



Report No: RES00536

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT *AND/OR*
INTERNATIONAL DEVELOPMENT ASSOCIATION

RESTRUCTURING PAPER

ON A

PROPOSED PROGRAM RESTRUCTURING

OF THE

Nigeria Distribution Sector Recovery Program

APPROVED ON FEBRUARY 4, 2021

TO THE

Federal Republic of Nigeria

Energy & Extractives Global Practice
Western And Central Africa Region

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The World Bank

Nigeria Distribution Sector Recovery Program (P172891)



CURRENCY EQUIVALENTS

Exchange Rate Effective as of September 30, 2024

Currency Unit = ₦/NGN

US\$1 = ₦ 1,668.98

US\$1= SDR 0.74

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

ATC&C	Aggregate Technical, Commercial and Collection
BPE	Bureau of Public Enterprise
CMS	Commercial Management Systems
DAP	Data Aggregation Platform
DISCO	Distribution Company
DISREP	Distribution Sector Recovery Program
DLI	Disbursement-linked Indicator
DLR	Disbursement-linked Result
ERP	Enterprise Resource Planning
ESSA	Environmental and Social System Assessment
FAAC	Federation Account Allocation Committee
FGN	Federal Government of Nigeria
FMFBNP	Federal Ministry of Finance, Budget and National Planning
GENCO	Generation Company
GIS	Geographic Information System
ICB	International Competitive Bidding
IPF	Investment Procurement Financing
IRMS	Incident Recording Management System
IVA	Independent Verification Agent
MDMS	Meter Data Management Systems
MIS	Management Information System
MOFI	Ministry of Finance Incorporated
NERC	Nigeria Electricity Regulatory Commission
OMS	Outage Management System
PDO	Program Development Objective
PIP	Performance Improvement Plan
PIU	Project Implementation Unit
PMU	Project Management Unit
PforR	Program for Results
RA	Result Area
RPP	Revenue Protection Program
SCADA	Supervisory Control and Data Acquisition
SGDL	Smart Grid Development Limited
SPV	Special Purpose Vehicle
TA	Technical Assistance
TCN	Transmission Company of Nigeria
WB	World Bank
WMS	Works Management Systems



The World Bank

Nigeria Distribution Sector Recovery Program (P172891)



BASIC DATA

Product Information

Operation ID P172891	Operation Name Nigeria Distribution Sector Recovery Program
Product Program-for-Results Financing (PforR)	Operation Acronym NG Distribution Sector Recovery Program
Operation Status Active	Approval Date 04-Feb-2021
Does this operation have an IPF component? Yes	
Environmental and Social Risk Classification (ESRC) Low	

ACCOUNTABILITY

Region/Country

Who is the primary beneficiary of this operation? Country or Group of Countries	Beneficiary country/countries (borrower, recipient) Nigeria
Requesting Unit AWCW2 (6548)	
Will regional institutions act as the borrower/implementer?	

Implementing Unit

Responsible Unit (e.g. EECG1) IAWE4 (10079)	Practice Area (Lead) Energy & Extractives
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Contributing Practice Areas

OPERATION STATUS

Development Objective (DO)

Development Objective

The Program Development Objective is to improve financial and technical performance of the electricity distribution companies.

Disbursement Summary (in USD million)

Source of Funds	Net Commitment	Disbursed	Undisbursed	% Disbursed
IBRD	500.00	0.00	500.00	0.00
IDA	--	--	--	0
Grants	--	--	--	0

Policy Waivers

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

No



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I. PROJECT STATUS AND RATIONALE FOR RESTRUCTURING

A. Program Description

1. **The Program Development Objective (PDO) of the Nigeria Distribution Sector Recovery Program (DISREP) is to improve financial and technical performance of the electricity distribution companies (DisCos).** The Program is a hybrid with two components, a Program-for-Results (PforR) and an Investment Project Financing (IPF). Below is a detailed description of each component:
 - a. **PforR Component (US\$345 million):** This component provides funding for the implementation of the approved PIP of each DisCo in the following results areas: (i) improving DisCos' performance; (ii) enabling diversification of commercial options for DisCos to supply their demand; and (iii) strengthening governance and transparency of the DisCos. The disbursements under the component are governed by a set of five Disbursement-Linked Indicator (DLIs), which are (i) DLI 1: number of new metered connection by DisCos; (ii) DLI 2: kilometers of medium voltage (MV) distribution lines rehabilitated by DisCos; (iii) DLI 3: reduction in transformer technical losses in existing distribution networks; (iv) DLI 4: compliance with NERC Code of Corporate Governance by DisCos; and (v) DLI 5: Implementation of Management Information Systems (MIS) by DisCos. The amount of PforR financing received by the Federal Government of Nigeria (FGN) per year is based on the extent of DLI achievements, monitored by the DISREP Project Implementation Unit (PIU) within Bureau of Public Enterprise (BPE) and verified by an independent verification agent (IVA). The PforR component provides funds to the BPE, as the designated representative of the FGN, to on-lend to DisCos. Since the BPE is a 40-percent shareholder in each of the eleven DisCos, it will be on-lending the funds in the form of shareholder loans.
 - b. **IPF Component (US\$155 million):** reducing the significant metering gap detailed in their PIPs is a top priority for the Nigeria electricity DisCos that suffer from significant losses, an important proportion of which are non-technical losses. The component supports DisCos by financing the bulk procurement of customer and retail level meters as well as meter data management systems (MDMS) for DisCos to help them with collecting all information necessary to be able to calculate the energy bills for customer based on the meter data retrieved from meters. This component also helps financing the scoping and implementation of a comprehensive Data Aggregation Platform (DAP) within NERC that will support the regulator to receive real time information on operational and commercial performance from each DisCo once installed and fully connected to the management information systems (MIS) of each DisCo. Lastly, the component provides Technical Assistance (TA) for DISREP implementation support; development of capacity building program to support DisCos in strengthening their operations and process; support for the Power Sector Working Group (PSWG); and design of a Power Consumer Assistance Fund.

B. Program Performance and Status

2. **DISREP is a loan of US\$500 million that was approved by the World Bank (WB) Board of Directors on February 4, 2021, and the Loan Agreement (LA) was signed on September 26, 2022. The Program became effective on February 2, 2023, and the FGN's External Borrowing Plan that included the DISREP Program was approved by the National Assembly on May 15, 2024.** The significant delays in the signing of the LA resulted from the initial lack of consensus among the members of the Federal Executive Council (FEC) regarding the Federal Government's decision to provide on-lending to privately-owned DisCos that have not shown the substantial improvements expected at privatization in 2013. A first meeting of FEC discussed DISREP in June 2021, but it was



not until another meeting on August 3, 2022 that DISREP was approved, after providing a number of clarifications that had been requested. The LA was signed in late September 2022 by the Honorable Minister of FMFBNP. Another source of delays for the implementation of DISREP was the lack of political consensus in the legislative, which led to DISREP being approved by the National Assembly in May 2024 only, that is more than 3 years after Board approval.

3. **The latest Implementation Status and Results Report (ISR) dated June 21, 2024, rated both the overall implementation progress and progress towards achievement of the PDO as *Moderately Unsatisfactory*.** The ISR noted that both ratings will be upgraded once all of the following three conditions are met: first, the Senate approves an external borrowing plan (EBP) that includes DISREP; second, the contracts for supply and installation of 1.25 million smart meters are signed; and lastly the signing of on-lending agreements of the PforR component between BPE and respective 11 DisCos. To date, the first two conditions are met, and the last condition is being achieved in parallel to this restructuring to ensure that the DLI matrix included in the PforR on-lending agreements are aligned with the one proposed in this restructuring paper. The PforR on-lending agreements are expected to be signed by December 31, 2024, so that the first verification of results can start right afterwards.
4. **Noticeable progress has been made:**
 - a. **DISREP Program is now part of the FGN's 2022-2024 EBP and the Program is able to disburse.** On May 15, 2024, the amended FGN's 2022-2024 EBP was approved by the Nigerian Senate. This approval was achieved one year after the EBP was approved by the FEC in 2023. With the approval, the DISREP Program is able to proceed with signing of the contracts of smart meters procured as part of the Investment Project Financing (IPF); disbursement of advance funds of the Program for Results; and signature of contracts for key activities under the Program.
 - b. **On-lending agreements between BPE and all 11 DisCos on the IPF components were signed by May 24, 2024, and the contracts for 1.44 million smart meters procured through internationally competitive bidding were signed in late August 2024.** On top of 1.25 million meters, the FGN requested the Bank to procure an additional 15 percent of meters¹ as part of the first phase of International Competitive Bidding (ICB) meters, which led to the total 1.44 million meters to be procured. These meters are scheduled to be installed by December 2025.
 - c. **Additional 217,000 smart meters were procured through limited approach.** The FGN requested the WB that a small portion of meters to be procured from Nigerian smart meter manufacturers to provide an opportunity for domestic manufacturers to build experience and enhance their competitiveness. On an exceptional basis, the WB agreed to proceed with limited approach procurement procedure for five packages of about 217,000 meters. Offers were opened on August 28, 2024, with the lowest prices comparable to the meters procured through ICB. Contracts of these smart meters are to be signed by the end of November 2024, and all meters are expected to be installed by December 2025.
5. **In parallel, the sector is preparing for the implementation of the Program:**
 - a. **Progress on on-lending agreement negotiation:** There are two on-lending agreements to be signed for a DisCo to participate in the DISREP Program, one for PforR and the other for IPF component. DisCos could decide to participate in either PforR, IPF or both components of the DISREP Program, and the agreement is signed between the BPE and a participating DisCo. The on-lending agreement negotiations between BPE

¹ ICB bidding documents included an option to increase the meters amount up to 15 percent before contract signature.



and the DisCos have made steady progress. On May 24, 2024, the on-lending agreements for IPF component were signed between BPE and all 11 DisCos. Signing of the on-lending agreements between BPE and DisCos for the PforR component is in progress. Prior to signing of the on-lending agreement of the PforR component, each DisCo participating is required to meet six eligibility criteria and prepare an Individual Action Plan (IAP) with a commitment to implement all required fiduciary and safeguard actions as specified in the ESSA. Significant progress has been achieved over the last year on these six eligibility criteria. The IAP will be part of the on-lending agreements between BPE and DisCos. All 11 DisCos have been working closely with BPE to fulfill the eligibility criteria and they are expected to meet all the requirements prior to the signing of the PforR on-lending agreement that is expected by the end of 2024. The six eligibility criteria are included in the Program Action Plan.

b. Progress on the preparation of IPF component:

- i. **International Competitive Bidding (ICB) of smart meters and MDMS:** In addition to the successful procurement of 1.44 million smart meters as mentioned above, The procurement process of MDMS is progressing well. The bid procurement process for MDMS was launched on September 5, 2024, and contract is expected to be signed by February 2025. Once contract is in place, it could take up to 10 months for the software installation.
- ii. **Owner's Engineer and Technical Assistance (TA).** (i) *Owner's engineer* will supervise the supply and installation of smart meters. The contract of the Owner's engineer was signed on September 15, 2024; (ii) IVA will collect data and verify results achieved for disbursement. The hiring process for the IVA started in October 2023, and the contract is expected to be signed by October 2024. The verification process of the 2024 results is expected to begin in January 2025; (iii) *PIU* will support the daily management the DISREP Program implementation. Key staff of the PIU includes technical specialist and M&E specialist. Hiring of PIU coordinator and project accountant is to be completed by 2024 Q4; and (iv) Capacity building activities will begin post restructuring of the Program.

- c. **Progress on key Program Action Plan (PAP):** There are eight key actions included in the PAP, six of which correspond to the DisCos' eligibility criteria to join the PforR component (see *Progress on on-lending agreement* section for the latest status). The remaining two actions are (i) the approval of individual DisCos' PIPs; and (ii) the Regulatory Open Book Review of the DisCos. NERC is responsible for both actions that needs to be completed for every DisCos that will participate in DISREP. On May 1, 2021, NERC approved and published the PIPs of all 11 DisCos on its website and announced that the enhanced capex allowances would be part of the Extraordinary Tariff Review which took effect on February 2022. On the Regulatory Open Book review of DisCos, the final reports (prepared by KPMG, Deloitte and E&Y) reports were accepted by NERC and was shared with the Bank on May 10, 2024. At the request of BPE, nine out of 11 DisCos have prepared an action plan addressing the weaknesses identified in the regulatory open review, and the remaining two DisCos are expected to provide their action plan by the end of November 2024.

C. Issues and Challenges

6. **Challenging environment for reform implementation.** The Program was prepared during the peak of COVID-19 pandemic with limited physical interactions between the World Bank, the FGN, NERC and DisCos due to lock down. While the operation was approved by the World Bank's Board of Directors in February 2021, due to the lack of consensus and coordination among the relevant government agencies on supporting privatized DisCos



through DISREP Program led to a delay in signing LA for almost two years. Given the time sensitivity of DisCos' performance improvement, efforts need to be put in place to coordinate across sector and to build strong consensus among stakeholders.

- 7. Challenges with procurement of smart meters.** The FGN and NERC have decided that the priority in improving performance of DisCos is to install smart meters to all customers who are currently not metered, which will immediately help reducing non-technical losses and increase collection rates. To that end, the FGN decided to procure smart meters through ICB process under DISREP Program because procurement through ICB process will result in a competitive pricing of smart meters, which will then allow the FGN to acquire more smart meters. Following the launch of the bidding process in March 2023, however, the Association of Meter Manufacturers of Nigeria (AMMON) filed a court case in April 2023 claiming that the ICB process for procuring smart meters was intentionally designed to exclude them from participating in the procurement process. The case was discontinued in August 2023, which then allowed the TCU PMU to continue the procurement process, however, it has delayed the ICB process by a several months.

D. Rationale for Restructuring

- 8. Sector reality and priority have changed since 2020.** It became necessary to reevaluate the disbursement linked indicators (DLIs) initially agreed upon by the sector regulator NERC and the DisCos during the program's preparation in 2020. The DLIs and their associated targets and baseline need to be revised to reflect the current realities of the DisCos' limited investments and establish new and more realistic targets.
- 9. Need for an extension of closing date to effectively support DisCos with their performance improvement.** The original timeline for the program's closure was set for June 2026. However, given the challenges, it is prudent to propose a 23-month extension, pushing the program's closing to June 2028. This extension would provide the DisCos with sufficient time to utilize the available funds effectively and make the necessary investments to improve their performance.
- 10. Procurement of smart meters under ICB process is progressing well, and there is a strong ownership by the FGN on fully closing the metering gap.** Despite the delay due to AMMON's court case and the late approval of an EBP including DISREP by the National Assembly, the procurement process has been completed successfully. The opening of bids in October 2023 revealed a highly competitive pricing of smart meters- around 50 percent of what used to be the cap allowed by NERC used to sell smart meters in Nigeria. This allowed the FGN to sign contracts for 1.44 million smart meters on August 28, 2024. There is now a consensus within the FGN that closing the metering gap indeed is the top priority for the sector, and the FGN is showing a strong ownership through the establishment of the Presidential Metering Initiative (PMI) and the preparation and approval of the 2025-2027 Metering Plan. The PMI aims at closing Nigeria's metering gap of 7 million unmetered customers, as well as deploying meter data management systems and key management information systems (MIS) in DisCos, among others. The estimated benefits of achieving these objectives, which could translate in aggregate technical commercial and collection (ATC&C) losses decreasing from more than 40 percent to around 20 percent. To support the implementation of the PMI initiative, the Ministry of Finance Incorporated (MOFI) has established a Special Purpose Vehicle (SPV) named Smart Grid Development Limited (SGDL). Furthermore, substantial funding has been secured from the Federation Account Allocation Committee (FAAC) to close the metering gap.
- 11. Noticeable progress has been made on the regulatory reform front through Power Sector Recovery Performance Based Operation (PSRO, P164001), the complementary WB Program that supports institutional and regulatory reform in power sector.** The progress made include the implementation of approved PIPs of



DisCos; the business continuity arrangement while DisCos’ license intervention by NERC; and a waterfall payment mechanism for DisCo remittances to strengthen payment discipline of the sector; as well as the improvement of financial and operational transparency of DisCos by more DisCos publishing the IFRS audited financial statements. As results, seven out of eleven electricity DisCos have reached regulatory cost recovery in February 2022, sector tariff shortfalls have consistently decreased until 2022, and more energy was delivered to the system in 2022, which led to the WB Board approving the additional financing of PSRO in June 2023.

- 12. **Lastly, the Federal Government of Nigeria formally requested a Restructuring of the Program to allow for a revision of DLIs to reflect the current state of the DisCos and an extension of the Program closing date.** The FGN sent a formal request to the World Bank for the Program on June 7, 2023, to restructure DISREP. The delay in declaring the effectiveness of the Program has resulted in missing timelines for achieving the PDO and DLRs. On October 10, 2024, the DISREP Technical Committee endorsed the restructuring proposal, and the Bank agreed with the endorsed proposal.
- 13. **A level two restructuring is being proposed for the following reasons:**
 - a. The proposed restructuring will allow the Program to be revised to align the baseline and targets of the DLIs with current program circumstances and ensure their realistic achievability.
 - b. The proposed restructuring will allow the Program to be closed 23 months later than its original closing date to reflect the late start of the Program implementation by 2 years, and thereby give more time to DisCos to improve their performance.
 - c. The proposed restructuring will also give the Government a chance to reorganize the Program to maximize the synergy among complementary WB Programs and minimize redundancies.

II. DESCRIPTION OF PROPOSED CHANGES

- 14. **The proposed restructuring (level 2) involves changes to both the IPF and PforR components of DISREP and includes changes to the Program closing date, DLIs, DLRs, Results Framework, allocation of financing, and disbursement estimates.** The PDO, the Program boundary and the SORT ratings of the DISREP remain unchanged.
- 15. **Extension of the closing date.** Closing date of the Program will be extended by 23 months, from June 30, 2026 to May 30, 2028 to provide sufficient time for DisCos to undertake critical investments needed to improve their financial and technical performance. DISREP was designed for five years of support with the implementation of DisCos’ PIP. However, more than half of the Program duration has lapsed due to a two-year delay in reaching Program effectiveness. Results of the PforR component will be verified at the end of calendar years 2024, 2025, 2026, and 2027. The restructured DISREP will remain within the scope of the Government Program as shown in table 1 below.

Table 1. DISREP alignment with Government distribution sector program

	Government program	DISREP (restructured)	Reasons for non-alignment
Objective	Improve DisCo performance; restore proper sector; improve sector transparency	Improve the financial and technical performance of the DisCos	



Duration	2020-2030	2024-2027	The restructured DISREP will support the first phase the Government program whose implementation was delayed.
Geographic coverage	Entire country	Entire country	
Results areas	RA1-RA3	RA1-RA3	
Overall Financing	US\$1,743 million	US\$500 million	As with the original Program, the restructured DISREP represents only a part contribution to the government program. It is expected that with the implementation of PIPs using the PforR funding, the DisCos will be able to improve performance and increase revenues which in-turn would enable DisCos to access commercial, private sector funding.

16. **Revision in allocation of financing.** While the total envelope of the DISREP remains unchanged at US\$ 500 million, allocations between PforR and IPF components are revised to reflect the FGN’s top priority on the reinforcement of the role of smart meters, and the interconnection between DAP and installed MIS to improve the critical condition of DisCos’ performance. To that end, US\$95 million that was previously allocated to the PforR component is now allocated to IPF component to acquire more meters, resulting in the allocation for the PforR to decrease from US\$345 million to US\$250 million, while the allocation IPF component is increased to US\$250 million from US\$155 million.² Table 2 presents the original DISREP allocations and Table 3 shows the revised allocations under restructuring.

Table 2: Original DISREP Program

Component		Amount (\$million)
IPF	Component 1: (a) Bulk procurement of customer/retail meters	100
	(b) Meter data management systems for DisCos	20
	Component 2: NERC DAP	20
	Technical Assistance 1: DISREP Implementation Support	10
	Technical Assistance 2: Sub-component 2.1: Capacity building	2
	Sub-component 2.2: Support for the Power Sector Working Group	2
	Sub-component 2.3: Design of a Power Consumer Assistance Fund	1
	Sub-total (IPF):	155
PforR	DLI#1: Number of new metered connections by DisCos	69
	DLI#2: Kilometers of MV distribution lines rehabilitated by DisCos	96.6
	DLI#3: Reduction in transformer technical losses in existing distribution networks	96.6
	DLI#4: Compliance with NERC Code of Corporate Governance by DisCos	34.5
	DLI#5: Implementation of MIS by DisCos	48.3
	Sub-total (PforR):	345
	Grand total:	500

² The PforR directive, paragraph 6 states that the IPF component cannot exceed 25 percent of the total PforR program expenditure. The total PforR program expenditure is US\$1,743 million, therefore, the revised financing allocation of IPF component of US\$250 million does not exceed 25 percent of the total PforR program expenditure, which is equal to US\$436 million.



Table 3: Restructured DISREP Program

Component		Amount (\$ million)
IPF	Component 1: (a) Bulk procurement of customer/retail meters	208
	(b) Meter data management systems for DisCos	20
	Component 2: NERC DAP	5
	Component 3: Owner's Engineer	1.5
	Technical Assistance 1: DISREP Implementation Support	10
	Technical Assistance 2: Capacity building	5.5
Sub-total (IPF):		250
PforR	DLI#1: (a) Kilometers of MV & LV distribution lines rehabilitated	150
	(b) Rehabilitation and increase of available transformation capacity, MVA	
	DLI#2: Implementation of Management Information System (MIS)	100
Sub-total (PforR):		250
Grand total:		500

The proposed changes to the IPF Component are as follows:

- Modification to IPF Component 1 (IPF1): Bulk procurement of customer smart meters/ head end systems and MDMS for DisCos (to be *increased from US\$120 million to US\$228 million*).** Allocation to this component will increase to include additional smart meters to be procured to support the FGN to accelerate reducing the metering gap. Total US\$208 million is to be allocated to finance the procurement of smart meters. This component continues to include US\$20 million to finance MDMS for installation at the DisCos.
- Rationale for an increased smart meters investment under IPF.** First, the smart meters to be funded through the IPF component directly contribute to the improvement in operations of distribution utilities by reducing commercial losses, thereby increasing their revenues and contributing to a reduction in market shortfalls. Secondly, lessons from prior engagements in the region indicate that procurement with World Bank procedures yielded significantly lower prices of goods and services compared to purchases made directly by the utility with their own funds and procedures. As a reference, prices of electricity consumer meters allowed by the regulator at the time of ICB launch was almost twice higher than the winning bid of ICB. Furthermore, TA support will ensure that there is adequate capacity to implement the procurement of meters using lessons of best international experience to realize the benefits of competition under the IPF.
- Nearly half of the seven million metering gap in Nigeria is expected to be closed by smart meters to be procured through the DISREP Program.** Total about 3.2 million smart meters procured under ICB and limited approach domestic procurement under the DISREP program will be supplied and installed by the end of 2026. By the end of 2025, about 1.44 million smart meters procured through the first phase of ICB and about 217,000 smart meters procured through domestic procurement are expected to be installed. An additional 1.55 million smart meters will be procured through the second phase of ICB under the DISREP program, and these meters are expected to be supplied and installed by the end of 2026. Table 4 presents the allocation of ICB phase 1 smart meters by DisCo. Allocation of smart meters procured through domestic procurement and ICB phase 2 will be determined once the contacts have been signed.



Table 4. Allocation of ICB Phase 1 smart meters by DisCo

DisCo	Number of smart meters			Share
	Single-phase	Three-phase	Total	
Abuja	79,695	34,155	113,850	8%
Benin	112,700	48,300	161,000	11%
Eko	59,800	32,200	92,000	6%
Enugu	125,925	41,975	167,900	12%
Ibadan	171,396	14,904	186,300	13%
Ikeja	96,876	22,724	119,600	8%
Jos	103,788	5,463	109,250	8%
Kaduna	86,135	36,915	123,050	9%
Kano	90,160	38,640	128,800	9%
Port Harcourt	121,095	13,455	134,550	9%
Yola	40,480	60,720	101,200	7%
Total	1,088,050	349,451	1,437,500	100%

20. **Funding Allocation.** The successful procurement of smart meters through ICB approach led to a price discovery of smart meters for Nigeria. Total \$99 million will be allocated for the contract of 1.44 million meters through ICB phase 1 procurement, which includes both the supply and installation fee. For the 217,000 domestically procured meters, total \$20 million will be allocated. For the second phase of the ICB procurement, \$89 million is allocated to procure the remaining \$1.55 million meters. The allocation for MDMS remains at \$20 million. Table 5 shows allocation for IPF Component1.

Table 5. Funding allocation for IPF Component 1

	Number of meters	Amount (US\$ million)
ICB Phase 1	1.44 million	99
Limited Approach (domestic)	217,000	20
ICB Phase 2	1.55 million	89
MDMS	N/A	20
Total (DISREP)	3.2 million	228

21. **Another 4 million smart meters to be supplied through the SDGL under the Presidential Metering Initiative. Together with 3.2 million smart meters under the DISREP program, the seven million metering gap in Nigeria is expected to be closed by 2026.** In parallel to the DISREP program, the SDGL will procure 3 million meters to be supplied and installed by 2026 Q4, and the remaining 1 million meters will be procured and installed by the 2027 Q1.

22. **Modification to IPF Component 2 (IPF2): installation of NERC DAP (to be reduced from US\$20 million to US\$5 million):** the investment under this component is to support the scoping and implementation of a comprehensive



DAP within NERC to support the regulator in addressing problems of inadequate data availability, inconsistent data quality, and irregular reporting of the sector operators, that impact their ability to monitor sector performance. At the time of the DISREP project preparation, US\$20 million was allocated to support the regulator with the implementation of a comprehensive DAP. However, NERC wrote a letter to the Permanent Secretary of FMFBNP on July 18, 2023, requesting that US\$15 million out of US\$20 million allocated to the installation of DAP system to be reallocated to the DLI that support the implementation of MIS of DisCos under the PforR Program. The rationale behind the regulator's request is that the full benefits of the DAP will only be realized once the MIS systems are implemented and fully integrated with the DAP system. Once fully operational and integrated with well-functioning MIS of each DisCo, the DAP will allow the regulator to receive real time information about operational and commercial performance. NERC noted that the balance of the implementation costs of DAP system will be financed from its budget.

23. **New IPF Component 3: Owner's engineer (new IPF component, US\$1.5 million)** to support a smooth implementation of significantly increased amount of smart meters supply and installation, US\$1.5 million will be allocated under the IPF component to hire an owner's engineer. The owner's engineer will supervise the supply and installation of smart meters and MDMS to the 11 DisCos. The contract of the owner's engineer was signed on September 15, 2024.
24. **Modification of TA components (to be increased from US\$15 million to US\$15.5 million):** the TA activities are revised to reflect the shift in the FGN's priorities to closing the metering gap. Originally, the following four activities were supported under the TA component: (i) DISREP implementation support (US\$10 million); (ii) Capacity building (US\$2 million); (iii) Support for the Power Sector Working Group (US\$2 million); and (iv) Design of a Power Consumer Assistance Fund (US\$1 million). Under the restructured Program, the total allocation for the TA will increase slightly to US\$15.5 million and the TA will consist of two parts: (i) US\$10 million for DISREP implementation support to establish a PMU in BPE to assist with the functions of the PforR Implementing Agency; and (ii) US\$5.5 million for DisCo capacity building program to support DisCos to strengthen their operations and processes to suit their current operating environment as well as to suit the development of the market in the future. The remaining two sub-components of the original TA activities, which are (i) TA support for the Power Sector Working Group (PSWG) and (ii) TA support to design the Power Consumer Assistance Fund (PCAF) will be dropped as the PSWG no longer exists and the equivalent committee would be better supported under the additional financing of Power Sector Recovery Operation (P164001); and a PCAF is already established under the new Electricity Act of 2023.³

The proposed changes to the PforR Component are as follows:

25. As part of the restructuring, DLIs that are no longer relevant to the Program were dropped, while others were combined or modified to provide a maximum flexibility to DisCos to decide on investments based on individual DisCo's investment priorities. All five DLIs under the original Program were dropped to avoid any confusion. Under the restructured Program, there are two DLIs: DLI1 and DLI2. New DLRs and corresponding verification protocols to the DLIs under the restructured Program have been added.

³ Section 117 (1); and Part XI, Sections 122-126 of the Electricity Act (2023).



Table 6. DLIs under the original versus restructured DISREP

Original DISREP	Restructured DISREP
DLI#1: Number of new metered connections by DISCOs	DLI#1: (i) the rehabilitation of medium and low-voltage distribution lines; and (ii) the rehabilitation and increase of available transformation capacity
DLI#2: Kilometers of medium voltage (MV) distribution lines rehabilitated by DISCOs	DLI#2: Implementation of Management Information System by DisCos
DLI#3: Reduction in transformer technical losses in existing distribution networks	
DLI#4: Compliance with NERC Code of Corporate Governance by DISCOs	
DLI#5: Implementation of Management Information Systems by DISCOs	

DLIs under the original DISREP Program:

26. **DLI1- Number of new metered connections by DisCos** was deleted. DLI1 was designed to support (i) the connection and metering of new customers to the distribution network and (ii) the installation of new metered connections for the existing unmetered customers. During the significant delay in the DISREP to become effective, there has been a shift in the FGN’s strategy to address the access issues via the Nigeria DARES project based on off-grid solutions, while the DISREP focuses on closing the existing metering gap of 7 million customers and improving the performance of DisCos. To this end, the new customer connection and metering portion of the DLI was dropped. As for the installation of new metered connections for existing unmetered customers, the rationale for including the installation of meters as part of a DLI was to further support the DisCos with the installation of meters regardless of whether the meters supplied under the IPF component of this operation or supplied through other means to accelerate the closing of the metering gap. However, during the restructuring process, it was decided that the contracts for the smart meters procured under the IPF component will include both the supply and installation of the meters to benefit from cost efficiency and know-hows of firms selected through international competitive bidding process. Similarly, smart meters provided by SDGL will also include installation of meters. Given that contracts for all 7 million meters to be supplied also includes installation of these meters, the second part of DLI1 was also dropped to avoid double counting.
27. **DLI2 – Kilometers of MV distribution lines rehabilitated by DisCos** was deleted. DLI2 was to be triggered on the rehabilitation of MV (11-kV) lines across the distribution network as outlined in the DisCos’ PIPs. Upon consultations with the FGN, it was agreed that not only MV distribution lines but also LV distribution lines rehabilitation will be included in the PforR Program because LV lines rehabilitation is critical for some DisCos. Instead of revising this DLI to include both MV and LV lines, it was decided to drop this DLI and introduce a new one.



- 28. **DLI3 – Reduction in transformer technical losses in existing distribution net works** was deleted. Similar to DLI2 above, instead of modifying this DLI to include both the rehabilitation and increase of transformation capacity, this DLI was dropped, and a new one is introduced.
- 29. **DLI4 - Compliance with NERC Code of Corporate Governance by DisCos** was dropped. As specified in the new Electricity Act of 2023, the responsibility of the electricity sector was transferred from the Federal government to respective states, and to that end, the code of corporate governance is no longer part of the mandate of the federal regulator.
- 30. **DLI5 – Implementation of MIS by DISCOs** was dropped. DLI5 was to be triggered through the implementation of seven key MIS elements, which includes Commercial Management Systems (CMS), Enterprise Resource Planning (ERP), Geographic Information System (GIS), Incident Recording Management System (IRMS), Supervisory Control and Data Acquisition (SCADA), Revenue Protection Program (RPP) and Works Management Systems (WMS). Upon discussion with NERC and BPE, it was agreed to focus on first four critical MIS elements, which are CMS, OMS, ERP and GIS. Hence this DLI was drop and a new DLI reflecting these changes is created.

Restructured DLI matrix and results areas:

- 31. **Results Areas.** DISREP PforR funding will be disbursed in accordance with two DLIs across the three Results Areas (RAs). The DLIs together address the key RAs and serve as milestones in achieving the development objectives of the Program. The DLIs under the restructured Program focus on output and outcome level indicators and these indicators provide measurable and verifiable assessment of improved DisCo performance. Achievement of all DLIs will be monitored and verified by BPE with support of an IVA. Table 7 shows the restructured DLIs by result area.

Table 7: DSIREP DLIs by Result Area

	PSRP Component	PSRP Sub-component	PforR Areas	Original DLIs	Proposed DLIs Under restructuring
Nigeria Distribution on Sector Recovery Program	II. Operational/technical interventions	Improved DisCo performance	Result Area 1 (RA1): Improved DisCo performance	DLI1: Number of new metered connections by DisCos	DLI1: (i)Rehabilitation of MV&LV distribution lines and (ii) rehabilitation and increase of available transformation capacity
				DLI2: Km of MV distribution lines rehabilitated by DisCos	
			Result Area 2 (RA2): Enabling diversification of commercial options for DisCos to supply their demands	DLI3: Reduction in transformer technical losses in existing distribution network	



	III. Governance interventions	Restore proper sector governance	Result Area 3 (RA3): Strengthened governance and transparency	DLI4: Compliance with NERC Code of Corporate Governance by DisCos DLI5: Implementation of MIS by DisCos	DLI2: Implementation of MIS
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Result Area 1: Improved DisCo performance & Result Area 2: Enabling diversification of commercial options for DisCos to supply their demand

32. **DLI1 - (i) the rehabilitation of medium and low-voltage distribution lines; and (ii) the rehabilitation and increase of available transformation capacity.** DLI1 will be triggered on (i) the rehabilitation of medium-voltage and low-voltage lines across the distribution network; and (ii) the rehabilitation or increase of transformation capacity, that are part of DisCos’ PIPs approved by NERC. Rehabilitation of poor performing lines will reduce technical losses, while rehabilitation or increase of transformation capacity will not only reduce technical losses but also de-risk their power supply and purchase power from GenCos as well as from embedded generation such as renewable energy. Under the new DLI 1, DisCos will have a greater flexibility between distribution lines and transformation capacity to invest in, according to their own priorities. This implies that a DisCo could choose to allocate all its allocation to either lines or transformation rehabilitation as long as the investments is in the approved PIPs of DisCos and that total investment is cap at the total allocation of DLI1 for the DisCo. Table 8 presents the disbursement detail of the DLI.

33. **Disbursement criteria.** Total \$150 million, or 30 percent of the total DISREP envelop is allocated to the DLI where the allocation for each DisCo is based on the size of their total CAPEX allowance in PIP. For each DisCo in the first column of Table 8; the column 2 shows funding allocation for each DisCo determined by the share of DisCo’s CAPEX allowance in approved PIPs by DisCos; column 3 shows the baseline of the DLI1 set at 0 km; and column 4 presents the unit of DLI, which is in kilometers. The results achieved under this DLI will be measured in kilometers where for transformation capacity rehabilitated or increased, each MVA will be converted to kilometer equivalent by treating 1 MVA of transformation capacity improved is equivalent to rehabilitation in 3 kilometers of distribution lines, and for each kilometer of results achieved, US\$10,000 will be disbursed (see column 6). Column 5 shows the cap for the DLI1. The annual target for the DLI 1 is set at 25 percent of total target as shown in the last column, however, this DLI is scalable and not time bounded. Achievement of DLI1 will be monitored and verified by BPE with support of the IVA. Eligible expenditure includes any investments in the approved PIPs.



Table 8. DLI1 Lines and Transformer rehabilitation - Disbursement detail

DLI1: (i) Rehabilitation of MV&LV distribution lines and (ii) Rehabilitation and increase of available transformation capacity						
% of Total Financing:		30%			Use of funds:	
DisCo	Funding Allocation (US\$ million)	Baseline	Unit	Total target	Formula for disbursement (US\$)	DisCos PIPs Annual Target
Abuja	13.1	0	Kilometer (km)	1,309	10,000 per unit km <i>where for transformation capacity rehabilitated or increase, each MVA is converted into km equivalent as follows:</i> <i>1 MVA of transformation capacity is equivalent to 3km of distribution lines.</i> <i>* This DLI is capped at US\$150 million.</i>	25% of total Target
Benin	16.1	0		1,611		
Enugu	11.6	0		1,162		
Eko	16.2	0		1,615		
Ibadan	15.7	0		1,568		
Ikeja	21.0	0		2,100		
Jos	8.1	0		814		
Kaduna	19.6	0		1,964		
Kano	10.9	0		1,086		
PHC	13.0	0		1,301		
Yola	4.7	0		470		
Total	150	0				

Source: DisCos' PIPs approved by NERC, WB staff calculation.

Result Area 3: Strengthened governance and transparency

34. **DLI2 - Implementation of MIS by DisCos.** DLI2 will be triggered on Discos' implementation of the following four MIS elements: CMS, OMS, ERP and GIS. The original DLI was to be triggered through the DisCos' incremental implementation of seven key elements of MIS, defined by NERC as CMS, ERP, GIS, IRMS, SCADA, RPP and WMS. Upon the discussion with the regulator, the implementation of OMS, CMS, ERP and GIS elements were identified as a priority as they are critical for improving the non-technical losses of DisCos. According to the report prepared by Deloitte commissioned by the regulator in July 2023, however, while some DisCos have started to install part of these, no DisCo appears to have fully fledged version of these critical MIS. Given the high priority of reducing non-technical losses of DisCos, the benefit of the nation-wide deployment of smart meters and the investments on MDMS and NERC's DAP would be maximized only if all DisCos incorporate critical MIS components in full in parallel. To reinforce the incentives for DisCos to supply and fully install these critical MIS elements in timely manner, the allocation for the DLI will be increased (from US\$48.3 million to US\$100 million) and the DLI will be modified with two sub-components: (i) implementation of OMS, CMS, ERP and GIS (allocation: US\$63 million) and (ii) field campaign for the development of customer enumeration for the GIS element (US\$37 million). The allocation of the DLI is based on the estimated cost of deploying MIS elements as shown in Table 9.

Table 9. Cost of deploying MIS (OMS, CMS, ERP, and GIS)

MIS element	Estimated cost
GIS	<ul style="list-style-type: none"> GIS system: \$ 1 million for supply & installation of GIS Field campaigns for customer mapping for GIS: function of the size of the DisCo, \$2.84 is assumed per connection
OMS	Function of the size of the DisCo, assumption of \$ 2 per connection
CMS	Function of the size of the DisCo, assumption of \$ 1.5 per connection
ERP	Function of the size of the DisCo, assumption of \$ 0.5 per connection

35. **Disbursement criteria.** Total \$100 million, or 20 percent of the total DISREP envelop is allocated to the DLI where the allocation for each DisCo is based on the size of DisCos approximated by the number of registered



customers. This DLI is scalable and not time bound. Baseline for the DLI2(i) implementation of MIS will be determined by the findings from the regulator’s assessment, which is currently in progress. For each MIS element fully installed and verified, the disbursement formula is shown in Table 10. The baseline for this is 0. There is a flexibility with this DLI - for those DisCos that have installed any of the four MIS elements prior to February 2, 2023, DisCos could request to reallocate their funding to DLI1. For each customer mapped to GIS, \$2.84 will be disbursed as shown in Table 11. The annual targets for the DLI 2(i) and DLI2(ii) are set at 25 percent of total target as shown in the last column of Table 10 and Table 11, however, DLI2 is scalable and not time bounded. Achievement of DLI2 will be monitored and verified by BPE with support of the IVA. Eligible expenditure includes any investments in the approved PIPs.

Table 10. DLI2(i) Implementation of MIS - Disbursement detail

DLI2: (i) Implementation of MIS									
% of Total Financing:			12.6%		Use of funds:			DisCos PIPs	
DisCo	Funding Allocation (US\$million)	Baseline *	Unit	Total target (N)	Formula for Disbursement (US\$million)				Annual Target
					<i>For each MIS element fully installed and verified:</i>				
					CMS	ERP	OMS	GIS	
Abuja	6.0	0	Number of MIS elements installed (N)	4	1.9	0.6	2.5	1	25% of total target
Benin	6.5	0		4	2.1	0.7	2.7	1	
Enugu	6.6	0		4	2.1	0.7	2.8	1	
Eko	4.1	0		4	1.2	0.4	1.5	1	
Ibadan	11.0	0		4	3.7	1.2	5.0	1	
Ikeja	5.8	0		4	1.8	0.6	2.4	1	
Jos	4.0	0		4	1.1	0.4	1.5	1	
Kaduna	4.5	0		4	1.3	0.4	1.8	1	
Kano	4.5	0		4	1.3	0.4	1.8	1	
PHC	5.7	0		4	1.8	0.6	2.4	1	
Yola	4.3	0		4	1.2	0.4	1.6	1	
Total	63	0		44					Scalable Non-time bounded

* To be revised based on the assessment of the installation status of the four MIS components in 11 DisCo by NERC when completed. Those DisCos with non-zero baseline could request BPE and the World Bank to reallocate the respective funding to DLI1.

Source: Total number of registered customers from the NERC 2024 Q2 report. World Bank staff calculation.

Table 11. DLI2(ii) Field Campaigns for customer mapping for GIS – Disbursement Detail

DLI2: (ii) Field campaigns for customer mapping for GIS								
% of Total Financing:			7.4%		Use of funds:		DisCos PIPs	
DisCo	Funding Allocation (US\$million)	Baseline	Unit	Total target	Formula for disbursement (US\$)		Annual Target	
Abuja	3.5	0	Number of customers mapped(N)	1,244,245	2.84 per customer mapped. * This sub-component is capped at US\$37 million.		25% of total target	
Benin	3.9	0		1,369,840				
Enugu	4.0	0		1,396,440				
Eko	2.2	0		773,171				
Ibadan	7.1	0		2,498,224				
Ikeja	3.4	0		1,208,581				
Jos	2.1	0		747,162				
Kaduna	2.5	0		877,528				
Kano	2.5	0		881,922				
PHC	3.4	0		1,179,194				
Yola	2.3	0		817,735				
Total	37	0		12,994,042			Scalable Non-time bounded	

Source: Total number of registered customers from the NERC 2024 Q2 report. World Bank staff calculation.



Changes in Results Framework

36. **Changes in Program Development Objective (PDO) Indicators.** The PDO indicator on Compliance with NERC Code of corporate governance by DisCos (Percentage) under the Result Area 3 was dropped because the corresponding DLI, DLI4 Compliance with NERC Code of Corporate Governance by DisCos, is no longer part of the PforR component. The PDO indicator on semi-annual electricity billed (GWh) under the Results Area 1 was replaced with a new PDO indicator on billing efficiency (%), which is a better measure for losses reduction. A new PDO indicator on the implementation of MIS with a sub-indicator on the number of customers mapped for GIS was added under Results Area 3.
37. **Similarly, several Intermediate Results Indicators were dropped due to the revision in the DLI matrix.** Specifically, the following indicators were dropped:
- (a) New customers connected to the network (Number) (Reason: new connections are no longer supported under DISREP)
 - (b) Number of new metered connections by DisCos (Number) (Reason: new connections are no longer supported under DISREP)
 - (c) Number of DisCos tracking new metered connections to customers in Tariff Band A and B (Number) (Reason: new connections are no longer supported under DISREP)
 - (d) Number of DisCos that have identified and quantified the gender gap within their customer base (number) (Reason: As private companies, DisCos cannot select customers connect or install meters based on gender.)
 - (e) The Power Consumer Assistance Fund (PCAF) designed to support vulnerable women and girls and female-headed households within DisCos' customer base (Yes/No) (Reason: PCAF is already established)
 - (f) Development of NERC guidance on addressing the gender gap within DisCos' customer bases (Yes/No) (Reason: As private companies, DisCos cannot select customers connect or install meters based on gender.)
 - (g) Number of grids with improved stability, reliability and/or capacity to reduce technical losses (Number) (Reason: The indicator was not accurately defined. The outcome of rehabilitated or replaced transformers will be measured against the indicator on Available transformer capacity rehabilitated or increased (KVA).)
 - (h) Amount of electricity supply sourced directly from GenCos or from embedded generation (MWh) (Reason: the operation focuses on improving the bottlenecks in the distribution sector and therefore, does not have a direct outcome on electricity supply sourcing.)
 - (i) Number of qualified FGN representative appointed to DisCo Board (Number) (Reason: the corresponding DLI4 on Compliance with the NERC Code of Corporate Governance was dropped)
 - (j) Implementation of Management Information Systems (MIS) by DisCos (Number) (Reason: the indicator was modified to reflect the new DLI2 design and became a PDO indicator under Result Area 3.)
38. **Lastly, the end target values for the following Intermediate Results Indicators were revised to reflect the restructured operation:**
- (a) *Number of customer meters installed at unmetered customers.* The original end target of 5,129,295 was revised to 3,200,000 to match the number of smart meters to be supplied under the IPF project.
 - (b) *Kilometers of medium voltage (MV) distribution lines rehabilitated by DisCos* was revised to *Kilometers of medium voltage (MV) and low voltage (LV) distribution lines rehabilitated by DisCos* to reflect the change in the corresponding DLI, and the end target was updated from 20,774km to 7,500 km



(c) *Reduction in transformer technical losses in existing distribution network.* The original target of 9,510,000 KVA was updated to 2,500,000 KVA to reflect the change in the corresponding DLI.

Fiduciary, Environmental & Social and Procurement Risks

39. **There are no updates required for the Integrated Fiduciary Risk Assessment; Environmental and Social Risk Assessment; and Procurement Risk Assessment due to the restructuring of the project.** A new DLI on the hiring of owner’s engineer would lower procurement risks and has no impact on either fiduciary or environmental and social risk. All other restructured activities remain within the scope of the original Program.

Climate Change

40. **Alignment with the Paris Agreement.** The restructured activities within the IPF and PforR components are fully aligned with the Paris Agreement. On the mitigation side, smart meters and distribution lines related activities are included among the universally aligned list of activities, as they contribute to decarbonization goals while having a negligible impact on greenhouse gas emissions pathways. Smart meters play a vital role by enhancing energy efficiency and management. Component 1 will directly enhance the operations of distribution utilities by reducing commercial losses, thereby increasing revenues and helping to mitigate market shortfalls. Modifications to IPF Component 2 (IPF2) will empower the regulator to address challenges related to inadequate data availability, inconsistent data quality, and irregular reporting among sector operators; issues that hinder effective performance monitoring. The Data Acquisition Platform (DAP) will provide the regulator with real-time information on both operational and commercial performance. Finally, the new IPF Component 3 will incorporate an Owner’s Engineer to ensure the smooth implementation of an expanded supply and installation of smart meters, facilitating a successful transition to improved energy management. Additionally, on the adaptation side, activities related to distribution lines and transformers will focus on rehabilitation and expansion of capacity (DLI1) designed and constructed in a way that enhances network resilience to climate change, impact and allowing for greater flexibility between distribution lines to. This will prepare the system for increased grid integration of variable renewable energy sources. Tand the implementation of Management Information Systems (MIS, DLI2) will enhance the financial and technical performance of electricity distribution companies., complementing activities in DLI1 that will reduce technical total losses, and supply and installation of meters and MDMS under IPF component will reduce non-technical losses. Reduced losses imply that lower thermal generation will be required to meet the same demand. Combined, these measures reduce material risks from climate hazards to an acceptable level.

III. PROPOSED CHANGES

Operation Information	Proposed Changes	Operation Information	Proposed Changes
Results	Yes	Loan Closing Date Extension	Yes



Disbursements Estimates	Yes	Reallocations	Yes
Disbursements Arrangements	Yes	Implementation Schedule	Yes
Development Objective	No	Loan Cancellations	No
Summary Description (Operation Abstract)	No	Financial Management	No
Legal Operational Policies	No	Procurement	No
MFD/PCE	No	Institutional Arrangement	No
Risks	No		
Legal Covenants	No		
Conditions	No		
Implementation Modalities	No		
Clients	No		
Program Action Plan	No		

IV. DETAILED CHANGE(S)

COSTS & FINANCING

Is this an MFD-Enabling Project (MFD-EP)?

Is this project Private Capital Enabling (PCE)?

LOANS

Loan Closing

Loan/Credit/Trust Fund	Status	Original Closing	Revised Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IBRD-92060-001	Effective	30-Jun-2026	30-Jun-2026	31-May-2028	30-Nov-2028

Reallocation Between Disbursement Categories



DISBURSEMENTS

Operation Dates & Projection Details

Reasons to change the full Disbursement date and/or the projection

Restructuring

Implementation Start Date

04-Feb-2021

Operation Closing Date

30-Jun-2026

Projected Date for Full Disbursement

30-Nov-2028

Expected Disbursements (in US \$) (Absolute)

Year	Original Estimation at Preparation (Approval Package – 04 Feb 2021)	Revised Estimation	Actual
FY2021	5,792,500.00	0.00	0.00
FY2022	52,380,000.00	0.00	0.00
FY2023	83,057,500.00	0.00	0.00
FY2024	106,004,500.00	0.00	0.00
FY2025	112,758,000.00	143,500,000.00	0.00
FY2026	122,879,500.00	162,500,000.00	0.00
FY2027	0.00	122,500,000.00	0.00
FY2028	0.00	71,500,000.00	0.00
FY2029	0.00	0.00	0.00

LEGAL



ANNEX 1: RESULTS

COUNTRY: Nigeria

Nigeria Distribution Sector Recovery Program

PDO Indicators by PDO Outcomes

Improved DISCO performance								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Result	Month/Year	Result	Date	Result	Date	Result	Month/Year
Revise Reduction in DisCos' metering gap (Percentage)	100	Oct/2020	100.00	11-Jun-2024	100.00	31-Oct-2024	50	Dec/2027
New Billing efficiency (Percentage)	79.20	Dec/2023			79.20	31-Dec-2023	85.00	Dec/2027
Enabling diversification of commercial options for DISCOs to supply their demand								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Result	Month/Year	Result	Date	Result	Date	Result	Month/Year
Revise Semi-annual collection of billed electricity (Percentage)	66.00	Apr/2023	78.80	11-Jun-2024	81.40	11-Jun-2024	88.00	Dec/2027
Strengthened corporate governance and transparency								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Result	Month/Year	Result	Date	Result	Date	Result	Month/Year
New Implementation of Management Information System (MIS) (Number) DLI	0	Nov/2024			0	14-Nov-2024	44	Dec/2027
New Number of customers mapped for GIS (Number) DLI	0	Nov/2024			0	14-Nov-2024	12,994,042	Dec/2027



Intermediate Results Indicators by Results Areas

Improved DISCO performance								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Result	Month/Year	Result	Date	Result	Date	Result	Month/Year
Revise Number of customer meters installed at unmetered customers (Number)	0.00	Oct/2020	0.00	11-Jun-2024	0	01-Feb-2023	3,200,000	Dec/2027
Revise Operation of MDMSs in DISCOs (Yes/No)	No	Oct/2020	No	11-Jun-2024	No	11-Jun-2024	Yes	Dec/2027
Revise Development of NERC Guidance of Investment in Climate Resilient Infrastructure (Yes/No)	No	Oct/2020	No	11-Jun-2024	No	11-Jun-2024	Yes	Dec/2027
Enabling diversification of commercial options for DISCOs to supply their demand								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Result	Month/Year	Result	Date	Result	Date	Result	Month/Year
New (i) Rehabilitation of MV&LV distribution lines; and (ii) rehabilitation and increase of available transformation capacity (Kilometers) (Kilometers) DLI	0	Oct/2020			0	14-Nov-2024	15,000	Dec/2027
Strengthened corporate governance and transparency								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Result	Month/Year	Result	Date	Result	Date	Result	Month/Year
Revise Audited financial statements of DISCOs are published annually (Yes/No)	No	Oct/2020	No	11-Jun-2024	No	11-Jun-2024	Yes	Dec/2027

Disbursement Linked Indicators (DLI)



DLI Name		Baseline	Actual (Previous)		Actual (Current)		End Target
			Result	Date	Result	Date	
New 1 (i) Rehabilitation of MV&LV distribution lines; and (ii) rehabilitation and increase of available transformation capacity (Kilometers) (Kilometers) Total Allocation:150,000,000.00	Value	0					15,000
	Allocated Amount	0.00			0	14-Nov-2024	37,500,000.00
New 2 Implementation of Management Information System (MIS) (Number) Total Allocation:63,000,000.00	Value	0					44
	Allocated Amount	0.00			0	14-Nov-2024	15,750,000.00
New Number of customers mapped for GIS (Number) Total Allocation:37,000,000.00	Value	0					12,994,042
	Allocated Amount	0.00			0	14-Nov-2024	9,250,000.00



ANNEX 2: PROGRAM ACTION PLAN

Action Description	Source	DLI#	Responsibility	Timing		Completion Measurement	Action
Undergo in-depth internal control review (as part of NERC’s open book review or otherwise) and establish a framework to address identified risks	Fiduciary Systems	NA	DISCOs through BPE	Other	Prior to execution of Shareholder Loan Agreements	Provide copy of the report as well as evidence of a framework to address risks	No change
Undergo 2nd in-depth internal control review (as part of NERC’s open book review or otherwise)	Fiduciary Systems	NA	DISCOs through BPE	Other	3 years after the first in-depth review and thereafter once every 3 years until program closure	Provide copy of the report along with evidence of continued existence of a framework to address risks as well as evidence of corrective action taken on key issues from the	No change



						previous in-depth review	
Board approved procurement regulatory framework that supports procurement core principles of economy, competition, transparency and integrity and practice that is embedded on good budget management	Fiduciary Systems	NA	DISCOs through BPE	Other	Prior to execution of Shareholder Loan Agreements	Evidence of existence of procurement policy that supports procurement practice to achieve procurement core principles of economy, competition, transparency and integrity in budget execution.	No change
Ensure existing governance and anti-corruption framework incorporate the Program	Fiduciary Systems	NA	DISCOs through BPE	Other	Prior to execution of Shareholder Loan Agreements	DISCOs confirm to PMU that their fraud and corruption / complaints redress mechanism have incorporated the DISREP program within the specified time period	No change



Commitment by DISCOs to implement IAPs, including all necessary fiduciary actions and safeguard actions, as specified in the ESSA	Environmental and Social Systems	NA	DISCOs through BPE	Other	Prior to execution of Shareholder Loan Agreements	Inclusion of agreed IAPs in BPE-DISCO loan agreements	No change
Develop a protocol/standard that will serve for benchmarking environmental and social system and performance of DISCOs	Environmental and Social Systems	NA	BPE	Other	Prior to execution of Shareholder Loan Agreements	Document containing environmental and social benchmarks for DISCOs	No change
Engage suitable Environmental and Social Risk Management Specialists (Consultants) as part of the Program Implementation Team in a manner that will be satisfactory to the World Bank	Environmental and Social Systems	NA	BPE, All DISCOs	Other	Prior to program implementation/prior on-lending to specific DISCOs	Letters of appointment of Consultants/ Specialists	No change



Approval of individual DISCO PIPs by NERC	Other	NA	NERC	Other	Prior to individual DISCO participation in the operation	NERC gives notice of PIP approval	No change
Proposed							
Action Description	Source	DLI#	Responsibility	Timing	Completion Measurement		



ANNEX 3: DISBURSEMENT LINKED INDICATORS MATRIX

DLI1: (i) Rehabilitation of MV&LV distribution lines and (ii) Rehabilitation and increase of available transformation capacity						
% of Total Financing:					Use of funds:	
	30%					DisCos PIPs
DisCo	Funding Allocation (US\$ million)	Baseline	Unit	Total target	Formula for disbursement (US\$)	Annual Target
Abuja	13.1	0	Kilometer (km)	1,309	10,000 per unit km <i>where for transformation capacity rehabilitated or increase, each MVA is converted into km equivalent as follows: 1 MVA of transformation capacity is equivalent to 3km of distribution lines.</i> * This DLI is capped at US\$150 million.	25% of total Target
Benin	16.1	0		1,611		
Enugu	11.6	0		1,162		
Eko	16.2	0		1,615		
Ibadan	15.7	0		1,568		
Ikeja	21.0	0		2,100		
Jos	8.1	0		814		
Kaduna	19.6	0		1,964		
Kano	10.9	0		1,086		
PHC	13.0	0		1,301		
Yola	4.7	0		470		
Total	150	0		15,000		Scalable Non-time bounded



DLI2: (i) Implementation of MIS									
% of Total Financing:			12.6%		Use of funds:				DisCos PIPs
DisCo	Funding Allocation (US\$million)	Baseline *	Unit	Total target (N)	Formula for Disbursement (US\$ million)				Annual Target
					<i>For each MIS element fully installed and verified:</i>				
					CMS	ERP	OMS	GIS	
Abuja	6.0	0	Number of MIS elements installed (N)	4	1.9	0.6	2.5	1	25% of total target
Benin	6.5	0		4	2.1	0.7	2.7	1	
Enugu	6.6	0		4	2.1	0.7	2.8	1	
Eko	4.1	0		4	1.2	0.4	1.5	1	
Ibadan	11.0	0		4	3.7	1.2	5.0	1	
Ikeja	5.8	0		4	1.8	0.6	2.4	1	
Jos	4.0	0		4	1.1	0.4	1.5	1	
Kaduna	4.5	0		4	1.3	0.4	1.8	1	
Kano	4.5	0		4	1.3	0.4	1.8	1	
PHC	5.7	0		4	1.8	0.6	2.4	1	
Yola	4.3	0		4	1.2	0.4	1.6	1	
Total	63	0		44					Scalable Non-time bounded

* To be revised based on the assessment of the installation status of the four MIS components in 11 DisCo by NERC when completed. Those DisCos with non-zero baseline could request BPE and the World Bank to reallocate the respective funding to DLI1.



DLI2: (ii) Field campaigns for customer mapping for GIS						
% of Total Financing:			7.4%		Use of funds:	
DisCo	Funding Allocation (US\$ million)	Baseline	Unit	Total target	Formula for disbursement (US\$)	DisCos PIPs
						Annual Target
Abuja	3.5	0	Number of customers mapped(N)	1,244,245	2.84 per customer mapped. * This sub-component is capped at US\$37 million.	25% of total target
Benin	3.9	0		1,369,840		
Enugu	4.0	0		1,396,440		
Eko	2.2	0		773,171		
Ibadan	7.1	0		2,498,224		
Ikeja	3.4	0		1,208,581		
Jos	2.1	0		747,162		
Kaduna	2.5	0		877,528		
Kano	2.5	0		881,922		
PHC	3.4	0		1,179,194		
Yola	2.3	0		817,735		
Total	37	0		12,994,042		Scalable Non-time bounded



ANNEX 4: VERIFICATION PROTOCOL

DLI1	<ul style="list-style-type: none"> i. Kilometers of medium and low voltage distribution lines rehabilitated by DisCos ii. MVA of available transformation capacity rehabilitated or increased
Description	<p>DLI1 involves</p> <ul style="list-style-type: none"> i. the rehabilitation of 33kV, 11kV and 0.4kV voltage distribution lines identified as requiring refurbishment in DisCos PIPs. A distribution line will be considered refurbished when it is operating within an agreed technical margin of its optimum performance; and ii. the increase in distribution and power transformer capacity in any voltage levels in accordance with the transformer requirements identified in DisCos PIP. Increase in transformation capacity (measured in mega-volt amperes [MVA]) that result from the replacement of a transformer with an equivalent capacity or with a higher capacity, as well as from the installation of new transformers <p>DisCos are free to select any combination of lines and transformers rehabilitation as long as the selected investments are within the DisCos' PIPs and the DisCo specific funding allocation for DLI1.</p> <p>This DLI is scalable and not time bounded.</p>
Data source/ Agency	DisCos
Verification Entity	BPE with support of IVA
Procedure	<p>DisCos notify BPE the total amount of</p> <ul style="list-style-type: none"> i. the MV and LV distribution lines have been refurbished. IVA mobilized by BPE to verify the DLI achievement by in-person inspection of a representative sample of distribution lines as well as the performance data of the sample lines. The representative sample will be selected by BPE in conjunction with the IVA. A minimum level of sampling will be agreed between BPE, the IVA and the World Bank. In parallel, NERC will inform the DISREP Technical Committee of the refurbishment of MV and LV distribution lines in accordance with a DisCos PIPs. ii. the distribution and power transformers have been replaced with either an equivalent or a higher transformation capacity and the new transformers installed, in any voltage levels. IVA mobilized by BPE to verify the DLI achievement by in-person inspection of a representative sample of transformers as well as the performance data of the sample transformers. The representative sample will be selected by BPE in conjunction with the IVA. A minimum level of sampling will be agreed between BPE, the IVA and the World



	Bank. In parallel, NERC will inform the DISREP Technical Committee of the rehabilitation of distribution and power transformers in accordance with a DisCos PIPs.

DLI2 Implementation of Management Information Systems by DisCos	
Description	<p>DLI2 involves the implementation of the four components of the MIS, CMS, OMS, ERP and GIS, selected by the NERC as critical components to reduce DisCos' losses and are in accordance with the NERC PIP Guidance Documents. Each of the four components will be considered installed when it is installed on a DisCo's premises with full coverage of the DisCo's network and operating correctly for a period of 6 months prior to verification.</p> <p>To further incentivize the DisCos to implement GIS supported customers and network databases, the customer enumeration and network mapping of the GIS component is separated out as a second subcomponent of DLI2.</p> <p>This DLI is scalable and not time bounded. Furthermore, DisCos that have installed any of the 4 MIS components prior to February 2023 (not eligible for PforR disbursement) could request the World Bank to reallocate the corresponding amount of their DLI2 allocation to top up their DLI 1 allocation.</p>
Data source/ Agency	DisCos
Verification Entity	BPE with support of IVA
Procedure	<p>DisCos notify BPE that the MIS components have been installed and operating correctly for a period of 6 months. DisCos provide BPE with the relevant MIS data reports for the 6 months prior to the notification. IVA will review the data provided and reconcile it where possible and appropriate with independent data sources such as DAP data from NERC. The IVA may also request additional support data from DisCos in order to verify full and correct functioning of the MIS component(s) over the period.</p> <p>Every 6 months, each DisCo participating in DISREP will provide the list of customers incorporated to GIS with the respective links to network assets used to supply each of them, including GIS coordinates of both points of supply and assets (customer enumeration and network mapping). IVA will verify "on site" points of supply and network assets by sampling according to applicable ISO or equivalent Nigerian standards.</p>