

**INDONESIA – Sustainable Energy Access in Eastern Indonesia -
Electricity Grid Development Program**

PROCUREMENT ASSESSMENT

August 2017

ACRONYMS:

ADB	Asian Development Bank Budget)
APLN	Anggaran PLN (PLN Budget)
BOD	Board of Directors
CSA	Country Procurement and Sector Assessment
DLI	disbursement-linked indicator
DPT	Daftar Penyedia Terseleksi (Selected Service Providers List)
EGSS	The Electricity Grid Strengthening Sumatra Program
EPC	Engineering, Procurement, and Construction Commission)
kV	kilovolt
kWh	kilowatt-hour
	Government Procurement Policy Agency)
LV	low voltage
MDU	Material Distribusi Utama (Main distribution materials)
NTB	Nusa Tenggara Barat (West Nusa Tenggara)
NTT	Nusa Tenggara Timur (East Nusa Tenggara)
P4R	World Bank Performance for Results Modality
PLN	Perusahaan Listrik Negara (State Electricity Corporation)
PLN Udiklat	The PLN training center division
RBL	Result-based Lending Term Development Plan)
RUPTL	Rencana Usaha Penyediaan Tenaga Listrik (Electricity Power Supply Business Plan)
SNT	PLN Business Directorate of Sulawesi and Nusa Tenggara
SOE	State-owned Enterprise
SPI	PLN Internal Audit Division
Sulselrabar	South, South East, and West Sulawesi
Sulutenggo	North Sulawesi, Central Sulawesi, and Gorontalo
VfM	PLN Value for Money Committee

ATTACHMENTS:

1. PLN Wilayah NTB – FY 2016 Sample Procurement Monitoring and Tracking Tables
2. PLN Wilayah Sulutenggo – FY 2016 Sample Procurement Monitoring and Tracking Tables
3. PLN Wilayah Sulselrabar – FY 2015 and 2016 Sample Procurement Monitoring and Tracking Tables

I. INTRODUCTION

1. One of the pillars of the government's infrastructure investment plan is to significantly improve access to electricity services, including a nation-wide target of adding 35 gigawatts of new power generation capacity and expand power grids to raise the electrification ratio to 97% by the end of 2019 from a baseline of 84% in 2014. The biggest challenge in meeting these targets is in Eastern Indonesia where power grids across the islands are isolated, of poor quality and underdeveloped. The electrification ratios in some eastern provinces are particularly low - West Sulawesi 74%, Southeast Sulawesi 67%, West Nusa Tenggara (Nusa Tenggara Barat, or NTB) 68%, East Nusa Tenggara (Nusa Tenggara Timur, or NTT) 59%, and Papua 44%.

2. In responding to the above, ADB has prepared a program called Sustainable Energy Access in Eastern Indonesia - Electricity Grid Development Program which will be implemented by the State Electricity Corporation (Perusahaan Listrik Negara or PLN) and be delivered using the Result Based Lending (RBL) modality. This is the second RBL with PLN, after the first one which is the Electricity Grid Strengthening—Sumatra (EGSS) program. The proposed \$600 million result-based loan (RBL) program (hereinafter referred to as the "Program" or "RBL Program") aims to support the development of electricity distribution networks to connect businesses and households and to enhance the quality of life in Eastern Indonesia (particularly in Sulawesi and Nusa Tenggara) by the sustainable use of electricity as a key driver of increased economic activity.

3. The Objective of this report is to assess the procurement capacity of PLN to implement a possible RBL project. This procurement assessment of PLN was guided by the Supplementary Appendix No. 5 of the RBL Guidelines, which presents indicative questions for assessing RBL program fiduciary systems, to ensure that an adequate procurement system exists to support a principle-based program. On the basis of the procurement risk assessments undertaken, PLN risks are identified and assessed, risk mitigation/management strategies are proposed to address identified risks, and the PLN procurement risk rating is determined.

4. This procurement assessment updates the "Procurement Assessment of Indonesia's State Electricity Corporation (PLN) for a Possible RBL Operation" on PLN capacity, which was previously conducted for the Electricity Grid Strengthening—Sumatra Program (RRP INO 49080) in June 2015. This assessment also utilizes the Indonesia Country Procurement and Sector Assessment (CSA) Report, interviews with PLN staff using the questionnaires as mentioned in para 3 above, and by performing a desk study on PLN's procurement system including review of procurement data provided by PLN. The Staff Guidance for Piloting Result-Based Lending for Programs requires a four-stage process for the procurement assessment:

- a. Procurement profile of the program
- b. Country, sector and/or program-level procurement regulations, rules, procedures and arrangements
- c. Agency-level organizational capacity and arrangements
- d. Procurement system performance

5. Based on the available information and data the assessment covers all four aspects. The lessons learned from EGSS are also taken into account into this Assessment.

II. THE PROGRAM CONCEPT

4. The Program will contribute to PLN's overarching power development plans for Eastern Indonesia as identified in the RUPTL, 2017–2026. A more robust and expanded distribution network will increase reliability of services with existing residential customers and businesses and connect new customers to drive economic activity. This will finance a slice of the overall broader program needs as identified in PLN's Electric Power Supply Business Plan (*Rencana Usaha Penyediaan Tenaga Listrik* or RUPTL) 2017–2026 for grid development in Eastern Indonesia. The scope of this program compared with the PLN's broader program is listed in Table 1.

Table 1: Program Scope

Item	Broader PLN Program	Results-Based Lending Program
Outcome	Enhanced energy security	Enhanced access to more reliable electricity services for residential, commercial, and industrial customers
Key outputs	Transmission backbone system developed and distribution system strengthened and expanded	Distribution system strengthened and expanded; innovation and institutional capacity enhanced
Expenditure size	\$5,057 million (including \$3,385.1 million for base costs)	\$1,830 million (including \$1,214.5 million for base costs), of which: ADB: \$600 million (32.8%); PLN and others (67.2%)
Geographic coverage	Sulawesi and Nusa Tenggara	Sulawesi and Nusa Tenggara
Implementation period	2017–2021	2017–2021

ADB = Asian Development Bank, PLN = State Electricity Corporation (*Perusahaan Listrik Negara*).
Sources: ADB and PLN estimates.

5. The scope of the program during 2017–2021 covers (i) the strengthening and expansion of the medium and low voltage (MV & LV) distribution system; and (ii) the improvement of PLN's operational management and implementation arrangements. The key activity provides for the expansion and reinforcement of the medium-voltage (20 kV) and low-voltage distribution networks.

6. This RBL Program will be a direct lending to PLN with sovereign guarantee (subject to MOF approval), and will be channeled through APLN. The RBL modality is appropriate, in that: (i) it allows PLN to use its own program systems, thus providing a platform for institutional **strengthening**; (ii) it focuses attention on results rather than expenditures, leading to a stronger evaluation culture; (iii) it is well-aligned to a broader PLN program and is, therefore, able to leverage innovations in the overall program; (iv) it has lower transaction costs associated with program implementation; and (v) it has the potential to stimulate cofinancing and donor

harmonization with other development partners,¹ in particular, through a focus on common results.

7. Two **output** level results make up the results chain below the outcome level, articulating the Program's contributions to the overall outcome. This means that if the two outputs are fully achieved, and if risks are well managed, then the outcome will be achieved.

- **Output 1. Distribution system strengthened and expanded.** Output 1 will help address the financing needs for the expansion and strengthening of the distribution system and consequently improve electrification rates, reduce overloading and address reliability issues for the local population and businesses.
- **Output 2. Innovation and institutional capacity enhanced.** This output will contribute to PLN's overall efforts to: (a) address operational challenges, such as by reducing non-technical losses, payment defaults, and technical staff servicing costs in remote areas through expanding the use of digital pre-paid meters; and/or (ii) support innovation through pilot-scale smart grid projects, which will reduce non-technical losses, integrate the expanded use of intermittent renewable energy sources, and better manage demand fluctuation; and/or (iii) improve waste treatment practices and enhance consultations with land owners on location of distribution transformers; and/or (iv) track the timely implementation of contracts.

III. UPDATE ON PROCUREMENT ASSESSMENT

1. Procurement Profile of the RBL

8. The procuring entities for the Program are the following: the **PLN Division of Strategic Procurement (DIV DAS)**, the **PLN Division of Regional Development for Sulawesi and Nusa Tenggara (DIV PRSNT)**, the **PLN Division of Supply Chain Management (SCM)**, and the **PLN Wilayah** (regional offices along with their respective area offices) in the following regions: **Sulutenggo** (North Sulawesi, Central Sulawesi, and Gorontalo), **Sulselrabar** (South, South East, and West Sulawesi), **NTT** (East Nusa Tenggara), and **NTB** (West Nusa Tenggara). Below is the description of indicative procurement profile of the Program:

- **Goods** (total aggregate estimated total volume of USD 820 million for the broader PLN program): The procurement will involve the following:
 - i. The procurement of the SCADA system by selected PLN Wilayah (as required). Some of the PLN Wilayah offices (such as Wilayah Sulselrabar and NTB) already have the SCADA system, however, with the expansion of the distribution lines, the existing SCADA system may not be adequate that a new system is to be purchased and installed, as needed basis. The value of contracts is expected to be around USD 3 million per contract.
 - ii. The procurement of main distribution materials (referred to as "MDU") by SCM, whose value is in the range of USD 3-10 million per contract, which can be grouped as follows:
 1. **Materials for Medium Voltage Overhead Network** (for up to 20 kV, with an aggregate estimated total volume of USD 45 million for the broader PLN

¹ In April 2016 the World Bank approved a \$500 million results-based program for power distribution in Sumatra complementing ADB's RBL program approved in 2015 (see footnote 11). A similar collaboration effort is being considered for Eastern Indonesia.

program), such as: conductors, isolators, transformers, lightning arresters, polls, etc.

2. **Materials for Medium Voltage Cable Network** (for up to 20 kV, with an aggregate estimated total volume of USD 63 million for the broader PLN program), such as the purchase of cables for both on and underground.
 3. **Distribution Switchgear**, which could include the LBS and recloser, with an aggregate estimated total volume of USD 600 million for the broader PLN program.
 4. **Materials for Low Voltage Network**, such as: polls, cables, energy meters, MCB, etc, with an aggregate estimated total volume of USD 75 million for the broader PLN program.
 5. **House Connection, Meter and Limiter Device**, with an aggregate estimated total volume of USD 58 million for the broader PLN program.
- **Civil Works** (total aggregate estimated total volume of USD 273 million for the broader PLN program), which includes the erection and installation of MDU, as well as the services for other small refurbishment. The procurement will be done by the PLN Wilayah, with individual contract amount of less than USD 5 million per contract. The work location is scattered and it is simple in nature, and no foreign bidders are anticipated to be interested in the contracts.
 - **EPC for Pilot Smart Grid System Development** (total aggregate estimated total volume still to be determined, currently estimated around USD 48 million for the broader PLN program), The EPC contract may include the design, development and installation of the smart grid IT system as well as the procurement of specific equipment and device, such as: electrical smart device, smart meters or other components that provide live data for managing the load on the grid. The first pilot under this RBL Program will develop the smart grid system in four PLN area locations in SNT Region. Considering that this will be the first time for PLN to perform such technology, the procurement will be done following PLN's open competitive bidding allowing international bidders to participate. The procurement planning and the development of bidding documents will be performed by Division of Engineering and Procurement Planning (DIV EPP), after getting the inputs from DIV PRSNT, and the Smart Grid Task Force (including DIV SIS, DIV RKO, SPKK and others). After the procurement plan and bidding documents are available, the procurement of EPC for pilot smart grid system will be conducted by either the PLN Division of Strategic Procurement (DIV DAS), the PLN Division of Regional Development for Sulawesi and Nusa Tenggara (DIV PRSNT), depending on further development and studies of the Smart Grid Task Force and the decision of the PLN Board of Directors. As a general rule, if the pilot smart grid will involve smaller and specific areas and for contracts below USD 12 million equivalent, it is very likely that the procurement will be performed by DIV PRSNT with the supervision by DIV DAS. However, if this is considered as a strategic development, then it is very likely that DIV DAS will carry out the procurement.

9. **Summary of PLN Procurement System for the Program.** All procurement for the Program will follow the PLN procurement procedures as set forth in the PLN's Board of Directors (BOD) Decree N° 0620.K/DIR/2013. It is found that PT PLN (Persero) General Guidelines for Procurement is appropriate and follows best practices used by utility companies around the world. The complaint handling system is also in place. The framework provides the overall principles for procurement, a procurement strategy as well as detailed procedures. The overall objective of the procurement strategy is to increase value for money (VfM) for the organization, which are identified as the correct balance of the six Rights (Rs) - quality,

quantity, location, time, social-economic impact, and price. The right price is only considered once the other 5 Rs have been complied with. The social economic goals of the procurement process may include social, environmental or other strategic objectives and can also include building national capacity to supply PLN by utilizing domestic products, suppliers and contractors. The applicable procurement methods for the Program can be defined as follows:

- a. The default procurement method is called “limited bidding”, where bids are solicited to a number of prequalified bidders, after going through a prequalification process following an open competitive bidding. The prequalified bidders are maintained in the list (referred to as “DPT List”) under framework contract agreements for certain period of time (could be 6 months or a year, and some with possible extensions). This method is applicable for the procurement of MDU as well as for the procurement of civil works.
- b. Another method is open competitive bidding, which is likely to be applicable for the procurement of SCADA system and the procurement of EPC for Smart Grid System Development.
- c. Purchases of small parts in very small volume (particularly for emergency items, which are immediately required for addressing emergency circumstances to maintain the power distribution services to customers) may also be conducted through open book system, or direct contracting (for contracts less than USD 25,000)

Table 2: Summary Procurement Profile

Procurement Type	Procurement Method			Total
	Open Competitive Bidding	Limited Bidding/Framework Contract	Direct Contracting through Open Book	
1. Civil Works		\$273 million		\$273 million
2. Equipment/ MDU/EPC for Smart Grid	\$60 million	\$763 million	\$ 45 million	\$820 million
Total	\$60 million	\$1,036 million	\$ 45 million	\$1,131 million

2. Organizational Arrangements and Capacity

10. In accordance with the SOE Ministerial Decree as PLN GMS Num. S-548/MBU/09/2015 dated 8 September 2015, and SOE Ministerial Decree Num. SK-211/ MBU/10/2015 dated 30 October 2015, there changes of composition of BOD. The changes in the composition of the Board of Directors reflected changes in the company’s management. The Seven Directors supervising the Seven Business Regions are now responsible for expanding generator capacity, maintain existing generators and distribution lines, and service customers in their regions. In other words, the Regional Directors are now managing end-to-end business processes of their respective regions. On the other hand, Directors responsible for corporate functions are more

concentrated in the business affairs of their area of expertise, namely: Corporate Planning Director, Procurement Director, Human Capital Management Director and Finance Director. The organizational restructuring at the directorial level is to respond, anticipate, and prepare PLN for the development of a 35,000 MW Generator and regular generators, in addition to the corresponding transmission and distribution networks.

11. The procuring entities under this RBL Program, are as follows: (i) the **PLN Division of Strategic Procurement (DIV DAS)** and the **PLN Division of Supply Chain Management (SCM)**, which both report to the Procurement Director, (ii) the **PLN Division of Regional Development for Sulawesi and Nusa Tenggara (DIV PRSNT)** and the **PLN Wilayah** which both report to the Business and Regional Director for Sulawesi and Nusa Tenggara. In each PLN Wilayah there are several PLN Distribution Area, which covers specific areas within the regions.

12. DIV DAS and DIV PRSNT will likely carry out the procurement of EPC for smart grid system development. The bidding documents and procurement planning will be done by DIV EPP.

- Under its current role, DIV DAS executes PLN's strategic procurement, mostly EPC for power generators and transmissions, including all procurement under international donor (such as: World Bank, ADB, IDB) as well as PLN own (APLN) financed projects. Accordingly, this Division is familiar with ICB procurement with large value contracts. There are four senior managers under the DIV DAS organization structure, and all of them have the adequate and proper procurement training and experiences in carrying out large scale and complex procurement involving international bidders. The total annual volume of procurement carried out by DIV DAS is around USD 6 billion equivalent.

- DIV PRSNT has the mandate to carry out procurement below USD 12 million equivalent under the supervision of DIV DAS, predominantly the procurement of works and materials for transmission and distribution lines.

- Under the new PLN regulation, the engineering design, procurement planning, as well as the development and finalization of bidding documents are under the responsibility of DIV EPP. The Division consists of PLN's seasoned experts/engineers who are very familiar with all types of procurement in PLN. After the bidding documents and procurement planning are finalized, the whole documents are issued to DIV DAS or DIV PRSNT for further procurement execution and award. It is noted that all contract amendment processes will be performed by DIV DAS.

13. **The capacity of DIV DAS/DIV PRSNT in procuring the EPC for smart grid system development, the capacity of SCM in procuring MDU, as well as the capacity of the PLN Wilayah in procuring civil works and SCADA is adequate.** Below is the summary of the FY 2015-2016 profile of PLN Wilayah:

Table 3: Summary FY 2015-2016 Procurement Profile PLN Wilayah Offices

Wilayah/Description	NTB	NTT	Sulselrabar	Sulutenggo
No of Areas under the Wilayah	5	4	10	7
No of procurement staff:				
- Planning	5	2	4	4
- Execution	4	4	4	4
Procurement Contract Information:				
- Annual No of Contract	350	262*	30	15*
- Annual Volume of Contract (in USD)	30 million	17 million*	30 million	850,000*
- Average individual contract (in USD)	15,000 - 80,000	15,000 - 100,000*	30,000 - 2 million	15,000 - 750,000*
Capacity Building for procurement staff	Procurement certification by PLN Udiklat Pandaan and other external certification	Procurement certification by PLN Udiklat	Procurement certification by PLN Udiklat	Procurement certification by PLN Udiklat
Complaint handling system	Available	Available	Available	Available
Procurement audit	Available by PLN SPI	Available by PLN SPI	Available by PLN SPI	Available by PLN SPI
NOTE: * Distribution and SCADA only				

14. There are a few notes which can be explored from the experiences of executing procurement in the PLN Wilayah offices, as found below:

- As required under the PLN Procurement Guidance, the performance evaluation of contractors/vendors is conducted on regular basis. Sanctions are applied for poor performance, however, blacklisting of vendors is maintained and enforced through the PLN HQ which is applicable for participation in all PLN offices.
- Direct procurement is conducted for contracts below USD 25,000, normally for small items goods (such as: consumable office stationeries, etc) or in responding to emergency situation. Direct contracting is conducted normally with PLN subsidiaries, for limited items of works/assignments not related to Distribution and SCADA.
- Procurement delays are not significantly expected as all procurement is conducted through the system. Some quality assurance check is also performed by the Value for Money Committee prior to the execution of procurement, which normally takes only a few days. However, particularly for PLN Wilayah NTT, the procurement staff may be a bit overloaded with the burden coming from the PLN mandate to deliver the rural electricity, which in volume could reach up to USD 10 million annually.
- In some PLN Wilayah, local vendors may spend more efforts and time to satisfy the qualification certification requirements as imposed by PLN responding to the ministerial regulations.

3. Lessons Learned from the Implementation of the Electricity Grid Strengthening—Sumatra Program

15. **THERE IS NO PLN STANDARD PROCUREMENT AND CONTRACT MONITORING REPORT.** The monitoring for procurement performance is a key factor in ensuring quality, timeliness and efficiency of procurement processes and results. The procurement and contract monitoring tool at PLN is not adequately available. Accordingly, under the EGSS program action plan, PLN has developed a contract monitoring application, which is called AMK (“Aplikasi Monitoring Kontrak”). The application is able to interface with various procurement information throughout the PLN business process, and integrate them into a necessary tool for monitoring procurement performance. However, the inputs to the system are entered manually, e.g. they are not stored and linked automatically from the procurement planning and implementation data. This AMK application is now applied on pilot basis for the EGSS program, and procurement reporting documents are still being developed at the moment. Under the current practices in the

Directorate of SNT, procurement monitoring and reporting does not have any standards. Attachments 1-3 of this Procurement Assessment provides examples of tools used by the various PLN Wilayah to confirm this finding. **ACCORDINGLY, IT IS EXPECTED THAT THE AMK IS TO BE IMPROVED AND ROLLED OVER TO BE APPLICABLE IN SNT, USING THE SAME PROCUREMENT MONITORING FRAMEWORK AS APPLIED IN EGSS.**

16. **IT IS IMPORTANT TO IMPROVE THE VALUE FOR MONEY IN PROCUREMENT THROUGH MORE USE OF FRAMEWORK CONTRACTS FOR SPECIFIC PROCUREMENT.** There are a number of procurement of certain commodities or works, which are frequently placed with nature that they are small in value but large if it is aggregated. In the past, this type of procurement was conducted through direct contracting, however, with the introduction of framework contracting, PLN is able to aggregate the works or procurement of such commodities into annual contracts. This is partly triggered by the action plan under EGSS. In addition, this helps not only expedite the procurement and the works, but also makes PLN be more efficient. Most PLN Wilayah offices just this recently introduced the use of framework contracts for civil works. **IT IS EXPECTED THAT FOR THIS PROPOSED RBL PROGRAM, MORE USE OF FRAMEWORK CONTRACT IS INTRODUCED FOR CIVIL WORKS AND OTHER SMALLER WORKS AT THE PLN WILAYAH OFFICES.**

17. **ALTHOUGH PLN ALREADY INTRODUCED THE J-PROC, WHICH IS A JOIN PROCUREMENT TO PROCURE IMPORTANT COMMODITIES INVOLVING LARGE VALUE FOR PLN WILAYAH OFFICES, HOWEVER, SOME DEGREE OF PROCUREMENT DELAYS ARE STILL APPARENT.** PLN SCM has now developed an integrated software application, serving as a procurement dispatching system, to ensure that orders can be made online and transparently by PLN Wilayah and Area offices, and also to allow tracking of procurement orders. Once PLN SCM has signed the framework contracts with particular vendors, the PLN Wilayah offices can easily place orders online through the issuance of Purchase Order. This helps reduce the procurement delays as well as identification of the bottle neck of sources of delays if the delays are identified. **IT IS EXPECTED THAT THIS APPLICATION BE IMPROVED, AND EXPANDED FOR THE USE IN THE DIRECTORATE SNT FOR THIS RBL PROGRAM.**

18. **IT IS IMPORTANT TO TRACK THE QUALITY OF CONTRACTORS/VENDORS AS WELL AS THE QUALITY OF PROCUREMENT CONDUCTED AT PLN WILAYAH OFFICES.** Various significantly additional works have been imposed on PLN in responding to the government ambitious program for 35,000 MW electricity development. This has raised an issue of the capacity of PLN and local contractors/vendors in delivering good quality outputs. This issue is also coupled with more complicated qualification requirements as imposed by PLN as well as the Ministry of ESDM that some local contractors/vendors do not have the capacity and efforts to meet them **ACCORDINGLY IT IS IMPORTANT TO PERFORM A SAMPLED PROCUREMENT AUDIT TO ENSURE QUALITY RESULTS ARE ENFORCED.** This procurement audit requirement is also imposed by the World Bank in its P4R program (similar to ADB RBL modality) for Sumatra.

IV. CONCLUSION

19. This procurement assessment of PLN was guided by the Supplementary Appendix No. 5 of the RBL Guidelines, which presents indicative questions for assessing RBL program fiduciary systems, to ensure that an adequate procurement system exists to support a principle-based program. This procurement assessment updates the “Procurement Assessment of Indonesia’s State Electricity Corporation (PLN) for a Possible RBL Operation” on PLN capacity, which was previously conducted for the Electricity Grid Strengthening—Sumatra Program (RRP INO 49080) in June 2015. This assessment also utilizes the Indonesia Country Procurement and Sector Assessment (CSA) Report, interviews with PLN staff using the questionnaires as

mentioned in para 3 above, and by performing a desk study on PLN's procurement system including review of procurement data provided by PLN.

20. The procurement for the program will include the EPC for smart grid system development, the SCADA and equipment for distribution networks as well as civil works and installation services. PLN will use a variety of procurement methods, which include open competitive bidding, framework contracts and direct contracting through open book. Based on the indicative expenditure framework currently available, it is expected that all activities would involve procurement of EPC, works, goods, and services under contracts with an estimated value that does not exceed specified monetary amounts (high-value contracts)².

21. It is this assessment's finding that the procurement framework as expressed in PLN's Board of Directors (BOD) Decree N° 0620.K/DIR/2013 on PT PLN (Persero) General Guidelines for Procurement is appropriate and follows good practices used by utility companies around the world. The framework provides the overall principles for procurement, a procurement strategy as well as detailed procedures. The overall objective of the procurement strategy is to increase value for money (VfM) for the organization, which are identified as the correct balance of the six Rights (Rs) - quality, quantity, location, time, social-economic impact, and price. The right price is only considered once the other 5 Rs have been complied with. The social economic goals of the procurement process may include social, environmental or other strategic objectives and can also include building national capacity to supply PLN by utilizing domestic products, suppliers and contractors. A key for PLN in implementing their procurement strategy is to conduct extensive market research and to identify appropriate sourcing strategies depending on the supply market, the overall expenditure for different spending categories and the importance of those goods and services to PLN operations. As an analytical framework PLN uses the Kraljic Portfolio Purchasing Model to categorize spend and classifies its procurements in Strategic, Bottleneck, Leverage and Routine categories to develop the appropriate sourcing strategy. PLN have implemented a number of framework contracts for equipment to improve efficiency, security of supply and achieve better value for money through fostering economies of scale. For works and engineering, procurement, and construction (EPC) contracts open competitive bidding is the default procurement method. To ensure quality of supply and of contractors, PLN has a list of pre-approved vendors, which meet the financial and technical requirements set out by PLN.

22. There are two key issues for ADB to consider for implementing an RBL using PLN's procurement system - local content requirements and direct contracting through open book, which are integral parts of PLN's procurement system. It is recommended that ADB accept these conditions when deciding to use the RBL modality because RBL policy clearly states that implementation rely on country systems not ADB Procurement Guidelines. More specifically:

- **Local content requirements.** The requirement for local content for equipment means that only suppliers with manufacturing facilities in Indonesia are eligible to bid for and receive contracts. It should be noted that several multinational firms do have manufacturing facilities in Indonesia and PLN is actively encouraging foreign firms to either open facilities or expand the line of equipment they manufacture in Indonesia.
- **Direct contracting through open book.** For direct contracting, only those suppliers who are pre-selected by PLN are eligible to supply goods and services. Although competition is sacrificed, open book contracting brings other benefits such as security

² As per definition in the RBL Staff Guidance, High-value contracts are defined as those below \$50 million for works, turnkey and supply, and installation contracts; \$30 million for goods; \$20 million for information technology systems and non-consulting services; and \$15 million for consulting services

of supply and according to PLN also value for money. Overall, it is only 6-6.5 % of the procurement spending for distribution equipment anticipated under the program will go through the open book system.

23. While PLN's overall procurement framework is appropriate, PLN will face a number of risks in managing procurement under this program. ADB's procurement assessment has identified the following procurement risks:

- **Procurement and market capacity.** As the investment in distribution and transmission will be significantly increased in the implementation period, it may strain the capacity both internally in PLN as well in the supply markets. Not only is ADB processing a RBL, other partners are likely to support the distribution and transmission program and PLN is investing heavily to meet the ambitious goals of the power subsector development program. The absorptive capacity of PLN and perhaps more importantly the private sector capacity to deliver needs to be carefully monitored. The increase in investment in distribution may result in (1) lack of qualified contractors to carry out installation and works contracts and (2) supply risk for equipment categories especially where only limited suppliers exist. A procurement monitoring and spending pattern system should be actively used by PLN to identify capacity issues (whether internally or externally) and to develop mitigating measures and action plans should capacity issues arise.
- **Anti-corruption measures.** All large scale procurements must include suitable safeguards against fraud and corruption. PLN has, over the last three to four years, has taken a number of important initiatives to curb corruption within the organization and has significantly strengthened internal controls. To further strengthen the PLN's oversight and detection mechanism the program action plan includes a procurement monitoring framework and spending pattern of the program. PLN will report every quarter to their board/Value for Money Committee and to ADB on the indicators in the procurement monitoring framework and provide the updated spend profile. Furthermore, PLN will carry out procurement audits covering 10 % of all contracts

24. The key to manage procurement risk in this and subsequent RBLs with PLN is to have all procurement monitored at a corporate level. PLN's procurement guidelines require that PLN introduce a procurement monitoring system, including an expenditure analysis of their procurement. If this is implemented for the program both PLN and ADB can adequately manage procurement risks and take corrective action if and when necessary.

Table 4: Risk Profile and Mitigation Measures

Risk Description	Risk Assessment	Mitigation Measures
Market capacity and supply risk issues may cause price fluctuations.	Moderate	ADB and PLN will develop a procurement monitoring and spending profile for the program, to identify any lack of competition or above-normal contract prices due to market failure.
Procurement may be delayed.	Low	Roll out the existing procurement monitoring framework, which has been developed and made operational under

Risk Description	Risk Assessment	Mitigation Measures
		the predecessor RBL program for the Electricity Grid Strengthening—Sumatra Program (Loan 3339-INO and Loan 8297-INO), to be applicable in this program.
Large investments in this sector will likely stretch existing institutional capacity, particularly at the PLN <i>wilayah</i> level.	Low	Accelerate PLN's ongoing programs and initiatives to improve institutional capacity and professional development for key staff.
PLN struggles with initiatives to curb corruption and 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.

ADB = Asian Development Bank, PLN = State Electricity Corporation (*Perusahaan Listrik Negara*), RBL = results-based lending, *wilayah* = regional office.

Source: Asian Development Bank.

V. PROGRAM ACTION PLAN

Actions	Responsible Agency	Time Frame for Implementation
1. The contract monitoring system (AMK) implemented in program area and the procurement monitoring report prepared & submitted quarterly	DIV SCM; DIR REG SNT; <i>Wilayahs</i>	by the end of 2017
2. The SCM dispatching system implemented in program area	DIV SCM	by the end of 2017
3. Procurement audits to be performed by SPI (the PLN internal auditor) each year covering samples of at least 10 % of all contracts at Wilayah/Area offices, and the results of audit information to be shared with ADB	DIV SCM; DIR REG SNT; <i>Wilayahs</i> ; SPI	starting from 2017 audit
4. Conduct open competitive bidding (allowing international bidders to participate) following PLN's procurement procedures for all pilot smart grid projects under the program	DIV PRSNT, Smart Grid Task Force (including DIV SIS, DIV RKO, SPKK and others), DIV DAS, DIV EPP	from 2018

DIV DAS = Strategic Procurement Division, DIV EPP = Engineering and Procurement Planning Division, DIV RKO = Corporate Planning Division, DIV SCM = Supply Chain Management Division, DIV SIS = System Planning Division, SPKK = Satuan Pengendalian Kinerja Korporat (Corporate Performance Control Unit)