Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

Date Prepared/Updated: 12/03/2018 | Report No: ESRSC00108
BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>EAST ASIA AND PACIFIC</td>
<td>P169259</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia Sustainable Least-cost Electrification (ISLE)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Practice Area (Lead)</th>
<th>Financing Instrument</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy &amp; Extractives</td>
<td>Financing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investment Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Borrower(s)</th>
<th>Implementing Agency(ies)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT PLN (Persero)</td>
<td>PT PLN (Persero)</td>
</tr>
</tbody>
</table>

Proposed Development Objective(s)
The Development Objective is to support the Government of Indonesia, and in particular PLN, in adopting a platform approach for electrifying eastern Indonesia in a sustainable and cost-competitive manner while leveraging private sector investments.

Financing (in USD Million)

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.40</td>
</tr>
</tbody>
</table>

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]

D. Environmental and Social Overview
D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]
The islands participating in the project are located in the three Regions, i.e. Maluku, West Nusa Tenggara (NTB) and East Nusa Tenggara (NTT) in Eastern Indonesia. The three regions are often associated with poverty and lagged behind provinces. It is influenced by many factors in particular the geographical condition that hardens transportation
between areas and infrastructure development. In NTT dry climate and lack of fertility bring dryness and shortage of food. In the other hand, the regions also own rich nature; cultural resources; and distinct and differing geographical characteristics. The regions consist of major islands and island groups. Maluku (Moluccas) comprises 8 major islands and at least 10 islands groups such as Halmahera, Tual, Ambon, and Seram. NTB has two main islands, i.e. the islands of Lombok and Sumbawa, beside other smaller islands. NTT consists of many islands, of which the largest and socio-economically most significant are Flores, Sumba and the western part of Timor. The regions have numbers of Indigenous communities. They live in the remote rural locations with lack of infrastructure facilities. In NTB, Islam is the main religion, while in NTT and Maluku Christianity is dominant. It has also to be noted that parts of the population in NTT, especially in Sumba island, continue to practice traditional animist religions. The Regions are also rich in biodiversity. NTT is well known with its Komodo Island and other surrounding small islands as protected areas, while Islands in NTB have Rinjani Mountain National Park and many exotic beaches as tourist destination spots similar to Maluku with its marine ecosystem. The protected or endangered species in these regions are mostly related to specific marine species, birds and the endangered terrestrial species such as Komodo Dragon of which their habitats are mostly quite remote from the resettlement areas. The selection of project sites would be part of the studies to be financed under this TA.

D. 2. Borrower’s Institutional Capacity

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, including the ongoing Upper Cisokan Pumped Storage Project, the Poko Hydro Project, the Matenggeng Pumped Storage Project, the two Indonesia Power Transmission Development for substation upgrade and the Power Distribution Development Program. 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. 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. This aspect shall be assessed further during the project preparation.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)  Moderate

Environmental Risk Rating  Moderate

The nature of the TA project in terms of activities would be pre-feasibility studies (pre-FS) and feasibility studies (FS). There are no direct environmental risks and impacts associated with the project activities and outcome. However, based on the 2014 LEGEN Guidelines on Safeguard Application for TA, due to the possible indirect impact from the works conducted under FS when it is implemented for future investments in small-scale electricity generation and distribution infrastructure, these indirect impacts shall be considered during project risk classification, in addition to the potential risks from the TA itself and its salient physical locations of the participating islands as well as the capacity of the government (and regional PLN) in the three regions. The FS will focus on strategy for mini-grids and SHS deployment; and VRE hybrid and solar plus storage project. No feasibility studies for grid expansion will be conducted. The future investments using the outcome of the FS would likely involve moderate environmental and social risks and impacts, if they were to be implemented. The potential environmental risks are not likely to be
significant, because the project is not complex or large in scale, does not involve activities that have a high potential for harming people or the environment. The potential impacts for future investment (if any) are predictable, temporary and reversible, low in magnitude, site specific and project’s risks and impacts can be mitigated in predictable manners. To screen, assess and manage environment and social risks and impacts in the TA project, a simple and standalone Environmental and Environmental Policy Framework (ESMF) will be prepared and the elements under the ESMF would be factored in the FS undertaken by the TA.

**Social Risk Rating**

Moderate

The nature of the TA activities would be mapping, pre FS, and FS, which the outcome will be a platform. No direct risks and impacts associated with the project activities and outcome, except the remote islands as project locations, that may create exclusion of stakeholder engagement or participation in planning. Poor quality of stakeholder engagement in planning may decrease the quality of the TA outcome that fail addressing issue on electrification in last mile locations. On the other hand, based on the 2014 LEGEN Guidelines on Safeguard Application for TA, indirect impacts when the outcome is implemented for future investment in small-scale electricity generation shall be considered, in addition to the potential risks from the TA itself and its salient physical locations of the participating islands as well as the capacity of the PLN in the regions. The future investments using the FS outcome would likely involve moderate social risks and impacts. The potential negative social impacts are not likely to be significant, because the project is not complex or large in scale, does not involve activities that have a high potential for harming people. The potential social impacts for future investment will increase if during the FS activities there is poor-quality screening and scoping, lack of stakeholder engagement and poor social assessment accompanying the FS. The risk classification of the projects is moderate taking into account the broader contextual risk such as political stability or situation, which is in-significant. The potential impacts for future investment (if any) can be mitigated in predictable manners. To screen, assess and manage environment and social risks and impacts in the TA a simple and standalone ESMF will be prepared and the elements under the ESMF would be factored in the FS undertaken by the TA. In addition, a Stakeholder Engagement Plan (SEP) will be developed to ensure stakeholders inclusiveness. ESMF and SEP will be included in ESMP.

**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 a least-cost electrification strategy for the Eastern Islands, least-cost planning exercises and load flow studies for each selected islands, pre-FS and FS of VRE plus storage projects and trainings/workshops. There will be no physical investment or civil works constructions to be undertaken by this TA. The TA project will not implement the recommendations resulting from the work mentioned above. However, based on 2014 Guidelines on safeguards applications for TA, as this grant Project will prepare and develop small scale physical infrastructure (mini-grids and small solar and storage power plants), E&S implications need to be considered under the TA. 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-scale electricity generation and distribution infrastructure, which would likely involve moderate environmental and social risks and impacts if they were to be implemented. E&S screening will be done as part of the preparation of the TORs for the
Pre-FS, FS and other studies as an important procedure outlined in the ESMF. The output of the project will advise the implementing agency on least-cost options to connect un-connected population through non-grid connection (mini grid development) using variable renewable energy source (solar, biomass, wind, geothermal and mini-hydro) and will provide technical detail on type of hybrid generating system (connected to the existing grids using renewable resources). The potential negative environment and social impacts from the installation of the mini grid and the hybrid generating system, if implemented, are expected to be moderate, predictable, site specific and temporary that can be readily mitigated with standard available approaches and methodologies.

**Areas where reliance on the Borrower’s E&S Framework may be considered:**

The project is not proposing to use aspects of Borrower system for the TA. Later options to use parts or all of the Borrower’s E&S framework 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.

**ESS10 Stakeholder Engagement and Information Disclosure**

A Stakeholder Engagement Plan (SEP) will be prepared by the implementing agency after grant agreement, before FS to be conducted. The SEP will be implemented by the PLN 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. The SEP is a living document which will be updated throughout the TA project. The project will identify various individuals or groups who i) are affected of likely to be affected (directly or indirectly) by the project (“affected parties”), or ii) may have an interest in the project (“other interested parties”). Consultations with key stakeholders, as identified under SEP, will be part of the feasibility stage environmental and social screening activities. 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 Indigenous Peoples in the 3 regions, any specific engagement requirements for their participation will be provided in the SEP. A stakeholder grievance mechanism (GRM), as part of SEP, will be formed 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 Indigenous Peoples, in project selection, design and location. As part of information disclosure arrangement, a draft ESMF will be disclosed publicly in the PLN website and regional offices of PLN at the 3 regions. The meaningful consultation with relevant stakeholders will be conducted during ESMF finalization. The GRM will be informed publicly. The SEP preparation will be included in 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 FS should include any necessary measures with regard to forms of labor to be deployed under the investments including management procedures and EHSGs for potential use of local contractors or voluntary community labor.
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. E&S specialists will review and conduct further assessment when the Project design is clearer during the appraisal stage.

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.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The output of the TA will advise the implementing agency on least cost ways to electrify the population and will provide technical detail on type of hybrid power plants to reduce PLN current generation cost in the form of a platform. However, the implementation of the outcome of the TA project for future investment, if they were to be implemented, may lead to land acquisition for the installation of mini grid or hybrid system, which would be minor, as no FS for grid expansion. Expropriation of property, acquisition of access rights such as for easement, or physical displacement would not be envisaged, including no issue on restriction on land use. As the target locations of the project are in the Eastern Islands of Indonesia, communal/customary land may be encountered. The environmental and social screening conducted for the FS will result in inputs to the FS ToR which will include a social impact assessment designed to identify the extent of land taking requirements, the social impacts associated with these, and the potential modalities for the acquisition of land that mitigate impacts on affected stakeholders. Potential modalities include application of involuntary taking of land, which would require a development of a necessary plan, and application of voluntary land donations which would require the provision of a voluntary land donation protocol consistent with the ESS5 to manage and mitigate the impacts on those affected. Both instruments will be provided in the proposed Environmental and Social Management Framework (ESMF).

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

No significant impacts on biodiversity and natural resources are expected as the activities are mainly studies and workshops. However, the assessment on possible impact to modified, natural, and critical habitats shall be mainstreamed into the FS TORs as the annex of the ESMF. 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 ESMF. The ESMF to be produced under the TA will contain provisions for biodiversity assessment, management and conservation, on a
framework level of detail to be applied in the FS and related studies under the project. The E&S specialists will review and conduct further assessment during the finalization of the Project concept and include the theme of biodiversity into the generic TOR for FS.

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

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 Flores islands there are Bena communities in Ngada District, Heso in Manggarai District, Lukuwalu Praing Patawang in East Sumba District, etc. In West Nusa Tenggara, Lombok is mainly inhabited by the Sasak and Sumbawa is inhabited by Sumbawa and Bima. In Maluku Region, Rana community living in Buru island, Waemale in Seram island, etc. The identification and initial screening of Indigenous Peoples known to exist in the three regions will be defined and provided in the proposed ESMF. The presence of Indigenous Peoples at the project locations will be confirmed as part of the environmental and social screening for the FS financed under the RETF activities. During the implementation of the FS activities meaningful consultation will be conducted as the stakeholder engagement plan (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 some impacts on land, as there may be for mini-grid or micro-hydro development. A template associated social assessment and any necessary Indigenous Peoples Plans would be developed and included in the proposed ESMF. Considering the low magnitude of risks and impacts, no need third-party specialist to engage. 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 environmental and social screening procedures in the ESMF 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. The procedures will be provided in the proposed ESMF. Compared to other islands in Indonesia, the presence of cultural heritage assets in these three regions are not as many as found in Java and Sumatera.

**ESS9 Financial Intermediaries**

No Fi involvement is envisaged in the project

### C. Legal Operational Policies that Apply

<table>
<thead>
<tr>
<th>Policy</th>
<th>Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP 7.50 Projects on International Waterways</td>
<td>No</td>
</tr>
<tr>
<td>OP 7.60 Projects in Disputed Areas</td>
<td>No</td>
</tr>
</tbody>
</table>
III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered?  
Financing Partners

B. Proposed Measures, Actions and Timing (Borrower’s commitments)

Actions to be completed prior to Bank Board Approval:
TOR preparation of an Environment and Social Management Framework (ESMF)

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):
- Preparation of Environment and Social Management Framework (ESMF)
- Preparation of Stakeholder Engagement Plan (SEP)

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS 04-Mar-2019

IV. CONTACT POINTS

World Bank
Contact: Krisnan Pitradjaja Isomartana  
Title: Senior Environmental Specialist
Telephone No: 5781+3352 /  
Email: kisomartana@worldbank.org

Contact: Francisca Melia. N Setiawati  
Title: Social Development Specialist
Telephone No: 5781+3264 /  
Email: fsetiawati@worldbank.org

Borrower/Client/Recipient
Borrower: PT PLN (Persero)

Implementing Agency(ies)
Implementing Agency: PT PLN (Persero)

V. FOR MORE INFORMATION CONTACT
VI. APPROVAL

Task Team Leader(s): Stephan Claude Frederic Garnier, Puguh Imanto