PT PLN (Persero)

Annually Report

Sustainable Energy Access in Eastern Indonesia - Electricity Grid Development Program

Result Based Lending (RBL) - ADB

15 March 2018

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Abbreviations

ADB	=	Asian Development Bank
AMK	=	Aplikasi Manajemen Kotrak (Contract Management Application)
AP2T	=	Aplikasi Pelayanan Pelanggan Terpusat (Centralised Customer Service Application)
APKT	=	Aplikasi Pengaduan dan KeluhanTerpadu (Integrated Complaints Management Application)
ckm	=	Circuit kilometre
COD	=	Commercial Operation Date
DLI	=	Disbursement-Linked Indicator
ERP	=	Enterprise Resource Planning
FPR	=	Financing for Prior Results
GIS	=	Geographic Information System
GWh	=	Gigawatt-hour
IVA	=	Independent Verification Agent
KPI	=	Key Performance Indicator
kV	=	Kilovolt
MVA	=	Megavolt-ampere
PAP	=	Program Action Plan
PID	=	Project Implementation Document (ADB)
PLN	=	Perusahaan Listrik Negara (State-Owned Electricity Company)
PMU	=	Program Management Unit
PPA	=	Power Purchase Agreement
RBL	=	Results Based Lending (ADB)
RUPTL	=	Rencana Usaha PenyediaanTenagaListrik (Electricity Power Supply Business Plan)
SAIDI	=	System Average Interruption Duration Index
SAIFI	=	System Average Interruption Frequency Index
SILM	=	Sistem Informasi Laporan Manajemen (Management Reporting Information System)
SNT	=	Sulawesi dan Nusa Tenggara
SPKK	=	Satuan Pemantau Kinerja Korporat (PLN internal performance management unit)

1.   INTRODUCTION

1.1   Background

On October 10th, 2017, PT PLN (Persero) signed loan agreements with ADB, worth $600m to support Sustainable Energy Access in Eastern Indonesia - Electricity Grid Development Program. The objective of the Program is to support expanded access to more reliable electricity services for residential, commercial, and industrial customers in the eastern provinces of the Guarantor in Sulawesi and Nusa Tenggara, namely North Sulawesi, Gorontalo, Central Sulawesi, West Sulawesi, South Sulawesi, South East Sulawesi, West Nusa Tenggara, and East Nusa Tenggara.

The Program is expected to be completed by 31 December 2021 and comprise the following result areas:

(a) Distribution system strengthening and expansion. Under this result area, the Program shall 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.

(b) Innovation and institutional capacity enhancement. Under this result area, the Program shall support PLN effort in innovation and strengthen institutional capacity for environmental management and increased efficiency through:

(i)   supporting innovation through pilot-scale smart grid projects;
(ii) expanding the use of digital pre-paid and smart meters to reduce non-technical losses, payment defaults, and servicing costs in remote areas;
(iii) improving PLN asset and waste management with safe disposal of several years' backlog of used equipment; and
(iv) tracking the timely implementation of distribution system contracts.

The ADB loan is implemented in the form of programs, whereby PLN, acting as the executing agency, must fulfil program conditions to access loan funding. ADB's program is called Results Based Lending (RBL).

The program follows a performance-based lending structure, in which funds are disbursed in tranches and only released to PLN when mutually agreed Disbursement-Linked Indicators (DLIs) are met (with provision for pro-rata disbursements for partial fulfilment of DLIs). The DLIs are results-oriented as opposed to process-oriented, thus allowing PLN the discretion to use its own processes and systems for managing funds and achieving program results.

In addition to the DLIs, PLN has agreed to implement a series of actions set out in Program Action Plans (PAPs), which are also included as loan covenants in the ADB agreement.

1.2   Program Scope of Work

The scope of work for the ADB RBL program (except Financial Covenants) can be detailed as follows:

Implementation Arrangements

1. The Program is implemented in accordance with the detailed arrangements set forth in the PID. Any subsequent change to the PID shall become effective only after approval of such change by PLN and ADB. In the event of any discrepancy between the PID and this Loan Agreement, the provisions of this Loan Agreement shall prevail.
2. PLN shall ensure that the amount of Eligible Expenditures under the Program for any Fiscal Year is equal to or exceeds the Loan proceeds withdrawn by PLN in the same Fiscal Year. Such Eligible Expenditures are part of the expenditures incurred under the Program, but they exclude any expenditures for (a) procurement of works, goods and services from countries which are not members of ADB; (b) procurement of works, goods and services from persons or entities debarred or suspended by ADB; (c) procurement involving High-Value Contracts; (d) any activities which are classified as category A for environmental impact under the SPS; and (e) any activities which are prohibited investment activities provided in Appendix 5 of the SPS.

DLI Compliance and Program Dialogue
3. PLN shall ensure that all DLIs achieved under the Program continue to be complied with for the duration of the PLN's program.
4. PLN shall keep ADB informed of discussions with other multilateral or bilateral aid agencies that may have implications for the implementation of the PLN program and the Program and shall provide ADB with an opportunity to comment on any resulting proposals. PLN shall give due consideration to ADB's views before finalizing and implementing any such proposal.

Technical Requirements
5. PLN shall ensure that all Program Actions in the area of technical requirements are implemented in a timely and efficient manner.

Financial Management
6. PLN shall ensure that all Program Actions in the area of financial management are implemented in a timely and efficient manner.

Procurement
7. PLN shall ensure that each contract under the Program is awarded on the basis of the Program's procurement system, having due regard for principles of competition, economy and efficiency, transparency and fairness and equal opportunity.
8. PLN shall ensure that all Program Actions in the area of procurement are implemented in a timely and efficient manner.

Environmental and Social Safeguards
9. PLN shall ensure that all Program Actions in the area of environmental and social safeguards are implemented in a timely and efficient manner.
10. (a) PLN shall ensure that no construction or rehabilitation works under the Program involve significant adverse environmental impacts that may be classified as category A under the SPS. Prior to the first disbursement, PLN shall issue a technical guidance on safeguards screening to exclude all activities that would be classified as category A for environment impacts within the meaning of SPS. Prior to commencing any construction or rehabilitation works under the Program, PLN shall conduct a screening

to ensure that any works that may be classified as category A for environment impacts within the meaning of SPS are excluded from the Program.

(b) PLN shall ensure that the preparation, design, construction, implementation, operation and decommissioning of all activities under the Program comply with: (i) all applicable laws, regulations and guidelines of the Borrower relating to environment, health and safety; (ii) the Environmental Safeguards; and (iii) all measures and requirements, including monitoring requirements set forth in the Program Action Plan.

11. PLN shall ensure that the preparation, design, construction, implementation, operation and decommissioning of all activities under the Program comply with: (a) all applicable laws and regulations of PLN relating to resettlement; (b) Involuntary Resettlement Safeguards; and (c) all measures and requirements, including monitoring requirements set forth in the Program Action Plan.

12. PLN shall ensure that the preparation, design, construction, implementation, operation and decommissioning of all activities under the program comply with: (a) all applicable laws and regulations of the Borrower relating to indigenous peoples; (b) Indigenous Peoples Safeguards; and (c) all measures and requirements, including monitoring requirements set forth in the Program Action Plan.

Gender and Social Equality

13. PLN shall ensure that all Program Actions in the area of gender and social equality are implemented in a timely and efficient manner

Governance and Anticorruption

14. PLN shall ensure that the Program complies with the Anticorruption Guidelines and that all appropriate and timely measures are taken to prevent, detect and respond to allegations of fraud, corruption or any other prohibited activities relating to the Program in accordance with the Anticorruption Guidelines.

15. PLN shall (a) promptly inform ADB of any allegations of fraud, corruption or any other prohibited activities relating to the program; and (b) cooperate fully with any investigation by ADB on such allegations and extend all necessary assistance, including providing access to all relevant records, for satisfactory completion of such investigation.

16. Within 90 days of the Effective Date, PLN shall update its public website to (a) provide procurement-related information on the program (including bidding information); (b) post the audited statements of the Program expenditures, as such statements become available; and (c) disseminate other information on program implementation deemed mutually relevant by both ADB and the Borrower.

1.3   Scope of this Annually Report

This Annually Report is intended to provide periodic progress updates to ADB regarding (i) the achievements of overall program results; (ii) status of the DLIs and DLI verification protocols; (iii) the status of covenants in the loan agreements; and (iv) the outcomes of the PAP implementation program.

This Annually Report covers reporting periods from January 1st, 2017 until December 31st 2017.

2. PROGRAM STRUCTURE, MANAGEMENT AND IMPLEMENTATION

2.1 ADB Results Based Lending Program

The ADB Results Based Lending (RBL) program focuses on sustainable energy access in Eastern Indonesia – Electricity Grid Development Program.

These are the key milestones of ADB L3560-INO :

- ADB Approval : Sep 14th, 2017

- Loan Signing : Oct 10th, 2017

- Guarantee Signing : Nov 16th, 2017

- Loan Effectiveness : Dec 14th, 2017

- Implementation Period : Jan 2017 – Dec 2021 (5 years)

- Program Completion : Dec 31st, 2021

- Loan closing : Jun 30th, 2022

The first disbursement of US$150 million was made on December 21st 2017, based on activities claimed under the Financing for Prior Results (FPR) indicators.

An Allocation and withdrawal of Loan Proceeds and the breakdown of the ADB RBL disbursement allocations is shown below in Table 2 and Table 2

Table 1: Allocation and withdrawal of Loan Proceeds (Source: ADB)

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Sustainable Energy Access in Eastern Indonesia Electricity Grid Program – Results Based Program)							
Disbursement-Linked Indicator (DLI)	Total ADB Financing Allocation	Advance Financing	2017	2018	2019	2020	2021
DLI 1	120,000,000		30,000,000	30,000,000	30,000,000	30,000,000	
DLI 2	96,000,000		24,000,000	24,000,000	24,000,000	24,000,000	
DLI 3	48,000,000		12,000,000	12,000,000	12,000,000	12,000,000	
DLI 4	96,000,000	48,000,000	12,000,000	12,000,000	12,000,000	12,000,000	
DLI 5	96,000,000	48,000,000	12,000,000	12,000,000	12,000,000	12,000,000	
DLI 6	48,000,000	18,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
DLI 7	48,000,000	18,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
DLI 8	48,000,000	18,000,000	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000
TOTAL	600,000,000	150,000,000	108,000,000	108,000,000	108,000,000	108,000,000	18,000,000

Table 2: ADB RBL Disbursement Allocations (Source: ADB)

No	Metric	Definition of Indicators	Units	Disbursement Allocated ($ million)
1	Increased numbers of total PLN Customers	Minimum target of increased customer annually is 5.6%, to reach at least 6.00 million customers by 2020	million customers	120
2	Increased annual electricity sales	Minimum target of increased annual electricity sales is 8.5%,	GWh	96
3	Permanent interruptions	Maximum annual rate increase allowed for feeder line permanent interruptions in the distribution system line is 5%, to reach less than 15.82/100 ckm by 2020	Interruptions per 100km	48
4	Increased numbers of distribution transformers	Minimum rate of increased number of distribution transformer unit installed annually is 5%, to reach at least 50,721 by 2020	Units	96
5	Additional length of medium voltage (MV) distribution lines	Minimum rate of additional length of MV lines annually is 5.6%, to reach 58,764 ckm by 2020	ckm	96
6	Pilot scale smart-grid projects	at least 4 pilot-scale smart grid projects implemented in at least 4 areas by 2021	ckm	48
7	Enhancement of operational efficiency and resource optimization	increased use of digital pre-paid meter or smart meter use at least 75% of total customers by 2021	Complaints per 1000 customers	48
8	Improvement of asset and waste management	used PLN equipment is safely disposed at least 90% from the 2016 disposal inventory	%	48
9	Timely completion of implementation of distribution system contracts	Timely completion of implementation of distribution system contracts increased more than 75% by 2021	%	0

The ADB RBL program has eight DLIs and one non-disbursement linked.

The target values for each of the results indicators over the loan period (2017 to 2021) are shown in **Error! Reference source not found.**.

Table 3: ADB RBL Results Indicators (Source: ADB)

RESULT INDICATOR	UNIT	2016 Baseline	2017	2018	2019	2020	2021
Number of Total Customers	Milllion Customers	≥ 5.62	≥ 5.9	≥ 6.27	≥ 6.62	≥ 6.99	-
Total Annual Electricity Sales	GWh	≥ 11,336	≥ 12,300	≥ 13,345	≥ 14,480	≥ 15,710	-
(sub Commercial Customers)	GWh	≥ 2,334	≥ 2,532	≥ 2,747	≥ 2,981	≥ 3,234	-
Feeder Line Permanent Interruptions	Numbers/ 100 ckm	19.43	18.45	17.53	16.66	15.82	-
Number of Distribution Transformer	Unit	≥ 40,788	≥ 43,072	≥ 45,484	≥ 48,031	≥ 50,721	-
Total Length of Medium Voltage distribution Lines	ckm	≥ 47,256	≥ 49,902	≥ 52,697	≥ 55,648	≥ 58,764	-
Pilot-scale Smart Grid Project	Unit	No project	Guideline, pilot projects selected	2 projects start procurement	4 projects start procurement	2 projects start operational	4 projects start operational
% Digital Pre-paid or Smart-meter	%	≥ 48	≥ 55	≥ 60	≥ 65	≥ 70	≥ 70
Asset & waste management improved (disposal inventory safely disposed)	%	0 inventory, slow procedures	2016 Inventory approved by PLN & revised guidance Assets Managemenet	2016 Inventory approved by MSOE, oil spills cleaned (≥ 20 disposed)	All warehouse with oil containment (≥ 50 disposed)	≥ 80 disposed	≥ 90 disposed

2.2   PLN Program Management and Implementation

PLN will form a Project Management Unit (PMU) and Project Implementing Unit (PIU) specifically for the ADB RBL programs in PLN Sulawesi and Nusa Tenggara. The PMU consists of internal PLN staff drawn from various divisions within PLN Head Office (e.g. Regional Sulawesi, Regional Jawa Timur, Bali and Nusa Tenggara, Corporate Planning, Procurement, etc). The organisational structure of the PMU is shown in Figure 1 below.
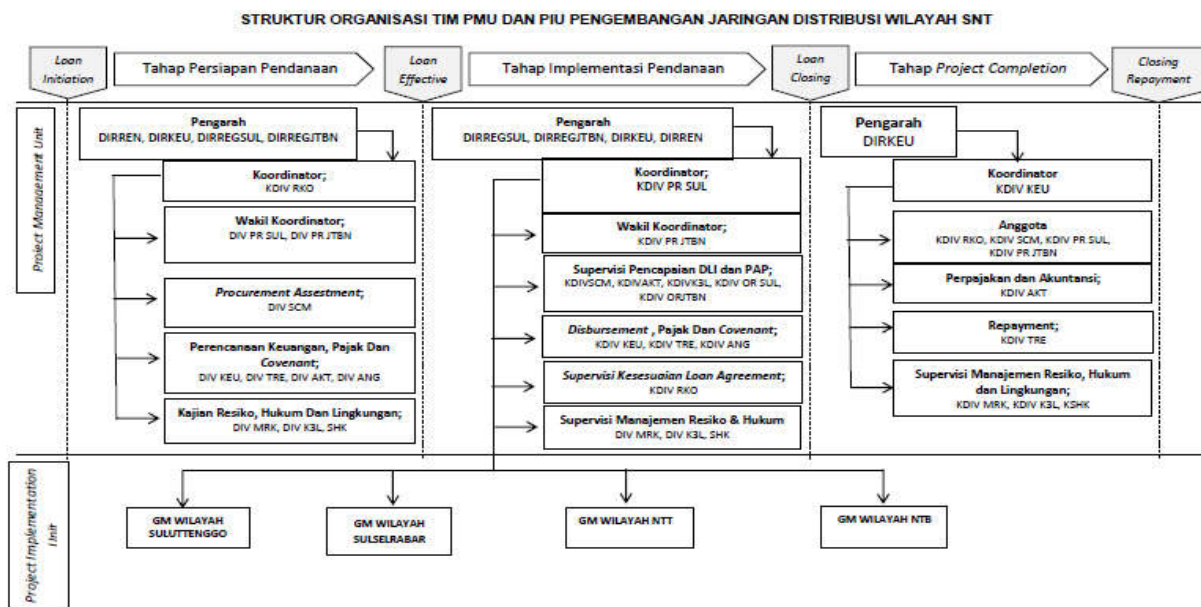

Figure 1: PMU/PIU Organisational Structure

3. Electrification Ratio of Sulawesi and Nusa Tenggara System

3.1 Electrification Ratio

The electrification ratio for each PLN Wilayah in Sulawesi and Nusa Tenggara as at Dec 2017 is shown in Table 4.

Table 4 Electrification ratio

Province	Household Total	PLN customers	Non PLN customers	Electrification Ratio
Sulawesi Selatan	1,975,068	1,886,925	70,670	99.12%
Sulawesi Tenggara	591,455	441,137	41,160	81.54%
Sulawesi Barat	295,778	208,366	73,445	95.28%
Sulawesi Utara	631,026	587,894	8,786	94.56%
Sulawesi Tengah	706,262	555,956	4,190	79.31%
Gorontalo	271,674	233,393	1,762	86.56%
Nusa Tenggara Timur	1,149,413	615,132	72,829	59.85%
Nusa Tenggara Barat	1,376,556	1,136,114	21,753	84.11%
Sulawesi & Nusa Tenggara	**6,997,232**	**5,664,917**	**294,595**	**85.17%**

Legend :

ER > 90%
ER 80% - 90%
ER < 80%

4. ADB RBL PROGRAM IMPLEMENTATION STATUS

4.1 Reporting Period

The reporting period for the ADB RBL indicators is the full year January 1st, 2017 – December 31st, 2017.

4.2 Disbursement Linked Indicators (DLIs)

4.2.1 RBL DLI 1: Increased numbers of total PLN Customers

As at December 2017, for one year in 2017, PLN has an increased number approximately 0.46 m customers in Sulawesi and Nusa Tenggara, which of the ADB RBL target of 0.34 m for 2017. Data for this indicator are extracted from the SILM system, which has an integrated link to PLN's customer database (AP2T).
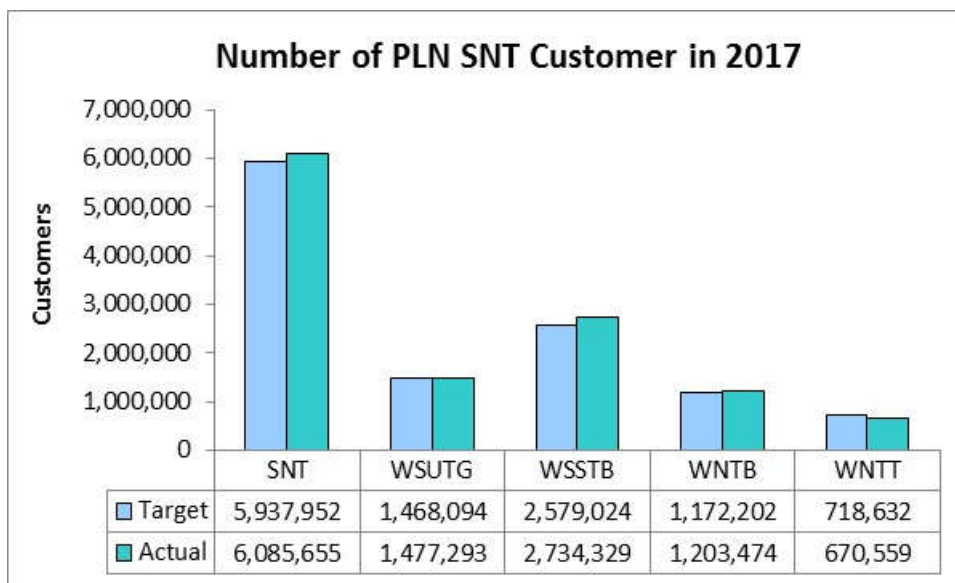

Figure 2: Number of PLN SNT Customer in 2017

The Increased numbers of total SNT PLN Customers from 2016 to 2017 are shown in **Error! Reference source not found.**5.

Table 5: Increased numbers of total PLN Customers

No	Number of Customer	Unit	2016	2017
a	Baseline Set Up	Customer	5,623,061	
b	Baseline Update	Customer	5,623,061	
c	Target	Customer		5,937,952
d	Actual	Customer		6,085,655
e	Δ Target	Customer		314,891
f	Δ Actual	Customer		462,594
g	% Target	%		5.60%
h	% Actual	%		8.23%

The total customer in 2016 are 5,623,061 customers. Target RBL-ADB 2017 is growth around 5.6 % from the baseline 2016, while actual YoY 2016 vs 2017 is 8.23%.

There were some breakthrough in 2017:

1. Improvement of day service for residential and non- residential customers (below than service quality level – *tingkat mutu pelayanan*) using GIS technology application for customer survey & mobile service equipment to minimize procedures & shortening time :

    a. ODS – One Day Service for $\leq$ 5,500 VA

    b. FDS – Four Day Service for 6,600 VA-33,000 VA

    c. ESE – Easy Getting Electricity for $\geq$ 41,500 VA

2. Installment Program for new residential customer

3. Aggressive Marketing

4.2.2 RBL DLI 2: Increased annual electricity sales

The Increased of annual electricity sales from January to Dec 2017, for one year has reached 606.49 GWh, which of the ADB RBL target of 964.54 GWh for the 2017 full year.

Similar to ADB RBL DLI 1, data for this indicator is extracted from the SILM system, which has an integrated link to PLN's customer and energy sales database (AP2T).

Total Energy Sales 2017

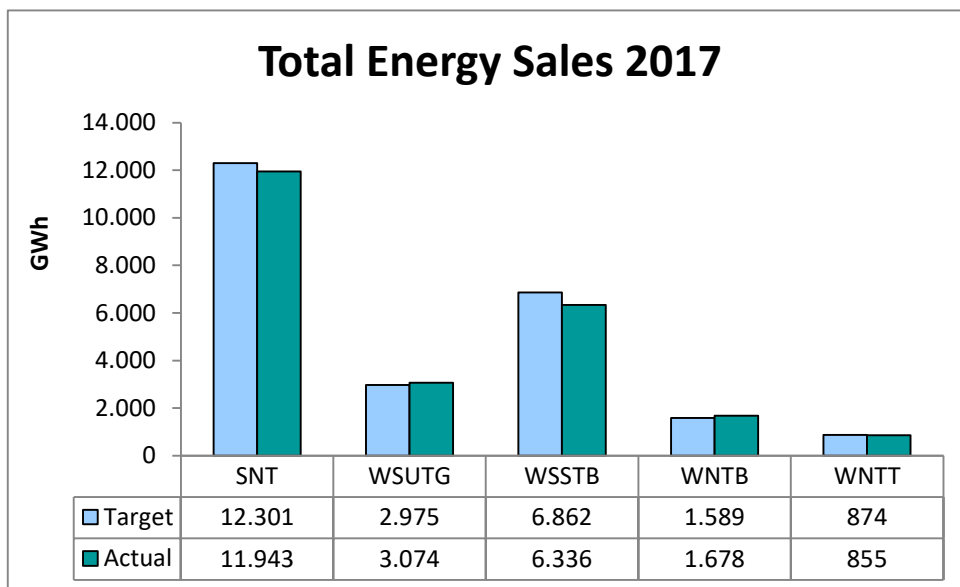|	SNT	WSUTG	WSSTB	WNTB	WNTT
Target	12.301	2.975	6.862	1.589	874
Actual	11.943	3.074	6.336	1.678	855

Figure 3: Total Energy Sales in 2017

The Increased numbers of total Energy Sales from 2016 to 2017 are shown in **Error! Reference source not found.**6.

Table 6: Increased total electricity sales

No	Total Energy Sales	Unit	2016	2017
a	Baseline Set Up	GWh	11,336.18	
b	Baseline Update	GWh	11,336.18	
c	Target	GWh		12,300.73
d	Actual	GWh		11,942.68
e	Δ Target	GWh		964.54
f	Δ Actual	GWh		606.49
g	% Target	%		8.51%
h	% Actual	%		5.35%

The Increased of energy sales commercial customers from January to Dec 2017, for one year has reached 149.25 GWh, which of the ADB RBL target of 198.29 GWh for the 2017 full year.
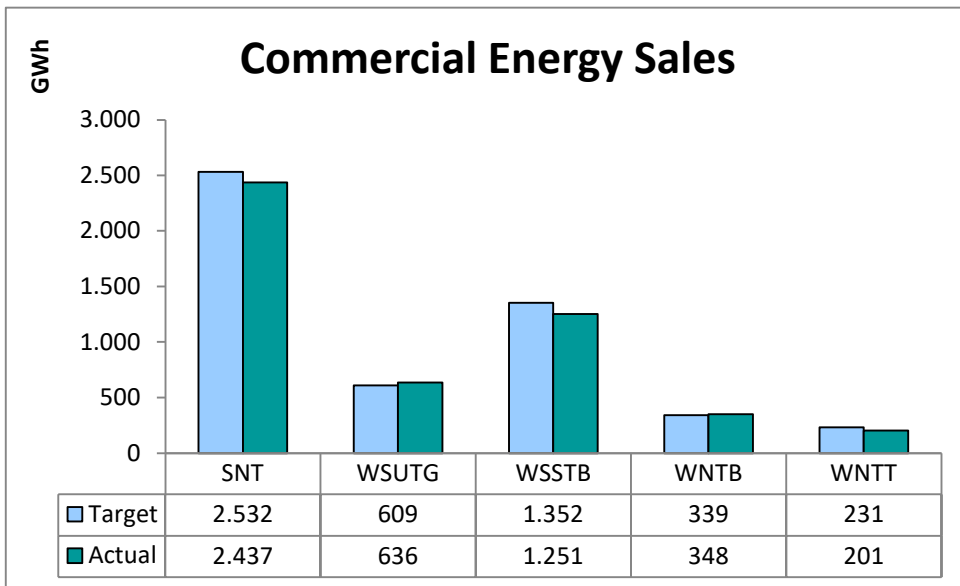

	SNT	WSUTG	WSSTB	WNTB	WNTT
Target	2.532	609	1.352	339	231
Actual	2.437	636	1.251	348	201

Figure 4: Commercial Energy Sales in 2017

The Increased numbers of Customer Energy Sales from 2016 to 2017 are shown in **Error! Reference source not found.**7.

Table 7: Increased commercial electricity sales

No	Commercial Energy Sales	Unit	2016	2017
a	Baseline Set Up	GWh	2,333.71	
b	Baseline Update	GWh	2,287.34	
c	Target	GWh		2,532.00
d	Actual	GWh		2,436.58
e	Δ Target	GWh		198.29
f	Δ Actual	GWh		149.25
g	% Target	%		8.50%
h	% Actual	%		6.52%

Note : Baseline set up in 2016 for commercial energy sales is different with baseline update 2016 in SILM. This data will be verified by IVA.

There were some evaluation in 2017:

1. In some area, there were some industrial customers (e.g. Smelter) had plan to connect in 2017, but until now, they still postpone their planning to connect to PLN

2. Decrease of national economic growth

3. Trend of residential customers to reduce their consumption

For PLN (holding), total sales YoY 2016-2017 grew by 3.57%. The sales growth target has been revised in RKAP of 2017 from 8.3% (equivalent to 234 TWh) to 4.1% (equivalent to 224.8 TWh).

Figure 5: Map of total energy sales in 2017

The achievement of energy sales for WSUTG, WSSTB and WNTB exceed the realization average of PLN holding, except WNNT.

4.2.3   RBL DLI 3: MV Feeder Permanent Interruptions

The number of MV feeder permanent interruptions reported in SNT over the period January – Dec 2017 was 13.70 interruptions per 100 ckm, which of the ADB RBL target of 18.01 interruptions per 100 ckm for the 2017.

Data for this DLI is extracted from SILM, though the source data is filled from Distribution Control Center from each of the PLN Wilayahs.
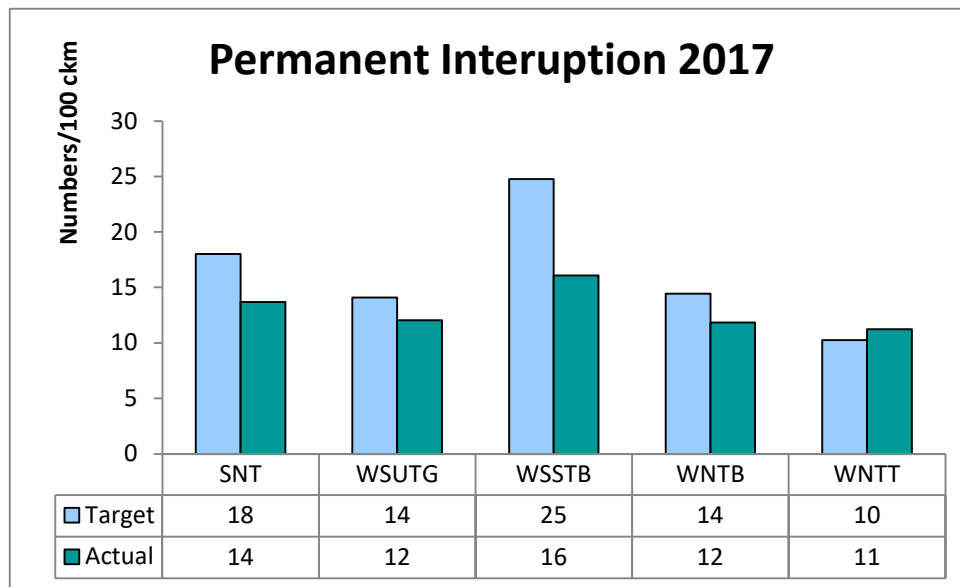
Permanent Interuption 2017

	SNT	WSUTG	WSSTB	WNTB	WNTT
Target	18	14	25	14	10
Actual	14	12	16	12	11

Figure 6: Permanent Interuption in 2017

The MV Feeder Permanent Interruptions from 2016 to 2017 are shown in **Error! Reference source not found.**8.

Table 8: MV Feeder Permanent Interruptions

No	Feeder Interuptions / 100 ckm	Unit	2016	2017
a	Baseline Set Up	interruption/100 ckm	19.43	
b	Baseline Update	interruption/100 ckm	20.24	
c	Target	interruption/100 ckm		18.01
d	Actual	interruption/100 ckm		13.70
e	Δ Target	interruption/100 ckm		-1.42
f	Δ Actual	interruption/100 ckm		-6.54
g	% Target	%		7.31%
h	% Actual	%		32.34%

Note : Baseline set up in 2016 for feeder permanent interruption is different with baseline update 2016 in SILM. This data will be verified by IVA.

There were some breakthrough in 2017:

1. Integrated distribution maintenance
2. Sinergy maintenance between sub unit (rayon)
3. Monitoring execution of work plan with four discipline execution (4DX)

4.2.4 RBL DLI 4: Increased numbers of distribution transformers

As at Dec 2017, the increased numbers of distribution transformers was 5.485 units, which of the ADB RBL 2017 target of 2.406 unit

Data for this DLI is extracted from SILM, though the source data is filled in manually with input from each of the PLN Wilayahs.
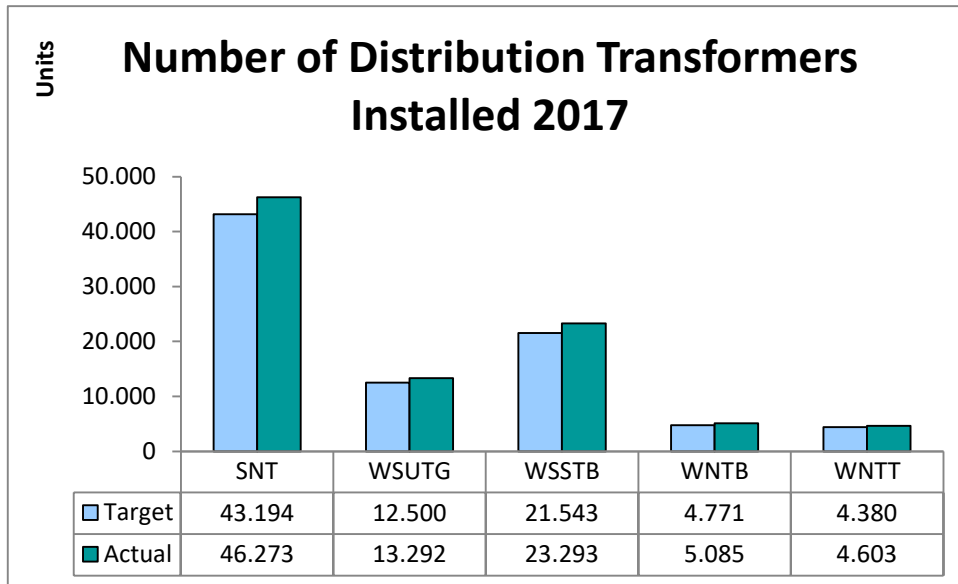

Number of Distribution Transformers Installed 2017

	SNT	WSUTG	WSSTB	WNTB	WNTT
Target	43.194	12.500	21.543	4.771	4.380
Actual	46.273	13.292	23.293	5.085	4.603

Figure 7: Number of Distribution Transformer in 2017

The increased numbers of distribution transformers number from 2016 to 2017 are shown in **Error! Reference source not found.**9.

Table 9: Increased numbers of distribution transformers

No	Numbers of distribution transformers	Unit	2016	2017
a	Baseline Set Up	Unit	40,788	
b	Baseline Update	Unit	40,788	
c	Target	Unit		43,194
d	Actual	Unit		46,273
e	Δ Target	Unit		2,406
f	Δ Actual	Unit		5,485
g	% Target	%		5.90%
h	% Actual	%		13.45%

There were some break through in 2017:

1. Centralized procurement of Main Distribution Material

2. List of selected supplier

4.2.5 RBL DLI 5: Additional length of medium voltage (MV) distribution lines

The number of additional length of medium voltage (MV) distribution lines installed over the period January – Dec 2017 was 2.935, which of the ADB RBL 2017 full year target of 2.685.

Data for this DLI is extracted from SILM, though the source data is filled in manually with input from each of the PLN Wilayahs.
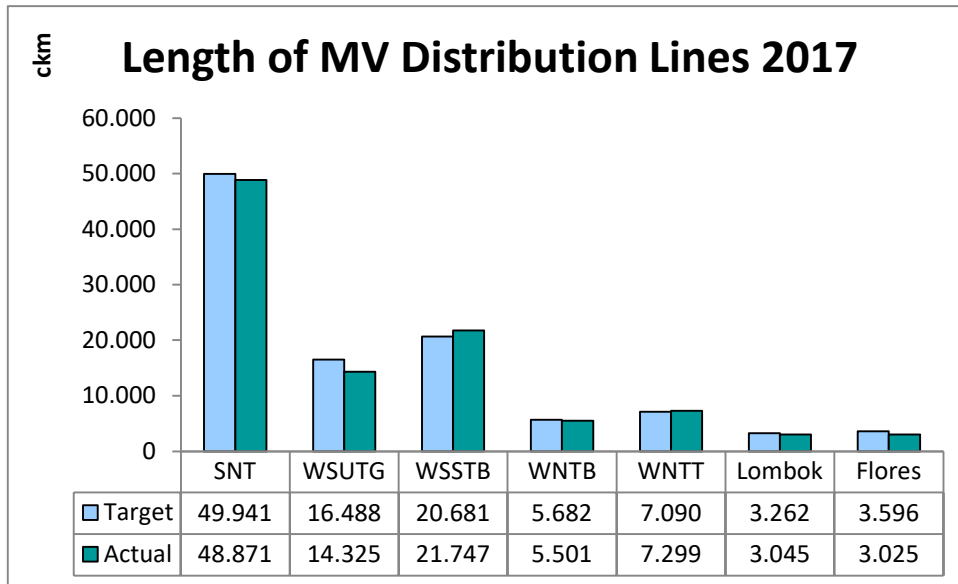

Length of MV Distribution Lines 2017

	SNT	WSUTG	WSSTB	WNTB	WNTT	Lombok	Flores
☐ Target	49.941	16.488	20.681	5.682	7.090	3.262	3.596
■ Actual	48.871	14.325	21.747	5.501	7.299	3.045	3.025

Figure 8: Length of MV Distribution Lines in 2017

The length of medium voltage (MV) distribution lines from 2016 to 2017 are shown in **Error! Reference source not found.**10.

Table 10: Length of medium voltage (MV) distribution lines

No	Length of MV Distribution Lines	Unit	2016	2017
a	Baseline Set Up	ckm	47,256	
b	Baseline Update	ckm	45,936	
c	Target	ckm		49,941
d	Actual	ckm		48,871
e	Δ Target	ckm		2,685
f	Δ Actual	ckm		2,935
g	% Target	%		5.68%
h	% Actual	%		6.39%

Note : Baseline set up in 2016 for length of medium voltage (MV) distribution line is different with baseline update 2016 in SILM. This data will be verified by IVA. Also data in SILM for WSUTG is different and will be verified by WSUTG to SEKPER by letter.

4.2.6 RBL DLI 6: Pilot scale smart-grid projects

1. PLN Sulawesi and Nusa Tenggara began initiating of **smart grid guideline** with **University of Indonesia** in October 25, 2017, under **supervision** of **corporate smart grid team**.

2. **Scope of works** for that project included the **guideline** of smart grid implemented in Sulawesi and Nusa Tenggara and also some **candidates location** SNT smart grid projects. The work order for the project started in December 22, 2017 and will finish in the beginning of April 2018.

3. University of Indonesia already submitted the **preliminary report** on February26[th], 2018 and will **discuss** together with PLN team on **March 9th, 2018**.

   The result of that discussion: PLN approved the report submitted by the UI team for guideline, but PLN gives some inputs to UI team about how to determine the Smart Grid pilot project location criteria. For example, there are target changes as follows, for economic from 25% to 40%, technique 40%, socio-cultural 10% and regulation from 25% to 10%. The UI team will recompile the report with the new target.

   The next report will be submit in the end of March, 2018.

4. Next step: after number-3 finished, PLN will prepare technical specification, bidding document, budget and auction in 2018. (Auction method not yet determined whether done in PLN holding or PLN Wilayah).

4.2.7 RBL DLI 7: Enhancement of operational efficiency and resource optimization

The definition of indicator is the increased use of digital pre-paid meter or smart meter use at least 75% of total customers by 2021. The percentage of digital pre-paid meter customers in 2017 is 56% which of the ADB RBL 2017 year target of $\geq$ 55%.
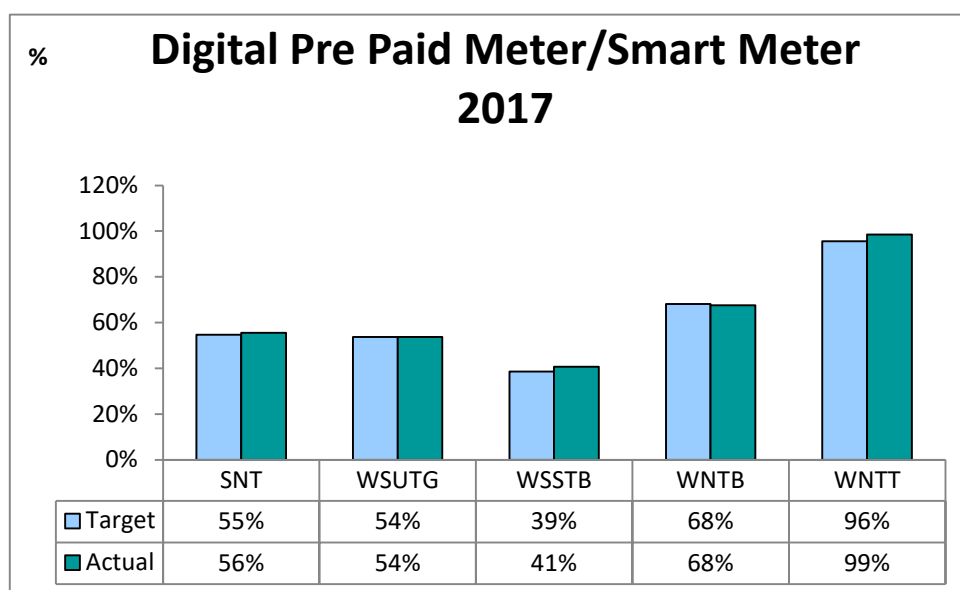

	SNT	WSUTG	WSSTB	WNTB	WNTT
Target	55%	54%	39%	68%	96%
Actual	56%	54%	41%	68%	99%

Figure 9: Digital Pre Paid Meter/Smart Meter in 2017

The percentage of digital pre-paid meter customers in 2016 and 2017 are shown in **Error! Reference source not found.**10.

Table 11: The percentage of digital pre-paid meter customers

No	Digital Pre Paid Meter/Smart Meter	Unit	2016	2017
a	Baseline Set Up	%	48.00%	
b	Baseline Update	%	48.00%	
c	Target	%		54.64%
d	Actual	%		55.56%
e	Δ Target	%		6.64%
f	Δ Actual	%		7.56%
g	% Target	%		13.83%
h	% Actual	%		15.75%

Evaluation in 2017:

1. Encourage replacement to pre-paid meters program, especially to customers that often have outstanding bills.

2. Socialization of benefit and easiness of using pre paid meters.

4.2.8   RBL DLI 8: Improvement of asset and waste management

For asset and waste management improved of used PLN equipment from the 2016 disposal inventory, the total identification as December 31, 2016 was 337,862 million rupiah (for whole part in PLN Wilayah : Power Plant, Transmission and Distribution).

The 2016 inventory that have been approved by MSOE is about 157,273 million rupiah.

The 2016 inventory of used equipment for disposal is shown in Table 11.

Table 12: 2016 inventory of used equipment for disposal

No.	Unit PLN SNT	Saldo ATTB per 31 Dec 2016 *	sd. Tahun 2017	
			Penghapusan & Pembersihan (target 0%) **	Saldo
1	2	3	4	5=3-4
1	Wilayah Sulselrabar	218.684.622.025	116.120.017.360	102.564.604.665
2	Wilayah Sulutenggo	54.618.354.492	41.153.760.837	13.464.593.655
3	Wilayah NTB	46.554.803.274		46.554.803.274
4	Wilayah NTT	18.004.903.055		18.004.903.055
	T O T A L S N T	**337.862.682.846**	**157.273.778.197**	**180.588.904.649**

Until now, PLN stil used Guidance for Asset Management (1998), number 0.15.E/870/DIR/1998. However, some regulations has been created to simplify this guidance.

Evaluation in 2017 :

1. There are no management and storage of hazardous waste comply with environmental regulations for the distribution warehouses.

Planning in 2018 :

1. PLN plan to build used transformer and temporary hazardous waste shelter include with all permits for waste managements

2. Work plan of distribution warehouse management

3. Workshop of safeguard issues conduct by PLN Environmental Division and ADB Team tentative on April 2018

4. Inventory of used distribution transformer and the disposed process

4.3 Non-Disbursement Linked Indicators : Timely completion of implementation of distribution system contract

Baseline in 2016 : 45% of distribution system contracts on time. Target in 2017, at least 55% of distribution system contracts implemented on time.

Application for distribution system contract used AMK (Aplikasi Manajemen Kontrak). All PLN areas already implemented this application and input the data on it.

4.4   Program Action Plan (PAP) Implementation

PAP Items	Description	Responsible Teams	Time frame	PLN Claimed Status and Pending Items in Annual Report 2017	IVA Verification
	Program scope				
1	Plan and finalize the selection of locations and components for the strengthening and expansion of the distribution system, and criteria for sequencing related interventions under the program	*Wilayahs*; DIV PR SNT	from 2017	Achieved for 2017 – PLN Div PR, PLN Div ANG and PLN Wilayahs have compiled SKAI and LKAI in 2017. The description of strengthening and expansion programs are listed in SKKI distribution for PLN Wilayahs and PLN areas. Finalization can be seen in actual budget realization and evaluation report.	
2	Support the national program to develop tourism to stimulate job creation and economic growth. Establish annual targets for the number of new customers in PLN *Areas* with government-designated tourism development sites, and include progress in quarterly reports, with semi-annual consultation with the MOF.	*Wilayahs*; DIV PR SNT; DIV SIS; DIV RKO	from 2017	Even there is no a specific target for tourism, PLN always supports tourism programs especially in tourist destination areas, either for the addition of new customers or additional power, as long as PLN has sufficient supply, it will be served as soon as possible.	
	Technical				
3	Analyze work process flows relating to the timely completion of distribution implementation contracts. Use the solutions coming from this process to accelerate the implementation and completion of distribution contracts.	DIV SCM; *Wilayahs* (for works contracts); DIR REG SNT	by the end of 2017	PLN Areas input data in AMK application created by DIVSCM for distribution contract lists. Reports / recapitulation/ analysis data can be accessed on the application.	
	Program results				
4.	Build the capacities of and conduct orientation sessions for relevant field personnel on the RBL program and DLI reporting.	DIV TLN; DIV HCMS	from 2017	There were already commitment from management (PLN Wilayah) to achieve RBL targets of programs that synchronized with RKAP and report periodically in SILM applications

PLN Regional also has conducted a series of workshops to achieve RBL target such as workshop of safeguard program, AMK application and knowledge sharing about smart grid technology. | |
| 5. | Conduct capacity building programs in targeted *areas* to enhance the understanding and acceptance of new technologies and innovations (e.g., smart grids and digital prepaid | *Wilayahs*; DIR REG SNT; DIV SIS; Smart Grid Task Force | from 2018 | PLN Sul & NT began initiating of smart grid guideline with University of Indonesia in October 25, 2017. The Term of Reference in this project included the guideline of smart grid implemented in SNT and also some location candidates for SNT smart grid projects. | |

PAP Items	Description	Responsible Teams	Time frame		IVA Verification
	meters) among stakeholders.			After the study/project finish, PLN will conduct socialization related to this program.	
	Monitoring and evaluation				
6	Establish tracking, reporting, and verification systems for DLIs: (i) incorporate DLIs into the SILM in a separate module, and set up mechanisms to produce regular DLI reports so that corrective action is possible; and (ii) based on these internal DLI reports, set up mechanisms to produce the Annual DLI Achievement Report, to be shared with the MOF and ADB.	SPKK; DIR REG SNT	from 2017	On-track for 2017. - DLI 1, 2, 3, 4, 5, 7 : SILM - DLI 6 : manual from Smart Grid Team Sul and NT - DLI 8 : manual report from DIV AKT - Non DLI : SAP Distribution	
7	Implement or update the measurement and recording of indicator baselines, with a view to (i) conduct effective performance monitoring; and (ii) report on DLIs.	SPKK; DIR REG SNT	from 2017	Achieved with SILM data and manual report and wait for IVA verification for annual data in 2017	
8	Strengthen PLN's regular monitoring and evaluation system for reporting DLIs and other key performance indicators in real time, including the generation of monthly summary progress reports on all RBL program indicators, which will become the basis for annual reporting on DLIs and other indicators.	SPKK; DIR REG SNT	from 2017	Achieved with SILM data and manual report Every month, PLN Regional together with SPKK conduct a performance dialogue to monitor the unit performance according to KPIs. PLN Regional also publishes monthly reports related to activities for one month for the purpose of evaluation and management decision making.	
9.	Assess the achievement and verification of the DLIs by PLN and the independent verification agent and authorize the DLI Achievement Report to be shared with the MOF and ADB. Submit the withdrawal application directly to ADB and a copy to the MOF, accompanied by the review mission's verification of DLI achievement and other supporting documents.	DCP; SPKK; DIV RKO; DIR REG SNT; DIV TRE	from 2017	Draft annual report has been sent to ADB on Feb 19th, 2018 Annual report is prepared and after verification step, will be sent to ADB and MOF.	
	Financing and partnerships				

PAP Items	Description	Responsible Teams	Time frame		IVA Verification
10	Monitor funding allocations from the Government of Indonesia and all financing partners against agreed funding and investment targets, using existing systems run by PLN's Finance and Budgeting Division and Treasury Division.	DIV TRE; DIV AKT; DIV ANG; DIV KEU	from 2017	Data is available at the Directorate of Finance in coordination with DIVRKO for all financing of PLN activities	
Financial management					
11	Complete the full integration of IBM Cognos' Budget Planning and Control System with the ERP system to allow (i) system-generated comparisons of the budget with actual expenditures, and (ii) system-generated consolidated financial statements.	DIV AKT; DIV KEU ; DIV ANG	by Jan 2018	Budget planning data has not been integrated with monitoring realization.system	
Procurement					
12	PLN's new procurement monitoring system "AMK" implemented in program areas, and a procurement monitoring report prepared and submitted quarterly.	DIV SCM; DIR REG SNT; *Wilayahs*	by the end of 2017	Data input by user in PLN Areas for AMK application. Achieved in AMK application for quarterly report.	
13	A SCM and dispatching system implemented in program areas.	DIV SCM	by the end of 2017	SCM conducts monitoring and review of unit inputs in AMK applications	
14	Procurement audits each year of 10% of all contracts at *Wilayah* and *Area* offices (information sheet shared with ADB).	DIV SCM; DIR REG SNT; *Wilayahs*; SPI	starting from 2017 audit	SPI has conducted an Audit of Procurements that occurred in the PLN Wilayah and PLN Area	
15	Prepare and conduct open competitive bidding (allowing international bidders to participate) following PLN's procurement procedures for all pilot smart grid projects under the program.	DIV PR SNT; Smart Grid Task Force (including DIV SIS, DIV RKO, SPKK, and others); DIV DAS; DIV EPP	from 2018	Smart Grid has not reached the bidding step	
Safeguards					
16	Issue a technical guidance on the implementation of safeguard program actions (including the guidance on safeguards screening[a]) to General Managers of PLN *Wilayahs*.	DIV K3L	prior to the first annual disbursement	Already submitted to PLN Wilayahs through letter No 0415/KLH.01.02/KDIVK3L/2017 related to Technical Guidelines for implementation PAP of safeguard in Sulawesi and Nusa Tenggara	
17	Strengthen meaningful consultation with affected peoples and IPs by: (i) issuing guidance on meaningful consultation in collaboration with DIV	(i) DIV K3L (ii) *Wilayahs*	(i) prior to the first annual disbursement (ii) from 2017	Already submitted to PLN Wilayahs through letter No 0415/KLH.01.02/KDIVK3L/2017 on September 8, 2017 related to Technical Guidelines for implementation PAP of safeguard in Sulawesi and Nusa Tenggara	

PAP Items	Description	Responsible Teams	Time frame		IVA Verification
	PRSNT and SKOM (the guidance will ensure the participation of IPs in tailoring project benefits for affected IPs communities in a culturally appropriate manner) with reference to MOEF Regulation No.17/2012; and (ii) document the process and result of the consultations		onward	included consultation program	
18	Ensure the application of environmental mitigation measures to the construction of distribution lines by: (i) preparing environmental documents (UKL/UPL or SPPL) for the construction of distribution lines that is approved by the BLHD; (ii) specifying environmental mitigation measures in the contract document; (iii) monitoring the implementation of the mitigation measures; and (iv) proposing and implementing corrective actions if noncompliance with the proposed mitigation measures is identified.	*Wilayahs*	from 2017 onward	Reports will be submitted for 2017 to be able to meet the eviden	
19	Improve the management of waste and assets at warehouses by: (i) preparing an inventory of used equipment for disposal as of the end of 2016; (ii) preparing an inventory of used equipment for disposal at the end of each year from 2017 onward; (iii) securing approval of the disposal inventory (as of the end of 2016) from the PLN Board of Commissioners (for equipment less than 5 years old) and the MSOE (for equipment more than 5 years old); (iv) revising the PLN Guidance for Asset Management (1998) to accelerate the disposal of hazardous waste, including a requirement to prepare and submit annual disposal inventories from the end of 2017 onward; (v) preparing a waste and asset management improvement	(i) *Wilayahs*; DIV AKT (ii) *Wilayahs*; DIV AKT (iii) DIV AKT (iv) DIV AKT; DIV K3L (v) *Wila yahs*; *Area s*; DIR REG SNT (vi) *Wilayahs*; *Areas* (vii) *Wilayahs*; *Areas* (viii) *Wila yahs*; *Area s*	(i) by Dec 2017 (ii) every first quarter starting from 2018 onward (iii) by Dec 2018 (iv) by Dec 2017 (v) by Dec 2017 (vi) by Dec 2018 (vii) by Dec 2020 (viii) by Dec 2021	(i) – (iii) PLN Div AKT has prepared the inventory of used equipment for 2016 included for equipment less/more than 5 years old. Some data has been approved by the PLN Board of Commissioners and the MSOE, the rest data in the process. (iv) Until now, PLN stil used Guidance for Asset Management (1998), number 0.15.E/870/DIR/1998. However, some regulations has been created to simplify this guidance (v) For (v) if in the 2017 RKAP has not been listed then to be sure that in 2018 has been entered (vi-viii) implemented	

PAP Items	Description	Responsible Teams	Time frame		IVA Verification
	plan (including a timeframe, budget, and human resources) in consultation with DIV AKT and DIV 3KL, to be approved by DIR REG SNT; (vi) cleaning up existing oil spills in accordance with relevant regulations (including MOEF Regulation No. 33/2009 and Government Regulation No. 101/2014), and disposing of excavated hazardous waste material at appropriately licensed hazardous waste disposal facilities, while retaining records of all transfer notes; (vii) equipping warehouse sites (with hazardous wastes) with oil containment and protection measures; and (viii) implementing the waste and asset management improvement plan.				
20.	Enhance community safety along distribution lines (including transformers) under operation by (i) building community awareness to prevent the growth of tall vegetation along the distribution lines and public contact with potentially dangerous electrical equipment; (ii) monitoring tree trimming by the distribution line maintenance contractors; (iii) reducing outages due to tree disturbances (baseline data collected in 2017); and (iv) posting safety notices on newly installed distribution transformers.	(i) *Wilayahs* (Public Relation Division) (ii) *Wilayahs* (iii) *Wilayahs* (iv) *Wilayahs* (through contractors)	(i) from 2017 onward (ii) from 2017 onward (iii) from 2017 onward (iv) from 2017 onward	included in the technical guidelines on the monitoring format	
21	Obtain and document the written agreement of landowners for the use of land for distribution transformers, following Buku 4.	*Wilayahs*	from 2017 onward	It's in technical guidance in the form of a checklist Please IVA clarify the definition for verification (e.g. for new projects and on land certified)	
22	Monitor resettlement outcomes and their impacts on the living standards of displaced persons by reviewing complaints received, and take necessary actions if the	(i) *Wilayahs* (ii) *Wilayahs*	(i) from 2017 onward (ii) from 2017	It's in technical guidance	

PAP Items	Description	Responsible Teams	Time frame		IVA Verification
	impacts are found to affect the income and livelihood status of the affected persons. The monitoring result should be documented, and corresponding measures formulated and implemented if income and livelihood status are affected.		onwards		
23	Appoint safeguards focal persons who have attended PLN's internal safeguards training at each *Wilayah* and *Area* to implement environmental and social safeguard activities	*Wilayahs; Areas*	prior to the first annual disbursement	Already submitted to PLN Wilayahs through letter No 0412/KLH.01.02/KDIVK3L/2017 on September 8, 2017 related to Appoint safeguards focal persons	
24	Build capacity on environmental and social safeguards with a focus on the safeguard program actions by holding regular meetings (including refresher training sessions) convening relevant PLN staff at headquarters, *Wilayahs*, and *Areas*, as well as all focal persons, contractors and key local government counterparts) to ensure the smooth and timely implementation of the safeguard program actions.	DIV K3L	from 2017 onward (at least once a year)	Will be held in the first or second week in April 2018	
25	Monitor and ensure the implementation of the program actions by (i) monitoring and documenting the implementation of program action 19 and reporting to the PLN *Wilayahs* regularly (at least semi-annually), with records (transfer notes) of the disposal of hazardous waste at appropriately licensed facilities; (ii) monitoring and documenting the implementation of program actions 17, 18, 19, 21, 21 and 22, and reporting to DIV PR SNT, DIV PPT, and DIV K3L regularly (at least semi-annually), with records (transfer notes) of the disposal of hazardous waste at appropriately licensed facilities; and (iii)	(i) *Areas* (focal persons) (ii) *Wilayahs* (focal persons) (iii) *Wilayahs*	(i)–(ii) from 2017 onward (iii) from 2017 onward	Monitoring conducted by DivK3L quarterly	

PAP Items	Description	Responsible Teams	Time frame	<mark>PLN Claimed Status and Pending Items in Annual Report 2017</mark>	IVA Verification
	documenting the list of distribution line projects (including village names and the length of distribution lines) with the result of safeguards screening, and submitting this to DIV PR SNT and DIV K3L annually.				