

Program Safeguard Systems Assessment

March 2020

Proposed Results-Based Loan
Perusahaan Listrik Negara
Sustainable Energy Access in Eastern Indonesia –
Electricity Grid Development Program Phase 2
(Kalimantan, Maluku and Papua)

ABBREVIATIONS

ADB	–	Asian Development Bank
AMDAL	–	analisis mengenai dampak lingkungan (environmental impact assessment)
cm	–	centimeter
CSS	–	country safeguard system
DLH	–	<i>dinas lingkungan hidup</i> (provincial and district environment agencies)
EGDP	–	Electricity Grid Development Program
ha	–	hectare
HSSE	–	health, safety, security and environment
m ²	–	square meter
MOEF	–	Ministry of Environment and Forestry
MOER	–	Ministry of Environment regulations
PCB	–	polychlorinated biphenyl
PLN	–	<i>Perusahaan Listrik Negara</i> (State Electricity Corporation)
PPT	–	PLN land and permit division
PSSA	–	program safeguard systems assessment
RBL	–	results-based lending
RUPTL	–	<i>Rencana Usaha Penyediaan Tenaga Listrik</i> (Electric Power Supply Business Plan)
SPPL	–	<i>surat pernyataan kesanggupan pengelolaan dan pemantauan lingkungan hidup</i> (commitment for environmental management and monitoring plan)
UIW	–	<i>Unit Induk Wilayah</i> (Regional Administrative Unit)
UKL	–	<i>upaya pengelolaan lingkungan hidup</i> (environmental management plan)
ULP	–	<i>Unit Layanan Pelanggan</i> (Customer Services Unit)
UPL	–	<i>upaya pemantauan lingkungan hidup</i> (environment monitoring effort)
UP2K	–	<i>Unit Pelaksana Proyek Ketenagalistrikan</i> (Electricity Project Implementation Unit)
UP3	–	<i>Unit Pelaksana Pelayanan Pelanggan</i> (Customer Service Implementation Unit)

PROGRAM SAFEGUARD SYSTEMS ASSESSMENT

1. The Sustainable Energy Access in Eastern Indonesia – Electricity Grid Development Program Phase 2 will finance a slice of the broader program in the Electricity Power Supply Business Plan (RUPTL) 2018–2027 for Eastern Indonesia using the results-based lending (RBL) modality.¹ The executing agency will be the State Electricity Corporation (PLN) and the program will be implemented by the PLN Regional Administrative Units (UIW).²
2. The RBL program is aligned with the RUPTL's goal of enhancing the quality of life in Indonesian society by the sustainable use of electricity (footnote 1). The outcome is enhanced sustainable, equitable and reliable access to electricity for the population in Kalimantan, Maluku and Papua. Three output level results contribute to the outcomes:
 - (i) **Output 1. Power distribution network strengthened and expanded.** This will be achieved by the installation of new distribution lines.
 - (ii) **Output 2. Clean energy use increased.** Output 2 focuses on power generation from solar photovoltaic, mini and micro-hydro, and community biogas power plants.³ The aim of this output is to promote the shift towards renewable energy.
 - (iii) **Output 3. Institutional capacity and social monitoring enhanced.** Output 3 focuses on improving asset and waste management, and on enhancing social and gender aspects.
3. The program safeguard systems assessment (PSSA) aims to (i) examine the safeguard systems of the Government of Indonesia and PLN, as well as PLN's related implementation practices and capacity; and (ii) suggest safeguard program actions where significant gaps with the principles of the Asian Development Bank (ADB) Safeguard Policy Statement (SPS) are identified.⁴ The PSSA builds on existing knowledge and experience of ADB and PLN, as well as on a specific analysis carried out during program preparation, and was validated through field investigations and extensive discussions with PLN and relevant stakeholders. The program triggers environment, involuntary resettlement, and indigenous peoples safeguard principles under ADB's SPS.

A. Program Environmental and Social Impacts and Risks

4. **Environment.** The program is classified as category B for environment. The program is anticipated to generate significant positive environmental and social benefits from substitution of electricity for kerosene and wood as a household fuel source, and promotion of renewable energy sources that will lead to greenhouse gas reductions and health benefits. Activities located in key biodiversity areas or national protected areas⁵—including wildlife sanctuaries or reserves, animal refuges, and cultural heritage sites—will be excluded from the program scope at the screening

¹ PLN. 2018. *Electricity Power Supply Business Plan*. Jakarta: PLN

² The proposed program focuses on 9 provinces, 5 in Kalimantan (West, North, Central, East and South Kalimantan), 2 in Maluku Islands (Maluku and North Maluku), and 2 in Papua (Papua and West Papua).

³ In areas with viable settlements but which may be too costly to reach by expanding the existing distribution network, renewable energy and hybrid generation options (micro-hydropower, biogas and photovoltaic systems plus diesel generators) will be supported by the program.

⁴ ADB. 2018. *Staff Guidance for Piloting Results-Based Lending for Programs*. Manila. ADB. 2009. *Safeguard Policy Statement*. Manila.

⁵ Key biodiversity areas are sites of international importance for the conservation of biodiversity through protected areas and other governance mechanisms. They are identified nationally using simple standard criteria, based on their importance for maintaining species populations, and are recognized by the International Union for the Conservation of Nature (IUCN).

stage.⁶ The adverse environmental impacts of eligible activities under the program—including expansion of medium- (20 kilovolt) to low-voltage (400 volt) distribution lines, and the construction and/or rehabilitation of low-capacity communal photovoltaic systems, micro-hydropower plants, and small biogas power plants⁷—are anticipated to be minimal to minor, site-specific, and reversible, and can be mitigated to acceptable levels through good construction practices.⁸ Concerns during operation include the generation of wastes such as damaged transformers and batteries,⁹ emissions from biogas plants,¹⁰ and the lack of community awareness of electrical safety.

5. **Involuntary resettlement.** The program is classified as category B for involuntary resettlement. The land area required for the program is small, because distribution lines are mostly built along public roads. The expansion of medium- and low-voltage distribution lines will require (i) the use of no more than 0.2 square meters (m²) of land for installation of concrete poles; (ii) 4.5 m² to 24 m² of land for the installation of distribution transformers; and (iii) possible removal or trimming of trees (or other non-land assets) over 4m in height along a 3m wide right-of-way for the stringing of conductors. Village-level solar photovoltaic systems, micro-hydropower plants and biogas power plants will require up to 20,000 m² of land. Mini and micro-hydro, solar, biogas, and diesel generator facilities are generally built in remote areas and on unproductive land. Significant impacts to productive trees and crops and physical displacement are not expected. Program activities that would be classified as Category A under ADB's SPS will be excluded from the program.¹¹

6. **Indigenous Peoples.** The government identified 1,128 customary communities that live in 263 districts in 2017.¹² In Kalimantan, Maluku and Papua, customary communities make up most of the population. Remote or isolated indigenous communities tend to be marginalized from social facilities and overall development processes. Most rural land in Kalimantan, Maluku and Papua is subject to customary law and managed as *tanah adat* or *tanah ulayat* (customary land). The program will avoid land acquisition or use of ancestral customary lands and sacred places. The program will enhance access of customary communities to electrification and improve understanding of electricity benefits and safety concerns. The program is classified category B for Indigenous Peoples, and will exclude activities classified as category A.¹³

⁶ Activities excluded from the RBL program may remain included in the broader government program. ADB. 2013. *Piloting Results-Based Lending for Programs*. Manila.

⁷ The micro-hydropower facilities eligible under the program will be limited to run-of-the river type and those with a capacity of 1 MW or less to avoid significant changes to hydrology and fisheries. The capacity of village-level photovoltaic systems, micro-hydro power plants and diesel gensets is typically 10–200 kW.

⁸ Site visits conducted in Kalimantan, Papua and Maluku confirm that construction practices of contractors are generally satisfactory. No major environmental concerns were identified at the sites visited; management of used equipment, including transformers at warehouses and the disposal of damaged batteries from photovoltaic systems, is of concern.

⁹ Transformers produced before 1985 may potentially contain polychlorinated biphenyls (PCBs). Damaged batteries may contain hazardous elements such as lead, nickel, cadmium, and acids, which are to be managed properly to avoid contamination of soil and water.

¹⁰ Under the program, biogas plants with capacity below 100 kW will be eligible to limit the generation of significant amounts of pollutants and ensure sustainable sourcing of biomass fuels.

¹¹ These are activities that would severely affect 200 or more persons defined as (i) being physically displaced, or (ii) losing 10% or more of their productive assets.

¹² There are several terms used by the government to refer to Indigenous Peoples, i.e customary communities, remote customary communities, customary legal communities. The national indigenous peoples' organization, Aliansi Masyarakat Adat Nusantara, estimates that there are 50–70 million indigenous peoples in Indonesia.

¹³ These are activities that would (i) make customary communities unable to continue their existing traditional livelihood system; (ii) change the status of customary communities from self-subsistence farmers and forest products gatherers to factory workers; (iii) result in physically displacing a sub-community far away from its wider community of origin; (iv) restrict forest-dependent customary communities from accessing forest products.

B. Safeguard Policy Principles Triggered

7. The program will trigger all 11 environmental principles of ADB's SPS for those activities with potential adverse environmental impacts. The program will screen out any high-risk activity requiring an environmental impact assessment (AMDAL) or classified as Category A in accordance with ADB's SPS on the basis of a safeguard screening guidance issued by PLN in August 2018 for PLN regional units (UIWs), in accordance with Ministry of Environment and Forestry (MOEF) Regulation No. 05/2012 (Type of Activities Requiring AMDAL), Appendix 1.

8. The program will trigger 9 of 12 principles of ADB's SPS on involuntary resettlement (principles 1, 2, 3, 6, 7, 8, 9, 11 and 12), and 6 of the 9 principles on indigenous peoples (principles 1, 2, 3, 6, 7, and 9).¹⁴

C. Diagnostic Assessment

1. Assessment Methodology and Resources

9. The assessment incorporated a review of government laws and regulations pertaining to safeguards; PLN guidelines related to activities under the program scope and safeguards; PSSA and monitoring reports for previous energy RBL programs;¹⁵ and initial findings of the equivalence and acceptability assessments for PLN use of the country safeguard system (CSS).¹⁶

10. Meetings were held with PLN staff at headquarters, the UIW in Kalimantan, Maluku, and Papua, and units that report to the UIW - the Customer Service Implementation Units (UP3), Electricity Project Implementation Units (UP2K), and Customer Services Units (ULPs). Sites of distribution lines (proposed, existing and under construction), solar photovoltaic facilities, micro-hydropower facilities, small community diesel gensets, substations, and PLN warehouses were visited in April, October and November 2018. Consultations with affected persons and program beneficiaries were conducted to gather information about social and environmental issues and concerns on the proposed program.¹⁷ Meetings were also held with the local government agencies at provincial and district and/or city level, contractors, as well as with the customary council.¹⁸ Consultation meetings with PLN staff from headquarters and regional offices on the draft PSSA were held on 12–13 December 2018 and 12–15 January 2019 to obtain their views, suggestions, and recommendations.

2. Environment

11. The assessment summarizes the results of the diagnostic assessment of the government's current system (policy and legal frameworks) and PLN practices, and identifies

¹⁴ The ADB SPS (footnote 4) clarifies when involuntary resettlement and indigenous peoples principles are triggered. The Supplementary Appendix Additional Information to the PSSA (footnote 19) also provides a matrix where all the above principles are listed and applicability to the program assessed.

¹⁵ ADB. 2015. *Program Safeguard Systems Assessment. Indonesia: Electricity Grid Strengthening - Sumatera Program*. Manila; ADB. 2017. *Program Safeguard Systems Assessment. Indonesia: Sustainable Energy Access in Eastern Indonesia—Electricity Grid Development Program*. Manila.

¹⁶ ADB. 2017. *Report on the Equivalence and Acceptability Assessments for the State Electricity Company of Indonesia (PLN): Consultation Draft*. Manila.

¹⁷ A total of 22 villages were visited during the assessment. More than 200 persons including customary communities, women and youth participated in the meetings and interviews conducted at village level.

¹⁸ Including (i) provincial and district environment agencies and forestry departments to validate the environmental screening, assessment, monitoring and reporting procedures related to the program scope; (ii) provincial and district social agencies; (iii) district public work agencies; (iv) district Ministry of Energy and Mineral Resources agencies; (v) district head offices.

significant gaps between the program's environmental safeguard system and ADB's environment safeguard policy principles.¹⁹

12. Policy and legal frameworks. The Government of Indonesia's and PLN's environmental safeguard system is broadly aligned to the objectives, scope and triggers of ADB safeguards for environment. Indonesia's environment regulatory framework,²⁰ as defined in Environmental Law No. 32/2009, prescribes requirements for (i) AMDAL; (ii) environmental management plans (UKL) and environment monitoring efforts (UPL);²¹ (iii) a letter of commitment for environmental management and monitoring plans (SPPL);²² (iv) environmental permit process; (v) public consultation and grievance redress mechanism; and (vi) implementation of appropriate mitigation measures. Projects or activities that pass through protected or conservation areas automatically require an AMDAL. Other activities are required to have a UKL, UPL or SPPL. In screening and categorizing projects, the provincial and district environment agencies (DLH) refer to the thresholds in Article 23 of the Environmental Law No. 32/2009 and use geographic information system-based spatial planning maps to determine the project category. Low and medium-voltage distribution line projects and low-capacity powerplants do not require an AMDAL, UKL or UPL because of the low potential impacts, and instead require only an SPPL. Furthermore, the national legal framework (i) regulates the management and disposal of toxic and hazardous waste substances, including phasing out and managing wastes containing polychlorinated biphenyls (PCB);²³ (ii) guarantees the provision of the correct information to the public;²⁴ (iii) ensures the right of every worker to protection, health, and safety to achieve optimal work productivity;²⁵ (iv) requires the implementation of a health and safety system;²⁶ and (v) regulates the procedures and mechanisms for the preservation of protected areas²⁷ and cultural heritage sites.

13. Implementation practices. PLN has established a relatively robust system of environmental guidelines that supplement the national regulatory framework as stipulated in the PLN decrees 473/2010 and 606/2010.²⁸ More recently, PLN issued two environmental

¹⁹ Additional Information to the PSSA (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

²⁰ Including: (i) Ministry of Environment Regulations (MOER) No. 05/2012. Regarding Type of Activities Requiring AMDAL; (ii) MOER No. 16/2012. Regarding Guidelines for Preparation of Environmental Documents; and (iii) MOER No. 17/2012. Regarding Guidelines for Public Participation in AMDAL Process and Environmental Permit.

²¹ This pertains to the management and monitoring efforts of businesses and activities that have no significant impacts on the environment, which are necessary for the decision-making process regarding the implementation of these businesses and activities. UKL and UPL are equivalent to ADB's initial environmental examination.

²² SPPL is a commitment or statement prepared by a proponent to monitor and manage the environmental impacts of businesses and activities that are exempted from the AMDAL, UKL or UPL.

²³ Government Regulation No. 74/2001 and 101/2014. Regarding Management of Toxic and Hazardous Waste Substances; and MOER No. 33/2009 Regarding Recovery Procedure of Land Contaminated by Hazardous and Toxic Waste outline restoration procedures for contaminated land. Under the National Implementation Plan (NIP) of Indonesia, the Government is obliged to fully phase-out PCB use by 2028 as part of the commitment to the Stockholm Convention on persistent organic pollutants (POPs). PCB Management Guidelines have been developed by MOEF with assistance from UNIDO and are now under legal review prior to becoming a ministerial regulation.

²⁴ Law No. 14/2008. Regarding Public Information.

²⁵ Law No. 13/2003. Regarding Manpower, and Government Regulation No. 50/2012 Regarding Practice of Health and Safety Management System.

²⁶ Government Regulation No. 50/2012. Regarding Practice of Health and Safety Management System.

²⁷ Presidential Decree No. 32/1990. Regarding Management of Protected Areas, and Law No. 11/2010 Regarding Physical Cultural Resources.

²⁸ PLN. 2010. *Lampiran Keputusan Direksi PT PLN (Persero)/Nomor:473.K/DIR/2010 Buku 3–Standar Konstruksi Jaringan Tegangan Rendah Tenaga Listrik* (Regarding Construction Standard for Low Voltage Power Network); PLN. 2010. *Lampiran Keputusan Direksi PT PLN (Persero)/Nomor:606.K/DIR/2010 Buku 5–Standar Konstruksi Jaringan Tegangan Menengah Tenaga Listrik* (Regarding Construction Standard for Medium Voltage Power Network).

guidelines.²⁹ PLN also restricts the use of herbicides during tree trimming and clearing; specifies that transformers should not contain PCBs and that electrical equipment including power circuit breakers containing sulfur hexafluoride must comply with the standards of the American National Standards Institute or International Electrotechnical Commission. PLN established an occupational health and safety management system, which has been strictly implemented with penalties imposed on contractors in case of noncompliance.

14. The performance of contractors for activities proposed under the program is monitored by UP3, including activities related to environmental mitigation measures. PLN's health, safety, security and environment (HSSE) division also developed a system of monitoring key activities that includes securing environmental permits for warehouses, labelling transformers classified as fixed assets (operating or non-operating), analyzing oil in transformers manufactured after 1985, sealing transformer leaks, and constructing and cleaning up temporary waste storage areas to meet regulatory requirements. The monitoring system was developed as an action plan in the previous RBL programs and will be applied to all warehouses in accordance with PLN's guidelines (footnote 29). Each UIW is required to submit environmental, health and safety performance reports to the HSSE division on a quarterly basis with specific targets, including for transformer inventory and clean-up and proper storage of waste in warehouses.

15. **Gaps identified.** The environment safeguard system currently in place through the government's environmental regulations and PLN's decrees and guidelines is considered generally adequate given the program's likely risks and impacts, but the process of screening and environmental assessment can be further improved. Issuance of PLN's environment screening and management guidelines (footnote 29) are significant steps to enhance PLN's environmental management performance. However, the low- and medium-voltage lines and micro-power projects visited lack the required UKL, UPL or SPPL; this will be addressed by the UIW, which will conduct an initial screening of its annual work plans,³⁰ based on villages in key biodiversity areas and from the Ministry of Environment regulations (MOER) 05/2012 thresholds. The selected annual activities will be submitted to the relevant DLH and forestry department for screening to determine category and required environmental documents and whether activities are in legally protected areas. Medium- and low-voltage distribution lines and micro-power facilities require only an SPPL if treated separately, and thus PLN intends to prepare consolidated UKLs and UPLs with an environmental management plan (EMP)³¹ of UIW annual activities after screening to ensure that environmental assessment is undertaken and that activities have the necessary environmental permits from DLH. The institutional capacity of the UIWs to manage environmental and social impacts related to the operation of micro-power facilities will also be enhanced through a Code of Practice that will include environment and social safeguards, criteria for selecting sites, pollution control, environmental monitoring, sustainable sourcing of biomass fuel, and community consultations.

16. Waste management continues to be a concern, because of a lack of appropriate

²⁹ PLN. 2017. Guidelines on Screening as per Ministerial Decree No. 5; (ii) PLN. 2018. Guidelines on Environmental Protection and Management. The guidelines define requirements for (i) environmental screening; (ii) preparation of safeguard instruments (UKL, UPL or SPPL) and securing environmental permits; (iii) clean-up, proper waste management and securing of environmental permits for warehouses; (iv) implementation of environment, health and safety measures during construction and operation, with inclusion of environmental clauses in bid and contract documents; and (v) environmental monitoring and reporting.

³⁰ Province-level lists of villages located within key biodiversity will be used by PLN UIWs to identify non-eligible villages under the RBL. The UIW screening of annual work plans and preparation of UKL or UPLs will be monitored by PLN's HSSE.

³¹ Templates for UKLs and UPLs (including EMP for micro-power and distribution line projects) have been developed to guide the UIWs and safeguard focal persons.

environmental permits for some existing PLN warehouses; the long asset disposal process, which requires approval by the PLN Accounting Division, PLN Board of Directors, and the Ministry of State-owned Enterprises; and because of the lack of licensed hazardous waste management facilities in Kalimantan, Maluku and Papua. Old equipment is stored temporarily at PLN warehouses, in accordance with MOEF instructions. Cleanup of PLN warehouses begun under the action plan introduced in the prior ADB RBL programs³² needs to be sustained, including securing the required environmental permits from the DLH, conducting an inventory of transformers, cleaning up oil spills at warehouses, and sampling and analyzing oil in transformers to confirm the presence of PCBs.³³

17. Local awareness and capacity to address environment-related complaints is limited, as confirmed by environment, health and safety staff in UIW offices in Papua and Maluku. Community consultations can be further enhanced by disclosing the details of any proposed facility to the community prior to construction, building awareness on electrical safety, and conducting awareness training to UIWs on responding to community complaints.³⁴

3. Involuntary Resettlement

18. **Policy and legal frameworks.** The main legal framework on land acquisition for electricity distribution is covered under Law No. 2/2012 concerning Land Acquisition for the Development of Public Interest and its implementing regulations. PLN also periodically issues corporate decrees on land acquisition that are binding for its operations.³⁵ Decree No. 0344/2016 requires that land acquisition of more than 5 hectares (ha) must follow the procedures set out in Law No. 2/2012, while for less than 5 ha, PLN may apply a simplified procedure for involuntary land acquisition, or directly purchase land when it is acquired for PLN's private use (non-public interest). Land requirements under the program are 0.2–2 ha in size, meaning the PLN decrees will apply. If a distribution transformer needs to be located on private land, PLN Decree No. 0605/2010 Regarding Construction Standard for Power Distribution Substations requires PLN to obtain a written permission for the use of the land from the landowners.³⁶ UIWs have standard operating procedures for the implementation of village electrification projects; these include procedures for the surveying and observation of program location and distribution line alignment and consultations with affected persons and communities (program beneficiaries).

19. The current Indonesia's and PLN's legal frameworks have strengthened protection for affected persons through consultations and fair compensation, including for non-land right holders. However, these legal frameworks are not fully equivalent to ADB's SPS with respect to involuntary resettlement principles (para. 27).

³² ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Results-Based Loan to Perusahaan Listrik Negara for the Electricity Grid Strengthening—Sumatra Program*. Manila; ADB 2017. *Report and Recommendation of the President to the Board of Directors: Sustainable Energy Access in Eastern Indonesia – Electricity Grid Development Program*. Manila.

³³ In cooperation with the United Nations Industrial Development Organization, training of PLN staff on PCB monitoring, inventorying of PCB transformers and wastes is ongoing as part of MOEF's program to phase out PCBs. The nationwide PCB management system is expected to significantly improve following completion of the PCB inventory and installation of a new PCB treatment facility in Bogor. Meanwhile, PLN was advised by MOEF to temporarily and safely store hazardous waste at its facilities.

³⁴ This will be partly addressed through DLI7. A total of 121 consumer education workshops at UIW and UP3 on safe and productive energy use will be conducted.

³⁵ Including: PLN. 2016. Decree No. 0344/2016 on Land Acquisition; PLN. 2015. Decree No. 0104.K/DIR/2015 regarding Guidelines for the Implementation of Land Acquisition for the Development of Electrical Infrastructure.

³⁶ PLN. 2010. *Lampiran Keputusan Direksi PT PLN (Persero)/Nomor:605.K/DIR/2010 Buku 4—Standar Konstruksi Gardu Distribusi Dan Gardu Hubung Tenaga Listrik* (Regarding Construction Standard for Power Distribution Substation).

20. **Implementation practices.** After accepting a proposal for electrification, PLN carries out a planning survey for alignment of the distribution line in close coordination with village heads and relevant government agencies.³⁷ The survey activities include (i) consultations regarding the program plan and its impacts along the alignment; (ii) obtaining a letter from the affected persons (beneficiaries) regarding their willingness for the land to be used, and trees to be felled for the installation of distribution lines, with no compensation; and (iii) evaluation of project readiness.³⁸

21. Distribution lines are usually installed along public roads. There is flexibility in setting the alignment of distribution lines and the location of utility poles to minimize their impact on private land and to avoid disturbing non-land assets. PLN will obtain concurrence from land owners to use private land for utility poles and to clear non-land assets (trim or fell trees) when needed.

22. Extension of medium- and low-voltage distribution lines requires customers to contribute by allowing use of land to site the lines.³⁹ If village communities request electrification, PLN will seek a statement letter from the community to allow the installation of distribution poles and lines on their land without compensation for lost trees or crops. However, some land owners (non-program beneficiaries) may demand compensation for the loss of productive trees and crops, which could lead to delays in construction. In general, if affected persons request compensation, payment is provided, either in the form of community development programs, a connection fee waiver, or cash payment from the contractor or beneficiary communities using the village budget approved by the local government. Land owners who are program beneficiaries have not made complaints regarding land use.

23. The construction of village-level solar photovoltaic, mini and micro-hydropower, and biogas plants will be either accommodated on PLN's existing premises or on government land to be donated to PLN for this purpose. If these options are not available, PLN will seek a donation from the community or purchase land, with compensation based on a valuation by independent appraisers. If no agreement is reached with the land owner, PLN will find an alternative location for the activity. There will be no compulsory land donation or coercive land acquisition in the absence of voluntary land donation from the community. Written agreements regarding donations are obtained from the land owners or customary communities.⁴⁰ PLN will seek to minimize loss of productive trees and crops and to ensure that no person is physically displaced because of the program.

24. In coordination with local government agencies, PLN and its contractors conduct two to four rounds of consultations with communities and affected persons at the program planning stage, and prior to construction works.⁴¹ Consultations are conducted primarily through the village

³⁷ For example, the Ministry of Public Works and Housing (which has authority over national roads) and local governments (which have authority over regional roads).

³⁸ If the criteria are met, PLN will continue with the preparation of the technical design and budget. If they are not met (e.g., there are demands of compensation by the affected persons that cannot be resolved, or infrastructure is inadequate), PLN will move the alignment.

³⁹ This is in keeping with PLN Decree No. 0344/2016 (para. 18), which provides for land acquisition and compensation for the removal of non-land assets for the construction of sub-stations, transmission line towers, and land clearing for the transmission line right-of-way (stringing of conductors), but does not mention land acquisition and compensation for affected non-land assets in the case of medium- and low voltage distribution line construction.

⁴⁰ Donation of land (land use) will apply for installation of medium- and low voltage lines and distribution transformers. Donation of land (ownership) and negotiated land acquisition will apply for installation of solar photovoltaic and small biogas plants and construction of mini and micro-hydropower facilities.

⁴¹ PLN uses the term "vendors" to refer to contractors or third-party service providers.

heads who may also be customary or clan heads *i.*⁴² Consultations for land use and affected trees or crops are handled by PLN during the planning stage and by contractors during the construction stage. Contractors revert to PLN for assistance when they cannot settle cases with affected persons.

25. **Gaps identified.** The results of the diagnostic assessment of PLN procedures and practices, as well as the gap between these and ADB's SPS regarding involuntary resettlement, are presented in Additional Information to the PSSA (footnote 19). Key gaps identified between PLN practices and ADB' SPS principles include: screening for impacts, involvement of vulnerable groups during consultation, handling of affected land users, transparent and consistent procedure for negotiated land acquisition and donation, and monitoring of impacts on the living standards of displaced persons.

26. Initial surveys are conducted to determine the most direct and efficient route or site, based on various factors (including topography; location of existing roads, dwellings or buildings, and trees and crops; settlement patterns; and land use) that may affect the construction of distribution lines and village-level power plants. However, no explicit screening and categorization of risks is conducted for involuntary resettlement, and the type and scope of remedial measures to be undertaken are not specified.

27. The consultation and grievance handling process has several shortcomings. First, no explicit attention is given to vulnerable groups and the participation of women remains limited. Not all affected persons are knowledgeable about a proposed project and its implications until construction commences. Therefore, ensuring the inclusion and enabling participation of the poor, women, and vulnerable and remote indigenous peoples (customary communities) are required for the program. Second, grievances are currently handled manually and are not well documented. Complaints are channeled directly to contractors, through village heads or sub-district heads to PLN, or directly to the closest PLN ULP office. PLN's telephone hotline is traditionally used for customer care but not for safeguards-related concerns.

28. Agreements with landowners for the installation of distribution transformers are frequently verbal, without any written documentation. Agreements with landowners regarding land donation for solar photovoltaic and micro-hydropower plants are documented, but no verification by an independent party is performed to confirm that the donation is free from coercion and does not severely affect livelihoods. The current monitoring focuses on progress of activities and does not cover impacts on income and standard of living of the affected persons, particularly vulnerable people.

29. In light of these gaps, PLN needs to (i) strengthen screening of involuntary resettlement safeguards—each UIW, with the support of UP3 and UP2K, will periodically screen and report the social safeguards screening results to PLN's land and permit (PPT) division for review;⁴³ (ii) strengthen the consultation process to ensure greater involvement of women and vulnerable

⁴² Information provided during initial consultation activities cover the project plan, land use, and cable stringing that may require the removal of non-land assets (mainly trees). Contractors usually undertake the next consultation activity to identify affected people and to obtain their consent(s) regarding the erection of poles and clearing of trees or crops in the right-of-way. In some cases, this activity results in a letter of consent by the village (and affected persons) to allow poles to be erected on their land and to waive compensation claims for any affected trees. A final consultation activity conducted by the contractor is to inform the community regarding connection and installations costs, identify consumers, and assess their ability to pay for connections (installation of meter and connection from distribution pole to meter) as a basis for undertaking connections and installations (in-house wiring and connection to meter).

⁴³ PLN will use the screening forms developed for the Sulawesi, Nusa Tenggara program (footnote 19) and UIW will submit annually the screening reports to PPT for review.

groups, including customary communities; (iii) strengthen the grievance redress mechanism—including through full documentation of complaints, and timely and appropriate remedial action; (iv) secure written consent for the use of private land; (v) monitor the impact of land acquisition and/or donation on the income and livelihoods of affected persons through the review of complaints and compensation records, and take necessary actions, if impacts on the income and livelihood status of affected persons are detected;⁴⁴ and (vi) strengthen the institutional capacity of UIW, UP2K, and UP3 to manage involuntary resettlement safeguards, including through provision of technical guidelines and training, and designation of focal persons.

4. Indigenous Peoples

30. **Policy and legal frameworks.** The Constitution of Indonesia (1945) recognizes customary communities or indigenous peoples' rights, and these rights are also recognized in other laws and regulations.⁴⁵ Provincial governments in Kalimantan, Maluku and Papua have enacted local regulations regarding the recognition of indigenous peoples.⁴⁶ The Government of Indonesia, the World Bank, and the Indigenous Peoples Alliance of the Archipelago, which actively advocates for indigenous peoples' rights, issued an indigenous peoples map identifying populations of indigenous peoples living throughout Indonesia.

31. **Implementation practices.** Although many indigenous peoples recognize the benefit of electricity access and expect to be connected, some still lack electricity access.⁴⁷ In general, customary communities of Kalimantan, Maluku and Papua, especially those in remote areas, are more marginalized and poorer than non-minority communities. Inconvenient access results in village offices rarely inviting these households or groups to consultations on planned developments and activities. As such, customary communities' expectations for electricity access are not fully reflected in PLN's development plans. The difficulties of obtaining forestry permits and limited transport access to these communities also make PLN reluctant to prioritize electrification of these areas.

32. **Gaps identified.** The results of the diagnostic assessment of PLN practices, as well as the gap between these and ADB's SPS on indigenous peoples are addressed in Additional Information to the Program Safeguard Systems Assessment (footnote 19).

33. Key gaps have been identified between PLN's system and ADB's principles. Screening for indigenous peoples is not systematically undertaken by PLN. Although projects or activities may affect customary communities, the impacts are not assessed, and indigenous peoples' plans are not prepared. Consultations are primarily conducted through the village heads or customary

⁴⁴ Actions may include providing income restoration activities or compensation for lost assets.

⁴⁵ Laws and regulations include Basic Agrarian Law No. 5/1960; Constitutional Court Decision No. 35/2012; Law No. 6/2014 regarding customary village governance; Home Affairs Ministerial Regulation No. 52/2014 regarding method for acknowledging existence of customary communities; Agrarian and Spatial Planning Ministerial Regulation regarding acknowledgement of communal land rights; Environmental and Forestry Ministerial Regulation No. 32/2015 regarding the method for acknowledgement of *hutan adat* (customary forests); and Environmental and Forestry Ministerial Regulation No. 34/2017 regarding the protection of *kearifan lokal* (local wisdom), concerning natural resources management.

⁴⁶ E.g., Provincial Regulation of East Kalimantan no. 1/2015 regarding guideline on recognition and protection of customary communities in the Province of East Kalimantan, Decree of the Bupati of North Halmahera no. 189/2015 regarding recognition of the Hibualamor Customary Community, and Special Regional Regulation of the Province of Papua no. 23/2008 regarding customary rights of individual rights of customary legal communities to land.

⁴⁷ Many indigenous groups in Kalimantan, Maluku and Papua visited by the ADB Reconnaissance Mission were still not connected, although some had long requested the connection. The Ministry of Social Affairs has a regular program to empower indigenous groups through various activities, including the provision of public facilities. The Ministry of Energy and Mineral Resources has been providing an electricity access program to indigenous peoples, although the program does not cover all indigenous households.

heads. However, customary members are less involved in the decision-making process, such as decisions on compensation, distribution line alignment and design, and permission to use land for transformers.⁴⁸ Participation of women and youth is limited. Voluntary land donation is provided by the customary communities, but in Papua complaints were often raised by customary members regarding donations and land purchases.

34. Given the situation and gaps described above, PLN must: (i) apply a screening process to ensure that activities classified as category A for indigenous peoples under ADB's SPS are excluded by the program;⁴⁹ (ii) conduct assessments of customary structures and tenurial systems for the communities concerned so as to inform the subsequent implementation; (iii) strengthen meaningful consultations to enable remote communities to participate in program activities, and improve documentation of consultations (with attendance sheets that are disaggregated by gender and indicate the status of customary communities); (iv) strengthen the grievance redress mechanism; (v) obtain written consent for use of land or land donation for facilities supported by the program; (vi) provide necessary information in the consultation meetings with poor customary communities on the procedure to access free electricity programs, on safe electricity usage, and on economic benefits; (vii) monitor the impact of land acquisition and donation on the income and livelihoods of affected customary communities through a review of complaints and compensation records; and (viii) strengthen institutional capacity of UIWs to manage customary communities' issues.

5. Institutional Arrangements and Capacity

35. PLN has a robust, vertically-integrated institutional structure with broadly adequate staffing to meet current requirements for environmental and social safeguards through its HSSE and PPT at PLN headquarters in Jakarta. These divisions have overall safeguards coordination responsibility and are in charge of policy matters, oversee the work of regional staff, and ensure that they comply with national laws and regulations and PLN decrees and guidelines on environmental and social safeguards. HSSE currently has about 20 full-time staff, while PPT has 12 full-time staff; they have demonstrated strong capacity to manage environmental and social safeguards in various ADB supported projects, including two ongoing energy RBL programs (footnote 32). PLN has also established a Corporate Law division that supports compliance with regulations, corporate codes and decrees related to safeguards.

36. PLN has UIW offices in Kalimantan (3), Maluku (1) and Papua (1), which are responsible for planning, construction and maintenance of medium and low voltage distribution lines, and low capacity power plants (including micro-hydro and micro-solar plants). Each UIW supervises several UP3s and UP2Ks; each UP3 supervises several ULPs that are in charge of customer service. Each UIW has assigned qualified staff to address environmental and social issues that may arise during the UIW's operations. No dedicated staff have been assigned to social safeguards tasks within UP3 and UP2K offices; issues are typically handled directly by the manager or the planning division. In May 2018, PLN began deploying additional environment, health and safety specialists at UIW, UP3 and ULP levels.⁵⁰

37. Training on social and environmental safeguards is conducted regularly at the PLN

⁴⁸ Interviews with affected persons during the site investigations revealed that not all of them were knowledgeable about the project or its implications.

⁴⁹ PLN will use the list of customary communities issued by the Ministry of Social Affairs and the Indigenous Territories Registration Body of the Indigenous Peoples Alliance of the Archipelago for the screening of indigenous peoples.

⁵⁰ PLN Board of Director No. 0038/P/DIR/2018 on New Institutional Structure of Environment, Health and Safety.

Education and Training Center (PLN Corporate University).⁵¹ Hired staff are required to undergo the PLN occupational health and safety management system certification training on environmental performance assessment and land acquisition and take at least one additional course each year. However, in-depth training on social impact assessment and treatment of vulnerable groups, indigenous peoples safeguards, grievance redress mechanisms, and monitoring is not included.

38. Weakness in implementation of the safeguard system. This assessment found that gaps in the application of environmental and social safeguards regulations and PLN decrees was an outcome of low staff awareness about the related regulatory framework and guidelines. While PLN's capacity building program through the PLN Corporate University is considered satisfactory, some specialized topics could greatly improve the impact of training on the performance of the RBL program. Robust in-house refresher training courses should be conducted regularly for PLN staff to increase their awareness and ensure the proper implementation of safeguard requirements, including concerns related to information disclosure on electrical safety and responding to community complaints. The assignment of staff for social safeguards and deployment of additional staff for the environment in each UIW, UP3, and ULP office, initiated in 2018, should be accelerated to ensure adequate staff resources are in place for the RBL program.

D. Safeguard Program Actions

Considering the assessment and the scope and scale of the impacts and risks, five program actions are proposed to address the identified gaps and weaknesses (table).⁵² PLN's HSSE and PPT will submit semiannual reports to ADB on action plan implementation. The reports will be verified by an independent valuation agency. ADB will conduct regular review missions during program implementations to monitor the status of these actions. Improved asset and waste management is one of the disbursement-linked indicators of the program, which accounts for \$60 million (10%) of the disbursement.⁵³

Safeguards Program Actions

Proposed action	Indicators
11. Strengthen institutional capacity on environmental and social safeguards, respectively, by: (i) appointing safeguards focal persons in each UIW, UP3 and UP2K office; (ii) issuing technical guidelines and training PLN personnel on the implementation of the PSSA and PAP; (iii) developing an environmental and social safeguards code of practice for solar photovoltaic, mini or micro-hydro, and small biogas plants that will include criteria for selecting sites, pollution control, environmental monitoring, sustainable sourcing and management of biomass fuels, and community consultations as well as templates for UKL and UPL.	<ul style="list-style-type: none"> i) Safeguards focal persons appointed at HSSE and PPT and each UIW, UP3 and UP2K office.^a ii) Technical guidance including training materials on safeguards for EGDP phase 1 (Sulawesi, Nusa Tenggara, footnote 32) is updated to include program actions for EGDP phase 2. iii) Annual training conducted for environmental and social safeguards for safeguards focal persons, representatives from each UIW, UP3 and UP2K office, and ULP office as needed, through PLN's Corporate University. iv) Briefing brochure on safeguards requirements prepared for and disseminated (through briefing sessions) to contracted vendors or contractors on environmental and social safeguards. v) Safeguards code of practice developed for solar photovoltaic, mini or micro-hydro, and small biogas facilities.
12. Strengthen safeguards screening and assessment: (i) screen annual work plans to ensure activities classified as category A for	<ul style="list-style-type: none"> i) Distribution line, solar PV, mini or micro-hydro, and small biogas plant development plans internally screened for environmental safeguards

⁵¹ The Corporate University comprises 10 separate academies located in Jakarta and regionally that deliver in-house capacity building for staff. The HSSE Academy provides courses related to environment, health and safety. Land acquisition and involuntary safeguards are included in the curriculum in four academies.

⁵² Detailed safeguard program actions, with indicators, targets, responsibilities, and timeframes are presented in Additional Information to the Program Safeguard Systems Assessment (footnote 19).

⁵³ Program Results Assessment (accessible from the list of linked documents in Appendix 2 of the RRP).

Proposed action	Indicators
environment, involuntary resettlement and indigenous peoples (customary communities) are not included in the program; (ii) prepare the UKL or UPL of UIW annual activities and submit to DLH for approval.	<ul style="list-style-type: none"> by UIW based on list of villages in key biodiversity areas and monitored by the HSSE division. ii) UIW annual workplan is screened and categorized by DLH and the Forestry Department. iii) Involuntary resettlement and indigenous peoples (customary communities) screening and categorization reports prepared by UIW and reviewed by PPT. iv) UKL or UPL of annual activities prepared in accordance with screening results and submitted to relevant DLH. Executive summaries of UKLs or UPLs disclosed on PLN's website, with full reports made available upon request.
13. Strengthen meaningful consultation with affected persons including customary communities and vulnerable groups. Improve grievance redress mechanism	<ul style="list-style-type: none"> i) Vulnerable groups (poor households, customary communities, women, and children and youth) invited to consultations. ii) Consultations held on topics that include selection of sites for and implications of distribution lines and solar photovoltaic, mini and micro-hydro, and small biogas plants; cost estimates for electricity connections and installation; the procedure for accessing the free electricity program for the poor; and awareness on safe usage and the economic benefits of electricity. iii) Consultation records on issues discussed and agreements reached with participants, with attendance list segregated by gender and customary (indigenous) status. iv) All complaints, grievances and remedial measures recorded and compiled.
14. Improve transparency and fair compensation for negotiated land acquisition and voluntary land donation to ensure that people will maintain the same or better level of income or livelihood.	<ul style="list-style-type: none"> i) Written agreements regarding land use for the installation of distribution transformers. ii) Written agreement regarding voluntary land donations for construction of micro-hydro and biogas power plants and village-level solar photovoltaic installations from land owners or clan members of customary communities with communal access rights prior to the commencement of construction.^b iii) Semi-annual verification (sample) by an independent party to ensure that the negotiated land acquisition and voluntary land donation were conducted with proper consultation, and that voluntary donations did not severely affect the living standards of affected persons (the donor is not poor, and does not lose more than 5% of total land owned; donated land is not ancestral land and in sacred areas). iv) Proper mitigation (compensation for lost non-land assets or income and income restoration program) for land users affected by the program.
15. Monitor and report on compliance with safeguards program actions and program impacts on income and livelihoods of affected households. Prepare and implement corrective actions if adverse impacts on income and livelihoods are identified	<ul style="list-style-type: none"> i) Q2 and Q4 RBL implementation reports submitted to ADB include consolidated results of safeguards screening and safeguards program actions. ii) Impacts of program activities on the income and livelihoods of affected persons monitored by PLN's PPT through a review of complaint handling and compensation records. Corrective actions implemented and documented if adverse impacts on income and livelihoods are identified. iii) Assessment of whether customary communities' access to electricity has increased by the mid-term review and end of the program.

DLH = *dinas lingkungan hidup* (provincial and district environment agencies), EGDP = Electricity Grid Development Program, HSSE = health, safety, security and environment, PAP = program action plan, PLN = *Perusahaan Listrik Negara* (State Electricity Corporation), PPT = PLN land and permit division, PSSA = program safeguard systems assessment, Q = quarter, RBL = results-based lending, UIW = *Unit Induk Wilayah* (Regional Administrative Unit), ULP = *Unit Layanan Pelanggan* (Customer Services Unit), UKL = *upaya pengelolaan lingkungan hidup* (environmental management plan), UPL = *upaya pemantauan lingkungan hidup* (environment monitoring effort), UP2K = *Unit Pelaksana Proyek Ketenagalistrikan* (Electricity Project Implementation Unit), UP3 = *Unit Pelaksana Pelayanan Pelanggan* (Customer Service Implementation Unit).

^a Appointed safeguard focal persons should be those who handle safeguards for the program.

^b Map on borders of land to be purchased or donated attached in the written agreement of the land purchase and donation to avoid future conflicting claims. Principles and procedure of donation will be included in the technical guidance of the program.