Industrial and utility energy-efficiency improvements deliver significant environmental benefits by lowering overall energy consumption, which directly reduces greenhouse gas emissions and air pollution. Waste heat recovery and renewable-powered cogeneration plants maximise resource use, cutting reliance on fossil fuels and conserving natural resources. Retrofitting distribution systems, transmission lines, and substations further minimises technical losses, ensuring cleaner energy delivery and reducing the environmental footprint of electricity supply.</p> <p>Clean transportation</p> <p>By supporting zero tailpipe emissions vehicles, direct emissions are being reduced. By enabling electric charging stations, hydrogen fuelling, and upgraded grid connections, it reduces reliance on fossil fuels and cuts greenhouse gas emissions, directly improving air quality. Expanding clean infrastructure for public transport and water vessels also lowers noise and chemical pollution, protects ecosystems, and contributes to long-term climate change mitigation by promoting sustainable mobility across land and sea.</p> <p>Green buildings</p> <p>Buildings certified under recognized green building standards such as LEED, BREEAM, EDGE, or Green Mark deliver significant environmental benefits. They are designed to reduce energy and</p>
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			<p>water consumption, which lowers greenhouse gas emissions and conserves natural resources. In addition, these buildings minimise waste, improve indoor environmental quality, and promote sustainable construction practices, ultimately helping to protect ecosystems and support long-term climate resilience.</p> <p>Environmentally sustainable management of living natural resources and land use</p> <p>Biodiversity protection programs conserve native flora and fauna, reducing habitat loss and supporting species resilience. Reforestation projects restore degraded land, improve carbon sequestration, and enhance local biodiversity. Sustainable land management practices prevent soil erosion, improve fertility, and promote healthier ecosystems, ensuring long-term environmental sustainability in areas impacted by operations. These initiatives provide strong environmental benefits by safeguarding ecosystems and restoring natural balance around energy infrastructure.</p> <p>Affordable basic infrastructure</p> <p>Rural electrification projects in Indonesia deliver social benefits by bridging the gap between underserved communities and essential services. By prioritising villages and hamlets with no or unreliable electricity, these initiatives enable residents to participate more fully in social and economic life. Reliable electricity also fosters local entrepreneurship, supports small businesses, and enhances productivity, creating new opportunities for income generation. Most importantly, universal access to clean and affordable energy strengthens social inclusion, reduces inequality between urban and rural populations, and empowers communities to build a more resilient and sustainable future.</p> <p>Socioeconomic advancement and empowerment</p> <p>SOE Houses give small businesses a place to work, get advice, and use shared resources. Training and support in villages and tourist</p>
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			<p>areas help local people start and improve their businesses. Special programs also make sure that people with disabilities, indigenous groups, and those with fewer resources can join in and benefit. PLN Peduli provides funding so small businesses can expand and become more stable, creating jobs and stronger communities. These initiatives deliver strong social benefits by fostering inclusive economic growth and community empowerment.</p> <p>DNV confirms that the proposed use of proceeds will reasonably be expected to deliver meaningful environmental and social 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 should there be refinancing, PLN will provide the proportion of financing and refinancing to the total proceeds in its allocation reporting.</p> <p>The proposed management of net proceeds from the SFIs is confirmed by DNV to reasonably 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/Social Bond and Loan should outline the decision-making process it follows to determine the eligibility of projects using Green/Social Bond and Loan proceeds. This includes, without limitation:</p> <ul style="list-style-type: none"> The environmental objectives of the eligible Green/ Social Projects; The process by which the issuer determines how the projects fit within the eligible Green/Social Projects categories; and Complementary information on processes by which the issuer identifies and manages 	<p>PLN’s green and social projects are identified either by the Corporate Planning and Business Development Directorate (for larger projects) or by provincial and business unit management (for smaller projects), collectively called Project Originating Units (POUs). While POUs handle construction and operations, they are excluded from the Sustainability Financing Task Force (SFTF) to ensure objective evaluation. The SFTF oversees project selection, fund allocation, monitoring, and reporting, and is structured into a Steering Committee, Implementation Committee, and Working Groups. The Steering Committee is led by the Director of Finance and consists of the following directors:</p> <ul style="list-style-type: none"> Director of Finance (Chair) Director of Legal and Uman Capital Management

		<p>perceived environmental and social risks associated with the relevant project(s).</p>	<ul style="list-style-type: none"> • Director of Project Management and New and Renewable Energy • Director of Transmission and System Planning • Director of Retail and Commercial • Director of Risk Management • Director of Distribution <p>The Framework has also laid out the responsibilities of the SFTF at the project evaluation and selection stage. The Sustainability Financing Task Force (SFTF) will oversee project evaluation by aligning activities with environmental, social and climate goals, mapping division roles and work plans, and addressing challenges in preparation and implementation. It will prepare the company’s Green Financing Platform, assess proposed projects for eligibility, and regularly monitor the asset pool to replace ineligible projects. The SFTF will also manage reporting, update the Framework as needed, and ensure all approved projects follow PLN’s existing financial approval processes and meet environmental and social risk standards.</p> <p>DNV confirms this process for project selection and evaluation to be well aligned with the Principles & Standards.</p>
<p>2b</p>	<p>Issuer/ Borrower’s Environmental/ Social and Governance Framework</p>	<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/social 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>PLN’s sustainability strategy focuses on managing risks from climate change, resource use, and the energy transition. The company reports progress against its goals while balancing key trade-offs in decision-making. With 29 priority initiatives, PLN aims for net zero emissions by 2060 in line with Indonesia’s national climate commitments.</p> <p>In 2024, Indonesia’s electricity sector emitted 276.6 million metric tons of CO_{2e}, with projections showing a sharp rise to 1,057 million tons annually by 2060 if fossil fuel reliance continues. These emissions pose major environmental risks due to their contribution to global warming. PLN’s Net Zero Emissions policy aims to cut emissions across its operations and facilities to address this challenge.</p>

			<p>In the short and medium term plans, PLN targets a renewable energy power plant & storage additions for 2025-2034 of 52.9GW. PLN is also converting diesel power plants across Indonesia to renewable sources. Biomass co-firing initiative is fully operational across 52 CFPPs, cutting emissions and increasing renewable use. PLN reduced network losses, retired coal plants early, cancelled 13.3 GW of planned coal projects, and avoided 1.8 billion tons of CO₂ over 25 years. It is also advancing clean coal technology, carbon capture, and hydrogen co-firing through international partnerships.</p> <p>In terms of rural electrification, by the end of 2024, PLN with key stakeholders have achieved 99.83% household electrification and 99.92% village coverage. Additionally, as part of the village electrification program 2025-2029, PLN will also continue to develop power plants capacity, electrify villages and hamlets currently without electricity and power new households across Indonesia.</p> <p>In the long term (until 2060), PLN is building an integrated national grid to deliver renewable energy across Indonesia, focusing on regions like Sumatra, Kalimantan, Sulawesi, and Nusa Tenggara. The plan includes 28 GW of solar and wind power supported by smart grid and flexible generation technologies. PLN is also partnering with Indonesia Battery Corporation to develop a domestic battery industry and expand carbon capture and storage to 54 GW by 2060, with feasibility studies underway at several power plants.</p> <p>PLN is also involved in various development of supporting technologies and ecosystems such as rooftop solar program and biofuel initiative.</p> <p>PLN manages nature-related risks through both data-driven and community-focused approaches. It measures project impacts on forests, ensures legal compliance, and supports rehabilitation through replanting and conservation plans. At the same time, it engages communities, applies environmental safeguards, and addresses issues like habitat loss, ecosystem changes, and pollution with conservation areas and biodiversity monitoring.</p>
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3. Management of Proceeds

Ref.	Criteria	Requirements	DNV Findings
3a	Tracking Procedure	<ul style="list-style-type: none"> (Bond) The net proceeds of Green/Social 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/Social Projects. (Loan) The proceeds of Green/Social 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 	<p>The Framework states the following:</p> <div style="background-color: #e0f0ff; padding: 5px; margin: 5px 0;"> <p>From the Framework</p> <p>The budget division will allocate the proceeds, and the treasury division will manage the proceeds from issuance and track the funds within PLN’s internal management system. 100% of the funds will be used to finance and refinance the Eligible Projects.</p> </div> <p>The use of proceeds will be tracked in a Sustainable Financing Register. This register records bond or loan details (like ISIN, pricing date, maturity, and currency) and project documentation. It includes project summaries, allocated amounts, expected environmental impacts, total allocations, remaining unallocated funds, and other relevant information.</p>

² [Listrik untuk Kehidupan yang Lebih Baik - PT PLN \(Persero\)](#)

		to a separate account or tracked by the borrower in an appropriate manner.	DNV confirms that the Framework outlines processes to track proceeds and allocations to the nominated projects, that are well aligned with the Principles & Standards.
3b	Tracking Procedure	So long as the Green/Social 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>PLN expects each issuance under this framework to be fully allocated within 2 years from the date of issuance or as agreed between PLN and the lenders, or other related parties for private debt instruments. A maximum 3-year look-back period would apply for refinanced projects.</p> <p>The Framework laid out the tracking procedure for outstanding proceeds:</p> <p>From the Framework</p> <p>The SFTF will review the eligibility of those projects every year. Should a project be considered by the SFTF to be no longer meeting the criteria detailed above or is subject to postponement, cancelation or divestment, PLN is committed to reallocate proceeds on a best-efforts basis to ensure the full amount of proceeds are allocated to eligible projects. Such monitoring will be done throughout the life of the Sustainable Finance Instruments.</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/Social Projects, the Issuer/Borrower should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	<p>The Framework states the following for the temporary holdings:</p> <p>From the Framework</p> <p>The net proceeds pending allocation may be invested in cash, cash equivalents and/or marketable securities in accordance with PLN's management policies and will be evaluated every quarter.</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/Borrowers 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/Social 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/SBP recommend that information is presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories). 	<p>The Sustainability Financing Task Force (SFTF) is responsible for reporting on how proceeds are used and their impacts, based on financial and operational data. PLN will publish allocation and impact reports until all proceeds are fully allocated and continue if material changes occur until the instrument matures. Reports will be shared with lenders or related parties, and for private debt, PLN may report directly to lenders as required. Indicators and methodologies used in reporting will also be disclosed.</p> <p>PLN's allocation reporting will provide a clear overview of how funds are used. It will include a summary of all bond or loan issuances during the reporting period, with details such as transaction date, principal amount, maturity, coupon, and ISIN. It will also describe how proceeds are allocated to each eligible green or social project, showing amounts by category, examples of financed projects, any unallocated funds, and, where possible, project details like location and allocation size. This ensures transparency and accountability in the use of sustainable financing.</p> <p>PLN will report on the environmental and social benefits of eligible projects, along with the calculation methods and key assumptions used. The Framework also outlines examples of indicators that will be monitored and included in the reporting.</p> <p>DNV confirms that the proposed reporting is consistent with the criteria set out in the Principles & Standards.</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 group. All rights reserved.