

## PROGRAM MONITORING AND EVALUATION SYSTEM ASSESSMENT

### I. Description of the State Electricity Corporation's Monitoring and Evaluation Systems

1. **Overview.** The State Electricity Corporation (Perusahaan Listrik Negara [PLN]) is committed to carrying out continual and comprehensive monitoring and evaluation (M&E). A review of existing M&E systems, processes, and procedures, and an assessment of program performance monitoring within PLN reveal extensive data generation, the ability to monitor transmission and distribution, and a regular reporting system. PLN's Management Reporting Information System (Sistem Informasi Laporan Manajemen [SILM]) contains data on critical dimensions, such as performance, electricity generation, energy sales, transmission and distribution, and projects and construction. SILM plays a critical role in facilitating the monitoring of disbursement-linked indicators (DLIs) for the proposed results-based lending (RBL) program supported by the Asian Development Bank (ADB).

2. **Management of corporate performance.** PLN's Corporate Performance Control (Pengendalian Kinerja Korporat [PKK]) division has overall responsibility for managing the tracking of PLN corporate performance through the SILM. To meet corporate M&E requirements, PLN's departments use information technology (IT) applications developed in conjunction with its information technology division. These applications generate data and provide information on activities that feed into the M&E process, including SILM; a monthly summary report is generated based on information from SILM and submitted to PLN's board of directors (BOD) and all division heads.<sup>1</sup> Based on this report, each division provides feedback on conditions in the field, addresses problems, or develops strategies to make progress. In addition, the BOD and the PKK division use the BOD's dashboard information system, which contains comprehensive, real-time data on customer service, projects, corporate performance, and electricity supply conditions.

3. **Stakeholder feedback.** PLN stakeholders include bondholders, employees, ministries and regulatory agencies (e.g. the Financial Services Authority), Parliament, work partners, customers, creditors, the general public, and the media. Shareholders evaluate PLN's performance using key performance indicators (KPIs) determined by PLN and top management.<sup>2</sup> Performance reports are presented at the general meeting of shareholders (GMS). The Board of Commissioners is tasked with monitoring and providing counsel to ensure that company goals are achieved,<sup>3</sup> and decisions made during the general meeting are carried out, while the BOD is responsible for the implementation of each GMS resolution as well as daily management of the company.<sup>4</sup> Shareholder engagement and feedback are sought from both the GMS and periodically through a variety of media. PLN's corporate secretary follows up on complaints and suggestions at BOD meetings, including the GMS. Important issues are placed on the BOD dashboard; customer complaints are followed up with the regional offices; and all complaint records are summarized in "Contact Center 123" reports. Reporting and communication arrangements with each stakeholder group are provided in the Monitoring and Evaluation Framework.<sup>5</sup>

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<sup>1</sup> The board is headed by PLN's president director, is accountable to the Indonesian government, and includes the top management of PLN.

<sup>2</sup> The government owns 100% of PLN's shares. PLN issues a series of corporate bonds, *sukuk* (Islamic bonds) and global bonds. PLN. 2014. *Annual Report 2014*. Jakarta.

<sup>3</sup> PLN's BOD and Board of Commissioners carry out all decisions made during the general meeting of shareholders. All functions of these boards must be independent, and thus there is no overlap between their membership.

<sup>4</sup> PLN. 2013. *Sustainability Report*. Jakarta, p. 46.

<sup>5</sup> Monitoring and Evaluation Framework (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

4. **Institutional arrangements.** The role of PLN's PKK division is to manage performance, and it has the mandate to monitor, evaluate, and remove any obstacles that may arise during the implementation of tasks and business processes in PLN. KPIs, which are monitored monthly, set out the company's economic, social, environment, and occupational safety and health performance targets, as well as parameters such as customer service, perceptions of PLN, and compliance with laws and regulations. The PKK division coordinates with PLN's other divisions and units to obtain current data, which it processes and evaluates to facilitate decision-making by BOD. In addition, each division is responsible for monitoring duties in accordance with its mandate, and reports through appropriate IT systems. A table of program-relevant IT applications and type of data collected is provided with the M&E framework. Each regional division, including the PKK Division, has specific staff members responsible for M&E processes. The PKK division organizes monthly meetings with each division and its units to monitor conditions and action plans to address any problems. For distribution-related projects implemented by PLN's regional offices (UIW), relevant sections at the *wilayah* (administrative region) level carry out technical verification and payments.

5. **Monitoring and evaluation of operations.** The overall PLN program is concerned with generation, transmission, distribution, and operational and performance management. The Operations division is responsible for the M&E of generation, transmission, and distribution, while the Projects, Primary Energy, and Logistics divisions provide data to and support the Operations division. The Construction division, along with contract administration staff within the Project Management Office, develop the M&E plans for use during construction. Internal procedures are in place for M&E during operations, with divisions monitoring the progress of projects or loans after construction completion.

6. **Availability and quality of data.** Data indicators and targets have been established for most of the data collection applications. The units responsible provide the necessary data for indicators designated as KPIs; units that do not provide complete and accurate data are given low KPI scores, which helps to ensure data availability and quality. Quantitative data regarding PLN performance includes data from PLN as well as data managed by subsidiaries. PLN also maintains historical data for analysis, annual reports, and 5-year development plans.<sup>6</sup> PLN uses standard technical power subsector definitions and calculations consistent with those adopted by others, including ADB.

7. **Information sharing and reporting.** All PLN divisions and units have access to the data collected via IT applications, thus ensuring proper information sharing. All units report directly to their division, and provide monthly, quarterly, semiannual, and annual reports on operations to the PKK division. Progress reports on the achievement of KPIs and for construction projects, and information about any problems are reported monthly through the SILM. Written summary progress reports, which are submitted to the BOD and heads of divisions, contain information based on detailed data for each indicator for the regional distribution and construction units, and set out implementation progress (in terms of percentage completed) for each project, as well as the status of current problems.

## II. Assessment of the Monitoring and Evaluation System

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<sup>6</sup> Statistical annuals published by PLN: e.g., PLN. 2013. *Statistics*. Jakarta.

8. **Previous results-based lending reporting.** PLN has extensive experience in the successful M&E of projects and programs of all sizes, and this RBL modality is the third program under PLN control. SILM captures and reports some of the DLIs of the current RBL program.

9. **Monitoring and evaluation systems for the current results-based lending program.** In addition to the eight DLIs (three outcome and five output indicators), there is a need to track other indicators as part of the overall design and monitoring framework, and to implement the Program Action Plan.<sup>7</sup> The PLN units responsible will provide the necessary data, and PLN's M&E system is generally able to generate reliable, timely, and adequate information. SILM fully monitors progress against three DLIs, and can provide partial information on two others. This is PLN's first RBL program with significant gender and social dimensions, and PLN has agreed to specific enhancements and procedures to report on these dimensions (DLIs 2 and 7). These gender, social and institutional indicators will require separate measurement efforts, such as tracking of institutional actions and independent verification. Details are provided in Table 4 of the Monitoring and Evaluation Framework (footnote 5). PLN will report progress on DLIs in quarterly reports.

10. **Independent verification of results.** Risks related to the verification of DLIs will be further mitigated by using an independent verification agent (IVA), who will independently verify the DLIs, help units within PLN establish an approach and verification methodology, and continue strengthening PLN's M&E capacity. The IVA will verify results through several means, depending on the verification protocol for each DLI. These may include a financial audit, procedural verification, and physical inspections to test the accuracy and quality of results reported by PLN. In accordance with good audit practice, physical verification will apply appropriate sampling and frequency.

11. **Disclosure arrangements.** To ensure proper information sharing, the data collected by the IT applications is accessible by all PLN divisions and units. The SILM captures critical information, such as the number and type of customers, transmission interruptions, and distribution losses. Some data are based on applications that provide real time data, others come monthly from UIW offices, via their file transfer protocol application. The data are sent from the field to the PKK division using PLN's IT systems; the PKK division ensures detailed and verified information to facilitate internal and BOD decisions at monthly meeting.

12. **Reporting.** PLN reporting systems will largely be used (para. 9). Progress reports on the achievement of KPIs, progress reports for construction projects, and information about any problems are available online, and examined monthly by the PKK division and heads of other divisions (para. 4). A monthly summary progress report is also generated based on information provided by the SILM, and submitted to the BOD and all heads of divisions for action as needed (paragraph 2). The Corporate Planning division will assess the achievement of the DLIs for the RBL program, working closely with the concerned field offices and divisions, and authorize the DLI achievement report to be shared with the Ministry of Finance and ADB.

13. **Addressing problems.** The PKK Division and heads of the generation, transmission, distribution, and performance divisions routinely carry out M&E of program performance, and the results are reported to the BOD through the online dashboard and in written reports. The reporting mechanisms enable the BOD to make necessary decisions to resolve any issues that may arise.

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<sup>7</sup> Program Action Plan (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

The M&E system will also alert heads of divisions and general managers of PLN units about issues requiring immediate attention.

### III. Managing Risks and Improving Capacity

14. **Lessons and risks.** PLN's Risk Management Office, under the lead division for planning, analyzes risk. The independent verification of DLIs from previous RBL programs provides a number of key lessons that need to be applied to strengthen PLN M&E systems.<sup>8</sup> The verification report noted that while SILM provides a convenient central repository for the monitoring of DLIs, the underlying data were derived through numerous data collection and compilation steps involving almost all PLN units and sub-units in the regions concerned; a significant proportion of the steps were performed manually using Excel spreadsheets, which carries the risk of:

- (i) data input and conversion errors at each step in the process, from raw data collection to final SILM input (this risk will be mitigated when PLN further automates the process, which has taken place for the Java–Bali region;<sup>9</sup> other measures such as those mentioned in paras. 16–18 can strengthen the system);
- (ii) SILM updates lagging behind data from UIW offices, leading to discrepancies between *wilayah* and SILM data if updates have not been performed.

15. **Monitoring of social aspects of electrification.** For this RBL program, PLN's ability to monitor poverty and the social aspects of its operations (for example, connections to poor households and households headed by men and women) needs to be strengthened. PLN already has the capacity, with its Centralized Customer Service Application (Aplikasi Pelayanan Pelanggan Terpusat [AP2T]),<sup>10</sup> which shows the status of each customer's electricity tariffs (subsidized or non-subsidized). In principle, poor households receive subsidized tariffs, and so the information is available to PLN. However, PLN currently has no separate reporting system on poor households. Household poverty status is monitored and updated every 6 months by local authorities and district social services, and transmitted to the Ministry of Social Affairs, which then makes the data available to PLN in their integrated TNP2K database.<sup>11</sup> The same database contains information on the total number of poor households and poor households headed by women. PLN has agreed to modify its information flow procedures and create one application interface for the system to be able to monitor electricity access for poor households and poor households headed by men and women.

16. **Risk mitigation measures.** Better coordination of the current M&E and SILM work process flow would ensure robust and updated data in the SILM. The UIW offices maintain much of their data in Excel before these are uploaded to SILM each month; the PLN headquarters corporate secretary ensures their availability. Data discrepancies between the SILM and UIW databases result from late updates in SILM for some indicators. Improved communication between UIW offices and headquarters along with clearer responsibility and accountability would help mitigate risks. Quarterly coordination and assessment meetings will be established between PLN headquarters and the UIW offices on RBL progress to (i) assess progress with respect to

<sup>8</sup> Castlerock Consulting Pte Ltd., 2018. *Annual Verification Report 2017 (ADB TA-9113 INO): Result Based Lending - Sulawesi & Nusa Tenggara*. Manila: Asian Development Bank.

<sup>9</sup> The integration of applications in the M&E process—Aplikasi Pelayanan Pelanggan Terpusat; Systems, Applications, Products in Data Processing (an integrated business software); and SILM has been completed only for the Java–Bali Region

<sup>10</sup> (AP2T) (Centralized Customer Service Application).

<sup>11</sup> The TNP2K database is set up by the *Tim Nasional Percepatan Penanggulangan Kemiskinan* (National Team for the Acceleration of Poverty Reduction) to monitor and coordinate poverty reduction programs throughout Indonesia. The database is available to the public, but updates are not necessarily made public.

the DLIs, (ii) compare data for DLIs between SILM and the UIW offices, and (iii) assess the status of other indicators and action points from the Program Action Plan. The meetings will be led by the Corporate Planning division, and held with the headquarters divisions responsible for Kalimantan and Maluku–Papua, and the UIW offices in those regions.

17. **Reporting.** Quarterly reports need to be issued following these quarterly coordination and assessment meetings. This will be crucial for indicators not fully monitored by SILM (notably DLIs 5 (renewable energy use), 6 (asset and waste management), 7 (consumer education), and 8 (integration between e-procurement and PLN's Systems, Applications & Products in Data Processing)).

18. **Summary of risk mitigation mechanisms.** The key monitoring risks and corresponding mitigation measures are summarized below.

Monitoring Risks	Rating	Mitigation Measures
PLN's real time M&E systems are not yet fully automated for the regions outside Java–Bali, thus exposing the system to risks of manual errors and time lag in data updates	Moderate	Strengthen the coordination between PLN's regional offices and headquarters with clear roles and accountability for regular quarterly reviews of RBL program implementation, DLIs, other indicators, and PAP action points, including a comparison of KPIs using SILM and UIW data.
PLN does not yet have the means to monitor DLI 2 (notably regarding poor households and households headed by women). PLN's system holds information on poor households but not on households headed by women; both are needed to report on DLI 2.	Substantial	(i) Establish a procedure between MoSA, MEMR and PLN to include data on households headed by women in MEMR's annual updates; (ii) add a data field for households headed by men and women in an interface module between the TNP2K database and AP2T application; and (iii) consider integrating reporting on DLI 2 into PLN systems, so that future PLN work will benefit from this institutional change.
PLN does not have a dedicated system for fully monitoring DLIs 5, 6, 7, and 8.	Low	Establish procedures and accountability within UIW field offices and the regional development divisions for Kalimantan, and Maluku and Papua to track these indicators.
<p>AP2T = Centralized Customer Service Application, DLI = disbursement-linked indicator, KPI = key performance indicator, M&amp;E = monitoring and evaluation, MEMR = Ministry of Energy and Mineral Resources, MoSA = Ministry of Social Affairs, PAP = Program Action Plan, PLN = Perusahaan Listrik Negara (State Electricity Corporation), SILM = PLN Sistem Informasi Laporan Manajemen (Management Reporting Information System), TNP2K = database of the Tim Nasional Percepatan Penanggulangan Kemiskinan (National Team for the Acceleration of Poverty Reduction), UIW = Unit Induk Wilayah (PLN administrative region).</p> <p>Note: Risk factors are assessed against two dimensions: (i) the likelihood that the risk will occur, and (ii) the impact of the risk on the outcome. Rating scale: low = low likelihood and low impact; moderate = substantial to high likelihood, but low to moderate impact; substantial = low to moderate likelihood, but substantial to high impact; high = high likelihood and high impact.</p> <p><sup>a</sup> SILM has part of the data on DLI 5, but rehabilitation processes are not included in the SILM.</p>		