



PT PLN (Persero)

2021 Semi-Annual Report (July-December 2021)

Sustainable Energy Access in Eastern
Indonesia - Electricity Grid Development
Program Phase 2

Result Based Lending (RBL) – ADB

27 January 2022

TABLE OF CONTENTS

1.	Introduction	4
1.1	Background	4
1.2	Program Scope of Work	4
1.3	Scope of this Semi-Annual Report	5
2.	Program Structure, Management and Implementation	6
2.1	ADB Results Based Lending Program	6
2.2	PLN Program Management and Implementation	8
3.	ADB RBL Program Implementation Status	9
3.1	Summary of DLI Achievements as of Reporting Period	9
3.2	2020 Performance Disbursement Eligibility (Million USD)	10
3.3	Disbursement Linked Indicators (DLIs)	12
3.4	Non-Disbursement Linked Indicators	24
3.5	Grant Implementation	27
3.6	Program Action Plan (PAP) Implementation ADB RBL Programs	29

Abbreviations

ADB	=	Asian Development Bank
PLN	=	Perusahaan Listrik Negara (State Electricity Company)
WKB	=	Wilayah Kalimantan Barat (West Kalimantan Region)
WKSKT	=	Wilayah Kalimantan Selatan dan Kalimantan Tengah (South and Central Kalimantan Region)
WKTU	=	Wilayah Kalimantan Timur dan Kalimantan Utara (East and North Kalimantan Region)
WMMU	=	Wilayah Maluku dan Maluku Utara (Maluku and North Maluku Region)
WP2B	=	Wilayah Papua dan Papua Barat (Papua and West Papua Region)
AP2T	=	Aplikasi Pelayanan Pelanggan Terpusat (Centralized Customer Service Application)
APKT	=	Aplikasi Pengaduan dan Keluhan Terpadu (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 Penyediaan Tenaga Listrik (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)
KMP	=	Kalimantan, Maluku and Papua
SPKK	=	Satuan Pemantau Kinerja Korporat (PLN internal performance management unit)

1. INTRODUCTION

1.1 Background

On December 8th, 2020, PT PLN (Persero) signed the loan agreements with ADB, worth US\$600 million (period 2020-2025). The ADB loans will support Sustainable Energy Access in Eastern Indonesia - Electricity Grid Development Program Phase 2.

The program is dedicated to the nine provinces across Kalimantan, Maluku, and Papua (KMP) in Eastern Indonesia namely West Kalimantan, South Kalimantan, Central Kalimantan, East Kalimantan, North Kalimantan, Maluku, North Maluku, Papua, and West Papua.

The goal of the program is to support the development of electricity distribution networks in order to connect business and households and to enhance the quality of life in Eastern Indonesia by the sustainable use electricity as a key driver of increased economic activity. This will contribute to the overall objective of a sustainable economic and social development in the Eastern regions of Indonesia.

The program follows a Results-Based Loan (RBL) structure, in which funds are disbursed in tranches and only released to PLN when mutually agreed Disbursement-Linked Indicators (DLIs) are met (with provisions for disbursement adjusted to partial fulfillment 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 loan agreements.

1.2 Program Scope of Work

The scope of work for the ADB can be detailed as follows:

ADB RBL
<p>Output 1: Power Distribution Network strengthened and expanded. The Program shall be tracked by the installed length of medium-voltage distribution lines (DLI 4).</p>
<p>Output 2: Renewable energy use increased Electricity provided to communities in the target areas will be from a mix of power sources, including small diesel generators which is the most common for remote grids. Output 2, supported by the ACEF grant, explicitly focuses on increasing power generation from solar photovoltaic (PV), mini- and micro-hydro, and small biogas power plants (DLI 5).</p>
<p>Output 3: Institutional capacity strengthened and social monitoring enhanced. Output 3 focuses on improving asset and waste management (DLI 6) and on enhancing social and gender aspects through PLN workshop on safe and productive energy use, with</p>

ADB RBL
at least 30 % female participation (DLI 7). Electronic procurement and contract payment system will be integrated and rolled out to improve reporting and monitoring (DLI 8).

1.3 Scope of this Semi-Annual Report

This Semi-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 and grant agreements; and (iv) the outcomes of the PAP implementation program.

This Semi-Annual Report covers reporting periods from **July 1st, 2021 until December 31st, 2021.**

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 L4009-INO :

- a. ADB Approval : Nov 24th, 2020
- b. Loan Signing : Dec 8th, 2020
- c. Guarantee Signing : Dec 16th, 2020
- d. Loan Effectiveness : Jan 14th, 2021
- e. Implementation Period : Jan 2020 – Dec 2025 (5 years)
- f. Program Completion : Dec 31st, 2025
- g. Loan closing : Jun 30th, 2026

An allocation and withdrawal of Loan Proceeds and the breakdown of the ADB RBL disbursement allocations for Kalimantan, Maluku, and Papua (KMP) according disbursement schedule for 2020-2025 on Aide Memoire Loan Inception Mission February 2021 is shown below in Table 1.

Table 1: Disbursement Schedule on \$ million (Source: ADB)

Disbursement-Linked Indicator (DLI)	Total ADB Financing Allocation	Share of Loan (%)	Prior Results	2020	2021	2022	2023	2024	2025
DLI 1	150	25,0		30	30	30	30	30	-
DLI 2	75	12,5	30	9	9	9	9	9	-
JFPR Grant	3	-	0,6	1,0	1,0	0,4	-	-	-
DLI 3	90	15,0		18	18	18	18	18	-
DLI 4	120	20,0		24	24	24	24	24	-
DLI 5	50	8,3		5	9	9	9	9	9
ACEF Grant	3	-		1,0	1,0	1,0	-	-	-
DLI 6	65	10,8		11	11	11	11	11	10
DLI 7	30	5,0		6	6	6	6	6	-
DLI 8	20	3,3	4	-	4	4	4	4	-
TOTAL (Loan only)	600	100	34	103	111	111	111	111	19
TOTAL (Grant)	6	-	0,6	2,0	2,0	1,4	-	-	-

The monitoring target values for each of the results indicators over the loan period (2020 to 2025) are shown in Table 2. These indicators will be monitored through the Program Action Plan (PAP).

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

No	Metric	Definition of Indicators	Units	Disbursement Allocated (\$ million)
Outcome				
1	Increase number of total PLN KMP customers	Minimum target of increased customer is 6,77	Million customers	150
2	Increase number poor households provided with PLN electricity	Minimum target of increased customer 112.428 include 10% female-headed households	poor household	75
	<i>JFPR Grant</i>	<i>All poor households</i>		3
3	Feeder line permanent interruptions in the distribution system.	Maximum annual rate increased allowed for feeder line is 14,37	Interruption per 100 ckm	90
Outputs				
4	Increased number of Installed length of MV distribution lines	Minimum rate of cumulative installed length of MV lines is 63.692	ckm	120
5	Additional Power generation from Renewable Energy	Minimum rate of additional MWh annually is 40.000 MWh and further 48.000 MWh by 2025	MWh	50
	<i>ACEF Grant)</i>	<i>additional MWh annually is 40.000 MWh by 2025</i>	<i>MWh</i>	3
6	Improvement Asset and waste management improved, with (i) 90% of used PLN-owned equipment in Kalimantan, Maluku and Papua included in the disposal inventory as of end-2019 safely disposed by 2025, and (ii) 25 additional warehouses holding environmental permits by 2024	Used PLN equipment is safely disposed at least 90% from the 2019	%	65
7	Consumer education workshops on safe and productive energy use	PLN holds workshop each of the 5 UIWs and 29 UP3 with minimum 30% female participation (1,0 point) or 50% female participation (1,25 points), total 121 points by 2024	point	30
8	Integrating E-Procurement and SAP systems	Both of systems integrated and rolled out, and at least 80% of contracts in financial value by 2024		20
	TOTAL (Loan only)			600
	TOTAL (Grant)			6

PLN will implement and also supervise, monitor, and report the progress in this ADB RBL program that has eight disbursement-linked indicators (DLIs), three non-disbursement linked indicators (non-DLIs), Loan and Grant Compliance, and Program Action Plan (PAP).

2.2 PLN Program Management and Implementation

PLN formed a Project Management Unit (PMU) and Project Implementing Unit (PIU) specifically for the ADB RBL programs in PLN Kalimantan, Maluku, and Papua. The PMU consists of internal PLN staff drawn from various divisions within PLN Head Office (e.g. Regional Sumkal, Regional Sulmapana, DIV RKO, DIV MRP, DIV K3L, etc). The organisational structure of the PMU and PIU is shown in Figure 1 below.

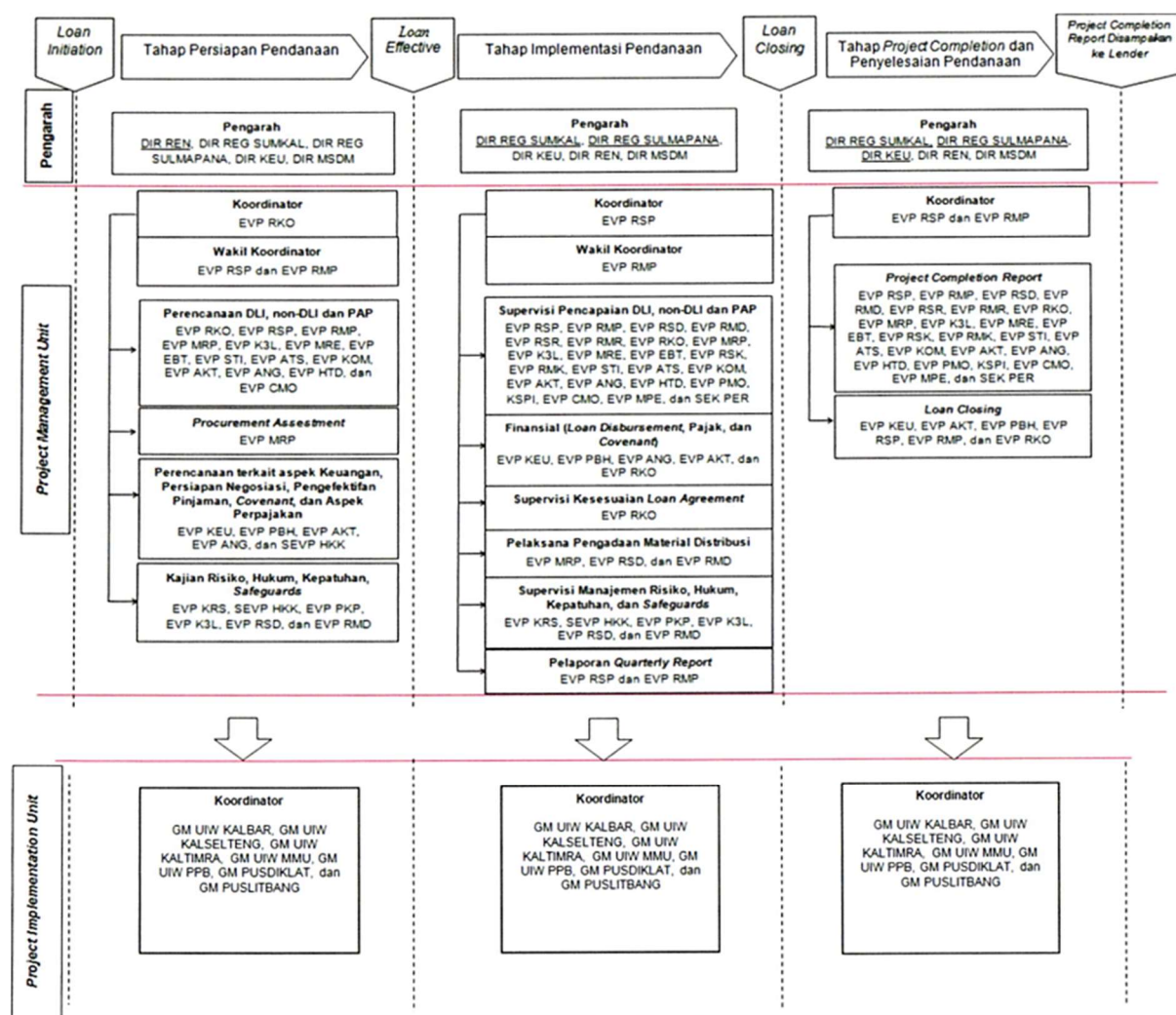


Figure 1: PMU/PIU Organisational Structure (Source : PLN)

3. ADB RBL PROGRAM IMPLEMENTATION STATUS

3.1 Summary of DLI Achievements as of Reporting Period

Table 3 shows the summary of DLI Achievements as of Reporting Period in 2021 from the results of the PLN evaluation.

Table 3: Summary of DLI Achievements in 2020 (late achievement) and 2021 (current achievement) RBL-ADB

DLI No.	2020/2021 Target	PLN Reviewed (as of 31 Dec 2021)	Achieved/ Not Achieved
1	6,12 Million customers (2021)	6,25 Million (data TUL 309 dan AP2T)	Achieved
2.1	51.808 poor households (2021)	62.413 poor households (Data from AP2T – DTKS Information)	Achieved
2.2	5.181 poor female-households (2021)	11.974 poor households (Data from AP2T – DTKS Information)	Achieved
3	16,41/100 ckm permanent interruptions (2021)	4,27 / 100 ckm	Achieved
4	56.685 ckm MV lines for KMP (2021)	55.762.79 ckm	Not Achieved
5 (2020 i)	List of EBTKE assets to be transferred to PLN cleared by PLN (2020 i)	PLN has submitted confirmation to EBTKE	Not Achieved
5 (2020 ii)	Model KSO or another legal instrument with PEMDA approved by relevant authority within PLN (2020 ii)	The KSO model draft has not yet been approved	Not Achieved
5 (2021, 5.1)	Additional MWh RE energy of 9.600 MWh (2021)	2.449,6 MWh	Not Achieved
6 (2020 ii)	5 additional WH secured the approved environmental docs from the relevant regulatory agency (2020 ii)	The 2020 (ii) target is fully achieved in this 2021 Annual. Three UIWs get env documents approved in 2021 Interim. and two additions achieved in the second half of 2021	Achieved
6 (2021 i)	20% of 2019 inventory approved by MSOE (2021 i)	0% approved by MSOE	Not Achieved
6 (2021 ii)	10 cumulative additional warehouses secured the approved environmental docs from the relevant regulatory agency (2021 ii)	7 warehouses have 4 SPPL with warehouse checklist and 3 DPLH	Not Achieved
7	5 Consumer Education Workshop in each of the 5 UIW with min 30% female (2020 ii); 29 Consumer Education Workshop at the UP3 level (29 UP3s) (2021), Equivalent 34 points (minimum 30%	30 Workshops (3 UIWs + 27 UP3s) 33,75 points	Achieved

DLI No.	2020/2021 Target	PLN Reviewed (as of 31 Dec 2021)	Achieved/ Not Achieved
	female participation for each workshop) (2021)		
8	At least 50% of contracts in financial value executed by UIW (including units under them) recorded in E-Proc+SAP system (2021)	55,79%	Achieved
Non-DLI 1	Assessment from PLN on improved time use reported by women and men as a result of access to electricity (2020)	Procurement Process	At risk
Non-DLI 2	At least one pilot community-based training on solar PV maintenance delivered with minimum 30% female participation (2020-2022)	0 Pilot community training Training materials from the basic maintenance of PLTS have been prepared by PLN Pusklat	2020-2022
Non-DLI 3	Annual report on social impact of electrification (2022)	0 Annual report	Start from 2022

3.2 Eligibility for Disbursement of Performance 2020 and Interim 2021 (Million USD)

Based on the results of the achievement of DLI performance in 2020, the total disbursement eligibility for loans is 75,22 million USD, and achievement of DLI performance interim 2021, the total disbursement eligibility for loans is 95,80 million USD with the following details:

Table 4: Summary Performance Disbursement Eligibility (Source: ADB)

Disbursement-Linked Indicator	Total Allocation	Prior Results	2020 Achievement	Interim 2021 Achievement
DLI 1: Number of PLN customers in Kalimantan, Maluku and Papua	150	-	28,33 (partial)	21,65
DLI 2: An additional 112,428 poor households provided with PLN electricity by 2024, with data disaggregated by female/male headed household	75	30	0	54,42
2.1. All poor households	60	25	0	40,08
2.1. All poor households (JFPR Grant)	3	0,6	0	2,7
2.2. Poor female-headed households	15	5	0	14,34
DLI 3: Feeder line permanent interruptions in the distribution system reduced	90	-	18	
DLI 4: Installed length of MV distribution lines increased	120	-	24,89	7,93
DLI 5: Power generation from solar PVs (<10 MW), mini/micro-hydro (<1 MW), and small biogas plants (<100 kW) increased by	50	-	0	0

Disbursement-Linked Indicator	Total Allocation	Prior Results	2020 Achievement	Interim 2021 Achievement
5.1. Additional 40,000 MWh annually by 2025 based on RUPTL 2019	30	-	0	0
5.1. Additional 40,000 MWh annually by 2025 (ACEF Grant)	3	-	0	0
5.2 A further additional 48,000 MWh annually by 2025	20	-	-	0
DLI 6: Asset and waste management improved	65	-	0	8,8
DLI 7: By 2024, consumer education workshops on safe and productive energy use implemented in 5 UIWs and at UP3 level	30	-	0	3
DLI 8. E-Procurement and SAP systems are integrated	20	4	4	
TOTAL (Loan only)	600	34	\$ 75,22 M	\$ 95,80
TOTAL (Grant)	6	0,6	0	1,95

3.3 Disbursement Linked Indicators (DLIs)

3.3.1 RBL DLI 1: Increased numbers of total PLN Customers

As at December 2021, PLN has a total number approximately 6,25 M customers in Kalimantan, Maluku and Papua, which of the ADB RBL target of 6,12 M for 2021. Data for this indicator are extracted from the SILM system, which has an integrated link to PLN's customer database (AP2T).

Table 5: Total KMP Customer 2021

No	UNIT	TOTAL CUSTOMER		
		TARGET 2020	TARGET 2021	ACTUAL 2021
1	WKB	1.282.289	1.317.778	1.351.906
2	WKSMT	2.004.753	2.060.236	2.094.018
3	WKTKU	1.277.373	1.312.725	1.342.774
4	WMMU	666.008	692.356	706.119
5	WP2B	711.537	736.905	751.860
	KALIMANTAN	4.564.415	4.690.739	4.788.698
	MALUKU DAN PAPUA	1.377.545	1.429.261	1.457.979
	KMP	5.941.961	6.120.000	6.246.677

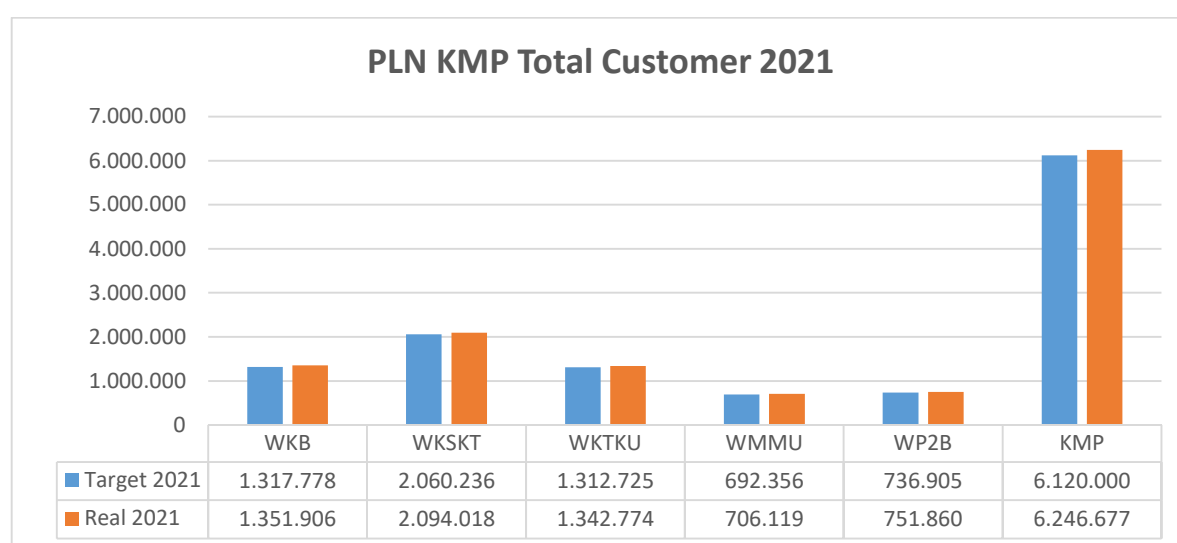


Figure 2: Number of Total PLN KMP Customers in 2021

The achievement in 2021 is around 102,1% if we compare it to the full target in 2021.

3.3.2 RBL DLI 2: Increased number poor household

Data for ADB RBL DLI 2 data is taken from the AP2T system on all Matching DTKS info and is calculated from 2019 up to December 2021 manually due to screening for duplicate data that appears. The calculation mechanism has been approved by IVA and ADB on the 2021 interim mission review so that for the realization of 2019 to December 2021 there are 62.413 poor household and 11.974 of them are female household. Based on the compilation of data downloaded from AP2T-Info DTKS 2019 up to December 2021 are as follows:

Table 6: DTKS information data on AP2T-Info DTKS in 2019 up to December 2021

No	UNIT	ADDITIONAL POOR HHS			ADDITIONAL POOR WOMEN HHS		
		TARGET 2020	TARGET 2021	ACTUAL 2021	TARGET 2020	TARGET 2021	ACTUAL 2021
1	WKB	2.997	5.428	23.309	300	543	3.417
2	WKSKT	10.766	16.740	25.575	1.077	1.674	6.408
3	WKTU	9.618	15.118	8.010	962	1.512	1.460
4	WMMU	2.440	4.062	3.717	244	406	429
5	WP2B	3.593	10.459	1.802	359	1.046	206
	KALIMANTAN	23.380	37.286	56.894	2.338	3.729	11.339
	MALUKU DAN PAPUA	6.033	14.521	5.519	603	1.452	635
	KMP	29.414	51.808	62.413	2.941	5.181	11.974

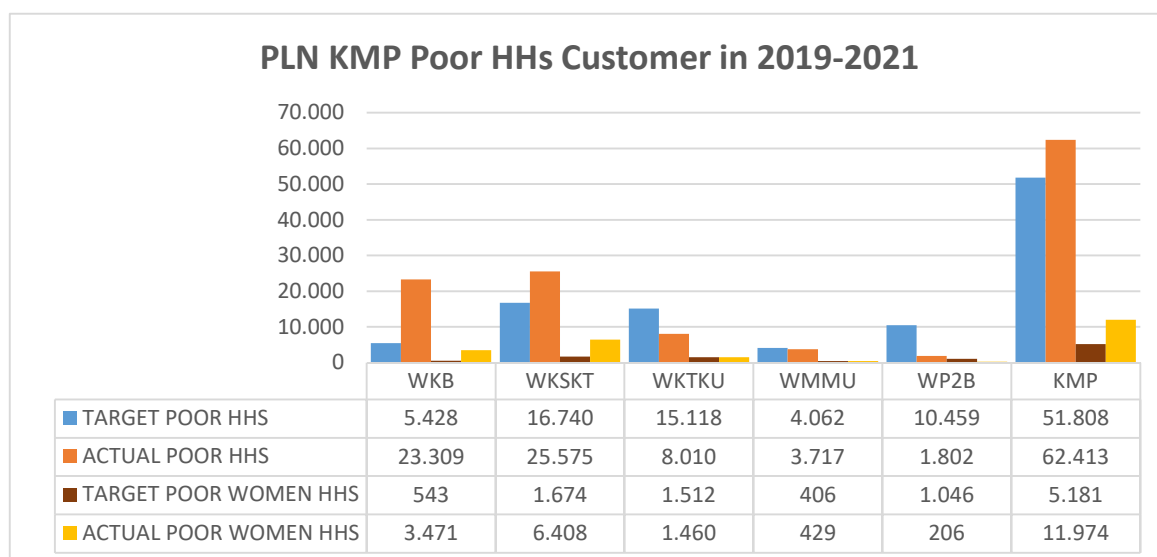


Figure 3: Additional Poor Households customer in 2021

3.3.3 RBL DLI 3: MV Feeder Permanent Interruptions

The number of permanent JTM disturbances reported in the KMP during the period 2021 is 4,27 interruptions > 5 minutes per 100 ckm, where from the ADB RBL target of 16,41 disturbances per 100 ckm for 2021, about 26% (negative polarity). Data for this DLI is extracted from SILM, though the source data is filled from Distribution Control Center from each of the PLN Wilayah.

Table 7: MV Feeder Permanent Interruption in 2021

No	UNIT	FGTM	
		TARGET 2021	ACTUAL 2021
1	WKB	14,59	5,11
2	WSKT	22,26	3,34
3	WKTU	19,12	2,37
4	WMMU	8,76	6,20
5	WP2B	10,32	5,32
	KALIMANTAN	19	3,71
	MALUKU DAN PAPUA	9,48	5,80
	KMP	16,41	4,27

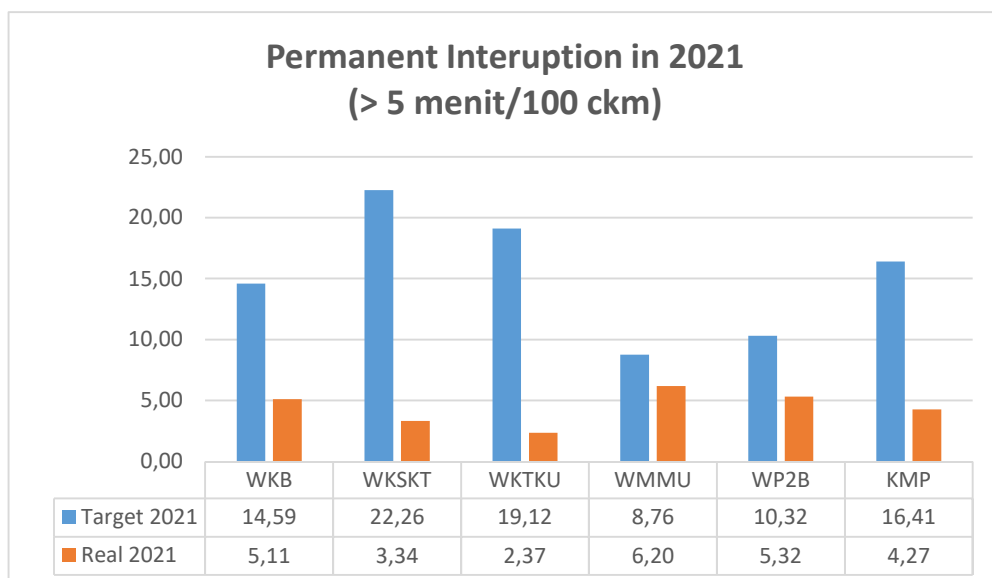


Figure 4: Permanent Interruption in 2021

3.3.4 RBL DLI 4: Additional length of medium voltage (MV) distribution lines

The total length of installed medium voltage distribution line (MV) assets during 2021 after deducting the reduction in interim 2021 (244,35 ckm) is 55.762,79 ckm because there are several workplans that falls into KBA and/or IP area, which of the ADB RBL 2021 full year target of 56.685 ckm. The achievement in 2021 compare with the full target is around 98,4%. It is projected that the 2021 target will be achieved by Semester 2 2022.

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

Table 8: Additional length of medium voltage distribution lines in 2021

UNIT	MV Lines Total		
	TARGET 2020	TARGET 2021	ACTUAL 2021
WKB	13.214	13.808	13.861
WKSKT	16.991	17.935	17.252
WTKU	9.331	9.660	9.826
WMMU	7.981	8.214	8.139
WP2B	6.367	7.068	6.930
KALIMANTAN	39.537	41.403	40.938
MALUKU DAN PAPUA	14.348	15.282	15.069
KMP	53.885	56.685	56.007
JTM exclusion			244,35
KMP Net Total			55.762,79

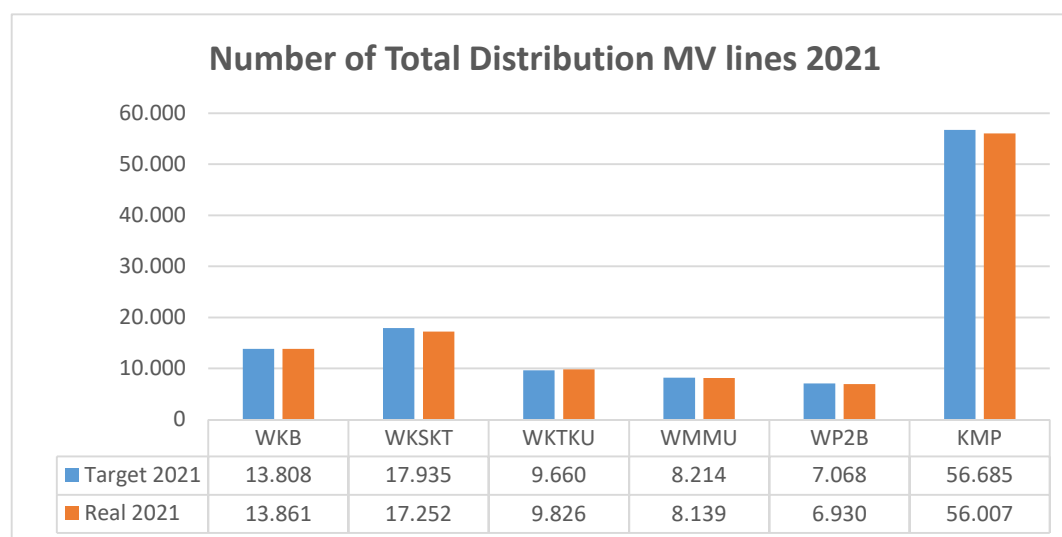


Figure 5: Number of Total Distribution MV Lines in 2021

3.3.5 RBL DLI 5: Green Energy Promotion

The target of green energy promotion in 2020 (i) was List of EBTKE assets to be transferred to PLN cleared by PLN and 2020 (ii) Model KSO or another legal instrument with PEMDA approved

by relevant authority within PLN. PLN sent a letter to ESDM dated on 26 October 2021 regarding Submission of Follow-up for PLT EBT for Asset Transfer Through PMPP PT PLN (Persero).

DIV HKK submitted Official letter to DIV RSP No. 50973/HKM.05.03/SEVP HKK/2021 regarding Submission of the Draft PLTS Management Cooperation Agreement Template between PLN with Local Government (October 2021). DIV RSP submitted Official letter to DIV EBT No. 58992/KEU.01.08/EVP RSP/2021 regarding Request for Review and Follow Up on Proposed Ratification of the Draft Template for PLTS Cooperation Agreement (PKS) between PLN and Local Government Legal Results of DIV HKK Review. DIV EBT is expected to complete the review in February 2022 but is likely until March 2022. The KSO model with LG will be submitted to the PLN Director in June 2022 for approval .

The green energy promotion target in 2021 is that the annual production from the 2018 baseline is 3.309 MWh and the 2021 target is 9.600 MWh, and the additional 2021 target is 4.000 MWh. Total realization of RE production for the classification of types and capacities of PLTS <10 MW, MHP <1 MW, and PLTBio <100 kW (total kit capacity) in 2021 is 2.449,6 MWh. Achievement of RE energy production in 2021 is 73,87% from the RE energy production in 2018 (baseline), so it has not been able to enter the 2021 target. In 2022, Kalimantan plans to revitalize Solar PV assets that are not operating and derating at UIW Kalbar and UIW Kaltimra. The West Kalimantan UIW is planned in three locations, namely in Sidding, Temajuk, and Limbung Island, while the Kaltimra UIW is in Derawan Solar PV. Derawan Solar PV (Kaltimra) currently decreases capacity to 100 kWp from previous 170 kWp at the beginning of the operation. With this revitalization and additional capacity, it is hoped that the unit can operate better. Based on the history of operations, the annual energy production of Derawan Solar PV with 170 kWp capacity is 38.17 - 55,73 MWh. Meanwhile, the Temajok Solar PV, Limbung Island Solar PV, and Sidding Solar PV are currently not operating. In this asset revitalization, the 3 Solar PV will be repaired and additional capacity will be carried out (Limbung Island PLTS and Temajuk PLTS). Based on data from West Kalimantan operations, the estimated monthly energy production for Temajuk Solar PV is 601,02 MWh/year, Limbung Island Solar PV is 414,72 MWh/year, and Sidding Solar PV is 64,80 MWh/year. The current process is the budget issuance proposal and review.

Table 9: RE Production Year 2021

UIW	EBT Type	Ownership	Total Unit	Total Installed Capacity (kW)	Total Energy Production (kWh)
UIKL KAL	PV	PLN-Owned	1,00	340,00	132.328,00
UIKL KAL	PV	Rent	3,00	450,00	28.578,12
UIW KALBAR	Hydro	PLN-Owned	3,00	525,00	358.480,00
UIW KALBAR	PV	PLN-Owned	3,00	180,00	0,00
UIW KALTIMRA	Hydro	Rent	1,00	0,00	0,00
UIW KALTIMRA	PV	PLN-Owned	1,00	90,00	23.864,10
UIW KALTIMRA	PV	Rent	3,00	300,00	0,00

UIW	EBT Type	Ownership	Total Unit	Total Installed Capacity (kW)	Total Energy Production (kWh)
UIW MMU	PV	PLN-Owned	12,00	2.410,00	45.938,00
UIW P2B	Hydro	PLN-Owned	1,00	720,00	628.819,78
UIW P2B	PV	PLN-Owned	61,00	5.707,00	1.231.639,62
Grand Total			89,00	10.722,00	2.449.647,62

3.3.6 RBL DLI 6: Asset and Waste Management

The management of asset write-offs follows the procedures of the Director's Decree No. 015.E / 870 / DIR / 1998 concerning Withdrawal of Operational Assets into Non-Operational Assets, Director Decree No. 1233 / DIR / 2011 concerning Procedures for Elimination and Transfer. Fixed Assets of PT PLN (Persero), Statement of Decree of the Minister of State-Owned Enterprises regarding Amendments to the Articles of Association of PL PLN (Persero), and Letter of the Director of Finance and Risk Management of PT PLN (Persero) No. 48091/LOG.0103/C01070000/2021 dated September 13, 2021 regarding Notification of Amendment to the Articles of Association regarding the Authorization of AT/ATTB Write-Off Approval and Changes in AT/ATTB Write-off Business Process Flows at the Head Office. B3 Waste Category Used Equipment (ATTB) that has been removed from operating assets will be managed as B3 Waste. PLN DIV K3L has prepared a Draft Decree of the Director of Hazardous Waste Management which has been submitted to the Legal Department for review. Due to the pandemic, it is difficult for SPI to physically check ATTB at UIW.

Late achievement of 2020 (ii) target for 5 warehouses has received environmental documents approved from relevant regulatory agencies for interim year 2021, 3 out of 5 warehouses have been completed, while the remaining 2 has been achieved in the second semester of 2021.

The target of Asset and Waste Management in 2021 is that the proposed elimination of ATTB KMP has been written off by 20% of the balance as of December 31, 2019 (Baseline). Meanwhile, the target for ownership of environmental documents at the Bekasi material warehouse in 2021 is 10 environmental documents SPPL, UKL/UPL, or DPLH. Especially for SPPL environmental documents, it is necessary to fill out a waste warehouse inspection form either by Zite application or manually.

The UIW proposal at KMP that has been used as a target that has been submitted to the Central PLN is Rp. 13,5 billion.

Table 10: 2019 Inventory of Used Equipment For Disposal

No.	UIW	Type of Disposal Material	Value (IDR)	Progress Status
1	UIW Kalselteng	Distribution network (transformers, metals, etc)	876.858.608	Proceed to the Board of Commissioners to conduct a physical inspection of assets via online or offline
2	UIW Kalbar	Distribution network (transformers, metals, etc)	2.673.423.570	GRC (Governance Risk & Compliance) review in Head Office
		Distribution Substation	3.761.626.382	
3	UIW Kaltimra	Distribution network (transformers, metals, etc)	4.637.717.867	Proceed to the Board of Commissioners to conduct a physical inspection of assets via online or offline
4	UIW MMU	Distribution network (transformers, metals, etc)	157.772.719	Submission of the proposal for Asset Disposal to the Supervisory Division (Regional)
5	UIW P2B	Distribusi	1.452.319.280	GRC (Governance Risk & Compliance) review in Head Office
Total			13.559.718.426	

Until the fourth quarter of 2021, a proposal for the elimination of ATTB from UIW has been submitted to the Head Office (DIV AKT) with a total proposed value of Rp. 13,5 billion (Distribution only) in 2021 the process is as shown in Table 10 above, and what gets more attention from the program is the distribution assets. Based on information from DIV AKT status until the fourth quarter of 2021 UIW Kalselteng and UIW Kaltimra have reached the final stage in the BoC evaluation process (Rp. 5,51 billion (40.67%)), for UIW West Kalimantan and UIW P2B are still in the GRC evaluation process. UIW MMU is still in the recommendation stage to the Coach Division (RMD). Estimated process of GRC review and physical examination for BOC approval is estimated to take 2 months so it is likely to be completed in May 2022. However, in this final stage, it is necessary to amend the Loan agreement, where the previous final stage for disposal approval at KBUMN becomes BoC or MSOE.

DLI target 6 (ii) 25 used material warehouses submit environmental documents and get approval from DLH by 2024. In 2020, 3 used material warehouses have submitted environmental documents (1 DPLH and 2 SPPL) and were approved by relevant Regulatory Agency but for activities that equipped with SPPL environmental documents not yet equipped with a warehouse checklist. In 2021 PLN will intensively coordinate to be able to speed up the process of issuing environmental documents that are confirmed and approved by the relevant Regulatory Agencies for SPPL environmental documents that must be accompanied by a warehouse checklist. Cumulatively, until the fourth quarter of 2021, 8 issuances of environmental documents in used material warehouses have SPPL/DPLH which have been submitted and approved by DLH and

have been completed by a warehouse checklist. The eight environmental documents came from UP3 Pontianak (Cemara WH) and UP3 Ketapang (Sampit WH) at UIW West Kalimantan, UP3 Samarinda (ULP Ulu WH) and UP3 Kaltara (ULP Tarakan WH) at UIW Kaltimra, UP3 Ambon (Lateri WH) at UIW MMU, and UP3 Manokwari (Manokwari WH), UP3 Sorong (Sorong WH) at UIW P2B. Table 11 shows warehouse environmental document achievements in UIW.

Table 11: Warehouse Environmental Permit Achievements in 2021 RBL-ADB

No	UIW dan UP3	Environmental Permit 2019 – TW IV 2021		
		Quantity	Environmental Document Type	Date of Issue
1	Sub-total Kalselteng	0		
2	UP3 Samarinda, ULP Ulu WH	1	DPLH	6 April 2021
	UP3 Kaltara, ULP Tarakan WH	1	SPPL	5 Sept 2019
	Sub-total Kaltim	2		
3	UP3 Pontianak, Cemara WH	1	DPLH	2 July 2021
	UP3 Ketapang, Sampit WH	1	DPLH	13 Dec 2021
	Sub-total Kalbar	2		
4	UP3 Ambon, Lateri WH	1	SPPL	11 May 2020
	Sub-total Maluku & Maluku Utara	1		
5	UP3 Manokwari, Manokwari WH	1	SPPL	10 Sept 2021
	UP3 Sorong, Sorong WH	1	SPPL	11 Nov 2021
	Sub-total Papua & Papua Barat	2		
Kumulatif Total		7		

The total achievement of 7 (seven) warehouses has environmental documents that have been submitted and approved by DLH. From the 2021 target, 10 (ten) warehouses have environmental documents equivalent to 70% achievement.

DIV K3L has developed a used material warehouse checklist from manual to digital based on application and web in collaboration with the Zite Platform. In this application, the parent unit allows submitting the results of the warehouse checklist and sharing warehouse locations. As an evaluation function, the application has designed a multilevel monitoring and approval system according to the authority. Warehouses with SPPL environmental documents must comply with the checklist and will be evaluated twice a year (per semester). However, operational problems were still found in using the application so that the previous manual form was still used until the use of the application was running well.

Table 12 Housekeeping Checklist for Warehouses of Used Material (Eksisting)

FORM HOUSEKEEPING MATERIAL ATTB YANG MENGANDUNG LB3													
No.	Jenis ATTB yang Mengandung LB3 (Trafo, Kapasitor, dll)	Jumlah	Lokasi Penyimpanan			Fasilitas Penyimpanan							
			Nama Gudang	Koordinat	Luas Area (m2)	Tidak bercampur dgn material lainnya	Pemisahan trafo dari tahun manufaktur <1997 dan >1997	Pemisahan kapasitor sesuai merk dagang	Eviden (Foto)	Memiliki atap / penutup (tidak terkena hujan)	Eviden (Foto)	Terdapat ceceran oli/minyak trafo	Jika ada, jelaskan kondisi terbaru, kegiatan yang sudah dilakukan, dan rencana tindak lanjutnya
						(ya / tidak)	(ya / tidak)	(ya / tidak)		(ya / tidak)		(ya / tidak)	

The screenshot displays the 'Submission Detail' for a 'Formulir Housekeeping Material Form' with ID 1511623126336984. The form is submitted by Andi Pradani on June 8th 2021 at 11:30:47 AM. It includes a 'start' time of June 8th 2021, 11:25:37 AM and an 'end' time of June 8th 2021, 11:30:09 AM. The status is 'Pending'. The right sidebar shows a 'COMMENT' section with a text input, an 'Attach File' button, and a 'REASON' dropdown menu.

Figure 6: Warehouse management for App and Web-Based Used Material Warehouse

3.3.7 RBL DLI 7: Consumer Education

The definition of the indicator is holding consumer education workshops on safe and productive energy use which will be carried out by 5 UIWs and 1 UP3 each UIW in 2021 with a minimum participation of 30% women for each workshop. The progress of TW III in 2021 is the development of training materials by PLN Pusdiklat was completed on 27 September 2021 and PLN Pusdiklat conveys that the workshop material will always be updated on the link provided by PLN PUSDIKLAT because educational material will change dynamically. based on material references from ADB and the training material has been shared with UIW. The implementation of Training of Trainer (ToT) Batch 1 in Kalimantan and Batch 2 in Maluku-Papua have been carried out in August 2021 and followed by the implementation of Batch 3 for Kalimantan and Maluku-Papua to accommodate participants who were unable to attend the previous Batch in October 2021. The workshop was held in TW III 2021 with the achievements of 5 UIWs at KMP realized 3 UIWs and target 29 UP3s realized 27 UP3s, Based on Regional independent calculation obtained that meet the requirements the achievement is 30 workshops according to the 2021 target of 34 workshops. Workshop with a total of participants in one UIW/UP3 > 50% worth 1,25 points, which is 15 units and the remaining 15 units are worth 1 point for a total of 33,75 points.

Table 13 Implementation of Consumer Education Workshop

Unit Induk	Unit Area	WORKSHOP Implementation				Score	30% ≤ W < 50%	W ≥ 50%
		W	M	Total	Percentage of women participation			
PT PLN (PERSERO) UIW KSKT	Kantor Wilayah	71	37	108	65,74%	1,25		1
PT PLN (PERSERO) UIW KSKT	UP3 Banjarmasin	103	121	224	45,98%	1	1	
PT PLN (PERSERO) UIW KSKT	UP3 Barabai	194	153	347	55,91%	1,25		1
PT PLN (PERSERO) UIW KSKT	UP3 Kotabaru	56	51	107	52,34%	1,25		1
PT PLN (PERSERO) UIW KSKT	UP3 Kuala kapuas	204	113	317	64,35%	1,25		1
PT PLN (PERSERO) UIW KSKT	UP3 Palangkaraya	139	148	287	48,43%	1	1	
PT PLN (PERSERO) UIW KALBAR	Kantor Wilayah	65	40	105	61,90%	1,25		1
PT PLN (PERSERO) UIW KALBAR	UP3 Pontianak	50	70	120	41,67%	1	1	
PT PLN (PERSERO) UIW KALBAR	UP3 Singkawang	54	71	125	43,20%	1	1	
PT PLN (PERSERO) UIW KALBAR	UP3 Sanggau	53	66	119	44,54%	1	1	
PT PLN (PERSERO) UIW KALBAR	UP3 Ketapang	82	27	109	75,23%	1,25		1
PT PLN (PERSERO) UIW KTKU	Kantor Wilayah			0	0,00%	0		
PT PLN (PERSERO) UIW KTKU	UP3 Balikpapan	34	78	112	30,36%	1	1	
PT PLN (PERSERO) UIW KTKU	UP3 Samarinda	56	51	107	52,34%	1,25		1
PT PLN (PERSERO) UIW KTKU	UP3 Bontang	35	42	77	0,00%	0		
PT PLN (PERSERO) UIW KTKU	UP3 Berau			0	0,00%	0		
PT PLN (PERSERO) UIW KTKU	UP3 Kaltara	33	67	100	33,00%	1	1	
PT PLN (PERSERO) UIW MMU	Kantor Wilayah			0	0,00%	0		
PT PLN (PERSERO) UIW MMU	UP3 Ambon	66	39	105	62,86%	1,25		1
PT PLN (PERSERO) UIW MMU	UP3 Masohi	37	83	120	30,83%	1	1	

Unit Induk	Unit Area	WORKSHOP Implementation				Score	30% ≤ W < 50%	W ≥ 50%
		W	M	Total	Percentage of women participation			
PT PLN (PERSERO) UIW MMU	UP3 Tual	43	59	102	42,16%	1	1	
PT PLN (PERSERO) UIW MMU	UP3 Saumlaki	63	49	112	56,25%	1,25		1
PT PLN (PERSERO) UIW MMU	UP3 Ternate	45	85	130	34,62%	1	1	
PT PLN (PERSERO) UIW MMU	UP3 Sofifi	33	75	108	30,56%	1	1	
PT PLN (PERSERO) UIW MMU	UP3 Tobelo	58	66	124	46,77%	1	1	
PT PLN (PERSERO) UIW P2B	Kantor Wilayah	65	53	118	55,08%	1,25		1
PT PLN (PERSERO) UIW P2B	UP3 Jayapura	35	80	115	30,43%	1	1	
PT PLN (PERSERO) UIW P2B	UP3 Sorong	31	70	101	30,69%	1	1	
PT PLN (PERSERO) UIW P2B	UP3 Manokwari	90	33	123	73,17%	1,25		1
PT PLN (PERSERO) UIW P2B	UP3 Timika	95	45	140	67,86%	1,25		1
PT PLN (PERSERO) UIW P2B	UP3 Merauke	53	51	104	50,96%	1,25		1
PT PLN (PERSERO) UIW P2B	UP3 Biak	94	51	145	64,83%	1,25		1
PT PLN (PERSERO) UIW P2B	UP3 Wamena	32	73	105	30,48%	1	1	
PT PLN (PERSERO) UIW P2B	UP3 Nabire	57	55	112	50,89%	1,25		1
TOTAL						33,75	15	15

In addition, the implementation of the workshop will be combined with the commercial socialization program at UIW and UP3 while still taking into account the conditions for the recognition of the workshop by IVA/ADB and the ongoing pandemic conditions. So that the implementation of the workshop can be done via online.

3.3.8 RBL DLI 8: Integrating E-Procurement and SAP Systems

The target for the integration of E-Procurement and SAP Systems in 2021 is that E-Procurement and the SAP system have been integrated and launched in 2020. The E-Proc & SAP system has been integrated in 2019. In March 2021 DIVSTI has held the latest socialization of the E-Procurement feature. Proc related to this DLI to procurement officials at UIW. The integrated E-procurement module and SAP interface are optimistically completed in Q4 in 2021. DLI8 target in 2021 is 50% of contracts in financial value executed by UIW and listed on E-Proc. and SAP. Progress up to Q IV 2021 DIV MRP and IVA have agreed on a mechanism for calculating the

achievement of DLI 8, while the calculation for DIV MRP is 55,79% based on the comparison of Eproc Procurement data and SAP PO. while the calculation for DIV MRP is 55.79% based on the comparison of Eproc Procurement and SAP PO data. From the data of all material number+Text+vendor match, it was recorded that there were 4.068 items with a value of 1.8 trillion rupiah (SAP source), this is called the denominator. Based on the process of matching E-proc and SAP data, it was found for a vendor+document match of 70 items and a material number+vendor match of 965 with total value of 1 trillion rupiah, both of which are referred to as the numerator. DLI 8 calculation recapitulation is as follows:

Table 14: DLI 8 Calculation Recapitulation

SAP Source Table	Sum of Net Order	No of Records	% of Net Order
IVA: LINKED	1,005,332,148,279	1,035	55.79%
PLN: LINKED	1,005,332,148,279	1,035	55.79%
Vendor+Document Match	40,369,978,167	70	2.24%
* No Material Num+Vendor Match	40,369,978,167	70	2.24%
* No Material Num+Text+Vendor Match	40,369,978,167	70	2.24%
UIW Kalimantan Barat	1,290,334,020	1	0.07%
UIW Kalselteng	31,495,887,389	64	1.75%
UIW Maluku&Malut	27,961,406	1	0.00%
UIW Papua&Papua Barat	7,555,795,352	4	0.42%
* No Vendor+Document Match	964,962,170,112	965	53.55%
Material Num+Vendor Match	964,962,170,112	965	53.55%
Material Num+Text+Vendor Match	964,962,170,112	965	53.55%
UIW Kalimantan Barat	257,573,755,273	226	14.30%
UIW Kalselteng	225,747,650,364	217	12.53%
UIW Kaltim & Utara	148,061,892,097	159	8.22%
UIW Maluku&Malut	154,097,433,549	198	8.55%
UIW Papua&Papua Barat	179,481,438,829	165	9.96%
IVA: * NOT LINKED	796,507,895,658	3,033	44.21%
PLN: * NOT LINKED	796,507,895,658	3,033	44.21%
* No Vendor+Document Match	796,507,895,658	3,033	44.21%
* No Material Num+Vendor Match	796,507,895,658	3,033	44.21%
* No Material Num+Text+Vendor Match	796,507,895,658	3,033	44.21%
UIW Kalimantan Barat	297,740,356,602	958	16.52%
UIW Kalselteng	184,006,688,997	952	10.21%
UIW Kaltim & Utara	213,349,360,475	738	11.84%
UIW Maluku&Malut	59,159,158,912	252	3.28%
UIW Papua&Papua Barat	42,252,330,672	133	2.34%
Grand Total	1,801,840,043,937	4,068	100.00%

- Material Num+Vendor Name matching
 - There are 965 records in the form of 53.55% of the total PO SAP
 - All records are also with Material Num+Text+Vendor Match status
- Vendor+Document Matching
 - There are 70 records in the form of 2.24% of the total PO SAP
- The results of the PLN and IVA links are the same as 1,035 records, which are 55.79% of the total PO SAP
 - PLN link is done by means of Material Num+Text+Vendor Match and Document Match
 - IVA link is done by means of Material Num+Vendor Match and Vendor+Document Match
- The results of the same PLN and IVA link method show that the data situation is such that:
 - Both Material Num+Vendor (Link IVA) and Material Num+Text+Vendor (Link PLN) are the same
 - Both Document (PLN Link) and Vendor+Document (IVA Link) are the same

3.4 Non-Disbursement Linked Indicators

3.4.1 RBL Non-DLI 1: Improved Time Use

The non-DLI target is optimizing the use of time in activities after getting access to electricity for male and female customers. The scope of evaluation and assessment is Maluku and Papua. DIV MRE has prepared Terms and Work Plans (RKS) related to the study. On 26 March DIVMRE conveyed to DIVRMP that the results of the implementation of the procurement of consulting services were declared a failure because there was only 1 (one) candidate for service provider. In April 2021 DIVRMP submitted to DIVMRE for re-procurement. The results of the re-procurement still get 1 (one) prospective service provider. However, at the negotiation stage on June 24, 2021, there was no agreement on the offer price from PLN. So this procurement has the potential to fail. On January 14, 2022, PLN invited ADB to discuss the follow-up to Government Regulation (PP) No. 25 of 2021, where one of the rules regulates the minimum requirements for proposed investment costs for the participation of foreign consultants in international open auctions. The meeting resulted in the following things that needed to be done:

- a. ADB will hire international team of individual consultants outside of the grant.
- b. PLN will hire national survey firm.

For the preparation of the focal person working group, DIV RMP will prepare letter of assignment to assist the implementation of Social Impact Assessment. The results of the discussion, namely the recommendation of the mentoring team are as follows:

Table 15: Proposal Draft of the Socio-economic Assessment Assistance Team

No	Position	Division	Task	
1	EVP Perencanaan dan Pengendalian Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMP	Team Leader	Responsible for planning, implementing, and reporting Social Impact Assessment
2	VP Manajemen Keuangan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMP	Deputy Team Leader 1	Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment
3	VP Pengelolaan Aset Distribusi Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMD	Deputy Team Leader 2	Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment
4	VP Pengembangan dan Standarisasi Proses Administrasi Perencanaan dan Enjiniring	MRE	Member	Conduct the procurement of consultants
5	VP CSR & PKBL	KOM	Member	Provide data/information to the SET PER to make an annual report/sustainability report of PLN and ensure that the Social Impact Assessment is included in that report
6	VP Hubungan Investor, Institusional dan GCG	SET PER	Member	Coordinate with related divisions to make an annual report/sustainability report for PLN and ensure that the Social Impact Assessment is included in that report
7	VP Manajemen Keuangan Regional Sumatera Kalimantan	RSP	Member	Monitor the implementation of Social Impact Assessment
8	VP Pengamanan Pendapatan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMR	Member	Provide data/information needed for the implementation of Social Impact Assessment
9	VP Administrasi Pinjaman dan Hibah Luar Negeri	RKO	Member	Monitor the implementation of Social Impact Assessment in accordance with the Grant and Loan Agreement
10	Senior Manager Perencanaan	UIW MMU	Member	Assist in providing data/information needed for the implementation of the Grant Socio-

No	Position	Division	Task	
				Economic and Gender Impact Evaluation, including electrification plans and others.
	Senior Manager Perencanaan	UIW P2B	Member	Assist in providing data/information needed for the implementation of the Grant Socio-Economic and Gender Impact Evaluation, including electrification plans and others.
	Senior Manager Niaga & Pelayanan Pelanggan	UIW MMU	Member	Assist in providing data/information needed for the implementation of the Grant Socio-Economic and Gender Impact Evaluation, including the results of performance monitoring (data on prospective customers, customer growth, increased sales, etc.) in the Maluku and Papua regions
	Senior Manager Niaga & Pelayanan Pelanggan	UIW P2B	Member	Assist in providing data/information needed for the implementation of the Grant Socio-Economic and Gender Impact Evaluation, including the results of performance monitoring (data on prospective customers, customer growth, increased sales, etc.) in the Maluku and Papua regions

The formation of a cross-division working group is currently in the process of requesting a Team Decree review to the DIV KPJ.

3.4.2 RBL Non-DLI 2: Pilot Community Training Conducted on Basic PLTS

The target in this Non DLI is a pilot community training conducted on basic PV mini-grid maintenance where the PV mini-grid has remote monitoring technology with at least 30% female participation in 2021-2024. The progress of TW IV in 2021 is not much different from the conditions in the previous quarter, namely the development of learning materials for Result Indicator 7/ Non-DLI 2 has been completed and has been validated with the ADB Team on September 22, 2021. Training on Trainer (ToT) with Main Unit participants will be implemented after PLTS remote monitoring and hybridization using energy management system are available expected in 2025 based on the worst-case scenario that the budget for the procurement of consultants Supporting PV mini-grid is published for 2023. The implementation plan of the Pilot Community Training on Basic PV mini-grid maintenance will be carried out in Q2 2025 in accordance with the proposed TOR for the procurement of consultants for new PV mini-grid technology at KMP. The timeline of the pilot community training on basic PV mini-grid maintenance is as follows:

Table 16: Timeline of Pilot Community Training on Basic PV mini-grid maintenance based on TOR for Procurement of Technical Consultants

Kegiatan	PIC	STATUS	2023												2024												2025				
			1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Implementation of Consulting Services		PLAN																													
		ACTUAL																													
Final Design of PLTS Pilot Project Upgrade (Sebatik / Derawan)		PLAN																													
		ACTUAL																													
Preparation of Biddoc for PLTS Pilot Project Upgrade (Sebatik / Derawan)		PLAN																													
		ACTUAL																													
PLTS Pilot Project Upgrade Procurement Process (Sebatik / Derawan)		PLAN																													
		ACTUAL																													
PLTS Upgrade Construction Process and Commissioning (Sebatik / Derawan)		PLAN																													
		ACTUAL																													
Implementation of Operation and Maintenance of Upgraded PV mini-grid		PLAN																													
		ACTUAL																													
Material preparation according to the PLTS manual module and the implementation of TOT		PLAN																													
		ACTUAL																													
Workshop for Local Communities (Sebatik / Derawan)		PLAN																													
		ACTUAL																													

3.4.3 RBL Non-DLI 3: Capacity for social monitoring

The definition of indicators is an annual report on the social impact of electrification with sex-disaggregated data published at the end of 2022. Discussion on the preparation of the annual report on the social impacts of electrification was carried out on February 24, 2022. In the discussion, a timeline was agreed to prepare data and reports must be submitted to the Corporate Secretary by 31 March 2022. PLN has completed the draft report material on March 18, 2022 and has submitted it to ADB for input.

Table 17: Timeline for Compilation of Annual Social Impact Sustainability Report 2021

No	Activity	Timeline
1	Preparation Phase Determination of PIC and Coordination of data preparation	24 Februari 2022
2	Availability of data download via application/web	25 Februari 2022
3	Availability of Non-Application Data	28 Feb – 7 Mar 2022
4	Drafting of Report Narrative	8 – 11 Maret 2022
5.	Submission/meeting of the draft Report Narrative to ADB	14/15 Maret 2022
6	Submission of Revised Report Narrative Draft to ADB	Up to 25 Maret 2022
7	Submission of the Final Report Narrative Draft to CORSEC	31 Maret 2022
8	Completion of PLN Annual Sustainability Report	? 2022

3.5 Grant Implementation

3.5.1 Grant JFPR (Japan Fund for Poverty Reduction)

- a. **Target 1.** An additional 16,000 poor HHs households provided with PLN electricity by 2024, with results disaggregated by female/male-headed households. Currently, a mechanism for budgeting and recording assets is being pursued at PLN. PLN has no experience in using grants using Regional operating budgets. PLN has held a meeting with the relevant divisions (DIVANG, DIV PBH, DIV AKT, and regional DIV) to find a way so that the implementation of the grant can run without disturbing the regulations at PLN. In addition, the Regional Division will prepare again the target of prospective grant recipients in 2022.
- b. **Target 2:**
 - (i) An e-module developed and two training-of-trainer sessions on conducting community workshops for safe and productive energy use conducted with participation. ADB provides feedback regarding material from PLN Pusdiklat on 27 September, 2021. PLN Pusdiklat held a Training on Trainer for PLN employees who had been proposed by UIW into 3 batches. From Batch 1 and Batch 2 (August 2021), and Batch 3 (October 2021), there were a total of 68 participants with a total of 28 female participants.
 - (ii) Culturally-sensitive materials (e.g. language and literacy, among others) for safe and productive energy use. Culturally sensitive materials (eg language and literacy, among others) for safe and productive use of energy can be developed by each of the 29 UP3 offices for community education workshops.
- c. **Target 3.** A baseline socio-economic and gender assessment conducted in 2021 and a follow-up socio-economic and gender impact evaluation with inputs from the expert working group. PLN and ADB have agreed that ADB will hire international team of individual consultants outside of the grant and PLN will hire national survey firm. For the preparation of the focal person working group, a working group was formed from related divisions at PLN Headquarters and UIW in Maluku – Papua. DIV RMP will prepare a letter of assignment to assist in the implementation of the Socio -Economic and Gender Impact Assessment. Currently in the process of approval and signing of the draft Decree of the Board of Directors of PT PLN (Persero) regarding the Assistance Team for the Implementation of the Socio-Economic and Gender Impact Evaluation in Maluku Papua.

3.5.2 Grant ACEF (Asian Clean Energy Fund)

- a. **Target 1:**
 - (i) Additional power generation from solar PVs (<10 MW) increased by an additional 4,020 MWh annually by 2024. (2019 baseline 0 MWh).
 - (ii) 17,500 HHs have access to PLN electricity from improved PLTS by 2024. (2019 baseline 0 HHs).
- b. **Target 2:**
 - (i) 10 PLN PLTS upgraded and made operational with remote monitoring by 2024. (2019 baseline 0 PLTS upgraded).
 - (ii) 10 PLN PLTS upgraded and made operational with hybridization utilizing energy management systems by 2024. (2019 baseline 0 PLTS upgraded).

- c. **Target 3.** One pilot community training conducted on basic PLTS maintenance where remote monitoring is used with at least 30% women's participation by 2024. (2019 baseline 0 community PLTS maintenance trainings).

Based on the timeline for the procurement of PLTS supporting consultants in Kalimantan and Maluku - Papua, the possible implementation may start in 2023. So that the achievement of the 3 targets in the ACEF grant will be implemented no later than 2025. The current obstacle is budget changes that have not been contracted will be accommodated in the RKAP 2023 for the year 2022 RKAP has been closed.

Table 18: Timeline of Procurement of PV mini-grid Technical Consultants

No	Activity	PIC	STATUS	2021			2022		2023												2024												2025				
				5	6	7	1	2	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
1	Conducting PV mini-grid data inventory in Kalimantan, Maluku and Papua	RSP, RMP RSK, RMK	PLAN ACTUAL																																		
2	Determine the PLTS Project Plan to be upgraded	RSP, RMP RSK, RMK	PLAN ACTUAL																																		
3	Preparation of KKP & KR PLTS Upgrade	RSP, RMP RSK, RMK	PLAN ACTUAL																																		
4	PLTS Project Consultant Services																																				
a	Preparation of TOR & RAB	RSP, RMP RSK, RMK	PLAN ACTUAL																																		
b	SKAI/SKKI Issuance Process	RSP, RMP RSK, RMK	PLAN ACTUAL																																		
c	Official Note to MRE/EBT for Bid Doc preparation and Procurement Process	RSP, RMP RSK, RMK	PLAN ACTUAL																																		
d	Preparation of Bid Doc	MRE / EBT	PLAN ACTUAL																																		
e	Procurement process	MRE / EBT	PLAN ACTUAL																																		
f	Sign the Consultancy Service Contract		PLAN ACTUAL																																		
5	Implementation of Consulting Services		PLAN ACTUAL																																		
6	Final Design of PLTS Pilot Project Upgrade (Sebatik / Derawan)		PLAN ACTUAL																																		
7	Preparation of Biddoc for PLTS Pilot Project Upgrade (Sebatik / Derawan)		PLAN ACTUAL																																		
8	PLTS Pilot Project Upgrade Procurement Process (Sebatik / Derawan)		PLAN ACTUAL																																		
9	PLTS Upgrade Construction Process and Commissioning (Sebatik / Derawan)		PLAN ACTUAL																																		
10	Implementation of Operation and Maintenance of Upgraded PV mini-grid		PLAN ACTUAL																																		
11	Material preparation according to the PLTS manual module and the implementation of TOT		PLAN ACTUAL																																		
12	Workshop for Local Communities (Sebatik / Derawan)		PLAN ACTUAL																																		
13	Site visit other PLTS Kal MP		PLAN ACTUAL																																		
14	Compilation of Final Design Upgrade PLTS other PLTS		PLAN ACTUAL																																		
15	Preparation of Biddoc Upgrade PLTS other PLTS		PLAN ACTUAL																																		
16	Workshop other PLTS		PLAN ACTUAL																																		
17	1st Interim Report		PLAN ACTUAL																																		
18	2nd Interim Report		PLAN ACTUAL																																		
19	3rd Interim Report		PLAN ACTUAL																																		
20	Final Interim Report		PLAN ACTUAL																																		

3.6 Program Action Plan (PAP) Implementation ADB RBL Programs

PAP Items	Indicator	Responsible Teams	Time Frame	PLN Claim to ADB
1	<p>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. For Maluku- Papua, take into consideration the results from the least cost electrification study conducted in 2017-2018, any further geospatial analyses, and ongoing efforts on cold storage chain development</p> <p>(i) Annual plan established for expansion of distribution system and renewable energy development, in consideration of least cost options analyses and ongoing efforts on cold storage chain development</p> <p>(ii) Technical designs prepared for distribution lines expansion and renewable energy installation including cost estimation and bill of quantities</p> <p>(iii) Safety training conducted for PLN staff and contractors prior/during construction.</p> <p>(iv) Completion report/record prepared</p>	UIW; DIV RSP and DIV RMP	From 2020	<ol style="list-style-type: none"> For KKP samples available for Distribution work, both marketing, network expansion, and additional RE capacity are available <ul style="list-style-type: none"> UIW Kalbar: 3 Distribution program and 1 RE program UIW Kalselteng: 3 Distribution program and no RE Program in 2021/2022 UIW Kaltimra: 3 Distribution program and 2 RE Program UIW MMU: 3 Distribution program and 1 RE program UIW P2B: 4 Distribution program PLN UIW at KMP has evidence of SKAI and SKKI TW IV 2021 and SKKI 2021 available PLN has a sample documentation of the implementation of the safety briefing of PLN and its partners in TW IV <ul style="list-style-type: none"> UIW Kalbar: 6 sets of documents UIW Kalselteng: 4 JSA documents UIW Kaltimra: 3 JSA documents UIW MMU: 1 document UIW P2B: 1 set of Semester II JSA PLN has BAST for 2021 work <ul style="list-style-type: none"> UIW Kalbar: 2 documents UIW Kalselteng: 2 documents UIW Kaltimra: 7 documents UIW MMU: 4 documents UIW P2B: 3 documents PLN has evidence of communication with stakeholders related to electricity needs, ALMA, and cold storage <ul style="list-style-type: none"> UIW Kalbar: no documents in semester II 2021 UIW Kalselteng: 4 sets of documents UIW Kaltimra: 4 sets of documents UIW MMU: 7 documents UIW P2B: no documents in semester II 2021 PLN has a TW IV 2021 investment realization
Technical Design				

2	(i) Review report of current voltage regulation measures for distribution lines including application for auto/step voltage regulators for MV lines (ii) Technical guidance developed for auto/step voltage regulators.	DIV RKO PUSLITBAN DIV RSP DV RMP	From 2022 and 2023	PLN Puslitbang in the process of reviewing technical data from UIW at KMP Completion plan based on the submitted timeline is the end of 2023
3	(i) Study conducted for review of current three-phase distribution system and single-phase distribution system. (ii) If applicable, technical recommendation submitted to BOD for SPL and/or SWER.	DIV RKO PUSLITBANG DIV RSP DV RMP	From 2022 and 2023	PLN Puslitbang in the process of reviewing technical data from UIW at KMP Completion plan based on the submitted timeline is the end of 2023
Program Result				
4	(i) Report on grant achievements against indicative targets of: (a) additional 16,000 poor HHs provided with PLN electricity, with results disaggregated by female/male-headed households, (b) an e-module developed and two training-of-trainers sessions on conducting community workshops for safe and productive energy use conducted with participation by a total of at least 58 PLN staff, including female staff, consisting of two staff who are responsible for socialization workshops from each of the 29 UP3 office and other relevant PLN staff; (c) culturally-sensitive materials (e.g. language and literacy, among others) for safe and productive energy use provided to each of the 29 UP3 offices for community education workshops; (ii) Conduct recruitment using international competitive bidding for a firm to conduct a socio-economic and gender baseline study and convene an expert working group, including ADB experts, on impact assessment, to review and approve the firm's outputs; (iii) Conduct a socio-economic and gender impact assessment with a query-able database of the program in Maluku and Papua, with inputs from the expert working group for endorsement by PLN management.	DIV RKO, PUSDIKLAT, DIV MRE, DIV RSP and DV RMP	From 2021	(i) a. On the status of poor household connection achievement is still in the application for operating cash budget to DIVANG b. TOT has been carried out in 3 batches, and each has submitted its representative with a total of 60 employees with the involvement of female employees; c. Culturally sensitive materials (eg language and literacy, among others) for safe and productive use of energy can be developed by each of the 29 UP3 offices for community education workshops. These culturally sensitive materials are added through UP3 each according to local culture (language/daily habits/customs/etc). the addition of culturally sensitive material elements takes place during the workshop (ii) DIV RMP will prepare letter of assignment to assist the implementation of Socio-Economic and Gender Impact Assessment. The results of the discussion, namely the recommendation of the mentoring team are as follows:

				<table><tr><th>No</th><th>Position</th><th>Division</th><th colspan="2">Task</th></tr><tr><td>1</td><td>EVP Perencanaan dan Pengendalian Regional Sulawesi, Maluku, Papua dan Nusa Tenggara</td><td>RMP</td><td>Team Leader</td><td>Responsible for planning, implementing, and reporting Social Impact Assessment</td></tr><tr><td>2</td><td>VP Manajemen Keuangan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara</td><td>RMP</td><td>Deputy Team Leader 1</td><td>Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment</td></tr><tr><td>3</td><td>VP Pengelolaan Aset Distribusi Regional Sulawesi, Maluku, Papua dan Nusa Tenggara</td><td>RMD</td><td>Deputy Team Leader 2</td><td>Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment</td></tr><tr><td>4</td><td>VP Pengembangan dan Standarisasi Proses Administrasi Perencanaan dan Engineering</td><td>MRE</td><td>Member</td><td>Conduct the procurement of consultants</td></tr><tr><td>5</td><td>VP CSR & PKBL</td><td>KOM</td><td>Member</td><td>Provide data/information to the SET PER to make an annual report/sustainability report of PLN and ensure that the Social Impact Assessment is included in that report</td></tr><tr><td>6</td><td>VP Hubungan Investor, Institusional dan GCG</td><td>SET PER</td><td>Member</td><td>Coordinate with related divisions to make an annual report/sustainability report for PLN and ensure that the Social Impact Assessment is included in that report</td></tr><tr><td>7</td><td>VP Manajemen Keuangan Regional Sumatera Kalimantan</td><td>RSP</td><td>Member</td><td>Monitor the implementation of Social Impact Assessment</td></tr><tr><td>8</td><td>VP Pengamanan Pendapatan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara</td><td>RMR</td><td>Member</td><td>Provide data/information needed for the implementation of Social Impact Assessment</td></tr><tr><td>9</td><td>VP Administrasi Pinjaman dan Hibah Luar Negeri</td><td>RKO</td><td>Member</td><td>Monitor the implementation of Social Impact Assessment in accordance with the Grant and Loan Agreement</td></tr></table> <p>The formation of a cross-division working group is currently in the process of requesting a Team Decree review to the DIV KPJ</p> <p>(iii) DIV RMP will prepare letter of assignment to assist the implementation of Social Impact Assessment.</p>	No	Position	Division	Task		1	EVP Perencanaan dan Pengendalian Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMP	Team Leader	Responsible for planning, implementing, and reporting Social Impact Assessment	2	VP Manajemen Keuangan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMP	Deputy Team Leader 1	Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment	3	VP Pengelolaan Aset Distribusi Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMD	Deputy Team Leader 2	Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment	4	VP Pengembangan dan Standarisasi Proses Administrasi Perencanaan dan Engineering	MRE	Member	Conduct the procurement of consultants	5	VP CSR & PKBL	KOM	Member	Provide data/information to the SET PER to make an annual report/sustainability report of PLN and ensure that the Social Impact Assessment is included in that report	6	VP Hubungan Investor, Institusional dan GCG	SET PER	Member	Coordinate with related divisions to make an annual report/sustainability report for PLN and ensure that the Social Impact Assessment is included in that report	7	VP Manajemen Keuangan Regional Sumatera Kalimantan	RSP	Member	Monitor the implementation of Social Impact Assessment	8	VP Pengamanan Pendapatan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMR	Member	Provide data/information needed for the implementation of Social Impact Assessment	9	VP Administrasi Pinjaman dan Hibah Luar Negeri	RKO	Member	Monitor the implementation of Social Impact Assessment in accordance with the Grant and Loan Agreement
No	Position	Division	Task																																																			
1	EVP Perencanaan dan Pengendalian Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMP	Team Leader	Responsible for planning, implementing, and reporting Social Impact Assessment																																																		
2	VP Manajemen Keuangan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMP	Deputy Team Leader 1	Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment																																																		
3	VP Pengelolaan Aset Distribusi Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMD	Deputy Team Leader 2	Coordinate with related divisions for planning, implementing, and reporting Social Impact Assessment																																																		
4	VP Pengembangan dan Standarisasi Proses Administrasi Perencanaan dan Engineering	MRE	Member	Conduct the procurement of consultants																																																		
5	VP CSR & PKBL	KOM	Member	Provide data/information to the SET PER to make an annual report/sustainability report of PLN and ensure that the Social Impact Assessment is included in that report																																																		
6	VP Hubungan Investor, Institusional dan GCG	SET PER	Member	Coordinate with related divisions to make an annual report/sustainability report for PLN and ensure that the Social Impact Assessment is included in that report																																																		
7	VP Manajemen Keuangan Regional Sumatera Kalimantan	RSP	Member	Monitor the implementation of Social Impact Assessment																																																		
8	VP Pengamanan Pendapatan Regional Sulawesi, Maluku, Papua dan Nusa Tenggara	RMR	Member	Provide data/information needed for the implementation of Social Impact Assessment																																																		
9	VP Administrasi Pinjaman dan Hibah Luar Negeri	RKO	Member	Monitor the implementation of Social Impact Assessment in accordance with the Grant and Loan Agreement																																																		
5	(i) Report on grant achievements against indicative target: (a) power generation from solar PVs (<10 MW) increased by an additional 4,020 MWh annually; (b) 17,500 HHs have access to PLN electricity from improved PLTS; (ii) 10 PLN PLTS upgraded and operational with remote monitoring; (iii) 10 PLN PLTS upgraded and operational with hybridization utilizing energy management systems; and (iv) At least one pilot community training delivered on basic PLTS maintenance where remote monitoring is used with at least 30% women's participation.	DIV EBT, DIV RMP, DIV RSP, DIV RKO	From 2021	<p>(i) There are 14 locations in KMP that are proposed to the TOR, which will be assessed by consultants as Non DLI 2. 2 of the 14 PLTS locations, Derawan or Sebatik that will be upgraded to remote pilot monitoring and local training</p> <table><tr><th>No</th><th>Lokasi</th><th>Kondisi</th></tr><tr><td>1</td><td>Kalimantan Barat</td><td></td></tr><tr><td></td><td>a. PLTS Pulau Limbung (60 kWp), Ds Pulau Limbung, Kec Sungai Raya, Kab Kubu Raya</td><td>Damaged</td></tr><tr><td></td><td>b. PLTS Temajok (80 kWp), Ds Temajuk, Kec Paloh, Kab Sambas</td><td>Damaged</td></tr><tr><td></td><td>c. PLTS Siding (40 kWp), Ds Temong, Kec Siding, Kab Bengkayang</td><td>Damaged</td></tr><tr><td>2</td><td>Kalimantan Timur & Utara (Pilot Project)</td><td></td></tr></table>	No	Lokasi	Kondisi	1	Kalimantan Barat			a. PLTS Pulau Limbung (60 kWp), Ds Pulau Limbung, Kec Sungai Raya, Kab Kubu Raya	Damaged		b. PLTS Temajok (80 kWp), Ds Temajuk, Kec Paloh, Kab Sambas	Damaged		c. PLTS Siding (40 kWp), Ds Temong, Kec Siding, Kab Bengkayang	Damaged	2	Kalimantan Timur & Utara (Pilot Project)																																	
No	Lokasi	Kondisi																																																				
1	Kalimantan Barat																																																					
	a. PLTS Pulau Limbung (60 kWp), Ds Pulau Limbung, Kec Sungai Raya, Kab Kubu Raya	Damaged																																																				
	b. PLTS Temajok (80 kWp), Ds Temajuk, Kec Paloh, Kab Sambas	Damaged																																																				
	c. PLTS Siding (40 kWp), Ds Temong, Kec Siding, Kab Bengkayang	Damaged																																																				
2	Kalimantan Timur & Utara (Pilot Project)																																																					

						a. PLTS Sebatik (340 kWp), Ds Padaidi, Kec Sebatik, Kab Nunukan	Operation
						b. PLTS Derawan (90 kWp), Ds Derawan, Kec Pulau Derawan, Kab Berau	Operation
					3	Maluku & Maluku Utara	
						a. PLTS Pulau Tior (100 kWp), Ds Tioor, Kec Tioor, Kab Seram Bagian Timur	Operation
						b. PLTS Daruba, (950 kWp) Ds Wamama, Kec Morotai Selatan, Kab Pulau Morotai	Operation
					4	Papua & Papua Barat	
						a. PLTS Off Grid Beo (30 kWp), Ds Beo, Kec Waisai, Kab Raja Ampat	Operation
						b. PLTS Off Grid Bianci (30 kWp), Ds Bianci, Kec Waigeo Barat, Kab Raja Ampat	Operation
						c. PLTS Arborek (25 kWp), Ds Arborek, Kec Meos Mansar, Kab Raja Ampat	Damaged
						d. PLTS Saonek (42 kWp), Ds Saonek, Kec Waigeo Selatan, Kab Raja Ampat	Damaged
						e. PLTS Oksibil (300 kWp), Ds Kabiding, Kec Oksibil, Kab Pegunungan Bintang	Operation
						f. PLTS Mansinam (50 kWp), Ds Mansinam, Kec Manokwari Timor, Kab Manokwari	Operation
						g. PLTS Dogiyai (300 kWp) , Ikebo, Kec Kamu, Kab Dogiyai	Damaged
					(ii) There is no progress yet. procurement and construction of system upgrades for other PLTS will be carried out in separate contracts with PLTS support consultants		
					(iii) There is no progress yet. procurement and construction of system upgrades for other PLTS will be carried out in separate contracts with PLTS support consultants		
					(iv) PLN Pusklat has completed and submitted the development of materials for training according to input from ADB on 22 September 2021. This will be		

				updated to incorporate result from PLTS upgrade on remote monitoring and hybridization using EMS.
Monitoring and Evaluation				
6	(i) Regular quarterly reviews of RBL program implementation established at the coordination meetings between PLN headquarters and UIW. (ii) See 7(i) under Gender.		From 2020	(i) a. DIVRSP as coordinator has prepared a workflow for communication, monitoring, and evaluation of DLI and PAP achievements. b. WAG is available for communication, coordination and sharing of information related to the Program. c. PLN has carried out joint evaluation and monitoring of all PICs for implementing DLI and PAP every semester in 2021. In 2022, to complete this PAP requirement, PLN will evaluate quarterly. (ii) An interface module is available between the PLN AP2T database and the National TNP2K that allows identification and tracking of households headed by women/men and can be monitored at a certain time period and per UP3 in a UIW.
Gender				
7	(i) An interface module between PLN's AP2T and National TNP2K database developed and applied to enable identification and tracking of female/male-headed households. (ii) Training module on livelihood opportunities for women included in consumer education trainings on safe and productive energy use. (iii) See 4 (iii) on impact assessment, including impact on gender. (iv) See 5 (iv) on pilot community training on basic PLTS maintenance.	DIV ATS, DIV STI, PUSDIKLAT	(i) From 2020 (ii) From 2020 (iii) By 2025 (iv) By 2025	(i) The interface module between PLN's AP2T and the National TNP2K database can be used but requires an additional gender option menu. PLN through DIV ATS has submitted a UAT application to DIV APN and DIV STI, Expected to be completed by the end of February 2022. (ii) PLN Pusdiklat has completed developing a training module on livelihood opportunities for women which is included in consumer education (DLI 7). Training on the safe and productive use of energy is ongoing. (iii) In the TOR, it is explained that in the community survey there were interviews with 5 resource persons, of which 1 - 2 were women. (iv) Based on the implementation timeline, the training will be held in 2025
Financial Management				

8	<p>(i) Consolidated quarterly financial statements produced automatically by MAXICO.</p> <p>(ii) E-Budget implemented in the program target regions.</p> <p>(iii) Staff in all relevant divisions trained in the use of MAXICO and E-Budget systems</p>	<p>DIV ANG</p> <p>DIV AKT</p> <p>DIV STI</p>	From 2020	<p>(i) MAXICO consolidated financial statement evidence has been submitted, in the fourth quarter the financial reporting did not go through an application (manual) due to the process of revamping the account by DIV STI.</p> <p>It is expected that starting January 2022 it can be used and for account adjustments it is something that will continue to happen.</p> <p>(ii) E-Budget is implemented in Regional program targets. Evidence of the use of E-Budget documentation at UIW has been delivered. (achievement once in program)</p> <p>(iii) An update regarding the Single Source of Truth (SSoT) program from the IT development party has been presented and is currently entering the first stage, namely shorter term improvement, 1 of 6 stages being carried out.</p>
9	High level summary of key internal initiatives and their impacts included in the 2nd quarter and annual RBL progress reports.	DIV MPU	From 2020	PLN (DIV MPU) has updated the progress monitoring list of 19 main initiatives to reduce costs and strengthen financial sustainability until December 2021
Procurement				
10	Report submitted following procurement Monitoring Framework.	DIV MRP, DIV RSP, DIV RMP,	From 2020	TW IV 2021 procurement recapitulation data has been submitted by DIV MRP on 24 February 2022.

		and UIW																																																																										
11	Recruit consultants through international competitive bidding to support PLN in PLTS (a) failures analysis, (b) design, procurement, and commissioning of PLTS upgrades with remote monitoring and hybridization using EMS, and (c) implementation of sustainable operations and maintenance procedures for remote monitoring and EMS operations..	DIV RSP, DIV RMP, DIV EBT and DIV MRE	From 2021	On Progress. 1. The TOR and RAB documents have been submitted to the procurement executive. The international advertising process has been carried out. 2. Procurement is constrained related to the adjustment of PP No. 25 of 2021 regarding the minimum requirements for the proposed foreign participation investment fee (international bidding)																																																																								
12	Procurement audits each year of 10% of all contracts at Wilayah/Area offices. Procurement audits conducted and information sheet shared with ADB	DIV MRP, DIV RSP, DIV RMP, UIW, and SPI	From 2021	SPI has submitted a distribution audit report for the second semester of 2021 at UIW Kalimantan and Maluku-Papua with the following data: <i>Table 2. Population and Sample Distribution Procurement Agreement / Contract</i> <table><tr><th>No</th><th>Tahun Audit Year</th><th>Unit</th><th>Jumlah Populasi Total Population</th><th>Jumlah Sampling Total Sampling</th><th>Persentase Sampling Percentage</th></tr><tr><td>1</td><td>2021</td><td>UP3 SINGKAWANG</td><td>66</td><td>31</td><td>46.97%</td></tr><tr><td>2</td><td>2021</td><td>UIW KALBAR</td><td>45</td><td>21</td><td>46.67%</td></tr><tr><td>3</td><td>2021</td><td>UP3 PALANGKARAYA</td><td>19</td><td>4</td><td>21.05%</td></tr><tr><td>4</td><td>2021</td><td>UIW KALSELTENG</td><td>48</td><td>6</td><td>12.50%</td></tr><tr><td>5</td><td>2021</td><td>UIW KALTIMIRA</td><td>11</td><td>0</td><td>0%</td></tr><tr><td colspan="3">TOTAL</td><td>189</td><td>62</td><td>32.80%</td></tr></table> <i>Table 2. Population and Sample Distribution Procurement Agreement / Contract</i> <table><tr><th>No</th><th>Audit Year</th><th>Unit</th><th>Total Population</th><th>Total Sampling</th><th>Percentage Sampling</th></tr><tr><td>1</td><td>2021</td><td>UP3 Sofifi</td><td>42</td><td>1</td><td>2,38%</td></tr><tr><td>2</td><td>2021</td><td>UP2K Provinsi Maluku</td><td>99</td><td>47</td><td>47,47%</td></tr><tr><td>3</td><td>2021</td><td>UIW MMU</td><td>1</td><td>1</td><td>100%</td></tr><tr><td colspan="3">Total</td><td>142</td><td>49</td><td>34,51%</td></tr></table>	No	Tahun Audit Year	Unit	Jumlah Populasi Total Population	Jumlah Sampling Total Sampling	Persentase Sampling Percentage	1	2021	UP3 SINGKAWANG	66	31	46.97%	2	2021	UIW KALBAR	45	21	46.67%	3	2021	UP3 PALANGKARAYA	19	4	21.05%	4	2021	UIW KALSELTENG	48	6	12.50%	5	2021	UIW KALTIMIRA	11	0	0%	TOTAL			189	62	32.80%	No	Audit Year	Unit	Total Population	Total Sampling	Percentage Sampling	1	2021	UP3 Sofifi	42	1	2,38%	2	2021	UP2K Provinsi Maluku	99	47	47,47%	3	2021	UIW MMU	1	1	100%	Total			142	49	34,51%
No	Tahun Audit Year	Unit	Jumlah Populasi Total Population	Jumlah Sampling Total Sampling	Persentase Sampling Percentage																																																																							
1	2021	UP3 SINGKAWANG	66	31	46.97%																																																																							
2	2021	UIW KALBAR	45	21	46.67%																																																																							
3	2021	UP3 PALANGKARAYA	19	4	21.05%																																																																							
4	2021	UIW KALSELTENG	48	6	12.50%																																																																							
5	2021	UIW KALTIMIRA	11	0	0%																																																																							
TOTAL			189	62	32.80%																																																																							
No	Audit Year	Unit	Total Population	Total Sampling	Percentage Sampling																																																																							
1	2021	UP3 Sofifi	42	1	2,38%																																																																							
2	2021	UP2K Provinsi Maluku	99	47	47,47%																																																																							
3	2021	UIW MMU	1	1	100%																																																																							
Total			142	49	34,51%																																																																							

				<table><caption>Table 2. Population and Sample Contracts Procurement Distribution and Procurement Micro Scale Solar Power Plant</caption><thead><tr><th>No</th><th>Audit Period</th><th>Units</th><th>Population</th><th>Number of Sample</th><th>Sampling Percentage</th></tr></thead><tbody><tr><td>1</td><td>2021</td><td>UP3 Sorong</td><td>0</td><td>0</td><td>0%</td></tr><tr><td>2</td><td>2021</td><td>UP2K Papua</td><td>99</td><td>63</td><td>64%</td></tr><tr><td>3</td><td>2021</td><td>UIW Papua dan Papua Barat</td><td>12</td><td>7</td><td>58%</td></tr><tr><td>4</td><td>2021</td><td>UPK Papua dan Papua Barat</td><td>0</td><td>0</td><td>0%</td></tr><tr><td colspan="3">Total</td><td>111</td><td>70</td><td>63%</td></tr></tbody></table>	No	Audit Period	Units	Population	Number of Sample	Sampling Percentage	1	2021	UP3 Sorong	0	0	0%	2	2021	UP2K Papua	99	63	64%	3	2021	UIW Papua dan Papua Barat	12	7	58%	4	2021	UPK Papua dan Papua Barat	0	0	0%	Total			111	70	63%
No	Audit Period	Units	Population	Number of Sample	Sampling Percentage																																			
1	2021	UP3 Sorong	0	0	0%																																			
2	2021	UP2K Papua	99	63	64%																																			
3	2021	UIW Papua dan Papua Barat	12	7	58%																																			
4	2021	UPK Papua dan Papua Barat	0	0	0%																																			
Total			111	70	63%																																			
Safeguard																																								
13	<p>Strengthen institutional capacity on environmental and social safeguards, respectively, by: (i) appointing safeguards focal persons in each UIW, UP3 and UP2K office; (ii) issuing a technical guidance and training PLN personnel on the implementation of the PSSA and PAP; (iii) developing an environmental and social safeguards code of practice for solar PV, mini/micro-hydro, and small biogas plants that will include criteria for selecting sites, pollution control, environmental monitoring, sustainable sourcing and management of biomass fuels, and community consultations as well as templates for UKL/UPL.</p> <p>(i) Safeguards focal persons appointed at HSSE, PPT, each UIW, UP3 and UP2K office.</p> <p>(ii) Technical Guidance including training materials on safeguards for EGD I (SNT) is updated to include program actions for EGD II</p> <p>(iii) Annual training conducted for Environmental and Social Safeguards Focal Persons, representatives from each UIW, UP3 and UP2K office, and representatives from ULP office as needed, through PLN's Corporate University.</p> <p>(iv) Briefing brochure on safeguards requirements prepared for and disseminated (through briefing sessions) to contracted vendors / contractors on environmental and social safeguards.</p> <p>(v) Safeguards code of practice developed for solar PV, mini/micro-hydro, and small biogas facilities</p>	DIV K3L, DIV RSP, DIV RMP, DIV RSD, DIV RMD, and UIW	From 2020	<p>(i) DIV RSP will submit an official letter of assignment for Focal person according to the list of names submitted by UIW, UP3, and UP2K, target end of July and first revision in December 2021. For DIV RMD there will be an update of focal persons social safeguards Unit at the end of November 2021. Due to the many changes submitted by the Unit related to focal persons, the focal persons assignment letter will be revised Regionally in June and December every year. Implementation in the Unit will follow the latest focal persons who have been appointed by the GM through a letter of submission to the Regional. Assignment letter of revision 1 social and environmental focal person in Kalimantan with No. 0488.Stg/SDM.02.07/001090100/2021. As for MP, the letter of assignment for the social and environmental focal person uses the first issuance No. 0358.STg/SDM.02.07/C01100100/2021 but the social focal person has changed with No. 0472.STg/SDM.02.07/C01100400/2021. All UIW along with UP3 and UP2K already have social and environmental focal persons.</p> <p>(ii) The technical guidelines has been submitted (by Hatfield) to ADB and PLN for review. In January 2022, PLN and Hatfield has conducted discussion for TG review. After getting input from ADB and having review discussion, the TG will be submitted back to ADB in end of March 2022..</p> <p>(iii) DIV K3L have conducted annual environmental and social protection training based on current issues and problems being faced. The training has been held on 29-30 November 2021. Total of the participants attended is 195 (including Headoffice). Almost of the focal person attended the training, as provided below:</p> <table><thead><tr><th></th><th></th><th>Environment focal person</th><th>Social focal person</th></tr></thead><tbody><tr><td>UIW Kalbar</td><td>Kantor Induk</td><td>3</td><td>3</td></tr><tr><td></td><td>UP3 Ketapang</td><td>2</td><td>2</td></tr></tbody></table>			Environment focal person	Social focal person	UIW Kalbar	Kantor Induk	3	3		UP3 Ketapang	2	2																								
		Environment focal person	Social focal person																																					
UIW Kalbar	Kantor Induk	3	3																																					
	UP3 Ketapang	2	2																																					

						UP3 Singkawang	3	1	
						UP3 Sanggau	1	0	
						UP3 Pontianak	2	1	
						UP2K Kalbar	1	0	
					UIW Kalselteng	Kantor Induk	1	4	
						UP3 Banjarmasin	1	1	
						UP3 Barabai	1	1	
						UP3 Kotabaru	1	1	
						UP3 Kuala Kapuas	1	1	
						UP3 Palangkaraya	1	1	
						UP2D Kalselteng	1	2	
						UP2K Kalsel	1	1	
						UP2K Kalteng	1	1	
					UP3 Kaltimra	Kantor Induk	4	2	
						UP3 Berau	2	1	
						UP3 Samarinda	2	1	
						UP3 Balikpapan	0	1	
						UP3 Bontang	0	1	
						UP3 Kaltara	1	2	
						UP2K Kaltim	1	2	
						UP2K Kaltara	2	1	
					UIW MMU	Kantor Induk	1	1	
						UP3 Ambon	1	3	
						UP3 Ternate	1	2	
						UP3 Tual	1	2	
						UP3 Sofifi	1	4	
						UP3 Masohi	2	1	
						UP2K Maluku	1	1	
						UP2K Maluku Utara	0	1	
					UIW PPB	Kantor Induk	2	4	
						UPK P2B	1	0	

				<table><tr><td>UP3 Jayapura</td><td>1</td><td>2</td></tr><tr><td>UP3 Sorong</td><td>6</td><td>3</td></tr><tr><td>UP3 Manokwari</td><td>2</td><td>2</td></tr><tr><td>UP3 Biak</td><td>1</td><td>5</td></tr><tr><td>UP3 Merauke</td><td>3</td><td>3</td></tr><tr><td>UP3 Timika</td><td>2</td><td>1</td></tr><tr><td>UP3 Nabire</td><td>2</td><td>9</td></tr><tr><td>UP3 Wamena</td><td>0</td><td>3</td></tr><tr><td>UPPK Papua</td><td>1</td><td>0</td></tr><tr><td>UPPK Papua Barat</td><td>0</td><td>1</td></tr></table> <p>(iv) Brochures (for social aspect) will be part of TG. Hatfield (safeguard firm) is appointed to prepare it and will discuss later with ADB for the work order. The brochure also will be incorporated in the TG.</p> <p>(v) (The draft CoP (prepared by Hatfield) has been discussed with DIV K3L for review. CoP is consist of CoP for Solar PV, CoP for Mini/micro-hydro, and CoP for small biogas. The Safeguard Firm will submit the draft final of CoP at the end of March 2022</p>	UP3 Jayapura	1	2	UP3 Sorong	6	3	UP3 Manokwari	2	2	UP3 Biak	1	5	UP3 Merauke	3	3	UP3 Timika	2	1	UP3 Nabire	2	9	UP3 Wamena	0	3	UPPK Papua	1	0	UPPK Papua Barat	0	1
UP3 Jayapura	1	2																																
UP3 Sorong	6	3																																
UP3 Manokwari	2	2																																
UP3 Biak	1	5																																
UP3 Merauke	3	3																																
UP3 Timika	2	1																																
UP3 Nabire	2	9																																
UP3 Wamena	0	3																																
UPPK Papua	1	0																																
UPPK Papua Barat	0	1																																
14	<p>Strengthen safeguards screening and assessment: (i) screen annual work plans to ensure category A activities for environment, involuntary resettlement and Indigenous Peoples (Customary Communities) are not included in the program; (ii) prepare the UKL/UPL of UIW annual activities and submit to DLH for approval</p> <p>(i) Distribution line, solar PV, mini/micro-hydro, and biogas plant development plans internally screened for environmental safeguards by UIW based on list of villages in key biodiversity areas, and monitored by DIV K3L.</p> <p>(ii) UIW annual workplan is screened and categorized by DLH and Forestry Department</p> <p>(iii) Involuntary resettlement and Indigenous Peoples (Customary Communities) screening and categorization reports prepared by UIW and reviewed by DIV RSD and DIV RMD</p> <p>(iv) UKL/UPL of annual activities prepared in accordance with screening results and submitted to relevant DLH. Executive summaries of UKL/UPL disclosed on PLN website. Full reports made available upon request.</p>	<p>(i) UIW and DIV K3L</p> <p>(ii) UIW and DIV K3L</p> <p>(iii) UIW, DIV RSD and DIV RMD</p> <p>(iv) UIW and DIV K3L</p>	From 2020	<p>To achieve the environmental safeguards PAP, DIV K3L has issued letter No. 8314 / KLH.00.01 / C01060500 / 2021 dated March 12, 2021 regarding information on DLI and PAP targets and guidelines for filling out screening forms.</p> <p>(i) The RBL KMP screening form was revised to simplify the format. In accordance with the previous agreement with ADB and PLN, the document used for the 2021 screening form is the annual activities (workplan) referring to SKAI (budget approved), while the 2022 screening form, the annual workplan will be referred to budget proposal (based on the KKP document). All UIWs have participated in filling out the 2021 screening form. There is no EBT added in 2021, except in UIW PPB. Based on screening forms, there are several workplans that falls into KBA and/or IP area:</p> <p>a. UIW Kalselteng: 6 workplans (81,5 kms) screened as KBA, 2 workplans (9,9 kms) as IP.</p> <p>b. UIW Kaltimra: 4 workpans (1,5 kms) screened as KBA, 2 workplans (21 kms) as IP.</p> <p>c. UIW Kalbar: none</p>																														

				<p>d. UIW MMU: 9 workplans (63,4 kms) screened as KBA, 2 workplans (2 kms) as IP</p> <p>e. UIW PPB: 17 workplans including Solar PVs (35 kms) screened as KBA, 6 workplans (5 kms) as IP.</p> <p>(ii) As of Q4 2021, there are 3 Units that have submitted letters of request for directions for Environmental Documents to the KLHK, namely UIW Kalbar, UIW Kaltimra, and UIW Kalselteng. UIW Kalbar has received directions for the preparation of Environmental Documents on October 5, 2021, UIW Kaltimra on December 21, 2021, and UIW Kalselteng are still waiting for directions. UIW MMU and UIW P2B are preparing the data and documents required for submitting the official letter of request.</p> <p>(iii) partially completed. Of 38 UP3/UP2K units, IR screening was reported by 26 units.</p> <p>(iv) Waiting for the completion of point process (ii)</p>
15	<p>Strengthen meaningful consultation with affected persons including customary communities and vulnerable groups. Improve grievance redress mechanism</p> <p>(i) Vulnerable groups (poor households, customary communities, women, and children/youth) invited to consultations.</p> <p>(ii) Topics of consultations include selection of sites and implications of distribution lines, solar PV, micro-hydro, and biogas plants, cost estimates for electricity connection and installation, procedure of accessing free electricity program to the poor, and awareness on safe usage and economic benefit of electricity.</p> <p>(iii) Consultation records on issues discussed and agreements reached with participants completed with attendance list segregated by gender and customary (indigenous) status.</p>	UIW, UP3, UP2K, DIV RMD and DIV RSD	2020 onwards	<p>The submission of form 6 social safeguards is still incomplete. For Kalimantan, all UIW has submitted form 6 Monitoring Implementasi Safeguard) For UIW Kalbar Unit that has submitted form 6 are:</p> <ul style="list-style-type: none"> - UP2K Kalbar - UP3 Sanggau <p>Action that has been done by DIVRSD :</p> <ol style="list-style-type: none"> (1) Letter to UIW in Kalimantan July 7th, 2021 about information of social safeguard forms (2) Socialization about social safeguard to UIW in Kalimantan 3 times: July 22th 2021, Nov 25th 2021, and February 22th, 2022 (3) Invitation to UIW in Kalimantan to present their social safeguard activity in 2021; done at January 11th, 2022 <p>The reasons contributing to the delays of report :</p> <ul style="list-style-type: none"> - Social safeguard is a new thing handled by DIVRSD. Knowledge transfer from DIVPPT to DIVRSD and DIVRMD done on June/July 2021, so UIW start these activities on Semester 2 2021 - Since it's a new thing for DIVRSD and DIVRMD to guide UIWs the

	(iv) All complaints/grievances and remedial measures recorded and compiled.			<p>implementation of this social safeguard is still a learning process</p> <ul style="list-style-type: none"> - There is no specific Division handle this social safeguard like DIVK3L handle environmental safeguard. DIVRSD and DIVRMD focus to operation and asset management of distribution, so social safeguard is only part of some activities handled by RSD and RMD <p>For UIW Kalbar 57 consultations have been done as reported in form 6 For UIW Kalselteng, 25 consultations have been done as reported in form 6 For UIW Kaltimra, 45 consultations have been done as reported in form 6</p> <p>Screening for IR and IP has been done as the screening form in PAP 14</p> <p>Achievement of PAP 15 :</p> <ol style="list-style-type: none"> 1) As mention above, each UIW in Kalimantan has done consultation to vulnerable group (evidence : in form 6) 2) Topic of consulation : information about the project and the effect that might be happen to community, awareness of safe usage and economic benefit of electicity, procedure to access electricity, information about PLN Mobile 3) As reported in form 6. Evidence of MoM available in google drive. Attendance listed segregated by gender, available in google drive 4) Complain reported in form 7 avalaible in google drive PAP 17. No complaint has been received by all UIW in Kalimantan
16	<p>Improve transparency and fair compensation for negotiated land acquisition and voluntary land donation to ensure that people will maintain the same or better level of income or livelihood</p> <p>(i) Written agreement (private land) for distribution transformers (ii) Written agreement regarding voluntary land donation for construction of micro-hydro and biogas power plants and village-level solar PV from land owners or clan members of customary communities with communal access rights prior to the construction commencement. (iii) Semi-annual verification (sample) by an independent party to ensure that the negotiated land acquisition and voluntary land donation were conducted through proper consultations. Voluntary donation did not severely affect the living standards of affected persons (donor is not poor and</p>	(i), (ii): UIW, UP3, UP2K, DIV RMD and DIV RSD (iii): IVA (iv) UIW, UP3, and UP2K	From 2021	<p>BA submission of land use agreements several UIWs have conveyed (UIW Kalselteng and UIW Kaltimra but have not been separated/calculated for the achievement of 2021 only. UIW Kalselteng and Kaltimra took care of licensing land use agreements for all existing transformers, not only in 2021. This is because Dirregsumkal once instructed to UIW to take care of licensing land use agreements according to Book 4).</p> <p>(i) Written agreement for distribution transformer -Status per UIW</p> <ol style="list-style-type: none"> a. UIW Kalbar <ul style="list-style-type: none"> - Number of installed distribution transformer : 37 (Land owner : 13). - Number of written agreement from land owner : 13 b. UIW Kaltimra <ul style="list-style-type: none"> - Number of installed distribution transformer : 253 (land owner : 98, communal 8)

	<p>does not lose more than 5% of total land owned; donated land is not ancestral land and in sacred areas).</p> <p>(iv) Proper mitigation (compensation for lost non-land assets or income and income restoration program) for land users affected by the program.</p>			<p>- Number of written agreement : 68</p> <p>c. UIW Maluku & Maluku Utara have submitted written agreements that have been carried out during 2021. During semester 1 2021 there are 1 written agreement each in UP3 Tual, UP3 Ambon, UP2K Maluku and UP3 Saumlaki. While during semester 2 2021 there is 1 written agreement in UP2K Maluku and 2 written agreements in UP3 Saumlaki</p> <p>(ii) Written agreement regarding voluntary land donation for construction of micro-hydro and biogas power plants and village-level solar PV from land owners</p> <p>-Status per UIW</p> <p>a. For Kalimantan there is no construction of micro hydro and biogas power plant and village level solar PV</p> <p>b. For Kalimantan there is no land acquisition and donation</p> <p>c. For Kalimantan There is no land acquisition/purchasing</p>
17	<p>Monitor and report on compliance with safeguards program actions and program impacts on income/ livelihoods of affected households. Prepare and implement corrective actions if adverse impacts on income/livelihood are identified</p> <p>(i) Q2 and Q4 RBL implementation reports submitted to ADB include consolidated results of safeguards screening and safeguards program actions.</p> <p>(ii) Impacts of program activities on the income / livelihood of affected persons monitored by DIV PPT through review of complaint handling and compensation records. Corrective actions implemented and documented if adverse impacts on income/livelihood are identified.</p> <p>(iii) Assessment of whether customary communities' access to electricity has increased by the Mid Term Review and end of the Program.</p>	DIV K3L, DIV RSD, and DIV RMD	From 2021	<p>For the complaint form (form 7) consultation to individuals/groups/public in semester 2 of 2021 has been recapitulated by UIW West Kalimantan, for other UIWs it is still in the recapitulation</p> <p>(i) Result of safeguard screening and safeguard program action has been Included in PLN report as written in achievement per indicator (PAP)</p> <p>(ii) For Kalimantan, all UIW has submitted form 7 Monitor Dampak Sosial Ekonomi and no effect has been founded/happened so there is no corrective action need to be reviewed by DIVRSD</p> <p>There is no compensation given by UIW Kalimantan for the distribution line and there is no EBT project in Kalimantan</p> <p>(iii) PLN UIW at KMP has confirmed data on the number of PLN electricity customers in customary villages through the reference data "List IP 2021".</p>

PAP 9. High Level Summary of Key Internal Initiatives and Their Impacts Included In The 2nd Quarter and Annual RBL Progress Reports

Date of Report	14 January 2022	For Period Ended	6 months to 31 st December 2021
Version	1.0	Update	1 st Update

No	Sub Initiative Number	Sub Initiative Name	Description	Start Date	End Date	Status (based on Wave)	Expected Costs / Benefits	Actual Cost / Benefits
1	5744	GAS PIPE REDUCED AND OPTIMIZE TANGGUH LNG CONSUMPTION	Optimizing existing pipeline gas by replacing it with LNG supply from Tangguh	01/08/2020	15/12/2021	Cancelled	Note: IO's directive that the Sub-Initiative (SI) is no longer relevant due to the condition of primary energy, especially coal, so that piped gas cannot be optimized and is instead used optimally. BL agrees that the SI can be canceled in the wave	-
2	1108	Fiber Optics Rollout: Create and Run a Marketing and Sales Program - 2024	Develop and run the Marketing and Sales of Fiber Optic Program in stages until 2024	20/08/2020	31/12/2024	On track	Expected revenue Rp12.6T (2024)	Saving start in 2024
3	504	Completion of Transmission and GI Project at UIP JBT - Java North Line	Completed the transmission and substation (GI) project in central Java so that it can distribute energy from cheaper generators	01/01/2020	30/09/2021	Executed	Expected savings of Rp280B (2022), Rp 1.68T (2023), Rp 2.42T (2024) L4 Executed 10 Sept 2021	Saving start in 2022

No	Sub Initiative Number	Sub Initiative Name	Description	Start Date	End Date	Status (based on Wave)	Expected Costs / Benefits	Actual Cost / Benefits
4	500	Completion of Transmission and GI Project at UIP JBB	Completed the transmission and substation (GI) project in western Java so that it can distribute energy from cheaper generators	01/01/2020	01/12/2022	On track	Expected savings of Rp280B (2022), Rp 1.68B (2023), Rp 2.42T (2024)	- Progress of land acquisition and engineering for SUTET Priok-Muara Tawar - Foundation progress in 4 foundation towers for SUTET Muarakarang-Duri Kosambi
5	496	Optimization of reactive power through the installation of capacitors in the JBT Area	Efforts to maintain the voltage at normal conditions in order to be able to distribute energy from cheaper generators through the installation of capacitors in the GI	01/01/2020	01/12/2021	Executed	From 2021 savings of Rp 856B per year is expected	Saving in 2021 Rp16B
6	505	Completion of Transmission and GI Project at UIP JBTB	Completed transmission and substation (GI) projects in eastern Java and Bali so that they can distribute energy from cheaper generators.	01/12/2021	01/12/2024	On track	Expected savings Rp900B (2023), Rp 2.3T (2024)	Saving start in 2023

No	Sub Initiative Number	Sub Initiative Name	Description	Start Date	End Date	Status (based on Wave)	Expected Costs / Benefits	Actual Cost / Benefits
7	898	Optimization of regasification costs on new West Java FSRU contracts	Optimizing the new West Java FSRU contract to replace the existing contract which will expire in 2022	01/10/2019	31/12/2022	On track	Savings of Rp 1.24T in year 2023 and 2024 is expected	- Progress awaits BOD decision - Saving start in 2023
8	4	[QW2021] Improving O&M in network maintenance	Improve Operation and Maintenance Management on network maintenance to reduce the risk of disruption	01/06/2020	31/12/2022	Executed	-	-
9	468	Scale Up EAM Distribusi di Jawa-Bali	Implementing the Enterprise Asset Management (EAM) Program in the distribution sector in Java and Bali to reduce disruption	01/05/2019	15/12/2021	Executed	Expected savings of Rp 8.16B (2021) L4 Executed 9 Sept 2021	Get saving of Rp72.5B
10	2459	[QW 20] Reducing PJBB Coal Transportation Costs through Negotiations	Negotiating Existing Coal Contracts to obtain more efficient transportation costs	01/01/2020	15/10/2020	Executed	Expected savings of Rp 56B (2021)	Get saving of Rp45.7B
11	4864	Development of Icon Cash e-money	Development of an electronic wallet (e-wallet) platform to generate additional revenue for PLN	21/09/2020	30/06/2022	On track	Expected revenue of Rp7.1B (2021), Rp9.6B (2022), Rp12.9B (2023), Rp 17.1B (2024)	-

No	Sub Initiative Number	Sub Initiative Name	Description	Start Date	End Date	Status (based on Wave)	Expected Costs / Benefits	Actual Cost / Benefits
12	1141	[QW 20] Coal Switching – PJB	Program to reduce the calorific value of coal from Medium Rank Coal (MRC) to Low Rank Coal (LRC) to reduce the cost of supply (BPP) of coal at PLTU Indramayu, PLTU Rembang, PLTU Pacitan and PLTU Tanjung Awar Awar	11/05/2020	30/11/2020	Executed	From 2021 expected savings of Rp 155B, Rp 145B, Rp138B, Rp136B respectively	Saving in 2021 Rp19B
13	5213	Roll out AA for EE 2021 - Java (Brantas, Pacitan, Rembang)	Implement advanced analytics to improve energy efficiency at PLTU Brantas, Pacitan, and Rembang.	01/01/2021	31/12/2021	Executed	Savings of Rp 105.3B per year from 2022 is expected	Saving start in 2022
14	487	Captive Power: Hot prospect - engage and win power supply with PT ITP (50 MW)	Efforts to increase sales to PT ITP's captive power owners	20/05/2018	31/12/2020	Executed	Expected revenue of Rp148B (2022), Rp197.3B (2023-2024)	Saving start in 2022
15	1106	[KPI] Create and Run a Marketing and Sales Program - 2022	Perform end-to-end customer acquisition activities	20/08/2020	30/11/2022	On Track	Expected revenue of Rp1.32T (2022)	Saving start in 2022
16	7931	Possible prospects - oil and gas Pertamina MoU RU VI Balongan	Efforts to negotiate and enter into contracts with Captive Pertamina RU VI Balongan customers	11/01/2021	30/06/2022	On Track	Expected revenue of Rp59.2B (2022), Rp236.8B (2023), Rp236.8B (2024)	Proses SPJBTL Saving start in 2022

No	Sub Initiative Number	Sub Initiative Name	Description	Start Date	End Date	Status (based on Wave)	Expected Costs / Benefits	Actual Cost / Benefits
17	12866	Captive prospect - Mining/Smelter: PT Stargate Mineral Asia (200 MVA)	Efforts to negotiate and enter into contracts with Captive customers PT Stargate Mineral Asia	12/11/2021	17/06/2022	On Track	Expected revenue of Rp29.9B (2023) and Rp358.8B (2024)	Saving start in 2023
18	497	Optimization of reactive power through the installation of capacitors in the JBTMB region	Optimizing Dispatch in the JBTMB area	8/08/2020	1/12/2024	On Track	Expected revenue of Rp161.1B (2023) and Rp161.1B (2024)	Saving start in 2023
19	509	Completion of the Transmission and GI Project at UIK SBS - South Sumatra-Lampung Reinforcement and PLTP Rantau Dadap Evacuation	Completed the transmission and substation (GI) project in Southern Sumatra so that it can distribute energy from cheaper generators	8/08/2020	1/12/2024	On Track	Expected savings Rp40B (2023), Rp 261B (2024)	Saving start in 2023