

## INTEGRATED RISK ASSESSMENT AND MITIGATING MEASURES

The following risk matrix summarizes the findings of the integrated risk assessment and the mitigating measures for the Electricity Grid Strengthening—Sumatra Program of the Asian Development Bank (ADB) in Indonesia. ADB guidelines informed the risk assessment, with six linked categories of risk as follows:

- (i) **Results.** Risks can impede achievement of the program's intended results and development outcomes. They relate to the program's rationale and design, the government's commitment, the definition and selection of results and disbursement-linked indicators, results measurement and verification mechanisms, monitoring and evaluation implementation capacity, and sustainability.
- (ii) **Expenditures and financing.** Risks are associated with the efficiency and effectiveness of the expenditure framework, and the adequacy and sustainability of the program financing.
- (iii) **Fiduciary.** Risks relate to financial management, procurement, and anticorruption systems as they pertain to the risk that program finances will not be used for the intended purposes.
- (iv) **Safeguards.** Risks are associated with the safeguard systems' ability to manage potential adverse environmental and social impacts of the program.
- (v) **Operating environment.** Risks relate to factors such as macroeconomic conditions, political issues, and fiscal conditions that might affect program implementation.
- (vi) **Overall program risk.**

<b>Integrated Risk Matrix</b>		
<b>Risks</b>	<b>Rating without the Mitigating Measures</b>	<b>Key Mitigating Measures</b>
<b>Results-related risks</b>		
The rates of growth for the population and new businesses in Sumatra could be underestimated. This would stretch PLN's capacity to meet the needs as planned and make it difficult to achieve the outcome of an adequate and reliable power supply for Indonesia.	Moderate	Private sector partners are being encouraged to expand investment in the sector. Discussions have taken place with the Ministry of Finance on the issue of the government's contribution to the program.
Inadequate institutional capacity could be a barrier to program implementation and progress. Currently a very low proportion of PLN projects are completed on time.	Substantial	The program will monitor this risk with an indicator on the timely completion of implementation of distribution system contracts. Development partners will jointly monitor progress for corrective actions and consider technical assistance if required.
PLN staff are not always certified for their work responsibilities, leading to the risk that costly mistakes could be made.	Low	Capacity building through technical assistance may be considered at a later program stage.
Undue delays are experienced in PLN's Sumatra program, and in the delivery and logistics component of supplies and equipment.	Moderate	PLN and ADB will closely monitor the progress of the Sumatra program and the supply, logistics, and delivery issues during the program, and work to streamline the logistical processes.
The use of averages to monitor indicators, i.e., duration and frequency of outages, may	Moderate	PLN has an extensive data system, which is disaggregated into geographic locations. The key

<b>Risks</b>	<b>Rating without the Mitigating Measures</b>	<b>Key Mitigating Measures</b>
not capture the situation of the population in isolated and disadvantaged areas.		is to plan and target the interventions effectively to maximize inclusiveness.
<b>Overall results risks</b>	<b>Moderate</b>	
<b>Expenditure and financing related risks</b>		
PLN may not be able to meet its own funding targets.	Substantial	PLN's Finance and Budgeting Division and Treasury Division track data for funding targets and investments. SPKK can generate special condition reports, if needed, to report to the Board of Directors and request development partners for additional program financing.
The expenditure framework for the program may be unrealistic if estimates for expenditure items (such as permits, consultant fees, project management costs, overhead expenses, etc.) are too conservative which could lead to program cost underruns and overruns.	Moderate	PLN's EPC cost figures are based on detailed calculations of electricity demand and ensuing requirements for transmission and distribution. PLN technical experts, generally in accordance with internationally accepted good practice, have carried out the technical program design. Appropriate physical and price contingencies are incorporated in the expenditure framework for the program.
<b>Financial management risks</b>		
<b>Inherent risks<sup>a</sup></b>		
The overall weak country financial management system, especially for budget execution, accounting and reporting, and budget credibility.	Moderate	Continuation of PFM reforms in line with the GFM RAP, the RPJMN, and other line ministry and agency plans, and supported where relevant by the PFM MDTFA new PEFA-based PFM performance assessment in 2016 will take stock of the PFM reform progress and develop a new reform action plan on that basis.
Some of PLN's procedures for accounting and financial reporting have weaknesses, including the lack of computerization across all entities.	Low	Design and implement a financial management action plan to address identified weaknesses and risks.
<b>Control risks<sup>b</sup></b>		
<b>Accounting and internal control</b>		
To prepare consolidated financial statements, PLN staff use manual methods to consolidate spreadsheets.	Moderate	PLN is working to transition to ERP in the near term. Present controls include that adjustment to entries require clearance from a supervisor and that all adjustments are logged.
<b>Financial reporting</b>		
The ERP system cannot automatically produce budget tables and compare these with actual expenditures at year-end.	Low	ICOFR is being implemented as a pilot project and will provide a quarterly report per organizational unit, including mitigating actions where relevant.
Consolidated financial statements are not system-generated, but prepared through spreadsheets.	Moderate	PLN is working to transition to full ERP in the near term.
<b>Overall financial management risk</b>	<b>Moderate</b>	
<b>Procurement risks</b>		
Market capacity and supply risk issues may cause price fluctuations.	Substantial	A procurement monitoring and spend profile will be developed by ADB and PLN for the program and used actively to identify lack of competition or above normal contract prices due to market failure.
PLN procurement is subject to systemic delays.	Moderate	Upgrade the e-procurement function and improve the capacity of PMO and the procuring entities. ADB and PLN have developed a procurement

<b>Risks</b>	<b>Rating without the Mitigating Measures</b>	<b>Key Mitigating Measures</b>
		monitoring framework to provide early warnings if procurement under the program experience systemic delays.
The large investments in the sector are likely to stretch existing institutional capacity.	Moderate	Accelerate PLN's ongoing programs and initiatives to improve institutional capacity and professional development for key staff. PLN already has eight corporate strategic initiatives to accomplish this.
Despite PLN initiatives to curb corruption and strengthen internal controls, risks persist.	Substantial	Upgrade the capacity of the internal auditor and use the procurement monitoring framework to detect red flags and suspicious patterns in contract awards.
<b>Overall procurement risk</b>		<b>Substantial</b>
<b>Fraud and corruption-related risks</b>		
P LN has taken several initiatives to curb corruption and strengthened internal controls. Nonetheless, these risks persist.	Substantial	To strengthen PLN's oversight and detection mechanism, the program action plan includes a procurement monitoring framework and spending pattern for the program. PLN will report every quarter to its board of directors and value for money committee and to ADB on the indicators in the procurement monitoring framework and provide the updated spending profile.
<b>Safeguard-related risks</b>		
Poor control of oil spills from operating transformers at substations and leaking transformers at temporary storage sites may cause land pollution.	Moderate	PLN will ensure consistent compliance with the government's environmental requirements and improve the current system of waste management and oil spill control measures.
Resettlement impact may affect the income and livelihood status of the affected persons.	Low	PLN will monitor the resettlement outcomes and their impacts on the living standards of displaced persons, and take necessary actions if the impacts are found to affect the income and livelihood status of the affected persons.
<b>Overall safeguard risk</b>		<b>Low</b>
<b>Operating environment-related risks</b>		
Sumatra is part of a disaster-prone area. Earthquake and/or disasters could have a negative impact on the progress of the program and on the energy infrastructure.	Moderate	Earthquake safety standards and disaster management procedures will be discussed with PLN and improved if necessary before the infrastructure work begins for the program.
<b>Overall RBL program risk</b>		<b>Substantial</b>

ADB = Asian Development Bank; EPC = engineering, procurement, and construction; ERP = enterprise resource planning; GFM RAP = Government Financial Management and Revenue Administration Project; ICOFR = Internal Control over Financial Reporting; MDTF = multidonor trust fund; PEFA = public expenditure and financial accountability; PFM = public financial management; PLN = Perusahaan Listrik Negara (State Electricity Corporation); PMO = project management office; RBL = results-based lending; RPJMN = Rencana Pembangunan Jangka Panjang Nasional (National Medium-Term Development Plan); SPKK = Satuan Pengendalian Kinerja Korporat (Corporate Performance Control Unit).

Note: The definitions of the ratings are as follows: low = low likelihood of occurring and low impact; moderate = substantial or high likelihood, but low or moderate impact; substantial = low or moderate likelihood, but substantial or high impact; high = high likelihood and high impact.

<sup>a</sup> Inherent risk is the susceptibility of the program financial management system to factors arising from the environment in which it operates, such as country or sector rules and regulations, as well as the agency's working environment (assuming absence of any counterchecks or internal controls).

<sup>b</sup> Control risk is the risk that the programs accounting and internal control framework are inadequate to ensure program funds are used economically, efficiently, and for the purpose intended, and that the use of funds is properly reported.

Source: Asian Development Bank.