

## Angola - Electricity Sector Improvement and Access Project (P166805)

EASTERN AND SOUTHERN AFRICA | Angola | Energy & Extractives Global Practice | IBRD/IDA | Investment Project Financing | FY 2021 | Seq No: 5 | ARCHIVED on 29-Jun-2023 | ISR56712 |

Implementing Agencies: Empresa Nacional de Distribuicao de Electricidade - ENDE, Empresa Publica de Producao de Electricidade - PRODEL, Instituto Regulador dos Serviços de Electricidade e de Águas, Ministerio da Energia e Aguas, Rede Nacional de Transporte de Electricidade - RNT, Republic of Angola

## Key Dates

### **Key Project Dates**

Bank Approval Date: 18-Feb-2021 Planned Mid Term Review Date: 16-Nov-2023

Effectiveness Date: 25-Feb-2022 Actual Mid-Term Review Date: Revised Closing Date: 30-Sep-2026

# **Project Development Objectives**

Original Closing Date: 30-Sep-2026

Project Development Objective (from Project Appraisal Document)

The Project Development Objective is to improve the operational performance of the electricity sector utilities and increase electricity access in selected cities in the Republic of Angola.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

# No

#### **Components** Table

#### Name

Electricity access expansion and improvement of revenue collection:(Cost \$250.00 M) Electricity service improvement:(Cost \$124.00 M) Improvement of PRODEL's capacity and strengthening sustainable management of generation plants:(Cost \$28.00 M) Project management support:(Cost \$15.00 M) Contingent emergency response

#### **Overall Ratings**

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	Moderately Satisfactory	Moderately Unsatisfactory
Overall Implementation Progress (IP)	Moderately Unsatisfactory	Moderately Unsatisfactory
Overall Risk Rating	Substantial	Substantial

#### Implementation Status and Key Decisions

The project was approved by the World Bank Board of Directors on February 18, 2021. The project was declared effective on February 25, 2022. Implementation is underway albeit with delays. The project is on track to meet the development objectives but will need to pick up implementation pace.



## Risks

# Systematic Operations Risk-rating Tool

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

# Results

# PDO Indicators by Objectives / Outcomes

Improving the operational performance of the electricity sector								
► Reduction of total system lo	osses (Percentage, Custom	)						
	Baseline	Actual (Previous)	Actual (Current)	End Target				
Value	39.00	39.00	39.00	29.00				
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026				
Comments: This indicator measures the difference between the energy injected in the national grid and the energy sold to the end customer. Given the grid energy mix, reduced system losses will result in reduced carbon dioxide emissions. The RPP for ENDE (component 1) is expected to have a positive impact on this indicator.								
► Reduction of duration of outages at the transmission system level, SAIDI (Minutes, Custom)								
	Baseline	Actual (Previous)	Actual (Current)	End Target				
Value	483.00	483.00	483.00	230.00				



Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026			
comments:	This indicator measures the average outage duration per customer (minutes/year). The SCADA for RNT (component 2) is expected to have a positive impact on this indicator.						
crease electricity a	ccess in selected cities in Angola						
People provided w	vith new or improved electricity ser	vice (Number, Corporate)					
	Baseline	Actual (Previous)	Actual (Current)	End Target			
/alue	0.00	0.00	0.00	1,002,150.00			
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026			
□People provided	with new or improved electricity se	ervice - Female (Number, Corpo	prate Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target			
Value	0.00	0.00	0.00	521,118.00			
□People provided	with access to electricity under the	e project by household connecti	ons (grid or off-grid). (Numl	oer, Corporate Breakdown			
	Baseline	Actual (Previous)	Actual (Current)	End Target			
Value	0.00	0.00	0.00	196,500.00			
Date	16-Jul-2020	16-Dec-2022	23-Jun-2023	16-Jul-2025			

# Intermediate Results Indicators by Components

Electricity access expansion and improvement of revenue collection							
Distribution lines constructed or rehabilitated under the project (Kilometers, Custom)							
	Baseline	Actual (Previous)	Actual (Current)	End Target			
Value	0.00	0.00	0.00	4,800.00			
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026			
Comments:	This indicator measu	ures the km of distribution lines	constructed or rehabilitated	d under component 1.1.			
Medium and low voltage transformers constructed under the project (Number, Custom)							
Medium and low volta	age transformers constructed ur	der the project (Number, Custo	m)				
Medium and low volta	age transformers constructed ur Baseline	der the project (Number, Custo Actual (Previous)	m) Actual (Current)	End Target			
Medium and low volta Value	-			End Target 730.00			



Comments:		sures the number of medium and	d low voltage transformers	constructed under					
	component 1.1.	component 1.1.							
Smart meters install	ed to customers under a revenu	e protection program (Number,	Custom)						
	Baseline	Actual (Previous)	Actual (Current)	End Target					
Value	0.00	0.00	0.00	15,000.00					
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026					
Comments:	This indicator measured	sures the number of smart meter	rs installed under compone	nt 1.2.					
Female-headed hou	seholds provided with new or in	nproved electricity services (Pere	centage, Custom)						
	Baseline	Actual (Previous)	Actual (Current)	End Target					
Value	0.00	0.00	0.00	22.00					
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026					
Comments:	electricity services.	the percentage of female-heade According to World Bank data, ound 22 percent female-headed	Angola has 34.5 percent of	female-headed					
		ank.org/indicator/SP.HOU.FEMA							
	https://data.worldba	ank.org/indicator/SP.HOU.FEMA	.ZS						
►PCU published repo	https://data.worldba		.ZS						
► PCU published repo	https://data.worldba	ank.org/indicator/SP.HOU.FEMA	.ZS	End Target					
	https://data.worldba rts on beneficiary feedback, inc	ank.org/indicator/SP.HOU.FEMA	a (Yes/No, Custom)						
Value	https://data.worldba rts on beneficiary feedback, inc Baseline	ank.org/indicator/SP.HOU.FEMA luding gender disaggregated dat Actual (Previous)	a (Yes/No, Custom) Actual (Current)	End Target					
Value Date	https://data.worldba rts on beneficiary feedback, inc Baseline No 18-Feb-2021	ank.org/indicator/SP.HOU.FEMA luding gender disaggregated dat Actual (Previous) No 16-Dec-2022 I reports on beneficiary feedback	A.ZS (Yes/No, Custom) Actual (Current) No 23-Jun-2023	End Target Yes 30-Sep-2026					
► PCU published repo Value Date Comments:	https://data.worldba rts on beneficiary feedback, inc Baseline No 18-Feb-2021 PCU has published been incorporated	ank.org/indicator/SP.HOU.FEMA luding gender disaggregated dat Actual (Previous) No 16-Dec-2022 I reports on beneficiary feedback	A.ZS (Yes/No, Custom) Actual (Current) No 23-Jun-2023	End Target Yes 30-Sep-2026					
Value Date Comments:	https://data.worldba rts on beneficiary feedback, inc Baseline No 18-Feb-2021 PCU has published been incorporated	ank.org/indicator/SP.HOU.FEMA luding gender disaggregated dat Actual (Previous) No 16-Dec-2022 I reports on beneficiary feedback	A.ZS (Yes/No, Custom) Actual (Current) No 23-Jun-2023	End Target Yes 30-Sep-2026					
Value Date Comments: Electricity service impro	https://data.worldba rts on beneficiary feedback, inc Baseline No 18-Feb-2021 PCU has published been incorporated	ank.org/indicator/SP.HOU.FEMA luding gender disaggregated dat Actual (Previous) No 16-Dec-2022 I reports on beneficiary feedback	A.ZS a (Yes/No, Custom) Actual (Current) No 23-Jun-2023 k, including gender disaggre	End Target Yes 30-Sep-2026					
Value Date Comments: Electricity service impro	https://data.worldba rts on beneficiary feedback, inc Baseline No 18-Feb-2021 PCU has published been incorporated	ank.org/indicator/SP.HOU.FEMA luding gender disaggregated dat Actual (Previous) No 16-Dec-2022 I reports on beneficiary feedback into the project.	A.ZS a (Yes/No, Custom) Actual (Current) No 23-Jun-2023 k, including gender disaggre	End Target Yes 30-Sep-2026					

Comments:

► Increase in installed capacity in transmission substations (Number, Custom)

18-Feb-2021

Baseline	Actual (Previous)	Actual (Current)	End Target	

This indicator measures the installaton and commissionning of the SCADA system under component 2.

23-Jun-2023

16-Dec-2022

Date

30-Sep-2026



	0.00	0.00	0.00	160.00					
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026					
Comments:		This indicators measures the increase in installed capacity in transmission substations in MVA as a result of the upgrading interventions under component 2.							
Transmission substa	ations upgraded under the project	ct (Number, Custom)							
	Baseline	Actual (Previous)	Actual (Current)	End Target					
Value	0.00	0.00	0.00	2.00					
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026					
Comments:	This indicator meas	ures the number of transmissio	n substations upgraded und	der component 2.					
<ul> <li>Business processes</li> <li>Custom)</li> </ul>	s reengineering and upgrades of	existing information systems for	r management of corporate	e resources (Yes/No,					
	Baseline	Actual (Previous)	Actual (Current)	End Target					
Value	No	No	No	Yes					
Dete		10 Dec 2022	23-Jun-2023	30 Sep 2026					
Date	18-Feb-2021	18-Feb-2021       16-Dec-2022       23-Jun-2023       30-Sep-2026         This indicator measures the implementation of business process reengineering and upgrades of the							
Comments:	This indicator meas systems as certified	I by an Independent Verification	ness process reengineerin Agency (IVA).	-					
Comments:	This indicator meas systems as certified PEL's capacity and strengthening	ures the implementation of bus I by an Independent Verification sustainable management of ge	ness process reengineering Agency (IVA). neration plants	g and upgrades of the					
Comments:	This indicator meas systems as certified PEL's capacity and strengthening	ures the implementation of bus I by an Independent Verification sustainable management of ge	ness process reengineerin Agency (IVA).	-					
Comments: mprovement of PROD ► Upgrade of PRODE	This indicator meas systems as certified PEL's capacity and strengthening	sures the implementation of bus by an Independent Verification sustainable management of ge	ness process reengineering Agency (IVA). neration plants	g and upgrades of the					
Comments: mprovement of PROD Upgrade of PRODE Value	This indicator meas systems as certified PEL's capacity and strengthening L's ERP completed (Yes/No, Cus Baseline	sures the implementation of bus by an Independent Verification sustainable management of ge stom) Actual (Previous)	Agency (IVA).	g and upgrades of the End Target					
Comments: mprovement of PROD ► Upgrade of PRODE Value Date	This indicator meas systems as certified PEL's capacity and strengthening CL's ERP completed (Yes/No, Cus Baseline No 18-Feb-2021	sures the implementation of bus I by an Independent Verification sustainable management of ge stom) Actual (Previous) No 16-Dec-2022 sures the the implementation of	iness process reengineering Agency (IVA). neration plants Actual (Current) No 23-Jun-2023	g and upgrades of the End Target Yes 30-Sep-2026					
► Upgrade of PRODE Value Date Comments:	This indicator meas systems as certified PEL's capacity and strengthening CL's ERP completed (Yes/No, Cus Baseline No 18-Feb-2021 This indicator meas	sures the implementation of bus d by an Independent Verification sustainable management of ge stom) Actual (Previous) No 16-Dec-2022 sures the the implementation of (A.	iness process reengineering Agency (IVA). neration plants Actual (Current) No 23-Jun-2023 the upgrades of ERP "MINI	g and upgrades of the End Target Yes 30-Sep-2026					
Comments: mprovement of PROD Upgrade of PRODE Value Date Comments:	This indicator meas systems as certified PEL's capacity and strengthening EL's ERP completed (Yes/No, Cus Baseline No 18-Feb-2021 This indicator meas as certified by an IV	sures the implementation of bus d by an Independent Verification sustainable management of ge stom) Actual (Previous) No 16-Dec-2022 sures the the implementation of (A.	iness process reengineering Agency (IVA). neration plants Actual (Current) No 23-Jun-2023 the upgrades of ERP "MINI	g and upgrades of the End Target Yes 30-Sep-2026					
Comments: mprovement of PROD Upgrade of PRODE Value Date Comments: Number of meters in	This indicator meas systems as certified PEL's capacity and strengthening EL's ERP completed (Yes/No, Cus Baseline No 18-Feb-2021 This indicator meas as certified by an IV	sures the implementation of bus by an Independent Verification sustainable management of ge stom) Actual (Previous) No 16-Dec-2022 sures the the implementation of 'A.	iness process reengineering Agency (IVA). neration plants Actual (Current) No 23-Jun-2023 the upgrades of ERP "MINI lling (Number, Custom)	g and upgrades of the End Target Yes 30-Sep-2026 MAL" existing at PRODEL					
Comments: mprovement of PROD Upgrade of PRODE Value Date Comments:	This indicator meas systems as certified PEL's capacity and strengthening CL's ERP completed (Yes/No, Cus Baseline No 18-Feb-2021 This indicator meas as certified by an IV Installed and operational to monitor Baseline	sures the implementation of bus a by an Independent Verification sustainable management of generation stom) Actual (Previous) No 16-Dec-2022 sures the the implementation of YA. or PRODEL's generation and bin Actual (Previous)	iness process reengineering Agency (IVA). neration plants Actual (Current) No 23-Jun-2023 the upgrades of ERP "MINI lling (Number, Custom) Actual (Current)	g and upgrades of the End Target Yes 30-Sep-2026 MAL" existing at PRODEL End Target					

▶ Percentage of registered grievances related to service delivery resolved (Percentage, Custom)



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	100.00
Date	18-Feb-2021	16-Dec-2022	23-Jun-2023	30-Sep-2026
Comments:	This indicator will measure by the PCU that are addre	e the percentage of complain essed.	ts received through the GF	RM system established

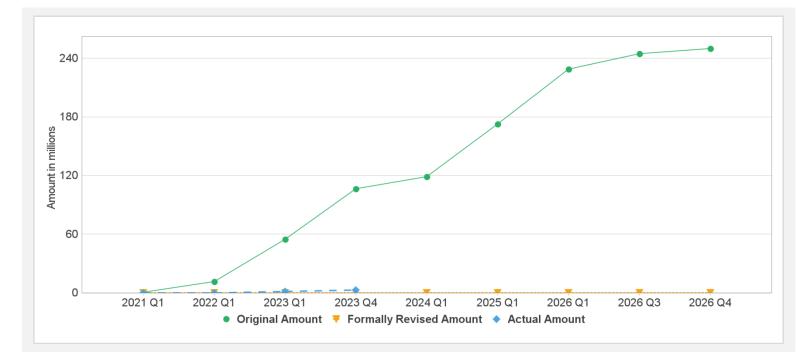
### **Performance-Based Conditions**

#### **Data on Financial Performance**

## **Disbursements (by loan)**

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	0/	% Disbursed
P166805	IBRD-92040	Effective	USD	250.00	250.00	0.00	3.37	246.63		1.3%
Key Dates	(by loan)									
Project	Loan/Credit/TF	Status	Approval Dat	e Signi	ng Date	Effectiveness Da	ate Orig.	Closing Date	Rev. Closir	ng Date
P166805	IBRD-92040	Effective	18-Feb-2021	13-Ju	ıl-2021	25-Feb-2022	30-Se	p-2026	30-Sep-20	26

## **Cumulative Disbursements**





# **Restructuring History**

There has been no restructuring to date.

# Related Project(s)

There are no related projects.