



Electricity Network Reinforcement and Expansion Project (ENREP) (P119893)

EASTERN AND SOUTHERN AFRICA | Ethiopia | Energy & Extractives Global Practice |
IBRD/IDA | Investment Project Financing | FY 2012 | Seq No: 18 | ARCHIVED on 22-Dec-2022 | ISR54536 |

Implementing Agencies: Development Bank of Ethiopia, Ethiopia Electric Power, Federal Democratic Republic of Ethiopia

Key Dates

Key Project Dates

Bank Approval Date: 29-May-2012

Effectiveness Date: 04-Jan-2013

Planned Mid Term Review Date: 23-Mar-2015

Actual Mid-Term Review Date: 23-Mar-2015

Original Closing Date: 31-Dec-2017

Revised Closing Date: 29-Dec-2023

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The Development Objectives of the Electricity Network Reinforcement and Expansion Project are to improve reliability of the electricity network and to increase access to electricity services in Ethiopia.

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

No

Components Table

Name

Reinforcement and Expansion of Electricity Network:(Cost \$197.00 M)

Access Scale-Up:(Cost \$154.00 M)

Market Development for Renewable Energy and Energy Efficient Products:(Cost \$59.00 M)

Modernization Support:(Cost \$68.00 M)

Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Satisfactory
Overall Implementation Progress (IP)	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Risk Rating	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial

Implementation Status and Key Decisions

The project closing date for ENREP and ENREP-AF was extended in December 2021 by two years – with a revised closing date of December 29, 2023. The closing date for CiDev grant ended on 30 June 2022 without further extension. The time made available with the last extension to June 30, 2022 would have been used to complete some of the contracts delayed due to COVID-19. Unfortunately, the opportunity was lost and DBE has to return to the WB unused fund by October 30, 2022.

Component 1: Reinforcement and expansion of electricity networks (US\$100 million original credit, US\$90 million AF, total US\$190 million). The transmission strengthening project (Contract H) with the scope of installing a second 230 kV circuit on the existing system is completed - but



awaits remedial work to install and string five additional towers. The ongoing construction of three single circuit 230 kV lines and substations is also progressing well, except in the case of Metu-Masha transmission line, where the finalization of safeguards documentation has delayed the start of transmission line construction. The Fincha-Shambu line has been completed, though the related communications systems are outstanding. The Azezo-Chilga line is currently under implementation at an advanced stage expected to be completed by November 2022.

Component 2: Access scale up (US\$50 million original credit, US\$70 million AF, total US\$120 million). Work on all the three lots for the Six-Town Project commenced in January and February 2020, but suffered from further delays due to the prevailing COVID pandemic. Earlier, the eight-town project, for the upgrading and expansion of medium voltage (MV) and low voltage (LV) distribution networks was completed. Contracts for 150,000 new connections in cities covered under the eight-town and six-town contracts are being processed.

Component 3: Market development for renewable energy and energy efficient products (US\$20 million original credit, US\$20 million AF, US\$5 million TF0A2302, total US\$45 million). The credit line is now fully subscribed, and 1,375,752 solar lanterns and solar home systems have been procured.

Component 4: Modernization support (US\$10 million original credit, US\$20 million AF, total US\$30 million). The component finances, among others, a new enterprise resource planning (ERP) system for EEU, whose implementation was completed in October 2019. While the contracts for Revenue Protection Program (RPP) awarded, the procurement of Live Line Maintenance (LLM) was cancelled due to prioritizing resources to other more important activities.

The Emission Reduction Purchase Agreement between DBE and CiDev will be amended to reflect the reduced target for carbon emission reductions from Standalone Solar Systems and Clean Cooking Solutions.

There are no major decisions pending in the context of the implementation of this project.

Risks

Systematic Operations Risk-rating Tool

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

Results

PDO Indicators by Objectives / Outcomes

Increase access to electricity services in Ethiopia

► Direct project beneficiaries (Number, Custom)

Baseline

Actual (Previous)

Actual (Current)

End Target



Value	0.00	5,259,145.00	5,259,145.00	7,552,700.00
Date	30-Jun-2011	18-Feb-2022	18-Feb-2022	31-Dec-2023
Comments:	This number is based on the number of households having access to modern energy services.			
<input type="checkbox"/> Female beneficiaries (Percentage, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	50.00	50.00	50.00
► Access: Number of HHs connected to the grid (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	150,000.00
Date	30-Jun-2011	18-Feb-2022	18-Feb-2022	31-Dec-2023
Comments:	The 150,000 connections project has not yet been launched. Offers are being evaluated.			
► Access: Number of HHs with access to modern energy services (off-grid) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,375,752.00	1,375,752.00	1,500,000.00
Date	30-Jun-2011	18-Feb-2022	18-Feb-2022	31-Dec-2023
Comments:	This is the actual number of solar products imported, distributed and reported by private companies. This number is expected to increase significantly in the next six months.			

Improve reliability of the electricity network

► Reliability: System Average Interruption Frequency Index, SAIFI, in the project areas. (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	178.00	101.00	101.00	89.00
Date	31-Dec-2015	15-Jun-2021	15-Jun-2021	31-Dec-2021
Comments:	This is for the system as a whole (measured by EEP).			
<input type="checkbox"/> SAIFI - Project Area 1 (7 towns) (Number, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	196.00	100.00	100.00	98.00
Date	31-Dec-2015	15-Jun-2021	15-Jun-2021	31-Dec-2021
<input type="checkbox"/> SAIFI - Project Area 2 (6 towns) (Number, Custom Breakdown)				



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	157.00	157.00	157.00	78.00
Date	31-Dec-2015	15-Jun-2021	15-Jun-2021	31-Dec-2021

Intermediate Results Indicators by Components

Reinforcement and Expansion of Electricity Network				
► Reliability: System Average Interruption Duration Index, SAIDI, in the project areas (Hours, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	258.00	150.00	150.00	129.00
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
□ Project Area 1 (7 towns) (Hours, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	224.00	221.00	221.00	112.00
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
□ Project Area 2 (6 towns) (Hours, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	298.00	298.00	298.00	149.00
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Segments of transmission lines constructed, upgraded or rehabilitated (km) (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	458.00	458.00	609.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Number of Substations constructed or upgraded under the project (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	25.00	25.00	30.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Time to complete EEP entity audit report (Months, Custom)				



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	7.00	18.00	18.00	6.00
Date	01-Mar-2012	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Number of EEP retained procurement staff (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	1.00	1.00	1.00	4.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Number of EEP/EEU Staff Trained (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	80.00	80.00	90.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021

Access Scale-Up

► Total Energy Sales in the project areas (Gigawatt-hour (GWh), Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,564.00	1,564.00	2,240.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Segments of distribution lines constructed, upgraded or rehabilitated (Kilometers, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,260.10	1,260.10	3,338.00
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021

Market Development for Renewable Energy and Energy Efficient Products

► Number of biogas plants installed (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	8,625.00	8,625.00	10,000.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
Comments:	As of March 31, 2018			

► Number of Solar Lanterns Procured (Number, Custom)



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,169,912.00	1,169,912.00	1,300,000.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Number of Solar Home Systems Procured (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	205,840.00	205,840.00	200,000.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
Comments:	As of March 31, 2018			
► Number of energy savings lamps imported and distributed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	245,424.00	806,428.00	806,428.00	500,000.00
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Number of efficient cookstoves distributed (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	138.00	138.00	500.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Total amount of loans given to HHs (Amount(USD), Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	12,976,526.67	12,976,526.67	11,000,000.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
☐ Total amount of loans given to female applicants (%) (Amount(USD), Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	28.66	56.00	56.00	50.00
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
► Number of loans given to HHs (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	217,691.00	217,691.00	200,000.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021



□Number of loans given to female applicants (Number, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	34.45	60.00	60.00	50.00
Date	29-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
►NPL Ratio of HH Loan Portfolio (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
►Number of Partner MFIs (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	14.00	14.00	25.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
►Woreda covered by credit line (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	135.00	135.00	150.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
►Total amount of loans given to PSEs (Amount(USD), Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	24,228,371.39	24,228,371.39	29,000,000.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
Comments:	As of March 31, 2018			
►Number of loans given to PSEs (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	33.00	33.00	30.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021
Comments:	As of March 31, 2018			
►NPL Ratio of the PSE Loan Portfolio (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target



Value	0.00	8.50	8.50	5.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021

Modernization Support

► Number of gender informed awareness events held (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	7.00	7.00	9.00
Date	30-Jun-2011	15-Jun-2021	15-Jun-2021	31-Dec-2021

► EEP publishes annual report on citizen engagement (Yes/No, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	28-Jan-2016	15-Jun-2021	15-Jun-2021	31-Dec-2021
Comments:	EEU published a report on gender and citizen engagement			

Performance-Based Conditions

Data on Financial Performance

Disbursements (by loan)

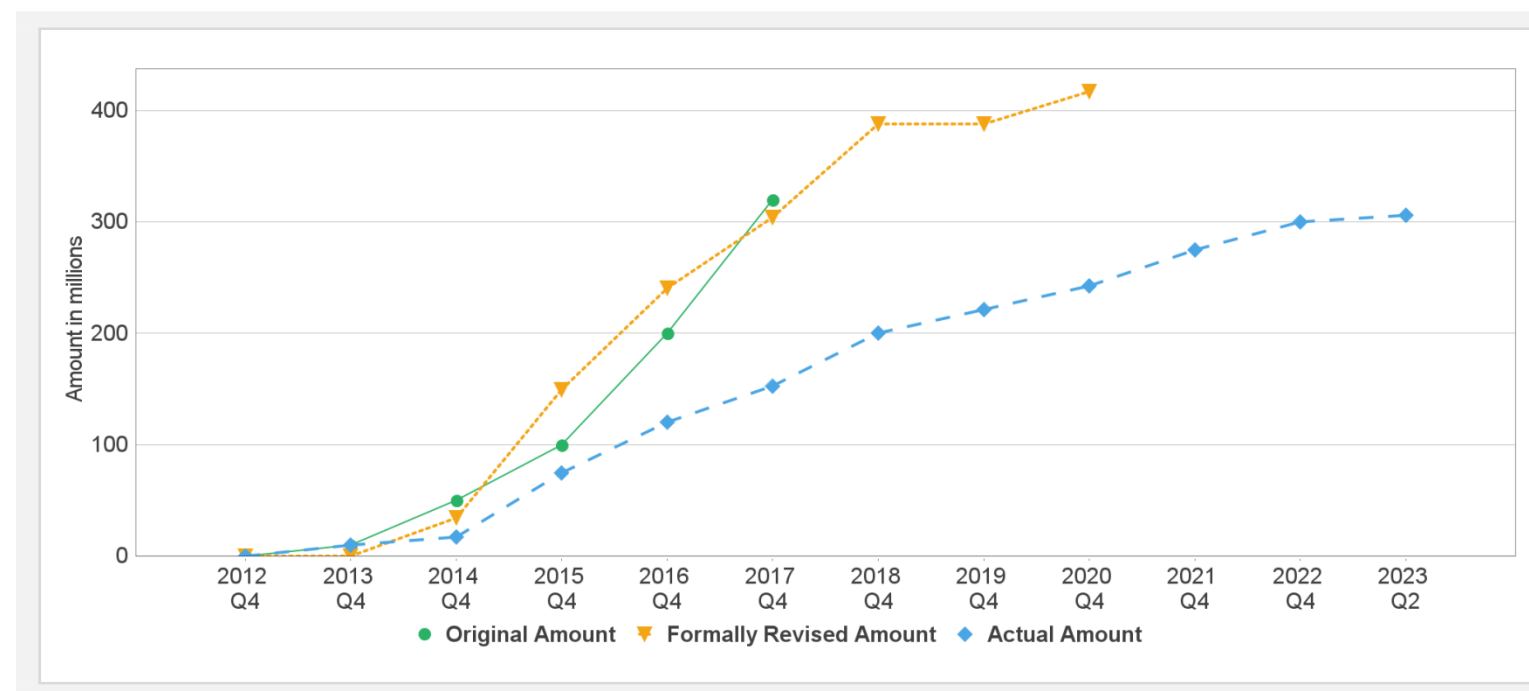
Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P119893	IDA-51260	Effective	USD	200.00	200.00	0.00	182.94	0.68	100%
P119893	IDA-58140	Effective	USD	200.00	200.00	0.00	117.37	77.61	60%
P119893	TF-A2302	Closed	USD	5.00	4.90	0.10	4.90	0.00	100%
P153864	TF-A2909	Effective	USD	11.11	11.11	0.00	0.39	10.71	3.5%
P153425	TF-A2910	Effective	USD	9.08	9.08	0.00	0.39	8.69	4.3%
P153425	TF-A4038	Closed	USD	0.21	0.21	0.00	0.09	0.12	42%
P153864	TF-A4039	Closed	USD	0.15	0.15	0.00	0.04	0.10	30%

Key Dates (by loan)



Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P119893	IDA-51260	Effective	29-May-2012	12-Jun-2012	04-Jan-2013	31-Dec-2017	29-Dec-2023
P119893	IDA-58140	Effective	27-May-2016	15-Jun-2016	31-Aug-2016	30-Jun-2019	29-Dec-2023
P119893	TF-A2302	Closed	27-May-2016	15-Jun-2016	31-Aug-2016	31-Aug-2017	30-Apr-2019
P153864	TF-A2909	Effective	27-Jun-2016	14-Jul-2016	14-Jul-2016	31-Oct-2025	31-Oct-2025
P153425	TF-A2910	Effective	14-Jul-2016	14-Jul-2016	14-Jul-2016	31-Oct-2025	31-Oct-2025
P153425	TF-A4038	Closed	07-Dec-2016	11-Jun-2018	11-Jun-2018	31-Dec-2019	30-Jun-2022
P153864	TF-A4039	Closed	07-Dec-2016	11-Jun-2018	11-Jun-2018	31-Dec-2019	30-Jun-2022

Cumulative Disbursements



Restructuring History

Level 2 Approved on 26-Aug-2014 ,Level 2 Approved on 22-Aug-2017 ,Level 2 Approved on 24-Aug-2018 ,Level 2 Approved on 20-Dec-2018 ,Level 2 Approved on 31-May-2019 ,Level 2 Approved on 17-Dec-2021

Related Project(s)

P153425-ET Clean Cooking Energy Program ,P153864-ETHIOPIA OFF~GRID RENEWABLE ENERGY PROGRAMME OF ACTIVITIES ,P155563-ENREP ADDITIONAL FINANCING