



RESTRUCTURING PAPER
ON A
PROPOSED PROJECT RESTRUCTURING
OF
NIGERIA ELECTRIFICATION PROJECT
APPROVED ON JUNE 27, 2018
TO
THE FEDERAL REPUBLIC OF NIGERIA

Energy and Extractives Global Practice

Western and Central Africa Region

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ABBREVIATIONS AND ACRONYMS

COVID-19	Coronavirus Pandemic 2019
DISCO	Electricity Distribution Companies
EEP	Energizing Education Program
EPC	Engineering, Procurement and Construction
E&S	Environmental and Social
ESMF	Environmental and Social Management Framework
ESMS	Environmental and Social Management System
FA	Financing Agreement
FGN	Federal Republic of Nigeria
IDA	International Development Association
ISDS	Integrated Safeguards Data Sheet
MSME	Micro-, Small- and Medium-Sized Enterprises
NCDC	Nigeria Centre for Disease Control
NEP	Nigeria Electrification Project
NPHCDA	National Primary Health Care Development Agency
O&M	Operations and Maintenance
PBG	Performance Based Grants
PDO	Project Development Objective
PHC	Primary Health Care Centers
PMU	Project Management Unit
PPSD	Project Procurement Strategy for Development
REA	Rural Electrification Agency
RESIP	Rural Electrification Strategy and Implementation Plan
RPF	Resettlement Policy Framework
SHS	Standalone Solar Systems
STEP	Systematic Tracking of Exchanges in Procurement



BASIC DATA

Product Information

Project ID P161885	Financing Instrument Investment Project Financing
Original EA Category Partial Assessment (B)	Current EA Category Partial Assessment (B)
Approval Date 27-Jun-2018	Current Closing Date 31-Oct-2023

Organizations

Borrower Federal Republic of Nigeria	Responsible Agency
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Project Development Objective (PDO)

Original PDO

The development objective is to increase access to electricity services for households, public institutions, and underserved micro, small and medium enterprises.

Summary Status of Financing (US\$, Millions)

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net Commitment	Disbursed	Undisbursed
IDA-62910	27-Jun-2018	12-Feb-2019	10-Jun-2019	31-Oct-2023	350.00	180.99	142.37

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No



I. PROJECT STATUS AND RATIONALE FOR RESTRUCTURING

A. Country and Sector Context

1. With over 200 million people and an estimated Gross Domestic Product (GDP) of US\$471 billion in 2022¹, Nigeria is the most populous country and the largest economy of Sub-Saharan Africa and is central to overall World Bank Group (WBG) goals, including that on poverty alleviation, given that an estimated 80 million people are living in poverty in Nigeria.

2. Nigeria was a rising growth star in West Africa between 2001 and 2014, with an average growth rate of 7 percent per year, and among the 15 fastest growing economies in the world, but Nigeria's development has slowed since 2015 due to: (i) volatile oil prices; (ii) increased insecurity; (iii) a reversal of macroeconomic reforms and heightened unpredictability of economic policies; and (iv) more recently, the adverse effects of the COVID-19 pandemic. As a result, growth declined to an average of 1.1 percent between 2015 and 2021. The subdued economic growth, coupled with a rapid increase in population at 2.6 percent per year, one of the highest in the region, widened the gap in real GDP per capita between Nigeria and its peers².

3. Nigeria has the largest electricity access deficit in absolute terms of any country in the world and the trend is worsening. As of 2020, 55 percent of Nigeria's population³ had access to electricity, leaving over 85 million people without access. Large disparities exist in access to electricity between urban areas (82 percent) and rural ones (31 percent) and by income stratification, with only 31 percent of the poorest 40 percent of the population having access to electricity nationwide. The electricity access deficit has remained at 45 percent since 2015 and yet the net access deficit has increased by over 7 million citizens over the last decade, as the rate of population growth has outpaced the increase in electrification, making Nigeria an outlier even in Sub Saharan Africa. Lack of access to electricity has not only impacted households but has presented a challenge for effective delivery of essential public services such as health and education. Only 40 percent of functional primary health facilities and 26 percent of primary schools in Nigeria have access to electricity.

4. Recognizing the need for action outside the grid-connected areas that the electricity distribution companies (DISCOs) currently service, in 2016 the President approved the Rural Electrification Strategy and Implementation Plan (RESIP) which aims "to expand access to electricity as rapidly as possible in a cost-effective manner. This implies full use of both grid and off-grid approaches, with subsidies being primarily focused on expanding access rather than consumption. It is assumed that private sector providers will be heavily involved in enhancing access."

5. On February 12, 2019, a Financing Agreement (FA) was entered into between the International Development Association (IDA) and the Federal Republic of Nigeria for an IDA credit for the implementation of the Nigeria Electrification Project (NEP) supporting the RESIP. A Subsidiary Agreement and a subsequent Subsidiary Grant Agreement were entered into on March 8, 2018, and May 21, 2019, respectively, between the Federal Ministry of Finance and the Rural Electrification Agency (REA), being the implementing government agency for the NEP. The NEP became effective on June 10, 2019.

¹ World Bank. 2022. Nigeria Country Economic Memorandum: Charting a New Course. Synthesis Report (Report No. AUS0002837).

² Ibid

³ <https://trackingsdg7.esmap.org/>



6. The current project development objective (PDO) of NEP⁴ is to increase access to electricity services for households, public institutions, and underserved micro, small and medium enterprises. The NEP components, its subcomponents and current IDA financing are presented in Table 1.

⁴ As a result of restructuring approved in August 2020, PDO was revised from “to increase access to electricity services for households, public educational institutions, and underserved micro, small and medium enterprises” to “to increase access to electricity services for households, public institutions, and underserved micro, small and medium enterprises”.



Table 1. Current NEP components and subcomponents⁵

Components of the project	IDA financing (US\$ million equivalent)
Component 1. Solar Hybrid Mini Grids	150
<i>1a: Minimum Subsidy Tender (MST)</i>	25
<i>1b: Performance Based Grants (PBG)</i>	48
<i>1c: COVID-19 Response</i>	77
Component 2. Standalone Solar Systems (SAS)	75
<i>2a: Market Scale-up Challenge Grants (MSCF)</i>	15
<i>2b: Performance Based Grants (OBF)</i>	60
Component 3. Energizing Education Program (EEP) (Phase II)	105
Component 4. Technical Assistance	20
Total	350

7. Component 1 supports the development of private sector mini grids in unserved and underserved areas that have high economic growth potential. There are three investment sub-components being implemented in parallel: a minimum subsidy tender; a performance-based grant program and the COVID-19 response that focuses on electrifying identified health centers as an emergency response to support the fight against the COVID-19 pandemic in 2020. Component 2 focuses on expanding the availability and affordability of standalone solar systems (SAS) for poor and vulnerable households, MSMES, and agribusinesses in rural areas via supply side and demand side incentives delivered via two sub-components: market scale up challenge grant and performance-based grant. Component 3 provides reliable, affordable, and sustainable power to public universities and associated teaching hospitals. The EEP Phase II project is expected to have far-reaching positive economic impacts on the university community and will improve the learning outcome of students.

B. Project Status

8. Progress towards achievement of PDO and overall implementation progress is currently rated as Moderately Satisfactory in the latest Implementation Status and Results Report dated June 6, 2023. Overall safeguards rating is Satisfactory. REA has proactively addressed environmental and social issues throughout project implementation, following the processes set out in the environmental and social management framework (ESMF) and resettlement policy framework (RPF). REA has had adequate environmental and social (E&S) capacity since the project preparation phase and has retained both environmental and social specialists for the project who, have now developed a substantial track record of implementing E&S measures. REA has regularly engaged with developers and other stakeholders on E&S issues, and E&S requirements have been embedded into the process of qualification for financing. Each developer must have an Environmental and Social Management System in place that covers all material aspects of managing E&S risks for individual sites. Financial management and procurement are also rated Moderately Satisfactory. There are no overdue audits or overdue Interim Financial Reports.

9. The project disbursed 56 percent (US\$181 million equivalent) as of September 15, 2023. NEP projects to achieve disbursement rate of 70 percent of the total financing by the end of October 2023. This projection is based on progress in the execution of activities under subcomponent 2b (Performance Based Grants for Standalone Solar, known as Output Based Fund (OBF)), Component 3 (EEP 2), and subcomponent 1c (COVID-19 Response).

⁵ Following the restructuring approved on August 18, 2020: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/189581597758228982/disclosable-restructuring-paper-nigeria-electrification-project-p161885>.



10. Project has recorded important achievements since full implementation commenced. By the end of May 2023⁶, a key milestone of the project was achieved by providing electricity to over 7 million Nigerians⁷ through solar mini grids and solar standalone systems. In particular, 81 mini grid systems have been successfully commissioned, over 1.4 million SHS systems deployed (of which 0.7 million has been verified by the Independent Verification Agent and through remote verification), and solar hybrid power solutions have been installed at 50 COVID-19 isolation and treatment centers. The milestone represents a confirmation of the interest by the private sector to develop mini grid projects and to sell high quality, Lighting Global-certified, standalone solar systems on commercial basis under NEP. Currently 64 companies have qualified under the program, many of which are reputable, global firms, 37 of which have signed grant agreements with the program, for 279 mini grid projects. In addition, the private sector raised about US\$130 million in (semi-) commercial financing to deliver these electricity services, ensuring a continued emphasis on financial viability through their investors even after commissioning/sales of the respective systems. The REA/PMU has been diligent in tracking all these processes and statistics through its REA/Odyssey Platform.

11. As of end of May 2023, 99 percent of total project financing remaining to be disbursed had been committed, however, the likelihood of cost overruns and overcommitment for some components have emerged, threatening the ability of REA-NEP PMU to honor claims in full. Specifically, there are project overruns estimated at US\$77.4 million and is largely due to EEP Phase II bids (funding gap of US\$49.5 million post-bids) under Component 3, COVID-19 100 projects cost overruns (funding gap of US\$10.2 million post bids) under subcomponent 1c, and over commitment estimated at US\$17.7 million, considering claims for up to December 2022⁸, for subcomponent 2b (OBF).

12. The first restructuring of NEP was completed in 2020 due to the need for the Federal Government of Nigeria (FGN) to energize health facilities across the country in response to the COVID-19 pandemic. That restructuring entailed the creation of a new subcomponent 1c (COVID-19 Response) under the Solar Hybrid Mini Grids Component and the reallocation of a total of US\$77 million into this new subcomponent from subcomponent 1a (Minimum Subsidy Tender) and subcomponent 1b (Performance Based Grants).

C. Rationale for the present Restructuring

13. As mentioned above, the speed and scale of implementation across project components following increasing interest of private sector has been unprecedented as compared to the early period of NEP implementation. Figure 1 below illustrates the rapid scale up in deployment of standalone solar solutions under subcomponent 2b (OBF) in calendar year 2022 as compared to calendar year 2021.

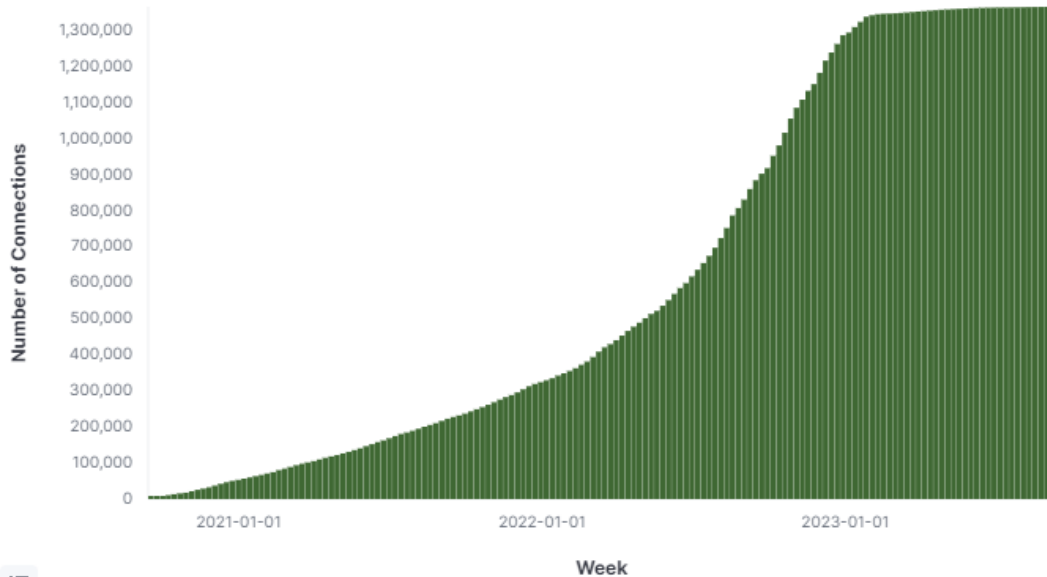
⁶ Implementation Status and Results Report (Seq. No: 9).

⁷ Assuming successful verification of all connection claims. About half of these claims have already been verified.

⁸ NEP-qualified companies were notified in December 2022 that the available resources for OBF had been depleted. The REA, therefore, aims to honor OBF grant claims for standalone solar sales at least through December 2022.



Figure 1. Weekly claims for Performance Based Grants for Standalone Solar Solutions (cumulative)



14. Cost overruns for some components have emerged as a result of increasing prices and exchange rate escalation for contractors in the parallel market. Furthermore, changes in the SDR to US\$ exchange rate has led to over US\$25 million being lost in program funding, limiting the ability to meet the cost overruns or over commitments under some of the components.

15. Subcomponent 2b (OBF) will require an additional US\$17.7 million to honor grant claims for standalone solar sales from participating companies through December 2022, Component 3 (EEP Phase 2) has incurred a cost overrun of US\$49.5 million, with the COVID-19 100 projects under subcomponent 1c incurring a lesser overrun of the categories at US\$10.2 million despite project buffers and contingency funds, which were eroded by the cost overruns. This, therefore, necessitates urgent restructuring of the program while additional funding via other Development Finance Institutions (DFI) support can be explored by FGN to close remaining gap that may arise before project closure by October 2023 whilst any outstanding commitments can be carried over to the proposed Distributed Access Through Renewable Energy Scale-Up Project (DARES; P179687) scheduled for submission to the World Bank Board of Executive Directors in November 2023.

16. Discussions were held between the World Bank and the REA-NEP PMU during the NEP mission in December 2022 to: (i) explore approaches to effectively disburse the limited funds available until project close with as little disruption to developers' cash flow plans/forecasts as possible; (ii) urgently define a communications strategy to transparently convey the details of the funding gap to the private sector so that they may plan accordingly; (iii) to reallocate funds and place a disbursement cap/ restriction as necessary, which will be implemented via the restructuring of the NEP.

17. Accordingly, FGN requested the World Bank, through the letters from the Federal Ministry of Finance dated May 17, 2023, and August 8, 2023, to consider reallocating funds to finance (i) subcomponent 2b Standalone Solar Output Based Fund (OBF); (ii) Component 3 Energizing Education Program (EEP) Phase 2 and (iii) extend closing date of the financing to August 1, 2024. The proposed reallocation is to be financed out of subcomponent 1a (Minimum Subsidy Tender (MST)), subcomponent 1c (COVID-19 Response), and subcomponent 2a (Market Scale Up Challenge Grants/Fund (MSCF)) to accommodate the additional finance needed for implementation. The



uncommitted balance that remained after refinancing the project preparation advance will be also reallocated to the disbursement category to finance activities under NEP.

18. NEP has an estimated US\$78 million available to accommodate the reallocation proposal. Subcomponent 1a (MST) progressed with some delays, but the tender did not receive an adequate number of responsive bids and is proposed to be canceled, freeing up US\$23 million for reallocation. Similarly, subcomponent 2a (MSCF) is proposed to be discontinued, given that participating companies are scaling up already, making another US\$13.8 million available for reallocation. Finally, only the electrification of 100 COVID isolation and treatment centers (COVID 100 program) under subcomponent 1c (COVID-19 Response) is under implementation, while the electrification of 400 primary healthcare centers (COVID 400 program) will not be pursued, which frees up US\$41.2 million for reallocation.

19. The reallocation of funds from the previous restructuring and the reallocation proposed here will have a significant impact on the project targets in the results framework, necessitating an update of the targets as part of this restructuring. This is primarily due to two reasons. The reallocations resulted in a reduction of the budget for subcomponent 1b (Performance Based Grants) and no budget for subcomponent 1a (Minimum Subsidy Tender), leading to a drop in the total allocation for mini grids from US\$150 million at the start of the project to only US\$56.7 million. At the same time, the grant rate for mini grids was increased from US\$350/connection to US\$600/connection mainly to compensate for currency exchange losses associated with FGN’s policy of disbursing these grants for imported electro-mechanical equipment in local currency. With a lower resource envelope and a higher unit rate for grants, the total number of electricity connections that can be achieved through per connection grants under Component 1 is reduced. Some of the targets for Component 2, on the other hand, have been revised upwards due to swifter than anticipated uptake of the results base grants and deployment of standalone solar solutions in the country.

Table 2. Project budget, use of funds and proposed re-allocation (US\$ million)⁹

Components of the project	Disbursements under IDA financing (US\$)	Potential obligations under NEP (US\$)
Component 1. Solar Hybrid Mini Grids	32,659,984.28	56,145,548.26
1a: Minimum Subsidy Tender	0.00	0.00
1b: Performance Based Grants	18,080,300.00	40,612,200.00
1c: COVID-19 Response	14,579,684.28	15,533,348.26
Component 2. Standalone Solar Systems (SHS)	43,281,638.00	27,772,080.00
2a: Market Scale-up Challenge Grants	0.00	0.00
2b: Performance Based Grants	43,281,638.00	27,772,080.00
Component 3. Energizing Education Program (EEP) (Phase II)	22,288,614.92	120,665,259.00
Component 4. Technical Assistance	16,794,807.00	5,100,000.00
Total	115,025,044.20	209,682,887.26

20. The NEP restructuring will have a positive impact on the local and regional standalone solar and mini-grid markets. The interventions to be financed through the proposed restructuring will enable the achievement of program development objectives for these components. The intervention will also ensure that the confidence of the private sector in the results-based approach mobilizing private capital is maintained, ensuring that the Nigeria DARES

⁹ As of September 4, 2023, based on the information from ClientConnection, IDA financing is equivalent to US\$323,726,868.00.



project under preparation to follow the NEP will be perceived as credible and broadly accepted. Additional jobs will be created across the value chain, including creating a market for SHS systems deployment and private sector investment in mini grids. The construction of these mini grids will create direct and indirect jobs in the host communities and improve learning outcomes of students in the Federal Universities where the EEP Phase 2 projects are deployed. The extension of the closing date will allow for the completion of the EEP Phase 2 projects and the electrification of 100 COVID isolation and treatment centers, which are engineering, procurement and construction plus operations and maintenance contracts that have been awarded and are in progress but delayed. It will also allow for the full utilization of the results-based financing for mini grids and standalone solar, enhancing the outcomes of the project by reaching a greater number of beneficiaries.

21. **Safeguards.** The SHS systems and mini grids are in the existing geographic area of the project and the nature and scale of works related to electrification does not change. The restructuring therefore changes neither the overall E&S risk profile nor the risk management approach of the project and does not require update to the existing ISDS. However, the addition of new localities requires the implementation of the E&S process as stipulated under ESMF and RPF. In particular, with regard to the land acquisition and use process, REA will encourage, where technically and financially feasible, to prioritize the use of existing infrastructure (rooftops, parking lot covers etc.) to minimize land acquisition. Where land acquisition is unavoidable, it will be small scale and will follow the RPF. The PMU will work with the companies / developers to ensure each developer has an adequate ESMS in order to become eligible for financing and will review the E&S checklist to confirm projects category (I or II) and consequent E&S risk management plans will be prepared and implemented in line with the ESMS that developers must prepare and adopt to qualify for the program.

22. Requirement of the World Bank Policy and World Bank Directive for Investment Project Financing for the closing date extension have been met, namely: (i) with the extension, the PDO remains achievable; (ii) the performance of the Recipient is Moderately Satisfactory; (iii) the Recipient and the World Bank agree on actions that will be undertaken to complete the project¹⁰; and (iv) there are not any outstanding audit reports or audit reports that are not satisfactory to the World Bank.

23. Following the restructuring, the project's development objective will continue to be highly relevant and provide increased access to electricity services to a wider group of beneficiaries. With this restructuring, it is the expectation that this will remain the same or improve in case the capacity constraints at the PMU are resolved and the private sector return to its exponential growth curve in delivering electricity services to the end users.

II. DESCRIPTION OF PROPOSED CHANGES

24. The restructuring of the project includes (i) changes to components and cost; (ii) extension of closing date; (iii) changes to result framework; (iv) reallocation between disbursement categories; and (v) revision of disbursement estimates.

25. **Changes to components and cost.** The revised costs of components and related IDA financing is presented in Table 3. FA is being amended to reflect the drop of subcomponent 1a and subcomponent 2a from the description of the project.

¹⁰ Work plan for Energizing Education Program (EEP) Phase II is included in the Annex.



The World Bank

Nigeria Electrification Project (P161885)



Table 3. Total financing and revised IDA allocation by components of NEP

Components of the project	Total financing (US\$)	Revised IDA (US\$ equivalent)	Comment
Component 1. Solar Hybrid Mini Grids	140,400,000	74,020,000	
1a: Minimum Subsidy Tender	0	0	<i>subcomponent will be dropped</i>
1b: Performance Based Grants	110,500,000	44,160,000	
1c: COVID-19 Response	29,900,000	29,860,000	
Component 2. Standalone Solar Systems (SHS)	237,000,000	72,800,000	
2a: Market Scale-up Challenge Grants	0	0	<i>subcomponent will be dropped</i>
2b: Performance Based Grants	237,000,000	72,800,000	
Component 3. Energizing Education Program (EEP) (Phase II)	146,000,000	146,600,000	
Component 4. Technical Assistance	34,800,000	29,789,000	
Total	558,200,000	323,209,000	

26. The total financing for the project¹¹, which was originally US\$765 million is revised to US\$558.2 million due to the reduction of funds for private sector led components that leverage significant private capital and the increase in funds for EPC components that do not. As a response to the COVID crisis, some funds from subcomponents 1a and 1b were reallocated to a new subcomponent, 1c, at the last restructuring in August 2020. In this restructuring, subcomponent 1a will be dropped entirely, while over US\$48 million is proposed to be reallocated to meet the cost overruns in Component 3, which does not mobilize any private capital.

27. **Extension of the closing date.** Closing date of Credit IDA-62910 is being extended to August 1, 2024.

28. **Changes to result framework.** Following the changes in costs of components and related outputs, the results framework is amended accordingly. Details are provided in the Results Framework section.

29. **Reallocation between disbursement categories.** The uncommitted and available balance of the disbursement category 2 of IDA Credit IDA-6291 is reallocated to category 1. Total allocation of disbursement category 1 is being increased to SDR 240,558,562.00.

30. **Revision of disbursement estimates.** Following the changes in the cost of project components, the disbursement estimates are revised accordingly.

¹¹ The evolution of the available IDA resources for the project in US\$ equivalent is presented in Annex 2.



III. SUMMARY OF CHANGES

	Changed	Not Changed
Results Framework	✓	
Components and Cost	✓	
Loan Closing Date(s)	✓	
Reallocation between Disbursement Categories	✓	
Disbursement Estimates	✓	
Implementing Agency		✓
DDO Status		✓
Project's Development Objectives		✓
PBCs		✓
Cancellations Proposed		✓
Disbursements Arrangements		✓
Overall Risk Rating		✓
Safeguard Policies Triggered		✓
EA category		✓
Legal Covenants		✓
Institutional Arrangements		✓
Financial Management		✓
Procurement		✓
Implementation Schedule		✓
Other Change(s)		✓
Economic and Financial Analysis		✓
Technical Analysis		✓
Social Analysis		✓
Environmental Analysis		✓

IV. DETAILED CHANGE(S)



COMPONENTS

Current Component Name	Current Cost (US\$M)	Action	Proposed Component Name	Proposed Cost (US\$M)
Solar Hybrid Mini Grids for Economic Development	330.00	Revised	Solar Hybrid Mini Grids for Economic Development	140.40
Stand-alone Solar Systems for Homes and MSMEs	295.00	Revised	Stand-alone Solar Systems for Homes and MSMEs	237.00
Energizing Education	105.00	Revised	Energizing Education	146.00
Technical assistance	35.00	Revised	Technical assistance	34.80
TOTAL	765.00			558.20

LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Revised Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-62910	Effective	31-Oct-2023		01-Aug-2024	01-Dec-2024

REALLOCATION BETWEEN DISBURSEMENT CATEGORIES

	Current Allocation	Actuals + Committed	Proposed Allocation	Financing % (Type Total)	
				Current	Proposed
IDA-62910-001 Currency: XDR					
iLap Category Sequence No: 1		Current Expenditure Category: Gds, Wrks, NCS, CS,TR,OC,SUB-FIN			
	239,200,000.00	119,922,532.68	240,558,562.00	100.00	100.00
iLap Category Sequence No: 2		Current Expenditure Category: Refund of Preparation Advance			
	4,200,000.00	2,841,437.21	2,841,438.00		
Total	243,400,000.00	122,763,969.89	243,400,000.00		



DISBURSEMENT ESTIMATES

Change in Disbursement Estimates

Yes

Year	Current	Proposed
2018	0.00	0.00
2019	0.00	0.00
2020	26,079,327.13	26,079,327.13
2021	5,136,030.00	5,136,030.00
2022	85,000,000.00	34,760,327.13
2023	85,000,000.00	90,000,000.00
2024	148,920,672.00	154,024,204.95
2025	0.00	40,000,000.00



Results framework

COUNTRY: Nigeria

Nigeria Electrification Project

Project Development Objectives(s)

The development objective is to increase access to electricity services for households, public institutions, and underserved micro, small and medium enterprises.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	End Target
Households provided with new electricity services			
Households provided with new electricity services (Number)		0.00	1,060,000.00
<i>Action: This indicator has been Revised</i>			
of which female headed households (Number)		0.00	106,000.00
<i>Action: This indicator has been Revised</i>			
Micro-, Small- and Medium-Sized Enterprises (MSMEs) provided with new electricity services			
Micro-, Small-, and Medium-Sized Enterprises (MSMEs) with new or improved electricity service (Number)		0.00	7,700.00
<i>Action: This indicator has been Revised</i>			
... of which female headed MSMEs (Number)		0.00	730.00
<i>Action: This indicator has been Revised</i>			
Public institutions provided with new or improved electricity services			
Federal universities and university teaching hospitals with new or improved electricity service (Number)		0.00	7.00



Indicator Name	PBC	Baseline	End Target
Public health facilities with new or improved electricity service (Number)		0.00	100.00
<i>Action: This indicator has been Revised</i>			
People provided with new or improved electricity service			
People provided with new or improved electricity service (CRI, Number)		0.00	5,300,000.00
<i>Action: This indicator has been Revised</i>			
Private capital mobilized (Amount(USD))		0.00	250,000,000.00
<i>Action: This indicator is New</i>			

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Solar Hybrid Mini Grids for Economic Development			
Households provided with access to electricity by mini grids (Number)		0.00	60,000.00
<i>Action: This indicator has been Revised</i>			
...of which headed by women (Percentage)		0.00	10.00
MSMEs provided with access to electricity by mini grids (Number)		0.00	2,300.00
<i>Action: This indicator has been Revised</i>			
...of which headed by women (Percentage)		0.00	10.00



Indicator Name	PBC	Baseline	End Target
Percentage of women of total number of people employed by mini grid and off-grid companies (Percentage)		16.00	30.00
Action: This indicator has been Revised			
Volume of results-based financing channeled to private sector mini grid developers (Amount(USD))		0.00	58,000,000.00
Action: This indicator has been Revised			
Annual publication of feedback received from citizens reached through the consumer education and citizen engagement program (Yes/No)		No	Yes
Increased productive uses of electricity for female headed businesses and female famers etc (Percentage)		0.00	5.00
New generation capacity of renewable energy (solar) installed (Megawatt)		0.00	15.50
Action: This indicator has been Revised			
Access to reliable electricity for facilities providing isolation and treatment services for the COVID-19 outbreak (Number)		0.00	100.00
Access to reliable electricity for primary healthcare facilities (Number)		0.00	400.00
Action: This indicator has been Marked for Deletion			
Stand-alone Solar Systems for Homes and MSME			
Households provided with access to electricity by stand-alone solar systems (Number)		0.00	1,000,000.00
Action: This indicator has been Revised			
...of which headed by women (Percentage)		0.00	10.00



Indicator Name	PBC	Baseline	End Target
MSMEs provided with access to electricity by stand-alone systems (Number)		0.00	5,000.00
<i>Action: This indicator has been Revised</i>			
...of which headed by women (Percentage)		0.00	10.00
Volume of results-based financing channeled to private sector stand-alone solar system providers (Amount(USD))		0.00	69,000,000.00
<i>Action: This indicator has been Revised</i>			
New generation capacity of renewable energy (solar) installed (Megawatt)		0.00	30.00
<i>Action: This indicator has been Revised</i>			
Energizing Education			
Federal universities with new or improved electricity service (Number)		0.00	7.00
Federal universities with a teaching hospital with new or improved electricity service (Number)		0.00	2.00
New capacity of renewable energy (solar) installed (Megawatt)		0.00	32.00
<i>Action: This indicator has been Revised</i>			



Annex 1: Energizing Education Program (EEP) Phase II

Work Plan for Lot 1

WBS	Task Name	Duration	Start	Finish	2022				2023								2024									
					SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	University of Abuja-Lot 1 (REA-NEP/C/GO/IS/RFP/105/20A)	389 days	Fri 9/9/22	Wed 3/6/24	[Gantt bar spanning from Sep 2022 to Mar 2024]																					
1.1	Contract Signing and Effectiveness Realization	100 days	Fri 9/9/22	Fri 1/27/23	[Green bar from Sep 2022 to Jan 2023]																					
1.2	Preliminaries	137 days	Thu 1/26/23	Fri 8/4/23	[Green bar from Jan 2023 to Aug 2023]																					
1.3	POWER PLANT	304 days	Tue 12/27/22	Sat 2/24/24	[Gantt bar spanning from Dec 2022 to Feb 2024]																					
1.3.1	Designs	149 days	Tue 3/14/23	Wed 9/20/23	[Green bar from Mar 2023 to Sep 2023]																					
1.3.2	Procurement	331 days	Tue 12/27/22	Fri 11/24/23	[Green bar from Dec 2022 to Nov 2023]																					
1.3.3	Construction & Installation	136 days	Mon 5/29/23	Thu 2/24/24	[Green bar from May 2023 to Feb 2024]																					
1.4	WORKSHOP AND TRAINING CENTER (WTC)	181 days	Wed 3/15/23	Wed 11/22/23	[Gantt bar spanning from Mar 2023 to Nov 2023]																					
1.4.1	Designs	15 days	Wed 3/15/23	Fri 3/31/23	[Green bar from Mar 2023 to Mar 2023]																					
1.4.2	Procurement	81 days	Mon 8/7/23	Thu 10/26/23	[Green bar from Aug 2023 to Oct 2023]																					
1.4.3	Construction & Installation	260 days	Tue 12/20/22	Mon 12/18/23	[Green bar from Dec 2022 to Dec 2023]																					
1.5	STREET LIGHTS	250 days	Fri 1/20/23	Thu 1/4/24	[Gantt bar spanning from Jan 2023 to Jan 2024]																					
1.5.1	Designs	107 days	Thu 2/23/23	Wed. 8/2/23	[Green bar from Feb 2023 to Aug 2023]																					
1.5.2	Procurement	93 days	Thu 7/27/23	Fri 10/27/23	[Green bar from Jul 2023 to Oct 2023]																					
1.5.3	Construction & Installation	44 days	Sat 10/28/23	Mon 12/18/23	[Green bar from Oct 2023 to Dec 2023]																					
1.6	DISTRIBUTION NETWORK	260 days	Tue 12/20/22	Mon 12/18/23	[Gantt bar spanning from Dec 2022 to Dec 2023]																					
1.6.1	Designs	50 days	Fri 2/17/23	Wed 5/17/23	[Green bar from Feb 2023 to May 2023]																					
1.6.2	Procurement	166 days	Mon 6/12/23	Fri 11/24/23	[Green bar from Jun 2023 to Nov 2023]																					
1.6.3	Installation	78 days	Sat 9/16/23	Mon 12/18/23	[Green bar from Sep 2023 to Dec 2023]																					
	Advanced Metering Infrastructure	265 days	Fri 1/27/23	Thu 2/1/24	[Green bar from Jan 2023 to Feb 2024]																					
1.7	PRE-COMMISSIONING	35 days	Tue 12/15/24	Wed 01/26/24	[Gantt bar spanning from Dec 2023 to Jan 2024]																					
1.7.1	Pre-Commissioning and Start-up Testing	14 days	Tue 2/26/24	Wed 03/11/24	[Green bar from Feb 2024 to Mar 2024]																					
1.8	COMMISSIONING	21 days	Mon 03/12/24	Wed 04/04/24	[Green bar from Mar 2024 to Apr 2024]																					
1.8.1	Commissioning (Guarantee Test)	21 days	Mon 03/12/24	Wed 04/04/24	[Green bar from Mar 2024 to Apr 2024]																					



Work Plan for Lot 3

					2022				2023								2024															
					SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL						
WBS	Task Name	Duration	Start	Finish																												
	Development of Solar Hybrid Power System for the University of Calabar & Teaching Hospital -Lot 3 (REA-NEP/C/GO/IS/RFP/105/20C)																															
1.1	POWER PLANT	422 days	Wed 2/1/23	Tue 4/30/24																												
1.1.2	Engineering Designs	324 days	Wed 2/1/23	Mon 1/15/24																												
1.1.3	Procurement	302.5 days	Wed 3/1/23	Sat 1/20/24																												
1.1.4	Construction	422 days	Wed 2/1/23	Tue 4/30/24																												
1.2	WORKSHOP AND TRAINING CENTER (WTC)	265 days	Mon 4/17/23	Fri 1/26/24																												
1.2.1	Engineering Designs	155.25 days	Mon 4/17/23	Sat 9/30/23																												
1.2.2	Procurement	87 days	Fri 7/21/23	Sun 10/22/23																												
1.2.3	Construction Works	160 days	Tue 8/8/23	Fri 1/26/24																												
1.3	STREET LIGHTS	358 days	Sat 2/11/23	Sat 3/2/24																												
1.3.1	Engineering Designs	62 days	Sat 2/11/23	Wed 4/19/23																												
1.3.2	Procurement	140 days	Sun 4/2/23	Wed 8/30/23																												
1.5.2	Construction	172.75 days	Wed 8/30/23	Sat 3/2/24																												
1.4	DISTRIBUTION NETWORK	287.75 days	Fri 5/12/23	Sat 3/16/24																												
1.4.1	Engineering Designs	131.75 days	Fri 5/12/23	Sat 9/30/23																												
1.4.2	Procurement	240.25 days	Wed 5/24/23	Wed 2/7/24																												
1.4.3	Construction	175.5 days	Sun 9/10/23	Sat 3/16/24																												
1.5	PRE -COMMISSIONING	75.25 days	Sun 3/10/24	Thu 5/30/24																												
1.5.1	Joint commissioning test for Power Plant	14 days	Tue 4/30/24	Wed 5/15/24																												
1.5.2	Joint commissioning test for Street Lights	14 days	Sun 3/10/24	Mon 3/25/24																												
1.5.3	Joint commissioning test for Distribution Network	14 days	Sun 3/17/24	Mon 4/1/24																												
1.5.4	Grid commissioning	14 days	Wed 5/15/24	Thu 5/30/24																												
1.6	COMMISSIONING	21 days	Mon 6/3/24	Mon 6/24/24																												
1.6.1	Functional Guarantee Test	21 days	Mon 6/3/24	Mon 6/24/24																												



Work Plan for Lot 4

		2022				2023												2024															
		SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP							
WBS	Task Name	Duration	Start	Finish																													
	Development of Solar Hybrid Power System for the University of Calabar & Teaching Hospital -Lot 3 (REA-1 NEP/C/GO/IS/RFP/105/20D)																																
1.1	POWER PLANT	379 days	Fri 1/20/23	Wed 7/3/24	[Gantt bar from Jan 2023 to Jul 2024]																												
1.1.1	Engineering Designs	327 days	Fri 1/20/23	Tue 12/12/23	[Gantt bar from Jan 2023 to Dec 2023]																												
1.1.2	Procurement	453 days	Tue 3/21/23	Sat 6/15/24	[Gantt bar from Mar 2023 to Jun 2024]																												
1.1.3	Construction	264 days	Fri 6/30/23	Wed 7/3/24	[Gantt bar from Jun 2023 to Jul 2024]																												
1.1.4																																	
1.2	WORKSHOP AND TRAINING CENTER (WTC)	343 days	Fri 1/20/23	Thu 12/26/23	[Gantt bar from Jan 2023 to Dec 2023]																												
1.2.1	Engineering Designs	53 days	Fri 1/20/23	Tue 4/4/23	[Gantt bar from Jan 2023 to Apr 2023]																												
1.2.2	Procurement	102 days	Wed 6/7/23	Thu 10/26/23	[Gantt bar from Jun 2023 to Oct 2023]																												
1.2.3	Construction and Installation Works	150 days	Tue 5/30/23	Thu 12/26/23	[Gantt bar from May 2023 to Dec 2023]																												
1.3	STREET LIGHTS	241 days	Mon 7/17/23	Sat 6/15/24	[Gantt bar from Jul 2023 to Jun 2024]																												
1.3.1	Engineering Designs	16 days	Mon 7/17/23	Mon 8/7/23	[Gantt bar from Jul 2023 to Aug 2023]																												
1.3.2	Procurement	65 days	Tue 8/8/23	Sun 11/5/23	[Gantt bar from Aug 2023 to Nov 2023]																												
1.3.3	Construction and Installation	225 days	Tue 8/8/23	Sat 6/15/24	[Gantt bar from Aug 2023 to Jun 2024]																												
1.4	DISTRIBUTION NETWORK	237 days	Sat 7/22/23	Sat 6/15/24	[Gantt bar from Jul 2023 to Jun 2024]																												
1.4.1	Engineering Designs	22 days	Sat 7/22/23	Sat 8/12/23	[Gantt bar from Jul 2023 to Aug 2023]																												
1.4.2	Procurement	90 days	Sun 8/13/23	Fri 11/10/23	[Gantt bar from Aug 2023 to Nov 2023]																												
1.4.3	Construction and Installation	90 days	Mon 3/18/24	Sat 6/15/24	[Gantt bar from Mar 2024 to Jun 2024]																												
1.5	PRE-COMMISSIONING	38 days	Mon 6/24/24	Thu 8/1/24	[Gantt bar from Jun 2024 to Aug 2024]																												
1.5.1	Project pre-commissioning	21 days	Mon 6/24/24	Mon 7/15/24	[Gantt bar from Jun 2024 to Jul 2024]																												
1.5.2	Completion of Project Construction	1 days	Mon 7/15/24	Mon 7/15/24	[Gantt bar at Mon 7/15/24]																												
1.6	COMMISSIONING	17 days	Tue 7/16/24	Mon 8/1/24	[Gantt bar from Jul 2024 to Aug 2024]																												
1.6.1	Functional Guarantee Test	17 days	Tue 7/16/24	Mon 8/1/24	[Gantt bar from Jul 2024 to Aug 2024]																												



Work Plan for Lot 5

					2022				2023												2024											
					SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL					
WBS	Task Name	Duration	Start	Finish																												
1	Development of Solar Hybrid Power System for the Federal University of Agriculture Abeokuta-Lot 5 (REA-NEP/C/GO/IS/RFP/105/20E)																															
1.1	Contract Signing and Effectiveness Realization	54 days	Sat 10/22/22	Wed 1/4/23																												
1.2	Preliminaries (Site Clearing, Leveling, Grading, Geotech, Geophysical, Topography, Site Office, Fencing, Gatehouse)	206 days	Mon 12/19/22	Mon 10/2/23																												
1.3	POWER PLANT																															
1.3.1	Engineering Designs	125 days	Sat 1/28/23	Thu 7/20/23																												
1.3.2	Procurement	264 days	Wed 1/4/23	Mon 1/8/24																												
1.3.3	Construction & Installation Works	214 days	Tue 3/28/23	Fri 1/19/24																												
1.4	WORKSHOP AND TRAINING CENTER (WTC)																															
1.4.1	Engineering Designs	29 days	Wed 3/29/23	Mon 5/8/23																												
1.4.2	Procurement	105 days	Thu 7/20/23	Wed 12/13/23																												
1.4.3	Construction & Installation Works	145 days	Mon 7/17/23	Fri 2/2/24																												
1.5	STREET LIGHTS																															
1.5.1	Engineering Designs	22 days	Thu 6/22/23	Fri 7/21/23																												
1.5.2	Procurement	52 days	Mon 7/24/23	Tue 10/3/23																												
1.5.3	Construction & Installation	61 days	Fri 7/28/23	Fri 10/20/23																												
1.6	DISTRIBUTION NETWORK																															
1.6.1	Engineering Designs	71 days	Mon 4/17/23	Sat 7/22/23																												
1.6.2	Procurement	38 days	Tue 7/11/23	Thu 8/31/23																												
1.6.3	Construction & Installation	108 days	Tue 7/18/23	Thu 12/14/23																												
1.7	PRE-COMMISSIONING																															
1.7.1	Pre - commissioning test for Power Plant	6 days	Fri 12/15/23	Fri 12/22/23																												
1.7.2	Pre-commissioning test for Street Lights	7 days	Sat 12/23/23	Sat 12/30/23																												
1.7.3	Pre-commissioning test for Distribution Network	6 days	Tue 1/2/24	Tue 1/9/24																												
1.7.4	Plant Start-up & Integration	6 days	Wed 1/10/24	Wed 1/17/24																												
1.8	COMMISSIONING																															
	Commissioning & Functional Guarantee Test	21 days	Thu 1/18/24	Thu 2/8/24																												



Annex 2: Availability of IDA resources for the project

Table 2.1: Impact of SDR/USD exchange rate on IDA resources for the project

Description of (sub) components	August 2020 Restructuring (US\$ equivalent)	September 2023 Restructuring (US\$ equivalent)	Difference (US\$ equivalent)
Component 1: Solar Hybrid Mini Grids	150	74	-76
1a: Minimum Subsidy Tender	25	0	-25
1b: Performance Based Grants	48	44	-4
1c: COVID-19 Response	77	30	-47
Component 2: Stand-alone Solar Systems	75	73	-2
2a: Market Scale-up Challenge Grants	15	0	-15
2b: Performance Based Grants	60	73	13
Component 3: Energizing Education	105	147	42
Component 4: Technical Assistance	20	30	10
Grand Total	350	323	-27