Niger Solar Electricity Access Project (NESAP) (P160170)

WESTERN AND CENTRAL AFRICA | Niger | Energy & Extractives Global Practice |
IBRD/IDA | Investment Project Financing | FY 2017 | Seq No: 13 | ARCHIVED on 27-Sep-2023 | ISR57928 |

Implementing Agencies: Agence Nigérienne pour la Promotion de l'Electrification Rurale (ANPER), Centre National d'Énergie Solaire (CNES), Direction Générale des Opérations Financières et des Réformes (DGOFR) - Ministry of Finance, Government of the Republic of Niger, Ministere de l'Energie du Niger, Sociéte Nigerienne d'Electricité (NIGELEC)

Key Dates

Key Project Dates

Bank Approval Date: 07-Jun-2017
Effectiveness Date: 01-Dec-2017
Planned Mid Term Review Date: 20-Jan-2020
Actual Mid-Term Review Date: 20-Jan-2020
Original Closing Date: 31-Jan-2024
Revised Closing Date: 31-Jan-2024

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The objective of the project is to increase access to electricity through solar energy in rural and peri-urban areas of the Republic of Niger.

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

No

Components

Name
Component 1:Market Development of Stand-alone Solar Systems:(Cost $5.00 M)
Component 2: Rural Electrification through Service-based Solar Hybrid Mini-grids:(Cost $6.70 M)
Component 3: Solar PV Hybridization of Isolated Thermal Mini-grids and Expansion of Access:(Cost $27.35 M)
Component 4: Implementation Support and Technical Assistance:(Cost $8.06 M)
Component 5: Contingency Emergency Response:(Cost $2.78 M)

Overall Ratings

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

Implementation Status and Key Decisions

As of today, 86,905 people have access to electricity through the project and 1,370 solar pumps have been distributed.
Component 1. Market Development of Stand-alone Solar Systems. With 100% disbursement confirmed, this component reached its disbursement target. The remaining balance of the line of credit was added to the existing agreement with BAGRI.
Component 2. Rural Electrification through Service-based Solar Hybrid Mini-grids. Through the project restructuring on August 2022, the implementation model of this component, initially based on a PPP with concession contracts, has now moved to 100% public financing. Since the previous mission in march 2023 the construction works has started by the 2 contrtors respectively CDSC-GOGER for lots 1&2 (covering the

localities of Adoua, Kabimawa, and Dinkin) and TECHNO-SYSTEMS for lots 3&5 (Ambabougara, Jiga, Makourki, Doundaye, and Yelmi Roumbou Kawa) . For insecurity reasons, lot 4, covering the localities of Tientienga Fulbe, Sianrori Bambara, and Tientiengarimaibe, has yet to be awarded.
Component 3. Solar PV Hybridization of Isolated Thermal Mini-grids and Expansion of Access. The construction of the power plants is completed on all five sites (Bilma, Timia, Iferouane, Dirkou, and Fachi) of batch 1. As with Lot 1, construction of the Lot 2 power plants (Ingall, Tamaya, Bazagor, Tassara, Tillia, and Telemcess) has been completed, except for the Tillabéry sites (Banibangou/Dinara, Mangaizé, Dingazi banda, and Tarbiat), which are affected by the security situation.
Component 4. Implementation Support and Technical Assistance. The activities of this cross-cutting component can be grouped into five sub-components: communication, business support, technical assistance to financial institutions, technical monitoring, and monitoring and evaluation. The component essentially supports technical assistance for the development of the solar market in Niger, executed mainly by ANERSOL. With the reduction of the impact of the crisis, the resumption of communication activities, and the start of subsidies, sales increased in 2022, with a total of 3593 solar kits and 291 solar pumps sold. The cumulative number of quality solar kits sold since the beginning of the project is 12,415, or 25% of the project target, and for solar pumps, the cumulative number is 1,401, or 40% more than the project target (1000). Regarding the support to enterprises the project has provided first grant of an amount of XOF 15 million to the 2 enterprises (Energie Eau Environnement and ENELEC) selected competitively.
Component 5. CERC : This component was introduced following the restructuring of the project in May 2020 to support government response to COVID-19 crisis. 73 priority health centers (out of a total of 483 non-electrified centers) were identified for electrification. Notably, 67 of these 73 health centers had been installed and confirmed functional. Most of the non-installed centers are due to their geographical location in areas with significant security risks.

Risks

Systematic Operations Risk-rating Tool

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

Results

PDO Indicators by Objectives / Outcomes

To increase access to electricity through solar energy in rural and peri-urban areas of Niger

►People provided with new or improved electricity service (Corporate Results Indicator) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	81,144.00	86,905.00	230,000.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024
Comments:	The end target of this indicator will be affected by the indicator related to the beneficiaries under component 1 which end target could not be reached even thought it is expected an increase of the number of connections under component 3.			

of which females (percentage) (Percentage, Custom Supplement)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	50.00	50.00	50.00

To increase access to electricity through solar energy in rural and peri-urban areas of Niger

►Generation capacity of energy constructed or rehabilitated (Corporate Results Indicator) (Megawatt, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	4.64	5.06	7.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

Intermediate Results Indicators by Components

Component 1:Market Development of Stand-alone Solar Systems

►Number of Lighting Africa-certified solar products sold (Component 1) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	11,592.00	12,415.00	50,000.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024
Comments:	The end target will seemingly not be reachable by the project closing despite the expected outcome of the communication activities.			

►People provided with electricity access from solar standalone systems (Component 1) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	81,144.00	86,905.00	150,000.00
Date	31-Mar-2017	03-Feb-2023	03-Feb-2023	31-Jan-2024

►Number of solar companies financed by the Project (Component 1) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	9.00	9.00	10.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

►Number of farmers acquiring solar pumps through solar companies financed by the Project (Component 1) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,370.00	1,401.00	1,000.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

►Volume of Project Funding: Line of Credit - Solar Energy Sector (Households and Enterprises) (Component 1) (Amount(USD), Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	2,804,768.00	2,804,768.00	5,000,000.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

Component 2: Rural Electrification through Service-based Solar Hybrid Mini-grids

►Number of households provided with electricity access from new solar mini-grid systems (Component 2) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1,700.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024
Comments:	The connection of the households will materialize after the construction works of the mini grids.			

of which women headed households (percentage) (Percentage, Custom Supplement)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	16.00

►Annual electricity output from renewable energy (Component 2) (MWh/year, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1,000.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

►Number of Private operators managing solar mini-grids in rural areas (Component 2) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	6.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

of which percentage of women workers of the operators (percentage) (Percentage, Custom Supplement)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	15.00

Component 3: Solar PV Hybridization of Isolated Thermal Mini-grids and Expansion of Access

►Households provided with new electricity access from solar hybridization of existing NIGELEC mini-grids (Component 3) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	507.00	7,500.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

of which women headed households (percentage) (Percentage, Custom Supplement)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	16.00

►Households provided with additional hours of electricity from solar hybridization of existing NIGELEC mini-grids (Component 3) (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	1,831.00	3,473.00	3,000.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

of which women headed households (percentage) (Percentage, Custom Supplement)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	16.00

►Annual electricity output from renewable energy (Component 3) (MWh/year, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	8,882.00	1,793.00	10,700.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

Comments: The previous value 8,882.00 is wrong

►Average electricity generation cost (US$/kWh) of isolated grids in hybridized mini-grids (Component 3) (Amount(USD), Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.38	0.38	0.38	0.24
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

►Number of productive users provided with electricity access from mini-grid systems (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	98.00	177.00	500.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

Component 4: Implementation Support and Technical Assistance

►Project-related grievances registered under the project grievance redress mechanism and addressed (Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	100.00	100.00	100.00
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

►ANPER published reports on beneficiary feedback and how it has been incorporated in the Project (Yes/No, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	31-Mar-2017	03-Feb-2023	31-Aug-2023	31-Jan-2024

Performance-Based Conditions

Data on Financial Performance

Disbursements (by loan)

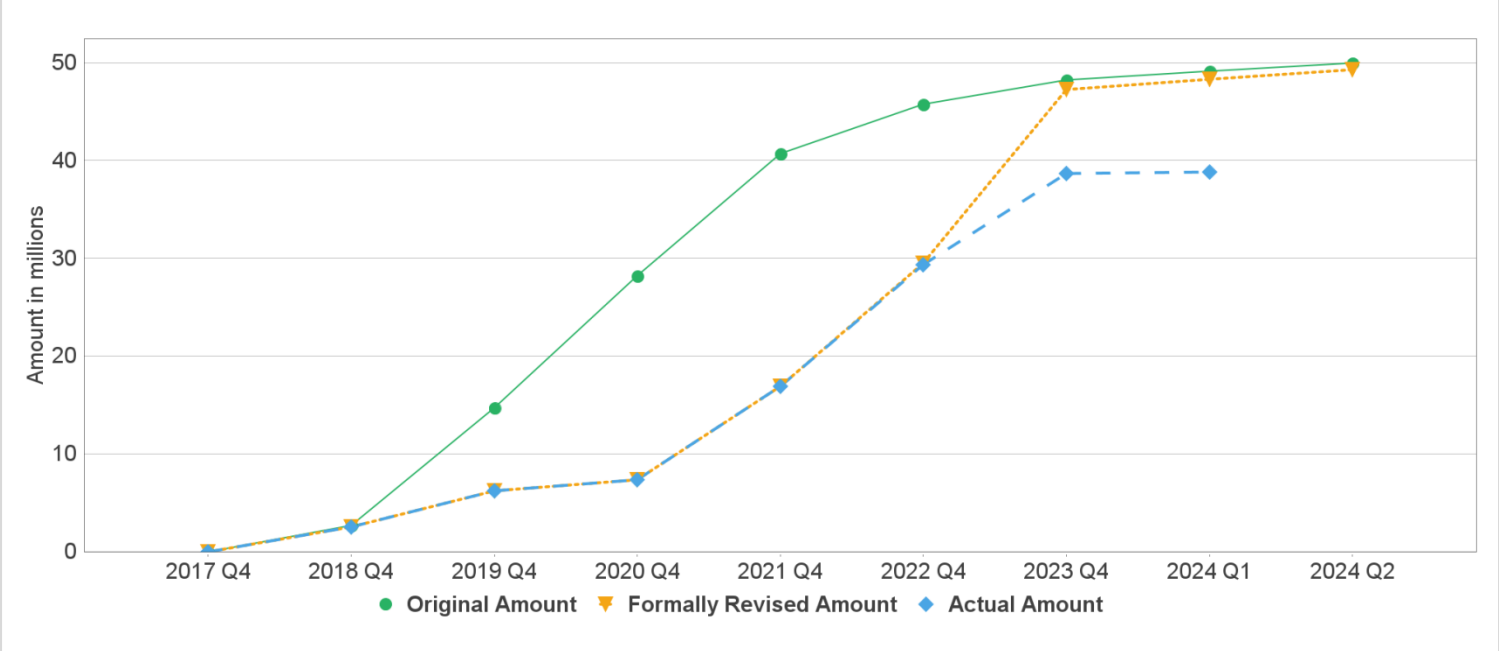
Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P160170	IDA-60820	Effective	USD	45.55	45.55	0.00	38.83	8.98	81%

P160170	IDA-D1980	Effective	USD	4.30	4.30	0.00	0.00	4.54		0%

Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P160170	IDA-60820	Effective	07-Jun-2017	27-Jun-2017	01-Dec-2017	31-Jan-2024	31-Jan-2024
P160170	IDA-D1980	Effective	07-Jun-2017	27-Jun-2017	01-Dec-2017	31-Jan-2024	31-Jan-2024

Cumulative Disbursements



Restructuring History

Level 2 Approved on 11-Jun-2018 ,Level 2 Approved on 30-Jun-2020 ,Level Approved on 20-Aug-2020 ,Level 2 Approved on 24-Aug-2022

Related Project(s)

There are no related projects.