

INTEGRATED RISK ASSESSMENT AND MITIGATING MEASURES

The following risk matrix summarizes the findings of the integrated risk assessment and the mitigating measures for the Asian Development Bank’s Sustainable Energy Access in Eastern Indonesia—Electricity Grid Development Program. Asian Development Bank guidelines informed the risk assessment, with six linked categories of risk as follows:

- (i) **Results.** Risks can impede the 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 system’s ability to manage the program’s potential adverse environmental and social impacts.
- (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.**

Integrated Risk Matrix

Risks	Rating Without the Mitigating Measures	Key Mitigating Measures
Results-related risks		
Growth rates for the population and new businesses in SNT 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 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 of Indonesia’s contribution to the program.
Inadequate institutional capacity could obstruct the program’s progress since few PLN projects are completed on time.	Moderate	The program will monitor this risk via an indicator on the timely completion of the implementation of distribution system contracts.
PLN staff are not always certified for their work responsibilities, raising the risks of technical mistakes and incorrect project implementation decisions.	Low	Capacity building through technical assistance may be considered at a later program stage.
The use of averages to monitor indicators (e.g., the duration and frequency of outages) may not capture the situation of the population in isolated and disadvantaged areas.	Low	PLN has an extensive data system, which is disaggregated into geographic locations. Interventions must be planned and targeted effectively to maximize inclusiveness.
Customer demand declines due to slower economic growth.	Substantial	The program will monitor the impact of macroeconomic factors on energy sales and consider adjustment of disbursement allocations if necessary and justified.
Large investments in the sector stretch existing institutional capacity to undertake innovation, particularly at the regional level.	Moderate	PLN will strengthen the mandate of its regional directorates to undertake pilot projects and develop staff capacity through its training programs.

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Expenditure and financing related risks		
PLN's funding targets for required investments in power generation, transmission, and distribution are not met. Counterpart financing may not materialize as planned.	Moderate	PLN's Finance and Budgeting Division and Treasury Division track data for funding targets and investments. If necessary, the SPKK can generate special condition reports for the PLN board of directors and request development partner and government support to provide additional program financing. The government is providing guarantee of tariff subsidies and/or equity injections to enable PLN to finance its capital expansion program while meeting financial covenants. ADB and other development partners are supporting tariff reform through a coordinated policy-based loan.
The program's expenditure framework may be unrealistic if estimates for expenditure items (such as permits, consultant fees, project management costs, and overhead expenses) are too conservative, leading to program cost underruns and overruns.	Moderate	PLN's EPC cost figures are based on detailed calculations of electricity demand and ensuing transmission and distribution requirements. PLN technical experts, in general accordance with internationally accepted good practice, have carried out the technical program design, and appropriate physical and price contingencies are incorporated in the program's expenditure framework.
Fiduciary risks (financial management)		
Inherent risks^a		
The overall country financial management system is weak, especially for budget execution, accounting and reporting, and budget credibility.	Moderate	PFM reforms will be continued in line with the GFM RAP, RPJMN, and other line ministry and agency plans, and supported where relevant by the PFM MDTF. A 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.	Low	A financial management action plan will be designed and implemented to address identified weaknesses and risks.
The recognition of fixed assets and transfer from construction-in-progress accounts is delayed, resulting in the understatement of depreciation.	Moderate	PLN's Accounting Division is updating the outdated internal regulations on the handover of projects to fixed assets to ensure that fixed assets are recognized on a timely basis.
The ERP system cannot automatically produce budget tables and compare these with actual expenditures at the end of the year.	Low	ICOFR is being implemented as a pilot project and will provide a quarterly report for each organizational unit, including mitigating actions where relevant.
Institutional pressure to achieve established targets lead to inconsistent reporting and calculation of results indicators.	Substantial	ADB will mobilize an independent verification agent to crosscheck the reported results, such as by comparing them with tariff collection data.
Fiduciary risks (procurement)		
Market capacity and supply risk issues cause price fluctuations.	Moderate	ADB and PLN will develop a procurement monitoring and spending, to identify any lack of competition or above-normal contract prices due to market failure.
Procurement may be delayed.	Low	The existing procurement monitoring framework, which has been developed and operational under the predecessor RBL program for the Electricity Grid Strengthening—

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		Sumatra Program, will be rolled out to be applicable in this program.
Fiduciary risks (anticorruption)		
PLN struggles with initiatives to strengthen internal controls.	Substantial	The procurement monitoring system will be used to detect red flags and suspicious patterns in contract awards. PLN will submit quarterly reports to its board of directors, its value for money committee, and to ADB on the indicators in the procurement monitoring framework; and will provide the updated spending profile. In addition, procurement audits will be carried out covering 10% of the contracts under the program. Any issues identified will be discussed with PLN's management team, and relevant government authorities as appropriate.
Safeguard-related risks		
Lack of management support for obtaining required approvals for asset and waste disposal.	Moderate	Substantial disbursement amounts agreed to incentivize progress on asset management. PLN headquarters will monitor compliance with regulations on hazardous waste management.
The issuance of government approval for the disposal of assets and wastes is delayed.	Substantial	PLN and ADB will have close coordination with the Ministry State-Owned Enterprise during program implementation.
Operating environment-related risks		
Earthquakes, volcanic eruptions, tsunamis, and extreme weather events in the SNT area could negatively impact the progress of the program and the energy infrastructure.	Low	Natural disaster management procedures will be discussed with PLN and improved if necessary before infrastructure work begins for the program.
Overall RBL program risk		Moderate

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 = State Electricity Corporation (*Perusahaan Listrik Negara*); RBL = results-based lending; RPJMN = National Medium-Term Development Plan (*Rencana Pembangunan Jangka Panjang Nasional*); SNT = Sulawesi and Nusa Tenggara; SPKK = Corporate Performance Control Unit (*Satuan Pengendalian Kinerja Korporat*).

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.

^a Inherent risk is the susceptibility of the program's 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 the absence of any counterchecks or internal controls).

^b Control risk is the risk that the program's accounting and internal control framework are inadequate to ensure that program funds are used economically, efficiently, and for the purpose intended, and that the use of funds is properly reported.

Source: ADB.