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IMPLEMENTATION COMPLETION AND RESULTS REPORT

ON GRANT IDA-D3090

IN THE AMOUNT OF SDR 28.4 MILLION

(US$41 MILLION EQUIVALENT)

AND GRANT IDA-D6530

IN THE AMOUNT OF SDR 31.5 MILLION

(US$43 MILLION EQUIVALENT)

TO THE

REPUBLIC OF THE GAMBIA

FOR THE

GAMBIA ELECTRICITY RESTORATION AND MODERNIZATION PROJECT

June 25, 2026

Energy
Western And Central Africa

CURRENCY EQUIVALENTS

(Exchange Rate Effective {Jun 22, 2026})

Currency Unit =	Special Drawing Rights (SDR), Gambian Dalasi (GMD)
US$1 =	71.70 GMD
SDR 1 =	US$1.3687

FISCAL YEAR
January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

Abbreviations	Definitions
CERC	Contingent Emergency Response Component
CPF	Country Partnership Framework
DMA	District Metering Area
DPO	Development Policy Operation
ECOWAS	Economic Community of West African States
EIB	European Investment Bank
ERR	Economic Rate of Return
EU	European Union
FIRR	Financial Internal Rate of Return
GBA	Greater Banjul Area
GDP	Gross Domestic Product
GESP	Gambia Electricity Support Project
GHG	Greenhouse Gas
GIP	Gambia Infrastructure Project
GMD	Gambian Dalasi
GW	Gigawatt
HDI	Human Development Index
HFO	Heavy Fuel Oil
IDA	International Development Association
IPP	Independent Power Producer
IRR	Internal Rate of Return
ISR	Implementation Status and Results Report
MW	Megawatt
NAWEC	National Water and Electricity Company
NDP	National Development Plan
NPV	Net Present Value
NRW	Non-Revenue Water
OMVG	Gambia River Basin Development Organization (*Organisation pour la Mise en Valeur du fleuve Gambie*)
PDO	Project Development Objective
PIU	Project Implementation Unit
RAP	Resettlement Action Plan
REAP	Regional Electricity Access Project
RSPG	Regional Solar Park of The Gambia Project
SCADA	Supervisory Control and Data Acquisition
SDG	Sustainable Development Goals
T&D	Transmission and Distribution
VRE	Variable Renewable Electricity
WAPP	West African Power Pool

TABLE OF CONTENTS

DATA SHEET i

I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES 1

II. OUTCOME 8

III. KEY FACTORS AFFECTED IMPLEMENTATION AND OUTCOME 16

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME 18

V. LESSONS AND RECOMMENDATIONS 23

ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS 25

ANNEX 2. RESULTS FRAMEWORK WITH ACHIEVEMENT AT COMPLETION 33

ANNEX 3. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION 37

ANNEX 4. PROJECT COST BY COMPONENT (IDA FINANCING) 40

ANNEX 5. EFFICIENCY ANALYSIS 41

ANNEX 6. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS 45

ANNEX 7. SUPPORTING DOCUMENTS (IF ANY) 47

DATA SHEET

BASIC DATA

Product Information

Operation ID	Operation Name
P163568	Gambia Electricity Restoration and Modernization Project
Product	**Operation Short Name**
Investment Project Financing (IPF)	GERMP
Operation Status	**Approval Fiscal Year**
Closed	2018

Original EA Category

Partial Assessment (B) (Approval package - 05 Aug 2019)

CLIENTS

Borrower/Recipient	Implementing Agency
Ministry of Finance and Economic Affairs	National Water and Electricity Company NAWEC

DEVELOPMENT OBJECTIVE

Original Development Objective (Approved as part of Decision Package on 05-Aug-2019)

The Project Development Objectives are to (i) improve the operational performance of the Project Implementing Entity; and (ii) improve the capacity of the Project Implementing Entity to dispatch variable renewable electricity.

Current Development Objective (Approved as part of Additional Financing Package Seq No 1 on 29-Jun-2020)

The Project Development Objectives are to (i) improve the operational performance of the Project Implementing Entity; and (ii) improve the capacity of the Project Implementing Entity to dispatch variable renewable electricity.

FINANCING

Financing Source	Original Amount (US$)	Revised Amount (US$)	Actual Disbursed (US$)
World Bank Financing	84,000,000.00	81,036,314.00	80,896,713.05
IDA-D3090	41,000,000.00	38,421,224.00	38,354,686.95
IDA-D6530	43,000,000.00	42,615,090.00	42,542,026.10
Non-World Bank Financing	80,500,000.00	80,845,111.33	83,258,333.23
EC: European Investment Bank	62,000,000.00	62,270,846.87	60,065,910.67
EC: European Commission	17,000,000.00	17,074,264.46	14,892,422.56
Borrower/Recipient	1,500,000.00	1,500,000.00	8,300,000.00
Total	**164,500,000.00**	**161,881,425.33**	**164,155,046.28**

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Type	Amount Disbursed (US$M)	Key Revisions
08-Jul-2024	Portal	65.44	• Results • Reallocations
02-Dec-2024	Portal	68.83	• Results • Disbursement Estimates • Loan Closing Date Extension
24-Jun-2025	Portal	76.70	• Results • Disbursement Estimates • Loan Closing Date Extension

KEY DATES

Key Events	Planned Date	Actual Date
Decision Review	22-Jan-2018	22-Jan-2018
Authorize Negotiations	22-Mar-2018	21-Mar-2018
Approval	15-May-2018	18-May-2018
Signing	22-May-2018	22-May-2018
Effectiveness	20-Nov-2018	20-Nov-2018

Additional Financing Sequence.01	Not Applicable	29-Jun-2020
Restructuring Sequence.01	Not Applicable	08-Jul-2024
Restructuring Sequence.02	Not Applicable	02-Dec-2024
Restructuring Sequence.03	Not Applicable	24-Jun-2025
ICR Sequence.01 (Final)	--	23-Jun-2026
Mid-Term Review No. 01	31-Mar-2022	18-Mar-2022
Operation Closing/Cancellation	31-Dec-2025	31-Dec-2025
ICR/NCO	30-Jun-2026	24-Jun-2026

RATINGS SUMMARY

Outcome	Bank Performance	M&E Quality
Moderately Satisfactory	Moderately Satisfactory	Substantial

ISR RATINGS

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US$M)
01	30-Aug-2018	Satisfactory	Satisfactory	0.00
02	08-Jan-2019	Satisfactory	Satisfactory	4.20
03	07-Aug-2019	Satisfactory	Satisfactory	5.19
04	30-Jan-2020	Satisfactory	Satisfactory	6.05
05	03-Aug-2020	Satisfactory	Satisfactory	8.78
06	23-Oct-2020	Satisfactory	Satisfactory	11.23
07	29-Apr-2021	Satisfactory	Satisfactory	16.27
08	02-Nov-2021	Satisfactory	Satisfactory	21.22
09	21-Apr-2022	Satisfactory	Moderately Satisfactory	25.73
10	14-Dec-2022	Satisfactory	Moderately Satisfactory	43.95
11	28-Apr-2023	Satisfactory	Moderately Satisfactory	46.67
12	16-Dec-2023	Satisfactory	Satisfactory	56.07

13	05-Jun-2024	Satisfactory	Satisfactory	63.43
14	24-Dec-2024	Satisfactory	Satisfactory	69.81
15	30-Jun-2025	Moderately Satisfactory	Moderately Satisfactory	76.70
16	18-Dec-2025	Satisfactory	Satisfactory	79.43

SECTORS AND THEMES

Sectors

Major Sector	Sector	%	Adaptation Co-benefits (%)	Mitigation Co-benefits (%)
FY17 - Energy and Extractives	FY17 - Energy Transmission and Distribution	30	0	46
	FY17 - Public Administration - Energy and Extractives	35	0	22
	FY17 - Renewable Energy Solar	35	0	52

Themes

Major Theme	Theme (Level 2)	Theme (Level 3)	%
FY17 - Environment and Natural Resource Management	FY17 - Climate change	FY17 - Mitigation	40
	FY17 - Energy	FY17 - Access to Energy	100
		FY17 - Energy Efficiency	97
		FY17 - Energy Policies & Reform	35

ADM STAFF

Role	At Approval	At ICR
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I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL[1][2]

Country Context

1. **At appraisal in 2018, The Gambia was one of the poorest and most fragile countries in Sub Saharan Africa**, with a per capita GDP of approximately US$715 and a national poverty rate of 48 percent, rising to 69.5 percent in rural areas. The country ranked 174th out of 189 on the Human Development Index, reflecting severe human development constraints. The 2016 political transition brought a new administration committed to democratic reform but facing substantial macroeconomic pressures. Public debt had risen to 118.5 percent of GDP, fiscal deficits averaged 9 percent between 2013 and 2016, and state-owned enterprises (SOEs), particularly the National Water and Electricity Company (NAWEC), presented acute fiscal risks through persistent operating losses and debt servicing demands that crowded out public investment in health, education, and infrastructure. The country's fiscal space was extremely limited, constraining the government's ability to finance development priorities without external support.

Sectoral and Institutional Context

2. **The electricity sector faced severe access, reliability, and cost challenges.** At appraisal in 2018, national electricity access stood at 56.2 percent, masking a pronounced urban-rural disparity: while 79.4 percent of urban households had access to electricity, only 20.5 percent of rural households were connected to the grid[3]. The country relied entirely on Heavy Fuel Oil (HFO)-based generation, exposing the sector to high and volatile fuel costs. Installed generation capacity

[1] World Bank. 2018. Gambia Electricity Restoration and Modernization Project: Project Appraisal Document. Washington, DC. Report No. PAD2530.
[2] World Bank. 2020. Gambia Electricity Restoration and Modernization Project: Additional Financing Project Appraisal Document. Washington, DC. Report No. PAD3664.
[3] www.data.worldbank.org (2017)

was approximately 99 MW, but available capacity frequently fell below peak demand due to poor maintenance and recurring equipment failures. Electricity generation costs, estimated at about US$0.50/kWh, were among the highest in Sub-Saharan Africa and significantly exceeded the average retail tariff of US$0.35/kWh, creating a persistent financial deficit for the sector. The Gambia also had only limited access to lower-cost regional electricity imports and remained largely excluded from the benefits of the emerging West African Power Pool (WAPP).

3. **The water sector was characterized by inadequate infrastructure and poor service quality.** Although approximately 69 percent of the population had nominal access to safely managed water services, supply was highly unreliable, with some urban communities experiencing interruptions lasting several days. Water production capacity was insufficient to meet demand, while storage capacity provided only about three hours of system coverage. Only 8 of the country's 29 elevated storage tanks were in good condition, and Non-Revenue Water (NRW) losses were estimated at between 33 and 50 percent due to physical leaks, illegal connections, and inadequate metering. Limited metering coverage undermined billing accuracy, revenue collection, and the financial sustainability of water operations. Sanitation infrastructure was also inadequate, with only one functional wastewater treatment plant serving the Greater Banjul Area (GBA) and widespread discharge of untreated waste creating environmental and public health risks[4].

4. **NAWEC's weak financial and institutional capacity constrained sector performance.** Electricity and water operations were managed under a single institutional and financial structure, making it difficult to assess the financial performance and cost recovery status of each business line. NAWEC lacked key management tools, including an Integrated Management System (IMS), and a strategic business plan. Weak financial performance and limited creditworthiness constrained opportunities for private sector participation in the energy sector. Although the utility had gained experience implementing donor-financed operations, its capacity to manage a large and complex investment program remained limited. Lessons from the ongoing Gambia Electricity Support Project (GESP, P152659) had already highlighted the importance of dedicated implementation arrangements, including a specialized project implementation unit (PIU), to support execution of major infrastructure contracts.

5. **The broader implementation environment presented significant institutional and fiscal risks.** The Government's fiscal space was severely constrained following years of macroeconomic imbalances and high public debt, limiting its ability to finance counterpart obligations, including resettlement compensation. In addition, GERMP was designed alongside co-financing from the European Investment Bank (EIB) and the European Union (EU).

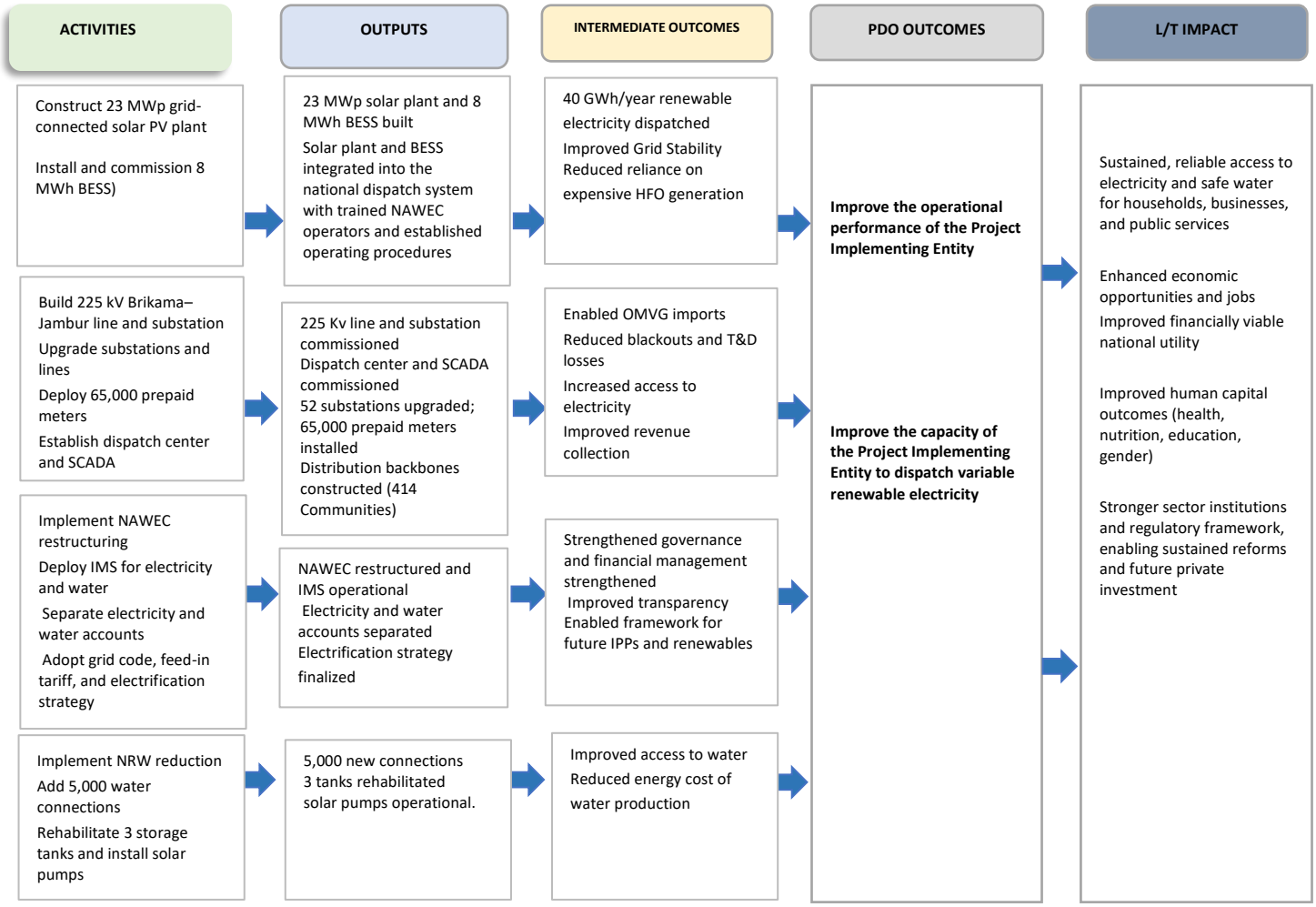
Theory of Change (Results Chain)

6. **During the appraisal of both the parent and additional financing (AF) projects, the World Bank did not mandate the inclusion of a theory of change (ToC) in project documents**. Based on the project's results chain, a reconstructed theory of change is presented in Figure 1 below.

7. **The project's sustainability depended on several critical assumptions related to sector reforms, institutional capacity, regional power availability, and safeguard compliance.** These included: (i) Government sustains cost reflective tariffs, NAWEC's restructuring, and sector governance reforms across political cycles, (ii) OMVG Gambia River Basin Development Organization (*Organisation pour la Mise en Valeur du Fleuve Gambie,* P146830*)* regional imports remain available and reliable at low cost, complementing solar generation and reducing reliance on high fuel oil (HFO), (iii) NAWEC retains the technical and institutional capacity to operate and maintain the solar plant, battery energy storage system (BESS), network, supervisory control and acquisition data (SCADA), and information management system (IMS), and (iv) Resettlement obligations and land titling for all affected persons are fully completed, ensuring stable access to and protection of project infrastructure.

[4] PAD3664

Figure 1. Reconstructed Theory of Change



Critical Assumptions
1. Government sustains cost reflective tariffs, NAWEC's restructuring, and sector governance reforms across political cycles
2. OMVG regional imports remain available and reliable at low cost, complementing solar generation and reducing reliance on HFO
3. NAWEC retains the technical and institutional capacity to operate and maintain the solar plant, BESS, network, SCADA, and IMS
4. Resettlement obligations and land titling for all affected persons are fully completed, ensuring stable access to and protection of project infrastructure

Project Development Objectives (PDOs)

8. **The project development objective (PDO) was to improve the operational performance of the Project Implementing Entity; and improve the capacity of the Project Implementing Entity to dispatch variable renewable electricity. This objective remained unchanged throughout the parent financing and the additional financing.**

9. **The PDO comprises two distinct but complementary** elements that together address the electricity sector's operational performance and technical capability constraints.

10. PDO Element 1: Improve operational performance of the Project Implementing Entity. This element focuses on the financial and operational sustainability of the utility through reduced system losses, improved service reliability, and expanded access to electricity and water services. The PDO indicators measuring progress toward this element are:

(a) Transmission and Distribution losses in the Greater Banjul Area (percentage)
(b) Number of blackouts in the GBA (number per month)
(c) People provided with access to improved water sources (number)
(d) People provided with water, sanitation, and hygiene (number; Core Results Indicator (CRI))

11. **PDO Element 2:** Improve the capacity of the Project Implementing Entity to dispatch variable renewable electricity. This element addresses the technical and operational capability of NAWEC to integrate, manage, and dispatch electricity generated from renewable sources, particularly solar PV with battery storage, into the national grid. The PDO indicator measuring progress toward this element is:

(a) Annual solar electricity generation dispatched (GWh per year).

Components

12. **The project was initially designed with three components at appraisal in May 2018**: Component 1 (On-grid solar PV with storage), Component 2 (T&D restoration and modernization), and Component 3 (Urgent institutional support for sector turnaround). The June 2020 additional financing expanded the project scope to address emerging implementation challenges and support the national response to COVID-19 by adding two new components: Component 4 (Short-term investments to address the water crisis) and Component 5 (Urgent actions to support the COVID-19 response). A Contingent Emergency Response Component (Component 6) was also established at additional financing stage to allow rapid support in the event of qualifying emergencies, though it was not activated during the project's implementation period. Component 5 served as the primary COVID-19 response mechanism.

13. **The co-financing arrangement employed a joint co-financing model, managed through principles of collaboration with the funding partners**. EIB provided a sovereign loan of Euro 51.7 million (US$60.4 million) for capital-intensive solar and transmission infrastructure (Component 1 and Component 2 backbone), the European Union provided a grant of Euro 12.8 million (US$18.6 million) for distribution and metering investments (Component 2 distribution), and the World Bank provided IDA grant financing of US$84 million for infrastructure upgrades, institutional reform, water infrastructure, and COVID-19 response (Components 1-5). This structure avoided duplication of oversight with the Bank supervising procurement and environmental and social aspects in close collaboration with the partners. The blended approach maximized leverage of scarce concessional resources and lowered the overall financing cost for NAWEC.

Component 1: On-grid Solar PV with Battery Storage (US$28.9 million of which IDA grant US$1.7 million, EIB credit US$26.7 million)

14. **This component financed the construction of The Gambia's first utility-scale solar photovoltaic (PV) power plant, with a capacity of 23 megawatt-peak (MWp) at Jambur.** A key feature of the investment was the integration of an 8 MWh battery energy storage system, which ensured grid stability and provided ancillary services such as frequency and voltage support and 3-year operations and maintenance (O&M) support after commissioning. The component was designed to reduce reliance on expensive and carbon-intensive HFO generation and support the diversification of the national energy mix. As a result, it added renewable generation capacity, contributing to lower electricity costs and reduced greenhouse gas (GHG) emissions.

Component 2: T&D Restoration and Modernization (US$89.8 million of which IDA grant US$37.6 million, EIB credit US$33.6 million, and EU grant US$18.6 million)

15. **This component focused on upgrading NAWEC's aging transmission and distribution (T&D) infrastructure to improve reliability and operational efficiency.** Key investments included a 225 kV transmission line and substation to enable increased regional electricity imports through the OMVG interconnection project (P146830), construction of national distribution backbone to facilitate enhanced rural access, upgrades to three (3) primary and fifty-two (52) secondary substations as well as a national dispatch center with SCADA for modern grid management. The deployment of 65,000 prepaid meters further strengthened energy access, billing systems and reduced payment arrears. These interventions collectively modernized the grid, reduced outage frequency, lowered system losses, and strengthened overall grid performance by eliminating previously crippling transmission bottlenecks and inadequate domestic generation capacity.

Component 3: Urgent Institutional Support for Sector Turnaround (US$32.3 million of which IDA grant US$30.8 million, counterpart funds US$1.5 million).

16. **This component aimed at addressing structural weaknesses in NAWEC's institutional, financial, and operational capacity.** It supported the deployment of an IMS to modernize billing, accounting, and financial controls, alongside the separation of electricity and water accounts to enhance transparency. The component also supported critical organizational restructuring through a service contractor (creating distinct business units) and the introduction of performance-based management practices. Together, these reforms aimed to improve governance and financial management and created conditions for NAWEC's return to profitability.

Component 4: Urgent Actions to Address the Water Crisis (US$11.5 million IDA grant)

17. **Introduced under Additional Financing, this component addressed urgent challenges in NAWEC's water operations**. It financed a non-revenue water reduction program and supported the creation of five (5) district metering areas (DMAs), installation of new household connections, 14 new production sites (boreholes) and the construction of three new water storage tanks. The component also supported the deployment of energy efficient pumps to reduce the energy cost of water production. These investments expanded access to improved water services while improving the efficiency and sustainability of NAWEC's water business.

Component 5: Urgent Actions to Support the Covid-19 Response (US$2.5 million).

18. **This component supported the continuity of essential services and public health measures during the COVID-19 pandemic.** It financed the procurement of water trucks, public handwashing facilities, and hygiene kits to support community-level prevention efforts. The component also provided personal protective equipment for NAWEC staff and critical IT equipment and spare parts to ensure uninterrupted operations during lockdown periods. These measures enhanced the resilience of basic service delivery and contributed to the national emergency response.

19. **Contingent Emergency Response Component (CERC) (US$ 0).** This component established a zero allocation Contingent Emergency Response Component to allow rapid reallocation of funds in the event of a crisis; it was not activated during implementation.

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)

Revised PDOs and Outcome Targets

20. **The PDO remained unchanged throughout implementation**. While the Additional Financing and subsequent restructurings expanded scope, raised targets, refined the results framework, and extended the closing date, none of these changes altered the development objective or lowered the core T&D loss target of 15 percent, the July 2024 restructuring deleted sub-indicators on methodological grounds rather than reducing ambition. Since the PDO was unchanged and targets were raised rather than lowered, assessing before and after AF periods under a split rating would not be methodologically justified. Overall outcomes are assessed against the revised targets at closure.

Revised PDO Indicators

21. **The results framework evolved through three stages: appraisal, Additional Financing, and restructuring.** At appraisal, it included five PDO indicators covering transmission and distribution losses, technical and nontechnical losses, outage frequency, renewable energy dispatch, and SCADA installation. The additional financing in 2020 added a water access indicator and removed SCADA, recognizing it as an output rather than an outcome measure. The November 2024 restructuring deleted the technical and nontechnical loss indicators because the required metering infrastructure was not fully operational and broadened the T&D loss indicator from the GBA to the national network. While this expanded the indicator's coverage, the target remained unchanged at 15 percent despite the inclusion of higher loss areas outside the GBA. The project closed with four active PDO indicators.

Table 1. Evolution of PDO Level Indicators

Indicator	At Appraisal (May 2018)	After AF (June 2020)	After Restructuring (July 2024)	At Closure (Dec 2025)
T&D losses (GBA only)	Target: 15% from 22% baseline	Maintained	Broadened to nationwide measure	**Not Achieved:** 20.01%
Technical losses (sub indicator)	Target: 8%	Maintained	**Deleted**	—
Non-technical losses (sub indicator)	Target: 7%	Maintained	**Deleted**	—
Power outage frequency (GBA)	Target: 15 outages/month from 45 baseline	Maintained	Maintained	**Exceeded:** 7 outages/month
Renewable energy generation dispatched	Target: 26 GWh/year	Maintained	Maintained	**Exceeded:** 40 GWh/year
SCADA installation	Output level	**Removed**	—	—
Water access beneficiaries	—	**Added:** Target 64,000	Maintained	**Exceeded:** 184,983

Source: Project Appraisal Document (PAD2530) and Restructuring Paper (PAD3664)

22. **The results framework had two design limitations that constrained measurement of the project's full development impact.** Electricity access was tracked only as an intermediate indicator despite delivering 1,911,000 beneficiaries against a target of 1,680,000 and connecting 414 rural communities, outcomes that would have justified PDO level status at appraisal. Additionally, the deletion of disaggregated loss indicators, though methodologically justified by metering gaps, reduced analytical capability to assess technical versus commercial loss reduction effectiveness. However, the broadened T&D loss indicator adopted at the July 2024 restructuring maintained the core 15 percent target and provided a more robust measure of overall system performance. The project closed with four active PDO level indicators covering system losses, outage frequency, renewable energy dispatch, and water access, which collectively measured progress toward both development objectives.

Revised Components

23. **The component structure evolved during implementation through two key milestones: the approval of the 2020 Additional Financing and the restructuring of July 2024**. At appraisal in May 2018, the project was designed around three core components addressing on-grid solar photovoltaic generation with battery storage, transmission

and distribution restoration and modernization, and urgent institutional support for the turnaround of NAWEC. These components were intended to address the most critical constraints facing the electricity sector, particularly the heavy reliance on thermal generation, the deterioration of network infrastructure, and the weak operational capacity of the national utility.

24. **The additional financing substantially expanded the scope of the project**. With the increase in financing, the project grew to include five active components and a zero-allocation CERC designed to allow the rapid reallocation of funds in the event of a crisis. Two entirely new components were introduced to respond to emerging national priorities: Component 4 addressed the urgent water supply crisis affecting NAWEC's service areas, while Component 5 supported the Government of The Gambia's (GoTG) response to the COVID-19 pandemic. At the same time, the three original components were scaled up to accommodate the broader program of investments, with the institutional support component more than doubling in cost to support a deeper transformation of NAWEC's management systems, operational practices, and sector governance arrangements.

25. **The first restructuring in July 2024 did not introduce new components or remove existing ones but instead focused on reallocating resources to respond to implementation realities and emerging priorities**. Following contract savings under component 2, funds were reallocated to finance additional electrification activities aligned with the joint initiative of the World Bank and African Development Bank (AfDB) Mission 300 (M300) and to support feasibility and design studies for the successor Gambia Infrastructure Project (GIP, P504762). The restructuring also regularized cost overruns under the institutional support component through internal reallocations, ensuring the completion of critical activities while maintaining the overall structure and objectives of the project.

Other Changes

26. **The project underwent one additional financing and three subsequent restructurings between 2020 and 2025, which together expanded its scope, refined the results framework, and extended the implementation period**. These changes reflected both strategic decisions to enhance development impact and operational adjustments to address implementation constraints. Table 1 summarizes the key changes introduced over time.

Table 2. Summary of Changes during Implementation

#	Name	Date	Key Changes
1	AF	6/29/2020	(i) Increased IDA financing by US$43 million (from US$41 million to US$84 million), (ii)Added Component 4 (Water), Component 5 (COVID-19), and a zero-allocation CERC, (iii) Introduced a new PDO indicator for water access, (iv) Extended the closing date by 12 months to December 31, 2024.
2	Restructuring 1	8/7/2024	(i) Deleted two sub-PDO indicators (technical and non-technical losses), (ii) Broadened the T&D loss indicator to be nationwide, (iii) Reallocated US$3.7 million in savings to new electrification activities and studies.
3	Restructuring 2	12/2/2024	Extended the closing date by 6 months to June 30, 2025, to allow for completion of Water component activities.
4	Restructuring 3	6/24/2025	Extended the closing date by a final 6 months to December 31, 2025, to accommodate delays in equipment delivery for water tank construction.

Source. PAD3664, RES5757, RES00501, and RES57579

27. **Financing reallocations were used effectively to maximize development impact**. Savings generated under Components 2 and 4 were redirected to support additional electrification activities under the Mission 300 initiative and to finance feasibility and design studies for a successor operation (GIP, P504762). Additional reallocations supported water system strengthening, while cost overruns under Component 3 were managed through internal adjustments without requiring structural changes to the project.

28. **Despite the adjustments introduced through additional financing and subsequent restructurings, the project's underlying theory of change remained intact**. The core causal pathway linking investments in generation, network modernization, and institutional strengthening to improved operational performance and enhanced capacity to dispatch renewable electricity was preserved. The changes primarily expanded the project's scope and improved the relevance of measurement and financing arrangements, without altering its fundamental logic. Overall, the project illustrates an adaptive implementation approach that responded to emerging needs while maintaining alignment with its original development objectives.

II. OUTCOME

A. RELEVANCE OF PDO

Assessment of Relevance of PDOs and Rating

29. **The PDO remained highly relevant to The Gambia's development priorities throughout the project's lifecycle**. By focusing on improving NAWEC's operational performance and strengthening its capacity to dispatch variable renewable electricity (VRE), the project directly addressed persistent structural challenges in the electricity sector, including unreliable supply, high dependence on thermal generation, and weak utility performance. These priorities remained central in subsequent national strategies, most notably the Recovery Focused National Development Plan (RF-NDP "YIRIWAA," 2023–2027)[5], which identifies resilient infrastructure, expanded access to clean energy, and improved water supply and sanitation services as key national priorities, while also reinforcing the relevance of water sector investments supported under the additional financing[6].

30. **Beyond its project-level objectives, GERMP was firmly anchored in The Gambia's national development agenda and the broader regional and global goals for energy and water.** The project aligned with national and regional energy strategies designed to achieve universal electricity access and financial sustainability. At the national level, GERMP supported the Electricity Sector Roadmap (2021 to 2040)[7], which sought to modernize the energy system through domestic renewable generation, regionally imported power via the WAPP, and loss reduction to achieve universal access by 2025, five years ahead of the United Nations Sustainable Development Goal (SDG) 7 target[8]. It directly supported the Government's national development priorities, including NDP Outcome 7.1 (accessible and affordable energy)[9], and aligned with the World Bank Group's Country Partnership Framework (FY22 to 26)[10] under Focus Area 2, Objective 2.1, serving as the flagship investment in transmission, distribution, and water infrastructure. Through its water-sector investments, the project was equally relevant to SDG 6 (Clean water and sanitation), advancing access to safely managed water and the sustainability of NAWEC's water business. Beyond the national level, GERMP contributed to regional power market integration by enabling The Gambia to join the WAPP through the OMVG Interconnection Project, whose 225 kV infrastructure connected The Gambia, Guinea, Guinea Bissau, and Senegal for cross border electricity trade. This directly

[5] Government of The Gambia, Ministry of Finance and Economic Affairs. Recovery-Focused National Development Plan (RF-NDP) 2023–2027: "YIRIWAA." Ministry of Finance and Economic Affairs, 2024, yiriwaa.gov.gm.
[6] PAD3664
[7] Government of The Gambia, Ministry of Petroleum and Energy. Universal Access by 2025 and Transforming the Electricity Sub-Sector: Strategic Roadmap 2021–2040. Ministry of Petroleum and Energy, 2021. policies.gov.gm/d/f146244b-8629-11ef-b086-029254d29bb1
[8] United Nations General Assembly. Resolution A/RES/70/1, Transforming Our World: The 2030 Agenda for Sustainable Development. 25 September 2015.
[9] See N0.5
[10] Report No. 154485-GM

supported ECOWAS Regional Renewable Energy Policy objectives (2013)[11] to expand rural electricity access through coordinated investment and harmonized regulation, positioning GERMP as a critical component in the sub regional effort to reduce tariffs and transform NAWEC into a financially viable utility capable of attracting private investment.

31. **The design of the project was equally relevant to the sector's structural challenges**. Although a formal ToC was not explicitly included in the original Project Appraisal Document, reflecting the practice standards of the time, the underlying results chain was sound and coherent, recognizing that expanding generation capacity without simultaneously modernizing the transmission and distribution network and strengthening NAWEC's management systems would yield limited and unsustainable results. Drawing on lessons from the predecessor Gambia Electricity Support Project (GESP – P152659), the design reflected institutional learning and a realistic assessment of implementation risks, and its positioning within a coordinated portfolio complemented by DPOs further reinforced its strategic relevance. The inclusion of a dedicated institutional support component was particularly well-suited to sector needs: at appraisal, NAWEC lacked integrated systems to manage financial information, billing, and operational data, and the decision to finance an IMS was therefore both timely and appropriate, laying the groundwork for improved transparency, sustained performance gains, and the potential organizational unbundling of NAWEC into two distinct utilities. The complementary financing of three strategic sanitation and Non-Revenue Water studies further demonstrated the project's forward-looking relevance, establishing the analytical foundation for future water sector investment and governance reforms.

32. **Taken together, these elements confirm that the project remained relevant at completion, supporting a high rating for relevance**.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Assessment of Achievement of Each Objective/Outcome

33. **The PDO was to (i) improve the operational performance of the project implementing entity (PIE) and (ii) improve the capacity of the PIE to dispatch variable renewable electricity.** The PDO remained unchanged throughout implementation**.** For analytical clarity, efficacy is assessed across the two outcome dimensions of the PDO.

34. **A detailed summary of the level of achievement of each indicator included in the project's results framework is presented in Annex 3**. Because the PDO remained unchanged over the lifetime of the project, a single overall efficacy rating applies across the entire implementation period.

PDO Outcome 1 — Improve the Operational Performance of the Project Implementing Entity (PIE)

Efficacy Rating: Substantial

35. T**he project substantially achieved its objective of improving NAWEC's operational performance through a coherent combination of infrastructure investments and institutional strengthening measure**s. The underlying theory of change remained sound, linking transmission and distribution upgrades, expansion of service delivery systems, and improvements in operational management to enhanced reliability, reduced inefficiencies, and stronger financial and technical performance. This logic was further reinforced during implementation through additional financing, which expanded the scope to include critical water sector interventions and strengthened the overall contribution to operational performance.

[11] ECOWAS Centre for Renewable Energy and Energy Efficiency. ECOWAS Renewable Energy Policy (EREP). Adopted by the 43rd Ordinary Session of the ECOWAS Authority of Heads of State and Government, Abuja, Nigeria, 17–18 July 2013.

36. **Implementation resulted in clear and measurable improvements in service reliability**. System outages declined sharply from a baseline of 45 interruptions per month to 7 at project completion, significantly exceeding the target of 15. This reflects a substantial strengthening of grid stability and network performance, driven by investments in substations, transmission lines, and distribution systems, as well as improvements in operational practices. Furthermore, the stability accorded by regional market through OMVG supported towards the material improvements in service reliability. The magnitude of the reduction indicates a structural shift in system performance, supported by durable infrastructure upgrades and complimentary regional investments, rather than short-term operational measures.

37. **The project also achieved substantial improvements in water service delivery following the inclusion of water investments under the additional financing.** Access to improved water services reached 184,983 beneficiaries against a target of 64,000, contributing directly to the PDO because NAWEC is responsible for both electricity and water services. At appraisal, the water business was characterized by high nonrevenue water (40-50 percent), limited hours of supply, and constrained service coverage. The results were achieved through investments in metering, leak detection, storage rehabilitation, water treatment, network extensions, and new connections. Beneficiary figures were based on verified service connections, pump yields, average household consumption of 960l/day and coverage data reported by NAWEC and validated through project monitoring systems. Together, these investments improved service reliability, and expanded coverage well beyond expectations, demonstrating a substantial improvement in the operational performance of NAWEC's water business.

Table 3. PDO Outcome 1 – Key Results

Indicator	Baseline	Target	Actual at Completion	Achievement
T&D losses (%)	22%	15%	20.01%	Not met
System outages (frequency)	45	15	7	Exceeded
People provided with improved water, sanitation and hygiene	0	64,000	184,983	Exceeded

Source. Implementation Status and Results Reports (ISRs)

38. **Performance on transmission and distribution losses was more modest.** Losses declined from 22 percent to about 20.01 percent, falling short of the 15 percent target. However, this reduction represents a meaningful improvement in system efficiency and generated tangible financial benefits, approx. GMD200m (US$2.7m) through increased revenue collection. The shortfall is best understood in the context of implementation delays affecting key transmission investments, other elements of an aging network, climate induced impacts and the limited time available after commissioning to fully realize loss-reduction benefits. The risks of pilferage remain prevalent as losses increased in 2023 following a 35 percent tariff revision. Combined, these highlight the need to treat losses within broader sectoral strategies as opposed to direct project level interventions. This importance has been reflected in The Gambia's M300 compact with further support provided under the successor Gambia Infrastructure Project.

39. **Beyond the indicator-level achievements, the project contributed to a broader strengthening of NAWEC's operational systems and institutional capacity**. The introduction of IMS and operational processes enhanced the utility's ability to monitor performance, manage resources, and deliver services more effectively. These improvements are embedded in core operations and are likely to be sustained over time. Taken together, the combination of exceeded targets in reliability and water service delivery, alongside meaningful though partial gains in loss reduction, supports a Substantial rating for the achievement of this outcome.

PDO Outcome 2 — Improve the capacity of the Project Implementing Entity (NAWEC) to dispatch variable renewable electricity

Efficacy Rating: High

40. **The project fully achieved its objective of improving NAWEC's capacity to dispatch variable renewable electricity, delivering both the infrastructure and the institutional capacity required for renewable energy integration**. The theory of change was that investments in utility-scale solar generation, battery storage, transmission infrastructure, and system control capabilities would enable NAWEC to manage variable renewable energy within its grid. This approach was well aligned with national priorities to reduce dependence on thermal generation and transition toward a more diversified energy mix.

41. **A central achievement under this outcome was the successful construction and commissioning of the country's first utility-scale solar photovoltaic plant, supported by battery energy storage and integrated into the national grid through upgraded transmission infrastructure**. This marked a fundamental shift in the structure of the electricity system, introducing renewable energy as a core component of generation for the first time. Complementary investments in substations and grid reinforcement ensured that the system could absorb and manage this new capacity effectively.

42. **The project also delivered strong results in renewable energy dispatch**. From a baseline of zero, the system began dispatching significant volumes of solar electricity. This exceeded initial expectations in the later stages of implementation, primarily due to the construction of a larger 23 MWp plant instead of the 20 MWp capacity envisaged at project design. This demonstrates not only the successful installation of generation assets but also their effective integration into system operations. The increasing level of renewable energy dispatch reflects both the technical performance of the infrastructure and the growing operational capability of the utility.

Table 4. PDO Outcome 2 – Key Results

Indicator	Baseline	Target	Actual at Completion	Achievement
Utility-scale solar generation	0.00	20MW	23MWp + 8MWh Battery Storage Plant operational	Achieved
Renewable energy dispatched (GWh)	0.00	26 GWh	40 GWh dispatched	Exceeded

Source. ISRs

43. **Beyond infrastructure delivery, the project enabled a qualitative transformation in system operations.** NAWEC developed the capacity to operate a more complex and dynamic power system integrating solar generation, battery storage, thermal plants, and regional imports. This required the development of new dispatch protocols, enhanced system monitoring, and strengthened technical skills within the utility. The widespread deployment of prepayment meters strengthened revenue protection, while new substations significantly enhanced operational flexibility. The establishment of a national control centre transformed a fragmented transmission network into a centrally monitored and managed system. The successful operation of this hybrid system at closing demonstrates that these capacity gains are both substantive and sustainable.

44. **In addition, the project played an important enabling role in strengthening regional integration through the OMVG interconnection.** By improving transmission capacity and system stability, the project positioned The Gambia to benefit from lower-cost imported hydroelectricity, thereby improving both system reliability and cost efficiency. This represents a strategic benefit that extends beyond the original scope of the PDO and amplifies the project's overall impact. Taken together, the full achievement of targets, the quality of infrastructure delivered, and the transformational nature of the capacity gains support a **high** rating for this outcome.

Justification of Overall Efficacy Rating

45. **Overall efficacy is rated Substantial**. Overall efficacy is rated Substantial. The project delivered strong and well-balanced results across both dimensions of the PDO. Under the first objective, improving the operational performance of the project implementing entity, the project achieved significant gains in reliability and service delivery: system

blackouts in the GBA fell from 45 to 7 against a target of 15, and access to improved water services reached 184,983 beneficiaries against a target of 64,000. The single shortfall was the T&D loss target, which narrowed losses from 22 percent at baseline to about 20.01 percent at closing against a target of 15 percent. This was meaningful but partial progress that nonetheless generated measurable financial benefits. Under the second objective, improving the capacity to dispatch variable renewable electricity, the project met its target by establishing the infrastructure and institutional capacity to integrate and dispatch solar generation at scale, representing a structural transformation of the power system.

C. EFFICIENCY

Operational and Implementation Efficiency

46. **Several factors supported relatively efficient implementation over the project's 7.5-year period**. A key strength was the continuity of the PIU, which transitioned directly from the predecessor operation and allowed the project to avoid the startup delays typically observed in fragile settings. This continuity extended beyond project completion, with most staff moving into the successor operation, thereby preserving technical and fiduciary capacity within the sector. Project management remained consistently satisfactory throughout implementation, providing stability despite external shocks and evolving operational demands. Financial management performance was also strong, reflected in timely reporting, unqualified audit opinions, and near full disbursement of IDA resources, with US$80.87 million disbursed out of a revised commitment of US$81.59 million. Government commitment further reinforced implementation, notably through tariff reforms, clearance of public sector arrears, and the development of a performance contract with NAWEC. The project also demonstrated effective adaptive management through three restructurings, which allowed savings to be reallocated to expand electricity connections and water system investments, thereby increasing development impact without requiring additional financing.

47. **These strengths were, however, offset by several factors that reduced overall efficiency and justify the Modest rating.** The project experienced significant delays and closed 24 months later than originally planned. These delays were driven by a combination of external shocks and implementation constraints, including the COVID-19 pandemic, procurement delays, and difficulties in securing right of way along the 225 kV transmission corridor. As a result, key infrastructure was commissioned late in the implementation period, limiting the time available to observe sustained results before completion. Procurement performance revealed recurring weaknesses at the contract management stage, including delays with the timely provision of data on STEP. Safeguards implementation also faced numerous challenges, particularly in relation to resettlement, compensation and land documentation.

48. **Actual resettlement costs reached US$8.3 million against an initial estimate of US$1.5 million**, with some residual issues related to land documentation carried into a post-closure action plan. While strong institutional performance and government ownership helped mitigate these constraints, the cumulative impact of delays and administrative bottlenecks ultimately weighed implementation efficiency.

Economic and Financial Efficiency

49. **The economic and financial efficiency of the project is assessed as Substantial, reflecting strong returns and clear cost savings achieved through the transition to lower cost energy sources and improved utility performance**. The ex-post analysis follows the same methodology applied at appraisal, ensuring full comparability. It uses differentiated time horizons consistent with the original and Additional Financing designs, with 20 years for transmission, distribution, and water investments, and 10 years for energy efficiency equipment and battery storage, all evaluated using a 6 percent social discount rate. The analysis focuses on Components 1, 2, and 4, which represent about 80 percent of total project costs. Benefits include avoided fuel costs, savings from OMVG imports, expanded water services, and reduced GHG emissions, while costs reflect actual investment, operations and maintenance, and updated resettlement expenditures.

50. **Results indicate that the project generated significantly higher returns than anticipated at appraisal**. The economic rate of return is estimated at about 22.0 percent in the base case and 22.3 percent when GHG benefits are included, well above appraisal estimates and comfortably exceeding the 6 percent discount rate. These results were driven by four main factors: the sharp increase in heavy fuel oil prices, which substantially raised avoided generation costs; additional savings from OMVG imports enabled by the transmission investments; solar generation exceeding targets; and a much larger than expected expansion in water service beneficiaries resulting in strong ex-post ERR (25%) for water specific investments. Financial performance also improved, with a financial internal rate of return of 15.0 percent and a financial net present value of US$104.0 million, supported by lower generation costs and strong demand growth. These gains were partially offset by a decline in average electricity tariffs, higher than targeted transmission and distribution losses, and the increase in resettlement costs.

51. **However, under ICR guidelines, efficiency is assessed not only on the magnitude of returns but on the timeliness with which benefits were realized within the evaluation period**. On this dimension, the project fell short. The 225 kV transmission backbone; the infrastructure most directly linked to the T&D loss reduction target, was commissioned only in February 2025, leaving less than 10 months before project closure to demonstrate measurable improvements in system losses. As a result, a portion of the expected efficiency gains, particularly on loss reduction, were deferred from the evaluation window and could not be credited to the project at completion. It is a gap between strong economic returns and delayed benefit realization that anchors the Modest efficiency rating.

52. **The project also generated meaningful climate co-benefits alongside its core economic gains**. The annual greenhouse gas emissions avoided are estimated at 24,247 tCO_2eq per year at completion. The full methodology and lifetime estimates are detailed in **Annex 4**.

53. **The results remain robust under less favorable assumptions**. The table below summarizes some core values upon completion.

Table 5. Summary of Economic and Financial Results — Ex Ante vs. Ex Post

Indicator	At Appraisal	At Completion
Economic Rate of Return (base)	16.1%	22.0%
Economic Rate of Return (with GHG)	19.3%	22.3%
Economic NPV — base (US$ million)	178.6	216.0
Economic NPV — with GHG (US$ million)	216.0	228.0
Financial IRR	10.2%	15.0%
Financial NPV (US$ million)	71.8	104.0

Source. ICR Team

Assessment of Efficiency and Rating

54. **Despite these strong economic outcomes, the overall efficiency rating is moderated by implementation delays, the shortfall in transmission and distribution loss reduction, and the administration of resettlement and land compensation**. While the project delivered substantial value and exceeded expectations in several areas, these inefficiencies constrained the timely realization of benefits. Overall Efficiency is therefore rated **Modest**.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

55. **The project is rated Moderately Satisfactory, reflecting high relevance, substantial efficacy, and modest efficiency.** Relevance is High because the PDO remained closely aligned with national priorities to restore utility performance, expand access, and reduce reliance on costly thermal generation, and continues to support the sector reform agenda. Efficacy is Substantial: the project delivered major gains in reliability, renewable energy integration, and

access to electricity and water, with PDO1 indicators on reliability and access exceeded, although transmission and distribution losses fell only from 22 percent to 20.01 percent against a 15 percent target due to late commissioning of key transmission infrastructure, and PDO2 fully achieved as solar, storage, and dispatch systems surpassed their targets. Efficiency is Modest: despite a strong ex post ERR of 22 percent and about USD 8.5 million per year in unanticipated savings from regional power imports, three closing date extensions totaling 24 months, mainly from resettlement financing delays and coordination challenges, delayed the realization of benefits, particularly on loss reduction, justifying an overall rating of Moderately Satisfactory.

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender

56. **At appraisal, significant gender disparities affected both electricity and water services.** Women were disproportionately impacted by unreliable electricity supply and inadequate access to water, while female participation within NAWEC was limited, particularly in technical and leadership positions. To address these gaps, the project incorporated a gender tag and gender specific indicators within the results framework and supported NAWEC in adopting a Gender Policy (GP) and an annually updated Gender Action Plan to institutionalize gender inclusion and strengthen accountability for results.

57. **Implementation achieved substantial results in both service delivery and institutional inclusion.** Electricity access was provided to 304,111 women, exceeding the target of 187,000 by 63 percent, while 94,342 women gained access to improved water services compared to a target of 32,000. Within NAWEC, the share of women in director level positions increased from 10 percent to 40 percent, while women represented 90 percent of customer call center staff against a target of 50 percent. Female participation in engineering positions increased from zero at appraisal to 14 percent at completion, nearly achieving the 15 percent target established under the GAP. These gains were supported by scholarships for 108 female students in technical disciplines, complemented by skills development and internship programs that facilitated entry into employment opportunities, including positions associated with the construction of the solar park.

Institutional Strengthening

58. **At appraisal, NAWEC faced severe institutional and financial weaknesses, including a negative net worth of approximately US$79 million, tariffs below the cost of supply, fragmented operational systems, and full dependence on HFO generation.** These structural deficiencies created a significant fiscal burden for the Government and constrained the utility's ability to deliver reliable services. The project therefore included a substantial institutional strengthening component aimed at improving NAWEC's governance, financial management, and operational systems as a prerequisite for achieving PDO Outcome 1. To ensure long-term sustainability, key institutional and regulatory reforms were complemented with development policy operations (DPOs)[12] over the implementation period.

59. **Project support delivered important institutional improvements across three dimensions**. On the operational front, the deployment of an IMS linked billing, finance, and operational processes including water modules for the first time in NAWEC's history, enabling the separation of electricity and water accounts and significantly improving management oversight of both business lines. On the commercial side, the installation of 65,000 prepaid meters strengthened revenue collection across the utility's service areas. At the regulatory level, the adoption of a multi-year cost

[12] Gambia Emergency DPO (P163285), The Gambia First Fiscal Management, Energy and Telecom Reform DPF (P164545), The Gambia Second Fiscal Management, Energy and Telecom Reform Development Policy Financing (P173150), The Gambia Advancing Reforms for Inclusive and Sustainable Economic Growth (ARISE) DPF1 (P510637).

reflective tariff methodology with provisions for periodic pass-through costs improved financial sustainability, together with the development of The Gambia's first grid code laid stronger foundations for sector governance.

60. **Together, these reforms generated measurable and durable improvements that were clearly visible at project completion.** After more than a decade of losses, NAWEC returned to profitability in 2025, an outcome made possible by the combination of lower cost generation enabled by project investments, regional integration (OMVG) and the strengthened financial management systems put in place under the institutional component. Service reliability also improved in a way that was directly felt by consumers, with blackouts in the Greater Banjul Area declining from approximately 45 per month at baseline to just 7 per month at completion. The separation of electricity and water accounts further enhanced transparency and revealed the true cost structure of each business line and gave management the tools to prioritize non-revenue water reduction as a core operational objective, reinforcing the contribution of water sector investments to PDO Outcome 1. This laid the foundations for the potential separation of NAWEC into distinct electricity and water service businesses approved by The Government of The Gambia in 2025[13].

Mobilizing Private Sector Financing

61. **GERMP was designed as a foundational de-risking investment rather than a vehicle for direct private capital mobilization.** At appraisal, NAWEC's negative equity of approximately US$79 million and near total dependence on heavy fuel oil generation precluded meaningful private sector participation. The project addressed this by restoring NAWEC's financial management systems, demonstrating the technical viability of utility scale solar generation, and putting in place the structural enabling conditions that private investors require, including the 225 kV transmission backbone, the country's first grid code and feed in tariff regulations, and a long-term energy sector roadmap.

62. **While the project did not directly mobilize private capital, its investments are producing a catalytic effect.** NAWEC's return to profitability in 2025 is an important step toward establishing the utility as a creditworthy off taker, and the enabling conditions created under GERMP have directly supported the preparation of a successor 50 MWp solar + BESS IPP at Soma expected to mobilize approximately US$60 million in private investment. The follow-on the Gambia Infrastructure project includes a credit enhancement mechanism to support financial completion of this investment, reflecting a deliberate sequencing approach in which public investment reduces sector risks and prepares the ground for private participation. A further 100MWp Solar PV + BESS plant has been earmarked as a priority investment under the M300 compact to further solidify private sector participation in the sector.

Poverty Reduction and Shared Prosperity

63. **At appraisal, limited and unreliable electricity supply was a major constraint to poverty reduction and inclusive growth in The Gambia**. Access to electricity was highly unequal: while almost all households in the richest quintile had access, only about 10 percent of the poorest households were connected. Rural communities were also significantly underserved, with access rates far below urban areas. Frequent power outages and high electricity costs further burdened households and small businesses, who had to rely on costly backup diesel generation for business continuity.

64. **The project helped address these constraints by expanding access to electricity and water services and improving service reliability**. By project completion, about 596,295 people had gained new electricity access and nearly 185,000 people gained improved water services, with women representing about half of the beneficiaries. Reliability also improved significantly, with system-wide blackouts declining from about 45 per month at baseline to around seven at

[13] https://gambiadaily.gov.gm/index.php/splitting-nawec-water-electricity-companies-course

completion. These improvements reduced the cost and time burdens associated with unreliable services and supported household welfare and small-scale economic activity in previously unserved communities.

Other Unintended Outcomes and Impacts

65. **GERMP's results extended well beyond its formal development objectives, positioning the project as a transformational contributor to The Gambia's energy and water sectors**. GERMP made transformational contributions to both the Mission 300 universal electricity access agenda and the objectives underpinning the World Bank's Mission Water framework, significantly exceeding its original targets on both dimensions. On electricity, although not originally designed under the Mission 300 framework, the project became a foundational pillar of The Gambia's Mission 300 compact, providing new electricity access to 414 new communities and contributed to improving the financial performance of the utility. The Electricity Sector Roadmap developed under the project became the primary planning input for The Gambia's Mission 300 compact. The commissioning of the 225 kV backbone and OMVG interconnection reduced generation costs from US$0.50 to approximately US$0.11 per kWh, and GERMP's institutional capacity was transferred to ECOWAS REAP (P164044) to sustain implementation momentum beyond closure. On water, the foundational studies under GERMP informed project preparation of the upcoming Gambia Water and Sanitation Project (WASAP). These include identified investments in urban sanitation, expanding network coverage and scaling riverbank filtration investments in Bansang to address water quality issues. The separation of accounts facilitated by the project allows direct visibility into water sector operations, creating new pathways for potential private sector participation, particularly in NRW management.

66. **Resettlement-Related Impacts and Lessons.** The most significant unintended impacts arose from resettlement implementation. The RAPs for the solar park and 225 kV transmission line were prepared during the COVID-19 period under constrained consultation and census conditions, resulting in a substantial underestimation of Project Affected Persons (PAPs). Subsequent verification revealed that fewer than 10 percent of PAPs had been captured in the original census, increasing compensation costs from an estimated US$1.5 million at appraisal to approximately US$8.3 million at completion. The resulting financing gap required significant additional government resources, generated grievances, complicated enforcement of the cutoff date, and delayed site access for key infrastructure investments by more than six months. Although substantial progress was made in addressing these issues, land titling matters remained unresolved at project closure in addition to a pending grievance case on disputed land. Lessons from GERMP have been embedded in country systems assessments and the design of new projects to address structural issues related to land valuation, compensation, tenure, and benchmark rates. Together, these improvements are strengthening project design, particularly for infrastructure investments.

III. KEY FACTORS AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

67. **Regional Integration and OMVG Leverage**. GERMP's 225 kV transmission investments proved critical in enabling The Gambia to further leverage OMVG regional imports at much cheaper tariffs US$0.11/kWh, well below the cost of alternative generation sources directly supporting operational improvements in the utility. The full discussion of regional integration impacts is presented under Section II.E (Other Unintended Outcomes and Impacts).

B. KEY FACTORS DURING IMPLEMENTATION

Factors subject to the Government and/or the implementing agency control

68. **Some design weaknesses emerged during implementation**. Results proved insufficiently ambitious in some areas and required upward revision at Additional Financing stage. Certain monitoring indicators depended on metering infrastructure that was not yet in place, requiring framework adjustments at restructuring. The reliance on government counterpart financing for resettlement compensation proved structurally vulnerable in a fiscally constrained environment and affected E&S compliance and project implementation.

69. **Implementation also benefited from continuity in project management**. The PIU remained fully staffed and operational throughout the project period and consistently received satisfactory ratings for project management during supervision. The team had already gained experience under the predecessor operation, which helped maintain implementation momentum. At project close, the same team continued managing the ECOWAS-REAP, preserving institutional capacity within NAWEC.

70. **At the same time, some constraints within government control affected implementation**. Delays in the provision of counterpart funding slowed progress on some transmission and distribution investments. Administrative bottlenecks in issuing land title deeds and documentation issues affecting some beneficiaries contributed to these delays, and a post-closure action plan was prepared to complete the remaining obligations.

Factors subject to World Bank control

71. **The Bank demonstrated flexibility in aligning project resources with broader priorities**. Savings under the transmission and distribution component were reallocated to support electrification activities under the Mission 300 initiative, allowing additional communities to benefit from electricity access.

72. **However, some aspects of project supervision could have been addressed earlier**. The need to revise elements of the results framework became evident at the midterm review because some indicators relied on metering infrastructure that was not yet fully operational. The formal adjustment of these indicators occurred later during project restructuring. In addition, despite sustained supervision efforts, outstanding resettlement issues on land titling were not fully resolved before project closed. Coordination challenges relating to the initial expiration of the EIB financing contributed to delays in the implementation of some backbone investments.

External factors bearing on the project

73. **Several external factors beyond the control of the project affected implementation**. The COVID-19 pandemic disrupted supply chains affected resettlement surveys, contractor mobilization, and supervision missions between 2020 and 2022. These disruptions contributed to delays in key procurements, PAP identification and led to re-bidding for the solar plant under Component 1.

74. **Global fuel price volatility also affected sector conditions**. The sharp increase in heavy fuel oil prices in 2022 significantly increased operating costs for NAWEC and placed additional pressure on the utility's financial performance.

75. **Regional power system developments also influenced project outcomes**. Delays in the commencement of supplies from Guinea via the OMVG interconnector limited the ability of the national grid to fully benefit from new transmission infrastructure during the early years of implementation. However, regional electricity imports eventually began before project closing, contributing to lower generation costs and improved system reliability.

76. **Infrastructure construction also faced practical challenges**. Right of way clearance for the transmission line encountered land tenure complexities that slowed progress. In the water sector, delays in transporting equipment for storage tank reconstruction and disruptions caused by the rainy season also affected the timeline of civil works.

77. **Finally, the project grievance mechanism received many complaints, primarily related to land and compensation issues.** While the majority grievances were resolved, some remained pending at project closing, reflecting the complexity of land tenure issues and administrative processes involved in resolving them.

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

M&E Design

78. **The M&E framework was broadly aligned with the PDO and provided a coherent basis for monitoring progress toward the project's objectives of improving infrastructure performance and strengthening institutional capacity**. The results framework included indicators covering key outcome areas, such as electricity reliability, T&D losses, renewable energy generation, and access to electricity and water services, while also incorporating relevant World Bank Corporate Results Indicators.

79. **Despite this overall alignment, the design exhibited several shortcomings.** Certain indicators, particularly those measuring technical and non-technical losses, relied on substation-level metering infrastructure that was not yet operational at appraisal. This created a disconnect between the measurement requirements of the results framework and the operational readiness of the systems needed to generate the underlying data. As a result, the reliability and precision of early monitoring were constrained. In addition, although weaknesses in selected indicators were identified during the midterm review, corresponding revisions to the results framework were only formalized during a subsequent restructuring. Consequently, the project continued to report against indicators whose methodological limitations had already been recognized, reducing the effectiveness of performance measurements during part of the implementation period.

M&E Implementation

80. **M&E implementation was initially affected by data availability constraints but improved substantially over the course of implementation.** The PIU maintained regular reporting through Implementation Status and Results Reports (ISRs), supervision missions, and periodic progress reviews, ensuring continuity in monitoring arrangements throughout the project period.

81. A notable feature of implementation was the development and deployment of the *Results-Oriented Monitoring and Evaluation – Organisational Transformation* (**ROME-OT**) platform, a digital M&E system jointly developed by the PIU and NAWEC's Information Technology unit and subsequently integrated into the utility's information systems. Structured around the project management cycle and aligned with the reporting requirements of development partners, including the World Bank, the platform enabled the collection, validation, analysis, and visualization of project and corporate performance data. It also supported monitoring of key performance indicators agreed between NAWEC and the State-Owned Enterprises Commission and acted as a critical platform for M300 related reporting requirements.

82. **Implementation challenges identified during the MTR, including weaknesses in operational data systems** and limitations in the availability of reliable baseline information, affected the quality of monitoring during the early stages of the project. These constraints were progressively addressed through the rollout of the IMS, which strengthened NAWEC's capacity to generate, consolidate, and analyze operational and financial data. The improved quality and timeliness of data enhanced the effectiveness of the ROME-OT platform and contributed to more reliable reporting. While gaps in metering infrastructure continued to affect the measurement of some indicators, subsequent improvements in data systems and

revisions to the results framework mitigated these limitations. By the latter stages of implementation, M&E performance had become consistently satisfactory.

M&E Utilization

83. **M&E data were actively utilized to support project management, implementation oversight, and decision-making throughout the project**. Information generated through the ROME-OT platform informed supervision missions, the MTR, and project restructurings by facilitating the identification of implementation bottlenecks and enabling timely adjustments to implementation strategies and resource allocation.

84. **Beyond its role in project reporting, the platform strengthened NAWEC's institutional capacity** by improving the availability and use of operational and financial data for planning, universal access monitoring and management oversight. The successful deployment of ROME-OT contributed to the institutionalization of a robust results-oriented approach to performance management within the utility. Following its demonstrated effectiveness under the project, NAWEC adopted the platform for monitoring its broader portfolio of operations, thereby extending the benefits of the M&E investments beyond the life of the project.

Justification of Overall Rating of Quality of M&E

85. **The overall quality of M&E is rated Substantial.** The M&E design was generally aligned with the PDO and captured the project's principal results areas; however, it was affected by weaknesses related to the selection and measurement of certain indicators, particularly those dependent on metering infrastructure that was not fully operational at appraisal. The delayed revision of identified methodological shortcomings further reduced the effectiveness of the framework during part of the implementation period.

86. **Notwithstanding these limitations, implementation improved significantly over time.** Investments in data systems, including the development of the ROME-OT platform and the rollout of the IMS, strengthened data quality, reporting reliability, and institutional capacity. The M&E system ultimately generated credible information on project performance, supported evidence-based management decisions, informed restructuring processes, and captured achievements across key outcome areas. In addition, the project's M&E investments produced lasting institutional benefits by enhancing NAWEC's capacity to monitor performance beyond the scope of the operation. Taken together, the strengths of implementation and utilization outweigh the design shortcomings, supporting an overall rating of **Substantial** for the quality of M&E

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

Environmental Compliance

87. **The project was classified as Category B under OP/BP 4.01 throughout implementation, including after the Additional Financing**. Four safeguard policies were triggered, most significantly Involuntary Resettlement (Operational Policy/Bank Policy 4.12) and Forests (OP/BP 4.36), the latter given the proximity of transmission corridors to the Bamba, Nyambai, and Kabafita Forest Parks. Chance Find Procedures were included in all management plans as a precaution. An Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework were prepared and disclosed in early 2018, revised and re-disclosed in 2020 to cover Additional Financing activities, and site-specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) were prepared for the Jambur Solar Park and Greater Banjul Area T&D investments. Safeguards were implemented under a harmonized framework with EIB standards, applying the more stringent requirement where they differed. Environmental performance was generally satisfactory: a road traffic incident and worksite related accident on the improper usage of

concrete mixers warranted the development of two (2) environmental and social Incident response toolkit (ESIRT). The Owner's engineer team was reinforced to support occupational health and safety issues through active monitoring of the corrective action plan and enhanced site visits to ensure compliance. The transmission route avoided direct impacts on the forest parks, and monthly compliance reports were prepared by the Owner's Engineer. Some monitoring capacity constraints within the PIU required continued supervision support as construction accelerated. Environmental safeguards were rated Moderately Satisfactory at completion.

Social Compliance

88. **Resettlement planning and implementation was the most significant social safeguard dimension of the project.** Four Resettlement Action Plans were prepared, covering the Jambur Solar PV Plant (2020), the Jabang Brikama corridor (2021), the Laminkoto Diabugu corridor (2021), and the Backbone corridors in the North Bank and Upper River Regions. These plans established compensation procedures, both cash and in-kind, consistent with OP/BP 4.12 and national legislation. Land acquisition resulted in the physical displacement of 348 people and the economic displacement of one individual. During construction, right of way clearance was delayed primarily in the 225kV transmission corridor (Brikama – Jabang) due to compensation disputes, incomplete documentation, land ownership disputes and land transfer delays. These issues prevented contractor access to pylon locations and contributed to delays in civil works, ultimately affecting progress toward the transmission and distribution loss reduction target. Corrective actions, including additional compensation financing and strengthened supervision, enabled completion of most obligations, and the safeguard rating recovered to Moderately Satisfactory at completion. 29 PAPs with pending land title documentation remained outstanding at closure.

89. **A project level grievance redress mechanism (GRM), accessible via a toll-free line, community committees, and direct submissions, received 249 complaints during implementation**. Of these, 235 (94 percent) were resolved by project completion. The 14 remaining cases relate primarily to pending land title documentation for the 29 affected persons and one land dispute under mediation. A Post Closure Action Plan was agreed with the Government, assigning responsibility to NAWEC and relevant agencies to complete these obligations and monitor affected persons after financial closure.

Procurement

90. **Procurement performance under the project was rated Satisfactory at completion, a notable outcome given the demanding national procurement environment.** The PIU recorded and managed a total of 250 procurement activities through the STEP system, while also overseeing procurement for the ECOWAS REAP project. Of these activities, 5 were carried out through direct contracting, representing approximately 2 percent of the total. Procurement risk remained rated Substantial across the implementation period, reflecting both the country context and the complexity of coordinating multiple components and several financing partners. The procurement rating was held satisfactory for most of the implementation period, with a temporary downgrade to Moderately Satisfactory in June 2025 owing to documentation gaps within STEP. These gaps were fully resolved before completion. All major infrastructure contracts were delivered and commissioned successfully, among them the Jambur Solar Park, the Brikama to Jabang transmission line, the electricity access backbone, and the installation of 65,000 prepayment meters.

91. **Some procurement challenges were nonetheless observed.** Several contracts experienced delays stemming from weaknesses in technical specifications, late inputs from implementing departments, and gaps in contract administration documentation. In addition, 10 procurement activities were cancelled following scope adjustments made during restructurings. Several contracts were also flagged in STEP during the final supervision period, though these were resolved before completion. Despite these issues, procurement processes ultimately supported the delivery of the key project investments and enabled the redeployment of approximately US$3.7 million in savings toward additional electricity connections and water system improvements, reinforcing the satisfactory procurement rating at completion.

Financial Management

92. **Financial management performance under the project was Satisfactory at completion, reflecting a strong fiduciary framework despite operating in a country environment characterized by systemic financial management constraints.** At appraisal, financial management risk was rated Substantial, consistent with the national context where gaps in accounting standards, limited availability of qualified external auditors, and incomplete rollout of public financial management systems affect the broader portfolio. NAWEC relied on its financial management Information System to track project expenditures and maintained a dedicated designated account with regular reconciliations. Financial reporting arrangements functioned effectively throughout implementation. Quarterly Interim Financial Reports were generally submitted on time and of acceptable quality, and the external audit report for 2024 was submitted on time with an unqualified opinion, consistent with the clean audit record observed in previous years. Project financial management staffing and procedures were assessed as adequate during the final supervision mission. IDA resources were almost fully utilized at completion, with disbursement reaching 98.96 percent under IDA-D3090 and 98.56 percent under IDA-D6530, and no ineligible expenditures or misuse of funds were identified during the life of the project.

93. **Some administrative weaknesses were nonetheless observed within the overall satisfactory performance.** Supervision missions noted the absence of receipts on some payment vouchers within the bookkeeping record and one instance in which the third quarter Interim Financial Report could not be submitted through the standard reporting system and required offline transmission. These issues were resolved during implementation and did not affect the integrity of the project's financial records or result in any material audit findings. Taken together, the strong audit record, timely financial reporting, adequate staffing arrangements, and near complete utilization of project resources support the **satisfactory** financial management rating at project completion.

C. BANK PERFORMANCE

Quality at Entry: Moderately Satisfactory

94. **Quality at entry was generally sound**. The project design drew directly on lessons from the predecessor GESP (P152659), addressed the three structural constraints identified at appraisal; high T&D losses, institutional weakness at NAWEC, and the absence of renewable generation, and was positioned within a coordinated portfolio including the OMVG interconnection, ECOWAS REAP and DPOs. Risks were comprehensively assessed, with political, macroeconomic, and institutional capacity risks rated High and overall project risk rated Substantial.

95. **Three design weaknesses are noted.** First, some results were insufficiently ambitious and required upward revision at Additional Financing stage. Losses remain a structural issue in Sub-Saharan African utilities, extending beyond infrastructure, treating them as an intermediate indicator may have been more appropriate during project design. Second, the reliance on government counterpart financing for resettlement compensation in a fiscally constrained environment was a structural vulnerability that materialized as safeguards compliance issue at completion. Third, the complexity of water sector activities introduced under additional financing was underestimated, contributing to implementation delays in Component 4. These shortcomings moderate the overall quality at entry assessment.

Quality of Supervision: Satisfactory

96. **The Bank maintained strong supervision throughout implementation, conducting sixteen ISRs, a midterm review in March 2022, and three restructurings that enabled effective adaptive management**. Key supervisory actions included facilitating Additional Financing to address the water crisis and COVID-19 response, rationalizing the results framework, reallocating project savings toward Mission 300 electrification, and activating the World Bank Grievance Redress Service to mediate a complex land dispute affecting the transmission component.

97. **A notable supervision weakness was the delayed response to a known results framework deficiency**. The need to rationalize the technical and non-technical loss indicators was identified at the midterm review but formally addressed only two years later at restructuring. During this period, the project continued to report against indicators already recognized as methodologically problematic, undermining the credibility of the results framework and weakening the quality of performance data available to decision makers. That said, the eventual restructuring did more than close an administrative gap. It restored the integrity of the results framework by replacing ambiguous sub indicators with a single, nationally consistent transmission and distribution loss measure that could be tracked reliably and verified independently. While this corrective action came late, it demonstrated analytical discipline and provided a credible evidentiary basis for the final assessment, even though earlier action would have preserved data quality throughout a critical phase of implementation.

Justification of Overall Rating of Bank Performance

98. **Overall Bank performance is rated Moderately Satisfactory.** The Bank designed an operation that was well aligned with The Gambia's sector priorities and remained actively engaged throughout implementation, adapting the project through additional financing and restructurings to address emerging needs and implementation challenges. However, quality at entry was affected by poorly calibrated results targets, insufficient assessment of the Government's capacity to finance resettlement obligations, and underprepared water sector activities. During implementation, delays in revising the results framework and the persistence of unresolved land documentation issues at closing reflected supervision shortcomings. While these weaknesses did not materially affect the achievement of project outcomes, they are sufficient to warrant a Moderately Satisfactory rating**.**

D. RISK TO DEVELOPMENT OUTCOME

99. **The sustainability of GERMP outcomes is subject to significant risk, driven by continued financial fragility in NAWEC, reliance on external supply conditions, and still-maturing institutional and technical capacity**. The gains achieved remain dependent on sustained policy commitment, private sector integration, and retention of technical capacity.

100. **Financial and economic risks are the most critical**. NAWEC's recovery depends on the durability of the cost reflective tariff, continued access to low cost OMVG imports, and control of future capital expenditures. These conditions remain uncertain, particularly in a politically sensitive environment. Disruptions to OMVG imports or reversals in tariff policy would quickly weaken the utility's financial position. Ensuring the availability of local generation capacity remains crucial to support increased demand and complement imports. In addition, transmission and distribution losses remain above target, and the water business continues to generate financial pressures due to weak cost recovery. Similar risks materialize in the water sector relating to elevated non-revenue water, estimated at 40% currently. Ensuring the installation of all procured water meters to be completed under the Gambia Inclusive and Resilient Agricultural Value Chain (GIRAV – P173070) remains critical to address revenue protection in water and consolidating the gains made in access provision.

101. **Technical and institutional risks also remain material.** NAWEC has limited experience operating solar generation with battery storage, and reliance on external expertise for system optimization and maintenance. Although a three-year O&M contract has been secured for the solar park, maintaining adequate staff level capacity is critical. The scope of new access interventions and relative complexity of managing high voltage infrastructure warrants close introspection of NAWEC's electricity business unit and its staffing needs. Institutional reforms, including performance-based management and improved systems, are recent and not yet fully embedded. Staff retention challenges further increase the risk of losing critical technical capacity.

102. **Political and governance risks remain high in a fragile context**. Sustaining tariff reforms, financial discipline, and sector governance will depend on continued government commitment, which may weaken in the absence of external support. Residual social risks, including a small number of unresolved resettlement cases, also require follow through by government.

103. **Overall, while GERMP delivered strong results, their sustainability is not yet fully secured**. The combination of financial, institutional, and political risks supports a **Substantial** risk to development outcome rating.

V. LESSONS AND RECOMMENDATIONS

104. **Counterpart financing of resettlement is a structural implementation risk in fragile contexts and should be addressed at design stage**. Delayed government funded compensation under GERMP constrained right of way clearance, slowed civil work, and contributed directly to the unmet T&D loss indicator. In fiscally constrained settings, resettlement funding competes with other government priorities and is vulnerable to external shocks, COVID-19 further delayed resettlement planning, increased costs, and disrupted implementation timelines. These effects confirm that resettlement is a critical dependency of civil work, not a parallel activity. *Recommendation*: To mitigate this risk, future operations in similar contexts should finance resettlement directly from project proceeds or tie contractor mobilization to completed compensation, while incorporating contingency budgets and monitoring the link between resettlement progress and civil works access closely. Addressing land administration bottlenecks requires country management unit (CMU)-level intervention, given their cross-cutting impact across multiple sectors.

105. **Adding a new sector component through additional financing requires the same depth of preparation as a standalone project**. Component 4 was introduced at the Additional Financing stage with an US$11.5 million envelope and a 12-month implementation horizon. In practice, the component required two closing date extensions and could not complete the installation of 20,000 water meters by closure, requiring transfer of 5,000 units to the successor operation. Water infrastructure in rural fragile state settings involves community mobilization, land acquisition for boreholes, supply chain management, and local contractor capacity constraints that are qualitatively different from electricity infrastructure and require dedicated preparation time. *Recommendation:* Sector specific readiness assessments should accompany any midstream addition of a new sector, and meter installation, the revenue generating element that underpins financial sustainability, should be sequenced alongside, not after, physical infrastructure deployment.

106. **Preparation stage decisions on co-financing arrangements have lasting implications for implementation efficiency**. Under GERMP, the parallel financing structure with the World Bank and EIB introduced coordination frictions that affected implementation timelines, particularly in relation to procurement thresholds and financing period timelines. These factors contributed to delays in the completion of key backbone infrastructure late in the project cycle, compressing the time available to realize and demonstrate its full contribution to results. *Recommendation*: Future operations with co-financing should establish harmonized financing and reporting frameworks, agree on unified procurement standards that are adaptable, and formalize joint supervision and aligned disbursement arrangements at preparation stage to mitigate coordination risks.

107. **Sector specific strategic roadmaps strengthen government ownership and support timely course correction during implementation**. In GERMP, the electricity sector roadmap and its associated implementation taskforce enabled high level monitoring of targets and facilitated timely course correction when implementation risks materialized. A similar approach applied to the water sector could have helped establish a more coherent strategic vision and clearer institutional accountability, particularly given overlapping mandates among water agencies. *Recommendation:* For complex multi-sector operations, sector roadmaps should be prepared for each major component and linked explicitly to the results framework to sustain government ownership throughout implementation.

108. **Close and field-based Bank engagement is essential for adaptive management of complex infrastructure projects in fragile settings.** Strong working relationships between the project team and the client, at both technical and managerial levels, improve coordination, enable early identification of risks, and allow mitigation measures to be applied before problems escalate. *Recommendation:* The presence of field-based staff is particularly valuable in fragile contexts, as it enables more responsive adaptation to changing sector conditions, such as the opportunity to displace expensive rental generation through OMVG imports and supports continuous dialogue with the client. The sustained engagement of the GERMP task team contributed directly to the development of follow-on operations that will scale up the project's impacts under the Gambia Infrastructure Project (P504762).

109. **Transmission and Distribution (T&D) losses remain a critical indicator of sector performance.** However, methodological challenges limit the ability to accurately measure and attribute losses directly to project interventions. The project contributed substantially to network rehabilitation and capacity upgrades, but the impact on losses was influenced by broader system-wide factors, including aging infrastructure outside the project scope, rapid load growth in key demand centers, substation capacity constraints, and persistent commercial losses arising from theft and illegal connections. These factors complicated the ring-fencing of project-specific outcomes. *Recommendation:* The experience suggests that T&D loss reduction is best addressed as part of a long-term sector transformation agenda (e.g. M300 compact), with monitoring and targeted interventions implemented through multi-phase programmatic (MPA) approaches that enable sustained tracking and corrective actions over successive investment cycles.

110. **In fragile energy sectors, the transition from public to private investment must be intentionally sequenced, with clear milestones for reducing risk.** At appraisal, NAWEC's financial position and dependence on costly thermal generation made the sector unattractive to private investors. GERMP addressed this by focusing first on strengthening the fundamentals: restoring financial management systems, demonstrating the viability of utility scale solar generation, and establishing the transmission backbone, regulatory frameworks, and long-term sector planning that constitute enabling conditions for private participation. This sequencing played a central role in NAWEC's return to profitability in 2025 and positioned the utility as a credible offtaker. Building on this foundation, the project enabled the preparation of a 50 MWp solar independent power project expected to mobilize approximately US$60 million in private investment, supported by credit enhancement and transaction advisory services under two successor operations (GIP; Gambia Infrastructure Project, GIP P504762 and Regional Solar Park of The Gambia, RSPG; P504421). *Recommendation:* The key takeaway is that in fragile settings, mobilizing private capital requires a deliberate, phased public investment strategy with explicit milestones for de-risking the sector, not a parallel track but a structured pathway.

111. **Cross-sectoral collaboration can significantly support project implementation, particularly in small and fragile contexts.** Although the water component was added only through additional financing in 2020, the strong complementarities between the water and energy sectors quickly generated implementation benefits. Critical studies, including the energy audit of the water utility and related energy efficiency measures, were able to build on the national energy efficiency strategy and its recommendations under GERMP-related investments. The adaptability of the PIU in integrating the water component also enabled effective sequencing of key investments and drew on existing internal expertise in areas of direct relevance, particularly the extension of medium-voltage lines to newly constructed boreholes. *Recommendation:* in fragile and capacity-constrained environments, leveraging cross-sectoral synergies can improve delivery, strengthen coordination, and support more adaptive project management. This lesson has been reflected in the design of The Gambia Infrastructure Project, which seeks to enhance effectiveness and coordination across similar corridors and intervention areas in the transport and energy sectors.

ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS FRAMEWORK

PDO Indicators by Outcomes

Not Categorized								
Indicator Name	Baseline		Closing Period (Original)		Closing Period (Current)		Actual Achieved at Completion	
	Result	Month/Year	Result	Month/Year	Result	Month/Year	Result	Month/Year
People provided with water, sanitation, and hygiene (Number of people) CRI								
	Comments on achieving targets		This indicator measures the number of people provided with water through the project.					
Transmission and Distribution losses in the Greater Banjul Area (Percentage)								
	Comments on achieving targets		This indicator measures technical and distribution (T&D) losses across the entire electricity supply chain, from generation and transmission through distribution to final consumption.					
Number of blackouts in the GBA (Number)								
	Comments on achieving targets		This indicator measures total system collapses in the Greater Banjul Area.					
People provided with access to improved water sources (Number)					64,000.00	Dec/2025		
	Comments on achieving targets		This indicator measures the number of people provided with water through the project.					
Generation dispatched from variable renewable generation (solar) (Gigawatt-hour (GWh))								
	Comments on achieving targets		This indicator measures total generation from the Solar Park					

Intermediate Indicators by Components

Not Categorized								
Indicator Name	Baseline		Closing Period (Original)		Closing Period (Current)		Actual Achieved at Completion	
	Result	Month/Year	Result	Month/Year	Result	Month/Year	Result	Month/Year
Installed solar generation capacity (Megawatt)								
	Comments on achieving targets		Achieved. Replaced with new CRI indicator.					
Transmission lines constructed or rehabilitated (Kilometers)							18	Dec/2025
	Comments on achieving targets		Achieved. This indicator measures the transmission lines constructed under the project.					
Transmission substations constructed or extended (Number)								
	Comments on achieving targets		Achieved. This indicator measures the new transmission substations constructed under the project. Primarily, the Jabang 225kV substation					
Renewable energy capacity enabled (Megawatt) CRI								
	Comments on achieving targets		Achieved. This indicator measures the total installed PV capacity from the Solar Park.					
Distribution substations constructed or extended (Number)							52	Dec/2025
	Comments on achieving targets		Achieved. This indicator measures the distribution substations upgraded in the Greater Banjul Area.					
People provided with access to electricity (Number of people) CRI								
	Comments on achieving targets		Achieved. This indicator measures the number of people provided with new access to electricity.					
Increase in transmission capacity (Kilovolt-Amphere (KVA))								
	Comments on achieving targets		Achieved. This indicator measures the increase in new transmission capacity in the GBA.					
Number of LED bulbs installed (Number)					3,500.00	Dec/2025	3,500	Dec/2025
	Comments on achieving targets		Achieved. This indicator measures the number of streetlights replaced under the project.					
Number of prepayment meters installed (Number)							65,000	Dec/2025
	Comments on achieving targets		Achieved. This indicator measures the total number of meters purchased under the project.					

Completion of three strategic sanitation studies (Yes/No)	Comments on achieving targets		Achieved. This indicator measures the strategic sanitation studies financed under the project.						
Completion of energy audit of NAWEC's water business (Yes/No)									
	Comments on achieving targets		Achieved. Audit has been conducted and corresponding investment plan completed.						
Effective customer call center established and producing gender disaggregated data (Yes/No)									
	Comments on achieving targets		Achieved. Call center established and operational						
Percentage of customer call center staff who are female (Percentage)	0.00	Dec/2017							
	Comments on achieving targets		Achieved. This indicator measures the percentage of NAWEC customer service staff who are female.						
Percentage of grievances processed from total grievance received on the project (Percentage)					100.00	Dec/2025			
	Comments on achieving targets		Delays on processing land titles. Expected to be closed by ICR due date.						
NAWEC have published reports on beneficiary feedback, including gender disaggregated data, and how it has been incorporated into the project (Yes/No)									
	Comments on achieving targets		Achieved. Beneficiary feedback survey completed.						
Number of gender-sensitive communications campaigns and outreach activities conducted that target women and include separate consultations with women (Number)									
	Comments on achieving targets		Current campaigns ongoing in beneficiary communities. Expected target attainment before December 31,2025.						
Percentage of NAWEC engineers who are female (Percentage)									
	Comments on achieving targets		Achieved.						
Scholarships provided for female students (Yes/No)									
	Comments on achieving targets		Achieved. 108 Scholarships provided.						
People with new or improved access to electricity (Number (Thousand))					1,680.00	Dec/2025			
	Comments on achieving targets		Achieved. This indicator measures people with new or improved access to electricity. Taken against number of residential connections * avg HH size.						

Separation of NAWEC accounts (Yes/No)								
	Comments on achieving targets		Achieved via the deployment of NAWEC's information management system.					
Number of water storage tanks repaired (Number)	0.00	Dec/2017						
	Comments on achieving targets		Achieved. Measures the number of water tanks constructed under the project.					
Number of water meters installed or replaced in NAWEC's coverage zone (Number)								
	Comments on achieving targets		15,000 Meters procured. Installation to be supported under the GIRAV project.					
Installation of DMAs completed (Yes/No)					Yes	Dec/2025		
	Comments on achieving targets		5 DMA's identified and bulk meters installed.					

B. KEY OUTPUTS

Improve the operational performance of the Project Implementing Entity	
PDO Indicators	1. People provided with water, sanitation, and hygiene 2. Transmission and Distribution losses in the Greater Banjul Area 3. Number of blackouts in the GBA 4. People provided with access to improved water sources
Key Outputs (linked to the achievement of the PDO Outcome)	1. Modernization of the T&D network in the GBA, including construction of 18 km of transmission lines and upgrade of 52 distribution substations, reducing T&D losses and system collapses 2. Installation of 65,000 electricity meters, improving revenue recovery and operational performance of NAWEC 3. Construction and repair of water storage tanks and drilling of 12 new boreholes, improving water supply reliability for over 64,000 people 4. Installation of 20,000 water meters and District Metering Areas within NAWEC's coverage zone, enhancing water utility operational performance
Improve the capacity of the Project Implementing Entity to dispatch variable renewable electricity	
PDO Indicators	5. Generation dispatched from variable renewable generation (solar)
Key Outputs (linked to the achievement of the PDO Outcome)	1. Construction and commissioning of the 23 MWp Solar PV Park with Battery Storage system 2. Construction of the Jabang 225kV substation and associated 225kV high-voltage transmission line 3. Development of The Gambia's National Electricity Sector Roadmap, providing the strategic framework for renewable energy scale-up

Contingent Emergency Response Component	
Intermediate Results Indicators	
Key Outputs (linked to the achievement of the Component)	1. CERC established and made ready for activation in the event of a crisis, natural disaster, or emergency
Urgent actions to support the COVID-19 response	
Intermediate Results Indicators	
Key Outputs (linked to the achievement of the Component)	1. Procurement and supply of PPE and hygiene kits for NAWEC staff and beneficiary 2. COVID-19 communications materials procured and distributed to support public health messaging 3. Supply and installation of motor vehicles to support NAWEC project management unit operations during the pandemic
Urgent actions to address the water crisis	
Intermediate Results Indicators	21. Number of water storage tanks repaired 22. Number of water meters installed or replaced in NAWEC's coverage zone 23. Installation of DMAs completed
Key Outputs (linked to the achievement of the Component)	1. Construction of 3 new elevated water storage tanks 2. Drilling of 12 new boreholes to increase water production capacity for NAWEC's water supply network 3. Installation of 20,000 water meters across NAWEC's coverage zone, improving metering accuracy and reducing non-revenue water losses 4. Installation of District Metering Areas (DMAs) to enable systematic monitoring and management of water network performance.
Urgent institutional support for sector turnaround	
Intermediate Results Indicators	8. Number of prepayment meters installed

	9. Completion of three strategic sanitation studies 10. Completion of energy audit of NAWEC's water business 11. Effective customer call center established and producing gender disaggregated data 12. Percentage of customer call center staff who are female 13. Percentage of grievances processed from total grievance received on the project 15. NAWEC have published reports on beneficiary feedback, including gender disaggregated data, and how it has been incorporated into the project 16. Number of gender-sensitive communications campaigns and outreach activities conducted that target women and include separate consultations with women 17. Percentage of NAWEC engineers who are female 18. Scholarships provided for female students 19. People with new or improved access to electricity 20. Separation of NAWEC accounts 21. People provided with access to electricity
Key Outputs (linked to the achievement of the Component)	1. Installation of 65,000 prepayment electricity meters 2. Establishment of a customer call center at NAWEC producing gender-disaggregated customer data 3. Separation of NAWEC's electricity and water accounts, implementation of a grievance redress mechanism 4. Completion of strategic sanitation studies and a full energy audit of NAWEC's water business.
Transmission and distribution (T&D) restoration and modernization	
Intermediate Results Indicators	3. Transmission lines constructed or rehabilitated 4. Transmission substations constructed or extended 5. Distribution substations constructed or extended 6. Increase in transmission capacity

	7. Number of LED bulbs installed
Key Outputs (linked to the achievement of the Component)	1. Construction of 18 km of high-voltage (225kV) transmission line connecting the Solar Park to the GBA grid, including the Jabang 225kV substation 2. Modernization and upgrade of 52 distribution substations across the GBA 3. Replacement of 3,500 conventional streetlights with energy-efficient LED bulbs across the GBA
On-grid solar PV with storage	
Intermediate Results Indicators	2. Installed solar generation capacity 4. Renewable energy capacity enabled
Key Outputs (linked to the achievement of the Component)	1. Construction and commissioning of the Jambur Solar PV Park 2. Installation of 8 MWh Battery Energy Storage System (BESS) 3. Procurement and deployment of an Owner's Engineer to supervise construction and quality assurance of the solar park 4. feasibility studies and technical assistance provided to NAWEC

ANNEX 2. RESULTS FRAMEWORK WITH ACHIEVEMENT AT COMPLETION

Project Development Objective Indicators by Objectives/ Outcomes											
Indicator Name	**Baseline**	**Intermediate Targets**					**End Target**		**Value (Dec 2025)**	**Level of Achievement**	**Status at Completion**
		1	2	3	4	5					
Improve the operational performance of the Project Implementing Entity											
Transmission and Distribution losses in the Greater Banjul Area (Percentage)	22.00	22.00	21.00	18.00	17.00	16.00	15.00	20	20.01	27.10%	Not met
Number of blackouts in the GBA (Number)	45.00	25.00	22.00	19.00	17.00		15.00		7	46.67%	Partially Achieved
People provided with access to improved water sources (CRI, Number)	0	5,000.00	20,000.00	20,000.00	40,000.00		64,000.00		94,000.00	146.88%	Exceeded
Improve the capacity of the Project Implementing Entity to dispatch variable renewable electricity											
Generation dispatched from variable renewable generation (solar) (Gigawatt-hour (GWh))	0.00	0.00	0.00	0.00	26.00	26.00	26.00	20	40	153.85%	Exceeded
Intermediate Results Indicators by Components											
Indicator Name	**Baseline**	**Intermediate Targets**					**End Target**				
		1	2	3	4	5					
On-grid Solar PV with storage											
Installed solar generation capacity (Megawatt)	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20	23	115.00%	Exceeded
Transmission & Distribution (T&D) Restoration and Modernization											
Transmission lines constructed or rehabilitated (Kilometers)	0.00	0.00	0.00	0.00	17.00	17.00	17.00	30	18	105.88%	Exceeded

Transmission substations constructed or extended (Number)	0.00	0.00	0.00	0.00	1.00	1.00	1.00	3	1	100.00%	Achieved
Distribution substations constructed or extended (Number)	0.00	0.00	0.00	5.00	20.00	40.00	50.00	10	52	104.00%	Exceeded
Increase in transmission capacity (Kilovolt-Amphere(KVA))	0.00	0.00	0.00	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00	140,000.00	155.56%	Exceeded
Number of LED bulbs installed (Number)	0.00	2,000.00					3,500.00		3,500.00	100.00%	Achieved
Urgent Institutional Support for Sector Turnaround											
Number of prepayment meters installed (Number)	0.00	0.00	10,000.00	22,000.00	40,000.00	50,000.00	61,500.00	31,000.00	65,000.00	105.69%	Exceeded
Effective customer call center established and producing gender disaggregated data (Yes/No)	No	No	No	Yes	Yes	Yes	Yes		Yes	100.00%	Achieved
Percentage of customer call center staff who are female (Percentage)	0.00	20.00	30.00	50.00	50.00	50.00	50.00		90	180.00%	Exceeded
Percentage of grievances processed from total grievance received on the project (Percentage)	0.00	100.00	100.00	100.00	100.00	100.00	100.00		75	75.00%	Partially Achieved
percentage of grievances submitted by female clients that were processed (Percentage)	0.00	0.00	100.00	100.00	100.00	100.00	100.00		61	61.00%	Partially Achieved
NAWEC have published reports on beneficiary feedback, including gender disaggregated data, and how it has	No	Yes	Yes	Yes	Yes	Yes	Yes		Yes	100.00%	Achieved

been incorporated into the project (Yes/No)											
Number of gender-sensitive communications campaigns and outreach activities conducted that target women and include separate consultations with women (Number)	0.00	2.00	4.00	6.00	8.00	10.00	15.00	10	10	66.67%	Partially Achieved
Training on gender aspects of energy and water provided to staff of the MoPE and NAWEC (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes		Yes	100.00%	Achieved
People with new or improved access to electricity (Number (Thousand))	0.00	1,360.00	1,440.00	1,520.00	1,600.00	1,680.00	1,680.00		1911	100.00%	Achieved
Separation of NAWEC accounts (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes		Yes	100.00%	Achieved
Completion of three strategic sanitation studies (Yes/No)	No	No	No	No	No	Yes	Yes		Yes	100.00%	Achieved
Completion of energy audit of NAWEC's water business (Yes/No)	No	No	No	Yes	Yes	Yes	Yes		Yes	100.00%	Achieved
Percentage of women among NAWEC engineers (Percentage)	0.00	0.00	0.00	0.00	0.00	0.00	15.00		14	93.33%	Substantially Achieved
Scholarships provided for female students (Yes/No)	No	No	No	Yes	Yes	Yes	Yes		Yes	100.00%	108 Scholarships
Urgent investments to address the water crisis											
Number of water storage tanks repaired (Number)	0.00	0.00	0.00	1.00	2.00	3.00	3.00		3	100.00%	Achieved

Number of water meters installed or replaced in NAWEC's coverage zone (Number)	0.00	0.00	5,000.00	10,000.00	15,000.00	20,000.00	20,000.00		1,200.00	6.00%	Not Achieved
Installation of DMAs completed (Yes/No)	No	No	No	No	No	Yes	Yes		Yes	100.00%	Achieved

ANNEX 3. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Matarr Touray	Team Leader
Sylvestre Bea	Co-Team Leader
Leopold Sedogo	Co-Team Leader
Ahohouindo Mongnihoude Jean L Gbaguidi	Financial Management Specialist
Fatou Mbacke Dieng	Financial Management Specialist
Ndeye Fatou Mbacke	Procurement Specialist
Mouhamadou Kabir Ndoye	Procurement Specialist
Shaun O. Moss	Procurement Specialist
Sunday Esene Osoba	Procurement Specialist
Mamadou Mansour Mbaye	Procurement Specialist
Ahmed Fall	Environmental Specialist
Sophie Lo Diop	Environmental Specialist
Nancy Njie	Environmental Specialist
Kristyna Bishop	Social Specialist
Djamali Ibrahime	Peer Reviewer
Haoua Diallo	Procurement Team
Anta Tall Diallo	Procurement Team
Nikolai Sviedrys	Procurement Team
Mareme Ngom	Team Member
Natasha Kone	Team Member
Pape Abdoulaye Sow	Team Member
Landrine Fomete Songmene	Team Member
Yassin Saine Njie	Team Member
Harold Esseku	Team Member

Tamaro Kane	Team Member
Hermann Ndengue	ICR Main Contributor

B. STAFF TIME & COST

Stage of Project Cycle	Staff Time & Cost	
	No. of Staff Weeks	US$ (including travel and consultant costs)
Preparation		
FY17	0.225	1,054.71
FY18	33.104	314,124.69
FY19	6.850	53,101.39
FY20	5.538	44,303.76
FY21	3.238	20,326.31
FY22	4.444	28,685.35
FY23	2.094	14,316.14
FY24	0.200	1,448.88
Total	55.69	477,361.23
Supervision/ICR		
FY19	10.648	141,870.01
FY20	19.849	174,319.14
FY21	22.366	206,856.04
FY22	39.305	472,692.76
FY23	94.122	519,276.55
FY24	72.506	419,401.23
FY25	37.513	204,623.36

FY26	20.344	176,421.04
Total	316.65	2,315,460.13

ANNEX 4. PROJECT COST BY COMPONENT (IDA FINANCING)

Component	Amount at Approval (US$M)	Actual at Project Closing (US$M)
On-grid solar PV with storage	1.70	1.51
Transmission and distribution (T&D) restoration and modernization	37.50	33.30
Urgent institutional support for sector turnaround	30.80	33.46
Urgent actions to address the water crisis	11.50	12.04
Urgent actions to support the COVID-19 response	2.50	0.56
Contingent Emergency Response Component	0.00	0.00

ANNEX 5. EFFICIENCY ANALYSIS

Methodology

1. This annex assesses the efficiency of GERMP by examining how effectively project resources were used to generate results and whether the investments represented a sound use of scarce public resources in The Gambia. The analysis combines three complementary approaches: cost-benefit analysis, cost-effectiveness analysis, and an assessment of implementation efficiency.

2. The quantitative analysis focuses on Components 1, 2, and 4, which together account for approximately 80 percent of total project costs of US$164.5 million and a substantial share of IDA financing. Components 3 and 5 are not included in the monetized analysis because their benefits are not easily expressed in monetary terms, although their contribution to efficiency is discussed qualitatively in the implementation section. Consistent with the methodology applied at appraisal and the Additional Financing PAD, the analysis applies a differentiated time horizon: 20 years for transmission, distribution, and water infrastructure assets, and 10 years for energy efficiency equipment and the battery energy storage system, reflecting their shorter expected useful life. A social discount rate of 6 percent is applied throughout.

3. The approach used at completion is consistent with the methodology applied at appraisal and Additional Financing, which allows for a direct comparison of results. However, the analysis reflects actual costs and realized benefits up to project completion in December 2025, and updated projections based on current conditions. Several key parameters have changed significantly since appraisal, including fuel prices, demand growth, the grid emission factor, and the availability of OMVG imports. These changes are explicitly incorporated to provide a realistic and transparent assessment of the project's performance.

Cost Benefit Analysis

Key Assumptions

4. The main assumptions used in the analysis are presented below, alongside their values at appraisal and at completion. The direction of impact on economic returns relative to appraisal is noted for each parameter.

Assumption	At Appraisal / AF	At Completion (March 2026)
Exchange rate	GMD 51.50 per US$ (April 2020)	GMD 72.24 per US$
HFO fuel price	US$68.4/MWh (AF, 2020)	US$144/MWh
Thermal generation cost	US$0.50/kWh	US$0.20/kWh
OMVG import cost	Not modeled	US$0.11/kWh (base); US$0.15/kWh (peak)
Electricity tariff	US$0.35/kWh (appraisal); US$0.23/kWh (AF)	US$0.21/kWh
T&D loss rate	15% (target)	20.01% (actual)
Solar generation dispatched	26 GWh/year (AF target)	40 GWh/year
Electricity demand growth	7%/year (AF)	11%/year
Water beneficiaries	64,000 (AF target)	184,983
Willingness to pay (water)	US$0.55/$m^3$	US$0.55/$m^3$
Shadow price of carbon	US$40–80/$tCO_2eq$, +2.26%/year	US$46–91/$tCO_2eq$
Grid emission factor	1.0 tCO_2eq/MWh (HFO baseline)	0.80 tCO_2eq/MWh
Government RAP expenditure	US$1.5M	US$8.3M
Total IDA disbursed	US$84.0M (commitment)	US$80.87M (96.27% of original commitment)
Social discount rate	6%	6%
Time horizon (T&D, water infrastructure)	20 years	20 years

Time horizon (energy efficiency, equipment, BESS)	10 years	10 years

Benefit and Cost Streams

5. The economic analysis compares the situation with the project against a counterfactual scenario in which The Gambia would have continued to rely on high-cost HFO thermal generation and a deteriorating network with limited capacity for renewable energy integration.

6. The most important source of economic benefit is the avoided cost of heavy fuel oil generation. With 40 GWh of solar power generated annually and fuel prices more than doubling from US$68.4/MWh to US$144/MWh, the annual value of avoided generation costs reached approximately US$5.76 million per year, more than three times the US$1.78 million estimated at appraisal. A second and even larger source of benefit comes from OMVG imports, which were not anticipated at appraisal but now generate approximately US$8.5 million in annual savings by displacing the Karpowership power purchase agreement and replacing expensive thermal generation at US$0.11 to US$0.15 per kWh against a thermal baseline of US$0.20 per kWh.

7. Additional benefits include the improved reliability of electricity supply, with outages in the Greater Banjul Area falling from 45 per month at baseline to 7 per month at completion, as well as better revenue recovery through the installation of 65,000 prepaid meters. The water component contributed significantly beyond expectations, with beneficiaries reaching nearly three times the original target of 64,000. Environmental benefits are reflected in avoided greenhouse gas emissions of 24,247 tCO_2eq per year, calculated using an updated grid emission factor of 0.80 tCO_2eq/MWh that reflects the lower carbon intensity of the generation mix at completion, which now incorporates solar dispatch and OMVG hydropower imports alongside residual HFO thermal generation.

8. Costs include the full investment cost of the project of US$164.5 million, incremental operations and maintenance modeled at 2 percent of capital per year for transmission and distribution assets and 1.5 percent for solar generation assets, and the actual resettlement costs of US$8.3 million borne by the Government, which were significantly higher than the US$1.5 million estimated at appraisal.

ERR and NPV Results

The ex-post ERR and NPV are presented at both the component and aggregate project levels, enabling direct comparison with appraisal estimates.

Indicator	**At Appraisal (2018)**	**At Completion (March 2026)**
ERR — aggregate (base)	16.1%	22.0%
ERR — aggregate (with GHG, 0.80 tCO_2eq/MWh)	19.3%	22.3%
Economic NPV — base (6%)	US$178.6M	US$216.0M
Economic NPV — with GHG (6%)	US$216.0M	US$228.0M
Financial IRR	10.2%	15.0%
Financial NPV	US$71.8M	US$104.0M
C1 ERR (base / with GHG)	—	24.0% / 28.0%
C2 aggregate ERR	—	22.0%
C2.1: 225 kV line and substation	—	19.4%
C2.2: Distribution and metering	—	55.5%
C2.3: Dispatch center and SCADA	—	79.1%
C4 ERR	12.5% (AF)	25.0–30.0%
OMVG annual saving (unplanned)	Not modeled	US$8.5M/year
Solar avoided generation cost	US$1.78M/year	US$5.76M/year
Total GHG avoided (annual)	—	24,247 tCO_2eq/year

9. The results confirm that the project generated returns well above appraisal expectations across all metrics, with the economic NPV exceeding the appraisal estimate by US$37.4 million in the base case. NAWEC's return to profitability in Q2 to Q3 2025 provides corroborating evidence of the improved financial sustainability underpinning these results.

GHG Emission Reductions

10. Total annual GHG avoided by the project upon completion is estimated at 24,247 tCO_2eq per year, comprising a calculated figure for Component 1 and confirmed figures for Component 4 as presented below.

Source	Time Horizon	GHG Avoided (tCO_2eq/year)	Annual Value (US$46/$tCO_2eq$)	Annual Value (US$91/$tCO_2eq$)
C1: Solar generation (23 MWp Jambur)	20 years (panels); 10 years (BESS)	32,000	US$1.47M	US$2.91M
C4: Solar water pumps	10 years	476.4	US$21,914	US$43,352
C4: Water storage tanks	20 years	130.6	US$6,008	US$11,885
Grand Total (C1 + C4)	—	**32,607**	**US$1.50M/year**	**US$2.97M/year**

11. Valued at the updated World Bank shadow price of carbon of US$46 to US$91 per tCO_2eq, these reductions add between US$1.50 million and US$2.97 million per year to the project's economic benefit stream and lift the aggregate ERR from 22.0 percent in the base case to approximately 22.3 percent when GHG benefits are included.

Implementation Efficiency

12. Implementation efficiency was affected by delays, coordination challenges, and resettlement cost overruns that prevented the full and timely realization of project benefits.

13. The project closing date was extended three times by a cumulative 24 months beyond the original December 2023 target. The primary cause was delayed Government financing for resettlement, which constrained right of way clearance and restricted contractor access along the 225 kV transmission corridor, delaying commissioning of the line by approximately 14 months to February 2025. This left a window of less than 10 months before project completion to demonstrate improvements in system losses, and the T&D loss target of 15 percent was not achieved, with actual losses standing at 20.01 percent at completion. Although total project costs remained within the US$164.5 million envelope, resettlement costs increased from US$1.5 million to US$8.3 million, a US$6.8 million overrun representing a 453 percent variance. Coordination challenges between IDA and EIB contributed to delays in the transmission component, while the complexity of water investments under Component 4 was underestimated at the Additional Financing design stage, requiring two additional extensions and the transfer of meter installation to the successor operation.

14. At the same time, several factors supported efficiency and partially mitigated these shortcomings. PIU continuity from the predecessor GESP reduced mobilization costs, preserved institutional memory, and maintained consistent fiduciary performance, with US$80.87 million disbursed representing 99.12 percent of the revised IDA commitment. Savings of US$3.7 million were reallocated at Restructuring 1 to expand electrification under Mission 300, connecting 414 rural communities and increasing the number of beneficiaries without additional financing. The OMVG import saving of US$8.5 million per year, while unplanned, was realized through the transmission investments financed under the project and represents a compounding efficiency gain that more than compensates for the direct costs of the implementation delays.

Summary Table and Efficiency Rating

Efficiency Dimension	Assessment
Economic efficiency — ERR (base)	Substantial
Economic efficiency — ERR (with GHG)	Substantial
Economic NPV (base, 6%)	Substantial
Financial efficiency — FIRR	Substantial
Financial NPV	Substantial

GHG avoided (annual)	—
Implementation timeliness	Modest
Design and institutional efficiency	Modest
Overall Efficiency Rating	**Modest**

15. Overall, the project generated strong economic and financial returns and delivered results at reasonable cost relative to regional benchmarks. However, these gains were achieved with significant delays, a material resettlement cost overrun, and one unmet PDO indicator, which reduced the efficiency with which benefits were realized within the original implementation period.

16. The overall Efficiency rating is **Modest**, consistent with ICR guidelines. Had the 225 kV line been commissioned on schedule and the T&D loss target achieved within the original implementation period, benefits would have been realized earlier, and the overall Efficiency rating would likely have been Substantial. A key lesson is that reliance on government counterpart financing for resettlement in a fiscally constrained fragile state environment introduces structural risks that can delay implementation and reduce efficiency even when the underlying investment is economically sound.

ANNEX 6. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

Page number	Narration	Comments provided by the project implementation unit
Page 9	A. EFFICIENCY	Operational *and Implementation Efficiency*
	Operational and Implementation Efficiency	is therefore largely because of the safeguard implementation challenges which were socially and financially inclined; difficult to defined redress timeline and financially linked to government disbursement. Is it possible to put this in the context of the rating given that this 225KV transmission line which accounted for the largest investment was delivered within the original project closure timeline???
	Section 44:	
Page 11	… and coordination challenges	Please expand on this
	Section: 53:	
Page 16	Section 81	Relate this section to the rating on the *Operational and Implementation Efficiency*
	Environmental Compliance	Where the safeguard implementation challenges which were socially inclined and difficult to defined redress timeline contributed to the MODEST Rating
Page 17	Section 89:	This rating may be countering the Relevance at appraisal and the ownership of the government in relation to project development outcome and sustainability of the interventions. In built contribution in cash or kind into the project structure is a mark of commitment and is an indicator of shared responsibility. Kindly recast
	... government counterpart financing for resettlement compensation in a fiscally constrained environment was a structural vulnerability that materialized as safeguards compliance issue at completion.	

Page 18	Section 97 Overall, while GERMP delivered strong results, their sustainability is not yet fully secured. The combination of financial, institutional, and political risks supports a Substantial risk to development outcome rating	Relate the sustainability risk at closure to risk at appraisal in terms of the country context and the situation of NAWEC at the time as opposed to at project particularly noting the improved governance status of the country and the institutional strengthening and reforms supported by the project. Now for the first time in a decade moved from negative cashflow to a positive one in 2025 thanks to the contribution of the project??

ANNEX 7. SUPPORTING DOCUMENTS (IF ANY)

Document Title	Year	Report | Resolution No	Document Type
World Bank Group			
Aide-Memoires and Implementation Status and Results Report	2018-2025	-	Project Documents
OMVG Interconnection Project Appraisal Document	2015	89594-AFR	Appraisal Document
Gambia Electricity Restoration and Modernization PAD	2018	PAD2530	Appraisal Document
Project Additional Financing Paper	2020	PAD3664	Appraisal Document
Restructuring Paper No.1	2024	RES5757	Restructuring Paper
Restructuring Paper No.	2024	RES00501	Restructuring Paper
Restructuring Paper No.	2025	RES57579	Restructuring Paper
The Gambia Agriculture Engagement Note: Fostering Agriculture-Led Inclusive Growth	2019	AUS0000808	Engagement Note
The Gambia – Country Engagement Note for the period FY18-FY21	2018	Report No. 123654-GM	Engagement Note
Performance and Learning Review of the Country Partnership Framework for the Period FY22-FY26	2025	PLR0000015	Performance Review
The Gambia Integrated State-Owned Enterprises Framework (iSOEF) Assessment	2022	AUS0002822	Review
Gambia Poverty Reduction Strategy Paper	2012	Report No. 67310-GM	Strategy Paper
NAWEC			
Borrower's ICR Report	2026	-	Completion Report
E&S Reports	2018-2025	-	Reports
M&E Reports	2018-2025	-	Reports
Government Official Documents			
The Gambia National Development Plan (2018-2021)	2018	-	National Policy
The Gambia Electricity Sector Roadmap – High Level Update	2017	-	National Policy
Recovery-Focused National Development Plan (RF-NDP) 2023–202 7	2022	-	National Policy