



# Appraisal Environmental and Social Review Summary

## Appraisal Stage

### **(ESRS Appraisal Stage)**

Date Prepared/Updated: 08/31/2020 | Report No: ESRSA00360



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Indonesia	EAST ASIA AND PACIFIC	P169259	
Project Name	Indonesia Sustainable Least-cost Electrification Technical Assistance (ISLE TA)		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing		9/30/2020
Borrower(s)	Implementing Agency(ies)		
PT PLN (Persero)	PT PLN (Persero)		

Proposed Development Objective

The Project Development Objective is to support the Recipient in endorsing a framework approach to electrify the Indonesian Eastern Islands in a sustainable and affordable manner, and in preparing the investments needed to implement the approach in identified Pilot Islands.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>2.15</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The Indonesia Sustainable Least-cost Electrification Technical Assistance (ISLE TA) will enable PLN to develop and pilot a sustainable and affordable framework to electrification by reducing the cost of generation, improving grid reliability and mobilizing private investments. ISLE will provide a set of solutions to PLN to (i) reduce the cost of generation in its Eastern Islands by increasing the share of least-cost renewable generation, (ii) improve grid reliability by developing clear guidelines on how to assess electricity losses and lack of reliability and (iii) reduce the financial burden on the public finances by mobilizing private investments. The upstream activities (under BETF) focus on the development of the electrification and generation roadmap and framework, ensuring its replicability, while the downstream activities financed under this project under RETF focus on piloting such framework, including feasibility studies (FS) which



include preliminary environmental and social assessment, and relevant environmental and social (E&S) instruments including Environmental and Social Management Plan (ESMP), Resettlement Plan (RAP), and Indigenous Peoples Plan (IPP). The identified investment's ESMP will include Labor Management Plan (LMP). During the piloting phase, Lessons learnt will be collected on this piloting phase to inform the Framework that could be implemented to all the other Eastern Islands. By improving PLN's staff capacity to integrate variable renewable energy (VRE) and deal with its constraints in 10 selected islands, PLN may be able to then scale it up to larger grids.

To enable the Framework to be replicated in the rest of Indonesia, PLN identified with the support of the World Bank, 10 islands that are representative of different categories of small to medium size island grids in the Eastern Islands. The islands were selected by PLN based on the following criteria: (i) PLN grid size (5-250 MW); (ii) average generation cost; and (iii) existing electrification rate. The islands are divided into three groups, (i) Category 1: islands with installed capacity below 10 MW, 100 percent diesel generation and low electrification ratio; (ii) Category 2: islands with an installed capacity between 10 and 50 MW with 100 percent diesel generation; and (iii) Category 3: islands with an installed capacity between 50 and 250 MW with a diverse energy mix. ISLE is focusing on two regions, namely Maluku and Nusa Tenggara Timur (NTT) in eastern part of the island and the western part, Nusa Tenggara Barat (NTB). As per the official letter from PLN Planning Director received in February 2019, the selected islands are Alor, Morotai and Rote for Category 1; Buru, Seram and Tual/Kei Kecil for Category 2; and Flores, Sumbawa, Ternate and Timor Barat for Category 3 (together the Pilot Islands).

ISLE has two components: (i) Component 1: Identified Investments Preparation and (ii) Component 2: Support and Capacity Building. For each island a proposed least-cost generation plan has been developed and solar with battery investments identified as well as grid upgrades required for grid reliability and stability. The following grid and generations investments (together with the identified investments) have been identified as part of the affordable framework approach:

- a. Six hybridization systems (solar/battery to existing diesel) in the smaller grids, namely Alor, Rote, Morotai, Buru, Seram and Tual/Kei Kecil
- b. Ten medium-size solar PV projects in Flores, Sumbawa, Ternate and Timor
- c. Five grid-connected stand-alone battery storage in Flores, Sumbawa and Timor
- d. Two transmission lines of 80 km each in Timor and Flores
- e. Grid upgrades such as capacitor banks, transformers and SCADA systems in all islands to improve grid reliability and resilience.

The precise location of the above investments (hybridization systems solar/battery to diesel, medium size solar PV projects, transmission lines (150kV) and the grid upgrades) will be provided by the FS financed under this TA. Additionally, for the hybridization systems solar/battery to diesel, modification to the generation system will be carried out by combining it with the solar battery, thus the diesel powerplant is not considered as Associated Facilities instead as part of the hybridization projects. However, there will be no investments or adjustment will be made to the existing diesel plants.

## **D. Environmental and Social Overview**

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]



There will be no physical footprints and no construction activities carried out as part of the TA. However, given that the pilot islands are home to rich biodiversity, diverse natural habitats and ecosystems, and cultural diversity, the downstream impacts related to the development of the infrastructure for the solar projects may result in significant environmental and social adverse impacts and risks. Component 1 of this TA will include carrying out studies needed to finance the identified grid and generation investments in the 10 islands. The investments will consist of six hybridization systems (solar/battery to existing diesel) in the smaller grids, ten medium-size solar PV projects, five grid-connected stand-alone battery storage, two transmission lines of 80 km each, and grid upgrades such as capacitor banks, transformers and SCADA systems in all islands to improve grid reliability and resilience. The 10 island provinces participating in the project are located in the two Regions, i.e. Maluku and Nusa Tenggara (NTB and NTT) in Eastern Indonesia that they consist of Maluku (Morotai, Tual/Kei Kecil, Ternate, Seram, Buru); NTB (Sumbawa); and NTT (Alor, Rote, Flores, and Timor Barat). The three regions consist of major islands and island groups. Maluku (Moluccas) comprises 8 major islands and at least 10 islands groups. Additionally, NTB has two main islands beside other smaller islands, while NTT region consists of many islands. The location of these investments will be spread out in Maluku, NTB and NTT, however the precise locations will be provided by the FS financed under Component 1 which will include E&S Assessment. In general, the Maluku and Nusa Tenggara regions are often associated with poverty and lagged behind provinces, especially due to their dry climate and lack of fertility, as well as their geographical condition that hardens transportation between areas and infrastructure development. The regions also own rich nature and cultural diversity, resources and customs. Compare to the western part of Indonesia, the regions have distinct and differing geographical characteristics. They have numbers of Indigenous Peoples (IPs) that have a variety of traditions and customs expressed in language, dialect, local wisdom, and art. They live in the remote rural locations with lack of infrastructure facilities. In the Maluku region, District of Morotai has no native population as the majority community living in are Tobelo and Galela sub-ethnic migrated from North Halmahera due to mount eruption at the past. District of Buru and Seram have IPs community such as in Sub-district (Kecamatan/Kec.) of Waeapo (Wailua, Mual, Bihuku, etc.) and Namlea (Rana and Wahidi)ini Buru, and Kec. of Kairatu (Waemali, Alune, Rambatu) in Seram. There is Samawa in Kec. Batulanteh, Sumbawa District of NTB. Lastly, NTT still remains one of the least developed provinces in Indonesia. The province has IPs community such as in Alor (Maran Abui, Klou), and in Flores Timur. The protected or endangered species in these regions are mostly related to specific marine species, birds (from future investments of medium voltage transmission line) and also the endangered terrestrial species such Komodo Dragon of which their habitats are mostly quite remote from the targeted area for this TA project.

#### D. 2. Borrower's Institutional Capacity

As the leading implementing agency for the TA, PLN has an extensive experience with the application of the World Bank's Safeguards Policies through numbers of investment projects that have been implemented over the last 30 years, with the most recent and ongoing project being the Upper Cisokan Pumped Storage (UCPS) Power Project which aim to significantly increase the peaking capacity of the power generation system in Java-Bali in an environmentally and socially sustainable way and strengthen the institutional capacity of the PLN in hydropower planning, development and operation. PLN also involved in various other projects as implementing agency such as the Poko Hydro Project, the Matenggeng Pumped Storage Project, the two Indonesia Power Transmission Development for substation upgrade the Power Distribution Development PfR Program and the preparation of a Solar PV projects in eastern parts of Indonesia under the 1000 island projects (safeguards instruments had been prepared but the project was continued by other IFIs as mutually agreed) . Enhanced assistance and support by the World Bank has been required in order for PLN to demonstrate a satisfactory E&S performance on many of these operations. Furthermore, ongoing work being done in collaboration with ADB on the Use of Country Systems within PLN has highlighted PLN's needs for capacity development. PLN continues to build its internal environmental and social (E&S) capacity in terms



of staffing and their qualifications. PLN staff in Head Quarters, as well as 19 PLN staff from regional offices, have taken the ESF roll-out training. At this moment, every Regional Project Office (Unit Induk Pembangunan-UIP) has dedicated E&S staff at regional offices and last year PLN initiated the establishment of an Health, Safety, Security and Environment (HSSE) academy. PLN has allocated for this TA a project coordinator, an environment specialist, a social safeguards specialist, a procurement specialist and a financial management specialist (FM). Additionally, four main divisions of the PLN are following the project, including PLN Planning Division – corporate and system planning, PLN Wilayah – regional entities, PLN Procurement Division and PLN Safeguards Division. The overall Environmental and Social Management System at corporate level still needs strengthening in term of allocation of role and responsibility, internal and external communication and capacity building. Additionally, strong coordination between PLN Head Office and PLN Wilayah will be needed to ensure the success of the project.

## II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

### A. Environmental and Social Risk Classification (ESRC)

Substantial

#### Environmental Risk Rating

Substantial

There are no direct adverse environmental risks and impacts associated with the project activities and outcome from both component 1 and 2 as they are related to studies to find affordable and sustainable framework for least cost generation and capacity building initiatives. Instead, there are positive environmental benefits from reducing GHG emission and air/water pollution (from the emission and potential spillage) from the use of fossil fuel (diesel) for remote areas at this moment.

However, based on the 2019 OESRC Guidelines on Safeguard Application for TA, due to the possible indirect impact from future investments in medium-scale electricity generation and transmission infrastructure, these indirect impacts shall be considered during project risk classification.

In the event where PLN or private investors invested in the identified investments by using the outcome of the FS and E&S instruments, it would likely involve substantial environmental risks and impacts, depending on the project and its location. The potential negative environment impacts are not likely to be significant, irreversible and unprecedented because the identified investments are not complex or large in scale, site specific and does not involve activities that have a high potential for harming environment. During the construction of physical investment, some negative impacts could be expected on local air quality, soil and water resources, noise pollution and on natural habitats from the project footprints of the solar PV/battery storage facilities or from the medium voltage transmission line construction. These potential impacts can be avoided, minimized or mitigated by study of alternative site locations and adoptions of the state-of-art technologies and good engineering design. Given the Bank’s early involvement in the project design as part of Component 1 of this TA, the poor design risk and poor siting choices can be avoided through FS which will also include environmental and social assessment.

There is low probability of serious adverse effects to human health, mainly associated with community and occupational health and safety during installation. Transportation of equipment into remote areas may require road safety and community awareness measures, involving aspect of labor influx. Interactions between contracted workers, if any, and local communities are likely to be infrequent and small scale and should be manageable by codes

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of conduct. These potential impacts are low to moderate in intensity/significance and are reversible and localized in nature and therefore, can easily be mitigated.

The potential environment impacts for future investment will increase if during the FS activities implementation there were poor-quality screening and scoping and inadequate environmental assessment. A proper FS and the accompanying preliminary E&S assessment that will be funded by ISLE aims to avoid or reduce the risks and impacts from future investments. Furthermore, a set of Environmental and Social Management Plans (ESMP), Resettlement Plans (RAPs), Indigenous Peoples Plan (IPP), and Stakeholder Engagement Plan (SEP) will be developed for each future investment to ensure that measures are in place for construction and operation phase. The ESMP will include project investment-specific Labor Management Plan (LMP).

Additionally, PLN as the leading implementing agency has extensive experience with application of the World Bank's Safeguards Policies through number of previous investment projects and has allocated adequate number of resources for ISLE. Efforts will be done through Component 2 to strengthen the overall Environmental and Social Management System.

**Social Risk Rating**

Substantial

The social risk rating is substantial due to considering down stream impact from future investments that may lead to substantial land acquisition; possibility of IPs presence, and the capacity of the government. TA activities would be FS, E&S documents preparation, & capacity building initiatives. No direct adverse social risks and impacts associated with project activities, except the remote project locations that may create exclusion of stakeholder engagement or participation in planning. Poor participation planning process may decrease TA's outcome quality that fail addressing issue on electrification in last mile locations.

Positive social impacts can be expected, including improved electricity supply/access and employment generation. Potential social risks include land acquisition that are expected vary to be small scale for erecting power poles or for small capacity solar panel to substantial scale for the hybrid system installation or for big capacity solar panel. The hybrid system installation is designed to greatest extent use government/PLN owned land. However, when the land is not available, the project may affect to private or communal owned land. Expropriation of property, acquisition of access rights, physical displacement, and restriction on land use would not be envisaged. As project sites are in Eastern Islands of Indonesia, customary land issue may be encountered.

Exact FS locations are yet to be determined, however, the initial assessment indicates IPs present in the island provinces selected for the project. Further assessment will be made during FS when exact FS site are known. ToR ES Assessment (ESA) is provided as ToR FS annex to screen IPs presence. Potential social impact on IPs will relate to land taking possibility and issue on IPs exclusion in project. Risks associated with labor influx and Gender-Based Violence (GBV) is considered low as ISLE will not directly finance any civil works activities.

E&S screening conducted for FS will result in inputs to FS ToR which will include a social assessment designed to identify social risks and impacts. Exclusion list is established as part of ESA ToR to avoid IPs relocation, harmful child labor, and significant adverse impacts to IPs. Subproject ESMP will identify the extend of land taking requirement for each location investment, social impacts associated with these, and potential modalities to manage land acquisition process in compliance with ESS5. The project may acquire private land use through willing-buyer-willing seller

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(voluntary land transaction) and application of voluntary land donations (VLD). Such schemes will only be applied following provisions under ESS5. In applying these scheme, ToR Resettlement Plan (RAP) included a VLD and willing buyer – willing seller protocol, consistent with ESS5, as annex. For big capacity solar panel, involuntary land taking may apply and a RAP will be prepared by following provisions as outlined in ESS5.

When IPs are confirmed present in project site, IPPs document will be prepared as stand alone document or integrated under identified investment ESMP depend on the nature and scale of project’s impacts on IPs. A draft ToR of IPP is prepared before appraisal. Provisions on specific engagement requirements to ensure the inclusion of IPs is provided in the Stakeholder Engagement Framework (SEF) to have a meaningful consultation and participation in FS as outlined in ESS7 and ESS10. Identified Investment SEP will be developed following SEF as stand-alone document or attached to subproject ESMP depend on the broad engagement. A protocol to avoid and address GBV incidents is included in the ESMP ToRs, including the application of a code of conduct both for FS and E&S consultants and for contractors for future investments. This provision is included in the ESCP.

Enhanced assistance and support by the Bank are still required in order for PLN to demonstrate a satisfactory E&S performance on this project

## **B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

### **B.1. General Assessment**

#### **ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

##### ***Overview of the relevance of the Standard for the Project:***

The proposed TA’s outputs are expected to be an affordable and sustainable framework for least-cost electrification strategy, least-cost planning exercises for the Eastern Islands, and FS and E&S instruments for the identified investments. There will be no physical investment or civil works constructions to be undertaken by this TA either component 1 or 2. The TA project will not implement the recommendations resulting from the work mentioned above. Indeed, although the TA project will not in itself present significant adverse environmental and social risks and impacts, it entails feasibility-stage assessment in preparation for future investments in small to medium-scale electricity generation and transmission infrastructure, which would likely involve significant environmental and social risks and impacts if they were to be implemented.

The assessment of possible ‘indirect’ Environmental and Social Risks and Impacts from future investments shall be mainstreamed into the FS TORs. A TOR to conduct a preliminary Environmental and Social Assessment will be prepared by PLN before appraisal and will be put in the FS TORs as an annex covering all relevant aspects of the ESSs. E&S screening will be done as part of the FS, in its preliminary stage, to define any potential downstream impacts as part of the preliminary E&S assessment and to enable avoidance principle of mitigation hierarchy. The FS TOR will include typical E&S issues and risks to guide preparation of E&S assessment and will provide a template for screening mechanism and analysis of the potential impacts and mitigation measures for resources efficiency and pollution prevention aspects of the future activities. The preliminary Environmental and Social Assessment done under FS will not substitute necessary environmental assessments, such as AMDAL (or full environmental social assessment -ESIA), UKL-UPL (partial environmental assessment) , that is required to obtain the environmental permit later during investment phase.



At the same time when FS is undertaken, on a later stage, a site-specific ESMP (Environmental and Social Management Plan) that will contain specific management information to relevant ESSs at specific locations will be prepared. The site-specific ESMP will provide a plan and detailed procedure to be followed by PLN to manage and mitigate potential risks and impacts. This ESMP will also contain provision for effective downstream environmental and social management and mitigation process for each sub-project. The generic or typical TOR of the site-specific ESMP will be prepared before appraisal and this ESMPs will be prepared for each identified investment during implementation as part of the Borrower's ESCP. The ESMPs cannot be prepared now as the specific locations have not been identified and only during project preparation the ISLE will finance the FS studies to determine the exact location for each proposed activities. An LMP will also be prepared for each identified investment and will be developed as part of the ESMP. In addition, a Stakeholder Engagement Plan (SEP) for each identified investment will be developed to ensure stakeholders inclusiveness in the project following the Stakeholder Engagement Framework (ESF). The ESMPs and SEP will be included in the Environmental and Social Commitment Plan (ESCP).

The Project Paper has made a clear distinction between the activities funded under this TA project and the ones which are not. IPF TA follows para 14–18 of ESS1 as appropriate to the nature of the risks and impacts. The terms of reference, work plans or other documents defining the scope and outputs of technical assistance activities will be drafted so that the advice and other support provided is consistent with ESS 1–10.

During the Project implementation, another potential risk lay on the capacities of the implementing agency (PLN) in ensuring that E&S assessment are adequately elaborated and included as part of the FS. To overcome this aspect, the Project will ensure that (i) PLN has dedicated staff to the proposed project will include safeguards specialists to ensure all the required E&S analysis are adequately integrated in the FS studies, (ii) TORs have been prepared and well-integrated into the project design (in collaboration with the E&S specialist from PLN, the World Bank will review the adequacy of these studies and TOR), and (iii) PLN Safeguard Specialists supported by the Bank's Safeguards staff will provide E&S trainings to all PLN's staff involved in ISLE implementation, especially PLN Regional, under Component 2.

The draft ToR for preliminary E&S assessment as part of FS will be adjusted accordingly during project implementation for each identified investment. Final TOR for the FS will be reviewed and approved before tendering for each identified investment to ensure its compliance with the WB ESS and the Indonesia regulations.

### ESS10 Stakeholder Engagement and Information Disclosure

Since the project locations are yet to be determined, a framework-level approach would be prepared to guide the development of Stakeholder Engagement Plan (SEP) as soon as the project sites are known. A draft Stakeholder Engagement Framework (SEF) is prepared by PLN before appraisal. Each identified investment will prepared a investment-specific SEP based on the SEF as stand alone document or attached to the identified investment ESMP. With the covid19 condition, the SEF will also include a guidance for doing public consultation/stakeholder engagement when there are constraints on conducting public meetings due to Covid-19. Where there are constraints stakeholder engagement activities will need to be designed for the purpose an effective and meaningful consultations to meet project and stakeholder needs. The sub-project SEP will be updated and implemented throughout the FS activity. The SEP will help PLN builds and maintains over time a constructive relationship with their



stakeholders in terms of conducting FS for SHS and VRE, in particular the local beneficiaries and affected communities. Consultations with key stakeholders, as identified under SEP, will siting be part of FS. . The SEP will ensure that beneficiaries and affected communities will be engaged, especially regarding electrification options, design and location. It will also take into account the differential needs and participation requirements of men, women and those more likely to be excluded from participation due to their circumstances as the project location would be remote small islands. Due to the presence of IPs in the three regions, any specific engagement requirements for their participation is provided in the SEF and will be included in the identified investment SEP consistent with ESS7. Is representative organizations will be consulted during the preparation of the site-specific ESMP and IPP. A stakeholder grievance mechanism (GRM), as part of SEP, will be formed for the project to allow for feedback on the inclusiveness of the studies and associated design and planning decisions and intended to ensure participation of beneficiaries and affected stakeholders or communities, including IPs.

As part of information disclosure arrangement, draft ToR Preliminary E&S Assessment as annex of FS, ESMP, RAP and IPP, and a draft SEF will be disclosed publicly in the PLN website and regional offices of PLN at these 3 (three) regions, including AMDAL (or full environmental social assessment or ESIA) if necessary needed for specific sub-projects that meet the requirements in the Kepmen 38/2019 or has potential significant E&S adverse impacts. The Stakeholder Grievance Mechanisms will be informed publicly to let stakeholders lodge a grievance of feedback for the TA project. The preparation of the identified investment SEPs and their implementation will be included in the ESCP.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

Environmental and social screening activities associated with the Pre-FS and feasibility studies prepared by the project will consider risks and impacts of proposed investments on labor and working conditions), as well as draft provisions and labor procedures for later consideration in the design and tender process. Preparation of the ToR for the ESMP should include any necessary measures with regard to forms of labor to be deployed under the investments including management procedures or Labor Management Plan (LMP), and EHSs for potential use of local contractors or voluntary community labor. The ESCP mentions that a review of PLN’s labor management procedures in order to identify gaps with ESS2 and where necessary additional procedures will be drafted and include requirements for OHS, equal opportunity treatment, a grievance mechanism specifically for workers, prohibitions on harmful child and forced labor, will be required when investments in the sub-projects will be decided. As labor management procedures should be in place for direct workers hired / working on the project for PLN (e.g. consultants, PLN staff implementing the TA), the ESCP noted that direct hire workers will be hired and managed according to the provisions of ESS2.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

The Project will promote renewable energy related investments which will contribute to GHG emissions reduction. An upstream GHG-balance estimate for various technical options could be used as design criteria and as a supportive



argument for the project. The Project will finance FS that shall assess the possible impacts and risks on environmental pollution from procuring goods and materials (such as used batteries handling and other hazardous waste materials), impacts on human health and safety and the possible construction impacts to environment. An annex in the FS ToRs will provide a template to conduct a preliminary Environmental and Social Assessment including screening mechanism and analysis of the potential impacts and mitigation measures for resources efficiency and pollution prevention aspects of the future activities. The ToR of the site-specific ESMP will also include resource efficiency and pollution prevention aspects.

The Component 1 of ISLE includes carrying out studies needed to finance the grid and generation investments in Maluku, NTB and NTT. The investments will consist of hybridization projects of 20-30 MWp solar with battery combined to existing diesel, stand-alone PV projects (around 50 MWp each), grid-connected stand-alone battery storage, transmission lines and grid upgrades (500m doubling of 150kV line and doubling two transformers). Even though these investment has different potential E&S issues, however in general, the issues related to characteristics of these regions that are home to rich biodiversity with diverse natural habitats and ecosystems. General possible impacts and risks are environmental pollution from procuring goods and materials (such as used batteries handling and other hazardous waste materials), impacts on human health and safety and the possible construction impacts to environment. Additionally, from all types of investments, solar power generation and transmission lines are more likely to generate greater E&S risks and impacts. Typical main E&S issues for solar power generation includes the size of land required for construction of power generation components and facilities, the use of water resources for cooling or cleaning processes in solar plants, and handling of hazardous waste from used battery and panel replacement. While for the transmission lines, the linear type of development may required less land, but it is susceptible to cause habitat alteration, habitat fragmentation, overhead risks to birds and bats, and impacts from electric magnetic fields.

#### **ESS4 Community Health and Safety**

The Project will finance FS and associated environmental and social screening that should assess the possible impacts and risks on community health and safety from construction activities, interactions between contractors and the remote local beneficiaries and affected communities, electromagnetic fields from transmission line (if any) and possible impacts related to ecosystem services and dam safety. The assessment should take into account gender and vulnerability including any disproportionate impacts and risk on certain groups.

As the ISLE will not finance direct construction works, Gender-Based Violence risk level is low. Protocol to avoid and address GBV/Sexual Exploitation Abuse/Sexual Harassment in the ESMP ToR, including the application of a code of conduct both for FS and E&S consultants and contractors for future investments, and is included in the ESCP.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

ESS5 is relevant as downstream impact of the future investment implementation may lead to land taking for the proposed least-cost generation plan, solar with battery investments, and grid upgrades for grid reliability and stability. The level of land taking is expected varies to be small scale such as for erecting power poles or stand alone



PV project with small capacity solar panel to substantial scale such as for stand-alone PV project with big capacity solar panel. The installation of hybrid system is designed to the greatest extent use government or PLN owned land. In the case PLN or government land is found to have been illegally occupied, although it is unlikely in Eastern Indonesia, a Resettlement Plan (RAP) will be prepared and will include a protocol for compensation processes and risk mitigation measures addressing impacts on informal occupant in line with ESS5 and a ToR to prepare the RAP is developed.

Specific sub-project ESMP will identify the extend of land taking requirement for each location and each investment, social impacts associated with these, and potential modalities to manage land acquisition process in compliance with ESS5. When government/PLN owned land is not available, the project may use of land under private ownership or communal/customary land considering the project locations are in Eastern Indonesia. The project may acquire private land use through willing buyer-willing seller (voluntary land transaction) and voluntary land donation for small-scale project investment with minimum impacts and primarily for direct community benefits such as stand-alone PV investment with small capacity solar panel.

In applying VLD and willing buyer-willing seller schemes, a special care is required to ensure that the owners of the land must be able to retain the land and to refuse to sell or donate it, without the threat of compulsory acquisition, and is fully informed about available choices and their implications. Furthermore, an exclusion list is established in ES Assessment ToR to avoid displacement of persons, including IPs . As part of the RAP TOR, protocols for willing buyer-willing seller and voluntary land donation (VLD) schemes is included as annex as outlined in ESS5 to guide the consultant assessing the risk related to the implementation of these schemes. Following ESS5 such willing buyer-willing seller and voluntary land donation approaches will only be applied under these specific circumstances: a) land requirement is small; b) no site-specific linear infrastructure where there is no alternative siting; and c) there are viable alternative locations available to the project. These schemes may be used for required land for the installation of power poles, PV project with small capacity solar panel, and grid upgrades. Such protocols for the willing buyer-willing seller scheme will establish operational guidance to confirm that a) functional land market exists; b) the transaction has taken place with the owner’s informed consent; c) the owner was aware that it was possible to refuse to sell, and would not be subject to compulsory acquisition; and d) the owner was paid a fair price based on prevailing market values.

Under the RAP ToR, criteria applicable for voluntary land donation (VLD) is also established as annex. Such criteria will need to ensure that such a scheme is only allowed for small-scale donation with minor impacts on individual land user and require the project to demonstrate and document. Subject to prior Bank approval, this may be acceptable providing the project demonstrates that: (a) the potential donor or donors have been appropriately informed and consulted about the project and the choices available to them; (b) potential donors are aware that refusal is an option, and have confirmed in writing their willingness to proceed with the donation; (c) the amount of land being donated is minor and will not reduce the donor’s remaining land area below that required to maintain the donor’s livelihood at current levels; (d) no household relocation is involved; (e) the donor is expected to benefit directly from the project; and (f) for community or collective land, donation can only occur with the consent of individuals using or occupying the land. The project will maintain a transparent record of all consultations and agreements reached.

For substantial land taking for investments such as the stand-alone PV project with big capacity solar panel, involuntary taking of land following provision as outlined in ESS5 will apply including protocol for compensation processes and risk mitigation measures addressing the involuntary resettlement impacts. Given the project locations



are in the Eastern Indonesia that IPs present, the ToR RP also includes requirements to obtain and ensure free, prior, and informed consent (FPIC) of the affected IPs in the circumstances in which the project will have adverse impacts on IPs land and natural resources as defined in ESS7. The development of the RAP will be conducted during the TA and included in the ESCP.

### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

No significant direct impacts on biodiversity and natural resources are expected as the activities of ISLE are mainly studies and workshops. Downstream activities of ISLE include 21 grid and generation investments in Maluku, NTB and NTT. In general, the potential indirect impacts are related to characteristics of these regions that are home to rich biodiversity with diverse natural habitats and ecosystems. The potential indirect impacts and risks are disturbance to terrestrial and aquatic biodiversity from land clearing for construction of power generation components and facilities as well as operation of the powerplant and transmission lines. The assessment on possible indirect impacts to modified, natural, and critical habitats from downstream investments shall be mainstreamed into the FS ToRs. An annex to conduct a preliminary Environmental and Social Assessment will be put in the FS ToRs including the screening mechanism of natural habitats and biodiversity aspects.

When selecting the future generation projects, a provision shall be made that the future investment shall not finance a project that will cause significant conversion and degradation to modify, natural and critical habitats as part of the screening process of the partial assessment of the FS study. The site-specific ESMP to be produced under the TA will contain provisions for biodiversity assessment, management and conservation, to be applied for future investments.

### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

ESS7 is relevant as the target locations of the TA are in the Eastern Islands of Indonesia particularly in three regions: Maluku, West Nusa Tenggara – NTB, and East Nusa Tenggara - NTT, the presence of Indigenous Peoples is likely. In District of Buru and Seram have Indigenous Peoples community such as in Sub-district (Kecamatan/Kec.) of Waeapo (Wailua, Mual, Bihuku, etc.) and Namlea (Rana and Wahidi) in Buru, and Kec. of Kairatu (Waemali, Alune, Rambatu) in Seram. There is Samawa in Kec. Batulanteh, Sumbawa District. NTT has IPs community such as in Alor (Maran Abui, Klon), and in Flores Timur. As the information on the exact project locations is unknown at this stage, the presence of Indigenous Peoples at the project locations will be confirmed as part of the environmental and social identification and screening for the FS. In the case IPs are present in the identified investments in the 10 islands following characteristics outlined in ESS7, IP Plans (IPP) will be developed as part of the TA and included in the ESCP. A draft ToR of IPP is prepared by PLN before appraisal to guide consultation, engagement and management of impacts on IP and for the development of any necessary IPP. During the FS a meaningful consultation with the affected IPs will be conducted as the identified investment SEP will provide specific engagement requirements to ensure the inclusion of the indigenous peoples in the FS stage. Free, prior, and informed consent (FPIC) may be required if there are adverse impacts on land and natural resources subject to traditional ownership as outlined in ESS7. Relocation of IPs and significant impacts on IPs cultural heritage that is material to the identity and/or cultural, ceremonial or spiritual aspects are not envisaged.



The project will assess and integrate aspects on IPs in the FS activities through the following stages that will be outlined in the ToR: i) site screening to identify the present of IPs and to inform further engagement processes; ii) conduct consultation and engagement with IPs; iii) obtain free, prior and informed consent (FPIC) for circumstances outlined under ESS7; iv) conduct a social assessment as part of the ESMP and IPP process to understand the nature and scale of project’s impacts; v) prepare an IP Plan (IPP), which may be integrated under site specific ESMP or as a standalone document depending on the scale and nature of project impact on the IPs. In cases where ESMP will integrate IPP elements, a separate section of the ESMP will be developed with provisions equivalent to an Indigenous Peoples Plan (IPP) regarding IP related issues and risks. Where requirement for FPIC is identified, independent specialists will be engaged in order to facilitate FPIC. A stakeholder grievance mechanism will be prepared, included requirements to allow indigenous peoples submit any feedbacks or grievances.

**ESS8 Cultural Heritage**

While the project is a technical assistance and does not have any direct physical infrastructure investments, the ToR of the ESMP for the FS developed under the TA will include identification of cultural heritage and assessment of tangible and intangible significance in consultation with affected stakeholders, and deployment of a chance find procedure. Given that the project is likely to take place in areas with Indigenous Peoples, the ESMP should identify areas of cultural significance to local communities, particularly natural features with tangible and intangible heritage significance including spirit sites associated with streams and other water bodies, cliffs, caves, and grottos etc.

**ESS9 Financial Intermediaries**

No FI involvement is envisaged in the project

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways**

No

The identified investments are not located on international waterways.

**OP 7.60 Projects in Disputed Areas**

No

The identified investments are not located in disputed areas.

**III. BORROWER’S ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ESCP)**

DELIVERABLES against MEASURES AND ACTIONs IDENTIFIED	TIMELINE
ESS 1 Assessment and Management of Environmental and Social Risks and Impacts	
ORGANIZATIONAL STRUCTURE: Establish and maintain an organizational structure with qualified staff and resources to support the management of E&S risks, including hiring consultants or a firm with qualified environmental and social specialists with at least 10 years of experience to support the	02/2021

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management of E&S risks under the feasibility study and to prepare relevant risk management documents and E&S instruments.	
ENVIRONMENTAL AND SOCIAL ASSESSMENT: A preliminary Environmental and Social Assessment is included in the project activities as part of the Feasibility Study (FS) for each Identified Investment. The results of this assessment will be considered in developing Identified Investment’s ESMP, RAP, and IPP (if necessary), and SEP preparation.	02/2021
MANAGEMENT TOOLS AND INSTRUMENTS: Develop E&S management instruments for the project including Identified Investment specific ESMP, Labor Management Plan - LMP (as part of ESMP), RAP, IPP, and SEP, as applicable, and other E&S documents required by national laws and regulations, including AMDAL/UKL-UPL/SPPL.	12/2021
<b>ESS 10 Stakeholder Engagement and Information Disclosure</b>	
STAKEHOLDER ENGAGEMENT FRAMEWORK UPDATES: Update Stakeholder Engagement Framework (SEF), as needed, that describes principles outlining general principles and engagement process guiding the preparation of SEP and guide engagement for FS and E&S works	07/2021
STAKEHOLDER ENGAGEMENT PLAN PREPARATION AND IMPLEMENTATION: Develop Identified Investment-specific Stakeholder Engagement Plans (SEP) based on Stakeholder Engagement Framework (SEF). The SEPs will include and describe a grievance mechanism.	07/2021
PROJECT GRIEVANCE MECHANISM: Prepare, adopt, maintain and operate a grievance mechanism of the project, as described in the SEF.	12/2021
<b>ESS 2 Labor and Working Conditions</b>	
LABOR MGT PROCEDURES: Develop Labor Mgt Procedure for the Project in compliance with national laws and ESS2. Employment contracts for the Project workers in compliance with national laws. Incorporate relevant ESS2 reqs in all consultancy contracts.	12/2021
LABOR MGT PROCEDURES: Labor Management Plan will be developed as part of the identified investment ESMPs; Where relevant, ensure the proper integration of ESS2 requirements and satisfactorily implement them.	12/2021
GRIEVANCE MECHANISM FOR PROJECT WORKERS: Establish and maintain a grievance mechanism for Project workers, as part of labor management procedures as regulated in the national laws and regulations and consistent with ESS2.	12/2021
GRIEVANCE MECHANISM: Include the development of GRM for all Identified Investments as part of Identified Investment’s LMPs (to be included in Identified Investment specific ESMPs)	06/2021
OCCUPATIONAL HEALTH AND SAFETY (OHS) MEASURES: Include the OHS measures in the LMPs of the Identified Investment-specific ESMPs	06/2021

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**ESS 3 Resource Efficiency and Pollution Prevention and Management**

RESOURCE EFFICIENCY AND POLLUTION PREVENTION AND MANAGEMENT: To be assessed in each Identified Investment-specific FS and to be included in the Identified Investment-specific ESMP that will be prepared during project implementation – see ESS1.	12/2021
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**ESS 4 Community Health and Safety**

TRAFFIC AND ROAD SAFETY: To be included in the Identified Investment-specific ESMP for each Identified Investment that will be prepared during Project implementation – see ESS1.	12/2021
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COMMUNITY HEALTH AND SAFETY: To be included in the Identified Investment-specific ESMP that will be prepared during Project implementation – see ESS1.	12/2021
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GBV AND SEA RISKS: A Gender-based violence (GBV) code of conduct will be applied for FS and E&S consultants involved in the TA and will also be included in ESMP of each Identified Investment.	12/2021
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GBV AND SEA RISKS DURING PROJECT IMPLEMENTATION: Develop a GBV Code of Conduct to be signed by all TA staff and consultants involved in the TA.  Include protocol to avoid and prevent GBV in each Identified Investment ESMP.	12/2021
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GBV AND SEA RISKS DURING PROJECT IMPLEMENTATION: Include protocol to avoid and prevent GBV in each Identified Investment ESMP.	12/2021
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SECURITY PERSONNEL: Non applicable	
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**ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

RESETTLEMENT PLANS: Develop Resettlement Plans consistent with national laws and regulations as well as ESS5 requirements when the project involves involuntary resettlement.	12/2021
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RESETTLEMENT PLANS: Compliance with the willing buyer – willing seller (voluntary land transaction) and voluntary land donation protocol for such scheme application	12/2021
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GRIEVANCE MECHANISM: Include a GRM in the Identified Investment specific Resettlement Plans for potentially affected people as a result of land acquisition (if any).	12/2021
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**ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

BIODIVERSITY RISKS AND IMPACTS: To be assessed in Identified Investment FS and included in the its ESMP (will be prepared during project implementation–see ESS1). The ESMP will contain information on biodiversity assessment, management & conservation	12/2021
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**ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

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INDIGENOUS PEOPLES PRESENT OR COLLECTIVELY ATTACHED TO PROJECT AREA: Screen for the presence of indigenous peoples and if so, conduct an assessment in conjunction with Preliminary E&S Assessment (as part of FS).	12/2021
INDIGENOUS PEOPLES PLAN (IPP): Develop IPP in the event that there is a presence of IPs in the identified investment target areas as informed by the screening process. IPP can be as a stand-alone document or integrated in the ESMP.	12/2021
IPP: Engage independent specialist to ensure a Free, prior, and informed consent (FPIC) if there are adverse impacts on land and natural resources subject to traditional ownership and to assist in identification of the project risk and impacts	12/2021
GRIEVANCE MECHANISM: Include the GRM section in the IPP document for Identified Investment (if applicable).	12/2021
<b>ESS 8 Cultural Heritage</b>	
CHANCE FINDS PROCEDURE: To be included in the ESMPs for each Identified Investment.	12/2021
<b>ESS 9 Financial Intermediaries</b>	

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**B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts**

**Is this project being prepared for use of Borrower Framework?** No

**Areas where “Use of Borrower Framework” is being considered:**

The TA will not undertake a Borrower’s E&S framework assessment to replace certain aspects of WB requirements of the ESSs. All WB requirements will be applied as per the relevant ESSs. Later options to use parts or all of the Borrower’s E&S framework to replace certain aspects of the ESSs would be assessed after completion of the TA and once the FS has produced a portfolio of likely investments and the Bank is requested by the Borrower to contribute investment project financing.

**IV. CONTACT POINTS**

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**Borrower/Client/Recipient**

Borrower: PT PLN (Persero)

**Implementing Agency(ies)**

Implementing Agency: PT PLN (Persero)

**V. FOR MORE INFORMATION CONTACT**

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**VI. APPROVAL**

Task Team Leader(s): Sabine Mathilde Isabelle Cornieti, Stephan Claude Frederic Garnier, Puguh Imanto

Practice Manager (ENR/Social) Ann Jeannette Glauber Cleared on 31-Aug-2020 at 12:22:24 EDT