



## Power Distribution Development Program-for-Results (P154805)

EAST ASIA AND PACIFIC | Indonesia | Energy & Extractives Global Practice | Requesting Unit: EACIF | Responsible Unit: GEE02  
IBRD/IDA | Program-for-Results Financing | FY 2016 | Team Leader(s): Stephan Claude Frederic Garnier, Tendai Gregan

Seq No: 6 | ARCHIVED on 17-May-2019 | ISR36326 | Created by: Tendai Gregan on 13-Mar-2019 | Modified by: Stephan Claude Frederic Garnier on 09-May-2019

### Program Development Objectives

Program Development Objective (from Program Appraisal Document)

The Project's development objective is to increase access to electricity services and to improve the efficiency and reliability of their delivery in selected areas of Indonesia.

### Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	● Satisfactory	● Satisfactory
Overall Implementation Progress (IP)	● Satisfactory	● Satisfactory

### Implementation Status and Key Decisions

Implementation Status of the Project remains Satisfactory, with overall physical installations already exceeding targets. Minor restructuring to maintain the pace of investment (as requested by PLN) has been approved by the Bank. Project is well on-track to close with a Satisfactory Status.

### Data on Financial Performance

#### Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P154805	IBRD-86100	Effective	USD	500.00	500.00	0.00	337.57	162.43	68%

#### Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P154805	IBRD-86100	Effective	22-Apr-2016	20-May-2016	18-Nov-2016	30-Apr-2020	30-Apr-2020

### Program Action Plan

Action Description
Provision of planning software with GIS capability and corporate license



Source	DLI#	Responsibility	Timing	Timing Value	Status
Technical		Client	Due Date	31-Dec-2016	Completed
<b>Completion Measurement</b>	New planning software with GIS capability used in at least one Wilayah				
<b>Comments</b>	Following the acquisition of the corporate license for the distribution planning software package (PSS Sincal), PLN has already completed the training of about half of the planners and expect the other half to be trained by the end of December.				

<b>Action Description</b>					
Source	DLI#	Responsibility	Timing	Timing Value	Status
Application of planning software for distribution investment					
Technical		Client	Due Date	29-Dec-2017	In Progress
<b>Completion Measurement</b>	Application of planning software in at least one Wilayah				
<b>Comments</b>	First applications of planning software for distribution investment was expected by the end of 2018 - but the mission and IVA have not been able to verify if this has been done..				

<b>Action Description</b>					
Source	DLI#	Responsibility	Timing	Timing Value	Status
Improving application of GIS data base in at least 5 feeders					
Technical		Client	Due Date	31-Dec-2018	In Progress
<b>Completion Measurement</b>	Application of planning software in at least one Wilayah				
<b>Comments</b>	The mission and IVA have not been able to verify if this action has been completed.				

<b>Action Description</b>					
Source	DLI#	Responsibility	Timing	Timing Value	Status
Increasing number of skilled and certified systems planners					
Technical		Client	Due Date	31-Dec-2019	In Progress
<b>Completion Measurement</b>	PLN staffed certified increased at 95% at the end of 2019				
<b>Comments</b>	80% of staff certified as of September 2018				

<b>Action Description</b>					
Source	DLI#	Responsibility	Timing	Timing Value	Status
Review options for loss computations by using alternative methodologies e.g. load flow based calculations and simplified spreadsheet methods					



Technical		Client	Due Date	30-Jun-2019	In Progress
<b>Completion Measurement</b>	New methodology applied for loss computations (using new planning software)				
<b>Comments</b>	Improvements and correct loss computations should be made once the new planning software (PSS SINICAL) is installed. The mission agreed to start in a pilot Wilayah (Bangka Bilitung)				

<b>Action Description</b>	Review and updating power distribution planning criteria				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Technical		Client	Due Date	29-Nov-2019	In Progress
<b>Completion Measurement</b>	New power distribution planning guidelines approved				
<b>Comments</b>	Focus Group Discussion took place on December 17, 2018 and TOR extensively discussed. (New planning guidelines approved and operational in 2019). Due date revised.				

<b>Action Description</b>	Identification study of (distribution control upgrades) upgrades needed				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Technical		Client	Due Date	30-Dec-2016	Completed
<b>Completion Measurement</b>	Identification study completed				
<b>Comments</b>					

<b>Action Description</b>	Engineering design of distribution control centers upgrades				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Technical		Client	Due Date	29-Jun-2018	Completed
<b>Completion Measurement</b>	Engineering design of distribution control centers upgrades completed				
<b>Comments</b>	Specification and bidding documents submitted to the Bank for review in June 2018.				

<b>Action Description</b>	Implementation of distribution control centers upgrades				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Technical		Client	Due Date	31-Dec-2019	In Progress



<b>Completion Measurement</b>	At least one DCC upgraded
<b>Comments</b>	On track

<b>Action Description</b>	Post procurement regulations on PLN's website				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Due Date	30-Jun-2016	Completed
<b>Completion Measurement</b>	Post procurement regulations on PLN's website				
<b>Comments</b>					

<b>Action Description</b>	Implementation of upgraded e-procurement system and announcement of award details through e-procurement as per PLN regulations				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				
<b>Comments</b>					

<b>Action Description</b>	Restrict open book method for less than 3 suppliers in DPT (qualified suppliers in DPT) for Main distribution items (MDUs). No additional items beyond the existing 16 MDU items to be procured using open book method under this Program				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				
<b>Comments</b>	Concern remains over the continued trends in the Wilayahs over the high number and value of Direct Procurements.				

<b>Action Description</b>	No direct procurement/direct appointment of SOEs and/or PLN's subsidiaries/joint ventures/affiliates under this Program				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress



<b>Completion Measurement</b>	Continuous
<b>Comments</b>	Action applied

<b>Action Description</b>	No direct procurement or direct appointment of small or micro industries under this Program for contracts above IDR300 million				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				
<b>Comments</b>	Fulfilled				

<b>Action Description</b>	Conduct assessment of local manufacturing capacity for MDU items				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Environmental and Social Systems		Client	Due Date	30-Sep-2016	Completed
<b>Completion Measurement</b>	Assessment completed				
<b>Comments</b>					

<b>Action Description</b>	Improve accountability/credibility of SPKK reporting by integrating Division Head Sumatra's validation of KPIs as reported by the Wilayahs (prior to SPKK reporting)				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				
<b>Comments</b>	Partially fulfilled				

<b>Action Description</b>	Procurement audits by SPI of 15 percent of contracts awarded by each procuring unit under the Program to be shared with the Bank				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				



<b>Comments</b>	Fulfilled
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<b>Action Description</b>	No contract awards to firms and individuals on PLN's sanctions list and/or on the Bank's debarred/temporary suspension lists - upload PLN's black list onto website and electronic portal as per PLN regulation 166/2012				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				
<b>Comments</b>	Fulfilled				

<b>Action Description</b>	Integrate budgeting with ERP for Wilayahs participating in the Program				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Due Date	31-Dec-2018	Completed
<b>Completion Measurement</b>	Integration completed				
<b>Comments</b>					

<b>Action Description</b>	Roadmap to strengthen existing whistleblower regulations and system, including guarantees to protect whistle blowers				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Technical		Client	Due Date	30-Sep-2016	Completed
<b>Completion Measurement</b>	Roadmap completed				
<b>Comments</b>					

<b>Action Description</b>	Develop procurement performance monitoring framework and report performance as per the framework				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Fiduciary Systems		Client	Due Date	30-Jun-2016	Completed
<b>Completion Measurement</b>	Framework completed and reporting done according to framework				
<b>Comments</b>					



<b>Action Description</b>	Undertake environmental and social monitoring and training in environmental health and safety standards for PLN and its contractors				
<b>Source</b>	<b>DLI#</b>	<b>Responsibility</b>	<b>Timing</b>	<b>Timing Value</b>	<b>Status</b>
Environmental and Social Systems		Client	Recurrent	Continuous	In Progress
<b>Completion Measurement</b>	Continuous				
<b>Comments</b>	Fulfilled				

## Risks

### Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	--	● Moderate	● Moderate
Macroeconomic	--	● Moderate	● Moderate
Sector Strategies and Policies	--	● Moderate	● Moderate
Technical Design of Project or Program	--	● Moderate	● Moderate
Institutional Capacity for Implementation and Sustainability	--	● Moderate	● Moderate
Fiduciary	--	● Substantial	● Substantial
Environment and Social	--	● Moderate	● Moderate
Stakeholders	--	● Moderate	● Moderate
Other	--	--	--
Overall	--	● Substantial	● Substantial

Comments  
No change in the risk rating.

## Results

### PDO Indicators by Objectives / Outcomes

Increase access to Electricity Services			
▶ People provided with access to electricity by household connections (Number, Corporate)			
Baseline	Actual (Previous)	Actual (Current)	End Target



Value	11,180.00	12,530.00	14,182,559.00	14,410.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments				

#### Electricity losses per year in the project area

##### ► Electricity losses per year in the project area (Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	11.92	13.10	13.08	10.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments	The team has started discussion with PLN on the likelihood to meet the target by the end of the Project. This will be further discussed in next Aide memoire and ISR.			

#### Improve reliability in the Project area

##### ► System average interruption duration index (SAIDI) in minutes per customer year (Minutes, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	1,989.00	1,614.39	1,568.00	1,650.00
Date	01-Jan-2018	29-Sep-2017	31-Dec-2018	31-Dec-2019
Comments				

##### ► System average interruptions frequency index (interruptions per customer per year) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	17.81	14.39	13.89	15.50
Date	01-Jan-2018	29-Sep-2017	31-Dec-2018	31-Dec-2019
Comments				

### Intermediate Results Indicators by Results Areas

Improved Access to electricity				
► Annual work plans approved (on time) (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	01-Jan-2015	12-Jul-2018	09-May-2019	31-Dec-2019





Comments				
▶Percentage of planned capital expenditures realized (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	82.00	82.00	82.50	85.00
Date	31-Dec-2014	31-Mar-2018	31-Dec-2018	31-Dec-2019
Comments				
▶Distribution lines constructed or rehabilitated under the project (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	92,716.00	104,826.00	110,521.00	106,228.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments	Note that the numbers of kilometers of distribution lines constructed or rehabilitated under the project, are the difference of kilometers to date minus the baseline number of kilometers.			
▲Distribution lines constructed under the project (Kilometers, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	92,716.00	104,826.00	110,521.00	106,228.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019

Improved quality of service				
▶Number of MV feeder technical interruptions per 100 km (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	21.22	16.35	15.45	16.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments				

Increased efficiency				
▶Number of distribution transformer units added (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	80,130.00	95,509.00	105,562.00	98,338.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments	Number of transformers added is the difference between the actual number of transformers in the grid to date minus the baseline number of transformers.			



► Increase in distribution transformer capacity (MVA) (Kilovolt-Amphere(KVA), Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	7,981,000.00	9,500,000.00	9,899,200.00	9,880,000.00
Date	01-Jan-2015	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments				

Improved power consumption by residential customers				
► Increased volume in power sales to residential customers (GWh) (Gigawatt-hour (GWh), Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	15,850.00	17,371.00	18,023.00	18,453.00
Date	31-Dec-2014	31-Dec-2017	31-Dec-2018	31-Dec-2019
Comments	Increased volume in power sales to residential customers (GWh) is the difference between the actual value and the baseline value.			

Institutional strengthening and capacity building				
► PLN collaborated with development partners in the hiring of an independent verification agent (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	01-Jan-2015	26-Jun-2018	08-Jan-2019	31-Dec-2019
Comments				
► Integrate budgeting with ERP in participating Wilayahs (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	Yes	Yes
Date	01-Jan-2015	30-Apr-2018	08-Jan-2019	31-Dec-2019
Comments				
► Issue revised distribution planning guidelines acceptable to the Bank (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes



Date	01-Jan-2015	26-Jun-2018	08-Jan-2019	31-Dec-2019
Comments				
▶ Integrate distribution planning software with GIS facilities (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	Yes	Yes
Date	01-Jan-2015	26-Jun-2018	08-Jan-2019	31-Dec-2019
Comments				
▶ Conduct procurement audits for at least 15% of contracts issued by each procuring unit and share results with the Bank (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	01-Jan-2015	26-Jun-2018	08-Jan-2019	31-Dec-2019
Comments				

### Disbursement Linked Indicators

▶ DLI 1 Number of new Residential (Household) customers connected (Outcome, 155,556,000.00, 81%)				
	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	11,180.00	--	14,182.56	12,857.00
Date	01-Jan-2015	--	31-Dec-2018	--
<p>Current value is verified by the IVA (report of September 2018 - results as of June 2018).</p> <p>The value at closing has to be revised for two reasons: (1) the value in the system has been miscalculated and does not reflect the PAD (Bank Disbursement Table) nor the Legal Agreement (Schedule 4 – Disbursement-Linked Results) – correct calculation described below; and (2) to reflect the addition of USD 10 million for this DLI following the proposed reallocation.</p> <p><u>1. Calculation of end-target:</u>            Baseline (number of customers): 11,180,000            Additional customers targeted for initial Bank Financing (USD145.56 million): 1,569,000            End-target before reallocation (original Project): 11,180,000+1,569,000=12,749,000</p> <p><u>2. After reallocation of proceeds</u>            Additional customers from the additional USD10 million: 108,000            End-target after reallocation (revised Project): 12,749,000+108,000=<b>12,857,000</b></p>				
Comments				

▶ DLI 2 Additional Length of MV distribution lines (Intermediate Outcome, 75,000,000.00, 73%)				
	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	92,716.00	--	110,521.00	106,228.00



Date	01-Jan-2015	--	31-Dec-2018	--
Comments	<p>Based on IVA report as of June 30, 2018 The value at closing has to be revised for two reasons: (1) the value in the system has been miscalculated and does not reflect the PAD (Bank Disbursement Table) nor the Legal Agreement (Schedule 4 – Disbursement-Linked Results); and (2) to reflect the addition of USD 20 million for this DLI following the proposed reallocation.</p> <p><u>1. Calculation of end-target:</u> Baseline (length of MV distribution lines): 92,716 Additional length targeted for initial Bank Financing (USD55 million): 9,909 End-target before reallocation (original Project): 102,625</p> <p><u>2. After reallocation of proceeds</u> Additional length targeted from the additional USD 20 million: 3,603 End-target after reallocation (revised Project): 106,228</p>			

<b>►DLI 3 Number of MV feeder technical interruptions per 100 kilometers (Outcome, 60,000,000.00, 71%)</b>				
	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	21.22	--	15.42	16.00
Date	01-Jan-2015	--	31-Dec-2018	--
Comments	Value for entire year 2018. Based on PLN data - still to be confirmed by IVA report			

<b>►DLI 4 Additional distribution transformer units (Intermediate Outcome, 85,560,000.00, 77%)</b>				
	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	80,130.00	--	105,562.00	98,338.00
Date	01-Jan-2015	--	31-Dec-2018	--
Comments	Target at closing has been revised to reflect the additional USD 20 million reallocated to this DLI			

<b>►DLI 5 Growth in residential energy sales (Outcome, 55,550,000.00, 59%)</b>				
	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	15,850.00	--	18,023.00	18,433.00
Date	01-Jan-2015	--	31-Dec-2018	--
Comments	DLI has been revised to take into account lower than originally anticipated growth in electricity demand. the allocation for this DLI has been in parallel reduced by USD 50 million (reallocated to DLI 1, 2 and 4)			

<b>►DLI 6 FY 2016 Annual Work Plan approved (Process, 15,000,000.00, 100%)</b>				
	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	No	Yes	Yes	Yes



Date	01-Jan-2015	31-Dec-2017	19-Oct-2017	--
<b>Comments</b>				

►DLI 7 PLN has collaborated with development partners in the recruitment of an independent verification agent (Process, 1,000,000.00, 100%)

	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	No	Yes	Yes	Yes
Date	01-Jan-2015	30-Jun-2017	08-Jan-2019	--
<b>Comments</b>				

►DLI 8 Integrate budgeting with ERP in all Program Wilayahs (Intermediate Outcome, 19,000,000.00, 0%)

	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	No	No	Yes	Yes
Date	01-Jan-2015	31-Dec-2017	08-Jan-2019	--
<b>Comments</b>				

►DLI 9 Issue revised planning guidelines acceptable to the Bank (Intermediate Outcome, 25,000,000.00, 0%)

	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	No	No	No	Yes
Date	01-Jan-2015	30-Jun-2017	08-Jan-2019	--
<b>Comments</b>				

►DLI 10 Integrate of planning software with GIS facilities (Output, 8,330,000.00, 0%)

	Baseline	Actual (Previous)	Actual (Current)	Project closing
Value	No	No	No	Yes
Date	01-Jan-2015	31-Dec-2017	08-Jan-2019	--
<b>Comments</b>				