

SUSTAINABLE ENERGY DEVELOPMENT PROGRAMME

Annual Budget Monitoring Report

Financial Year 2023/24

October 2024

Budget Monitoring and Accountability Unit Ministry of Finance, Planning and Economic Development P.O. Box 8147, Kampala www.finance.go.ug

MOFPED#DoingMore



SUSTAINABLE ENERGY DEVELOPMENT PROGRAMME

Annual Budget Monitoring Report

Financial Year 2023/24

October 2024

TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS iii

FOREWORD	V
EXECUTIVE SUMMARY	VI
CHAPTER 1: BACKGROUND	1
1.1 Background	1
1.2 Programme Goal	1
1.3 Programme Objectives	2
1.4 Programme Outcomes and Indicators	2
CHAPTER 2: METHODOLOGY	3
2.1 Scope	3
2.2 Approach and Sampling Methods	4
2.3 Data Collection and Analysis	4
2.3.1 Data collection	4
2.3.2 Data Analysis	5
2.4 Limitations	6
2.5 Structure of the Report	6
CHAPTER 3: PROGRAMME PERFORMANCE	7
3.1 Overall performance	7
3.2 Generation Sub-programme	8
3.2.1 Undertake preliminary development of large hydropower generation plants	8
3.2.2 Finalize plans and approvals for construction of a nuclear power generation plant	11
3.3 Transmission and Distribution Sub-programme	14
3.2.1 Expand the Transmission Network to Key Growth Areas	15



3.2.2 Establish mechanisms to reduce the end-user tariffs	20
3.2.3 Expand and Rehabilitate the Distribution Network	21
3.4 Renewable Energy Development Sub-programme	27
3.5 Energy Efficiency and Conservation Sub-programme	30
CHAPTER 4: CONCLUSION AND RECOMMENDATIONS	34
4.1 Programme Conclusion	34
4.2 Recommendations	34
REFERENCES	35

ABBREVIATIONS AND ACRONYMS

EASP Electricity Access-Scale up Project AFD Agence Française de Development

AfDB African Development Bank

CDAP Community Development Action Plan

CGV Chief Government Valuer

CNST Centre for Nuclear Science and Technology

EIA Environmental Impact Assessment

EOI Expression of Interest

EPC Engineering, Procurement and Construction

ERT Energy for Rural Transformation ESCOs Energy Service Companies

EVSE Electric Vehicle Supply Equipment

EXIM Export-Import Bank
FAT Factory Acceptance Test

GERP Grid Extension and Reinforcement Project

GoU Government of Uganda HPP Hydro Power Project

HSE Health Safety and Environment HTLS High Temperature Low Sag

HV High Voltage

IDA International Development Association IFMS Integrated Financial Management System

IPC Interim Payment Certificate

JICA Japan International Cooperation Agency

KfW Kreditanstalt für Wiederaufbau KIL Kilembe Investment Limited

KIS Kalangala Infrastructure Services limited

KRECS Kyegegwa Rural Electricity Cooperative Society Limited

kV kilo Volts

LPG Liquefied Petroleum Gas

LV Low Voltage

MDAs Ministries, Departments and Agencies

MEMD Ministry of Energy and Mineral Development MEPS Minimum Energy Performance Standard

MLHUD Ministry of Lands, Housing and Urban Development

MoU Memoranda of Understanding MPS Ministerial Policy Statement

MV Medium Voltage MW Mega Watts

NDP III Third National Development Plan

OE Owner's Engineer

PAPs Project Affected Persons

PBS Programme Budgeting System
PDHs Physically Displaced Households

PIP Public Investment Plan



PPDA Public Procurement and Disposal of Assets Authority

PPP Public-Private Partnership RAP Resettlement Action Plan

REP Rural Electrification Programme

RHD Refugee Host District
RHC Refugee Host Community

RoW Right of Way

SDR Special Drawing Rights

SMEs Small and Medium Enterprises

TX Transformer

TBEA Bridging the Demand Gap Through Accelerated Rural Electrification

UECCC Uganda Energy Credit Capitalization Company
UEDCL Uganda Electricity Distribution Company Limited
UEGCL Uganda Electricity Generation Company Limited
UETCL Uganda Electricity Transmission Company Limited

UNODC United Nations Office on Drugs and Crime UREAP Uganda Rural Electrification Access Project

FOREWORD

At the start of the Financial Year 2023/24, the Government of Uganda outlined strategies to restore the economy back to the medium -term growth path and improve competitiveness. The strategic interventions that were prioritized under various programmes included: roads under Integrated Transport; electricity under the Sustainable Energy Development; irrigation under Agro-Industrialization; Industrial parks under Manufacturing; support to medical schools and science-based research and development under Human Capital Development; as well as oil and gas among others.

Annual programme assessments have been made, and it has been established that performance was fairly good. This implies that programmes are on track, but with a lot of improvements required. To that effect, I urge you to critically review the findings of the performance reports with a view to improving effectiveness in implementation of activities going forward. These monitoring findings form a very important building block upon which programmes can commence the reflective exercises.

The government has embarked on the 10-fold growth strategy that demands for enhanced efficiency and effectiveness within programmes. We cannot afford to have fair performance scores hence forth, as this will jeopardize the prospects of doubling the economic growth rates in the medium term.

Ramathan Ggoobi

Permanent Secretary/ Secretary to the Treasury



EXECUTIVE SUMMARY

The overall annual performance of the sustainable energy development programme was fair at 66.4%. The total approved budget for the programme was Ug shs 1,432.72 bn which was revised to Ug shs 1,643.64 bn. This revision resulted from supplementary funding of Ug shs 182.652 billion, which supported key projects, including the Energy for Rural Transformation Phase III (ERT III), the TBEA Project, the Gulu-Agago Transmission Project, the Isimba Hydro Power Project (HPP), and the Karuma HPP. The overall budget release under the programme was good at 84.8% and expenditure was 88.6% of the release. However, disbursement on externally funded projects was low, with only Ug shs 520.3 billion (52.6%) of the Ug shs 1,102.071 billion externally funded budget spent by the end of the financial year, mainly due to delays in commencing several transmission projects.

Performance

The performance of the Generation sub-programme was good at 71.4%. The two main planned outputs under the sub-programme which were the completion of works at Karuma HPP and Nyagak III progressed well. The key achievement under the sub-programme was the completion of the pending works at Karuma HPP and the issuance of the completion certificate on 12th May 2024. The generation plant was connected to the grid and was supporting an average load of 280 MW during the peak period.

Works at Nyagak III progressed well during the FY 2023/24 although the target to complete the project was not met with overall progress of works at 97%. All the works at the dam and intake, pipe conduit, surge tank, penstock, anchor blocks, penstock, installation of the turbines, switchgear, and control panels were completed. The commencement of dry commissioning for the generation units was still awaiting construction of the evacuation line to the Nebbi substation.

The Transmission and Distribution sub-programme overall performance was good at 75.2% by the end of FY 2023/24. Several key milestones were reached with the addition of new transmission lines to the national grid. Notable among these were the completion of the 83km Gulu-Agago transmission line and the Agago substation which was energized in February 2024. Other achievements during the FY were the completion of most works on the Kole-Gulu-Nebbi-Arua (KGNA) with pending works being the stringing across the Nile in Packwach. The substation works were substantially complete at 99%. Works on the Mirama-Kabale transmission project progressed well with substation construction at 71% and transmission line works at 85%.

Works on the Kampala-Metropolitan transmission project finally commenced in February 2024 and earthworks involving the levelling of the substation sites at Buloba and Mukono had been completed. The implementation of the Masaka-Mbarara 400kV transmission project was still delayed because of the administrative reviews that prevented the completion of the procurement process.

The completion of several electricity grid distribution extension projects during FY 2023/24 was achieved in the different regions of the country. Under the Uganda Electricity Access Project (UREAP), lots 1-6 and lots 10-12 in the Eastern region (Kaliro, Iganga, Soroti, Serere), Northern region (Gulu, Nwoya, Lira, Alebtong), Southern (Butambala, Isingiro, Mbarara, Rukungiri) and Central region (Nakaseke, Luwero, Nakasongola, Kiryandongo, Wakiso) were completed. The works under Lot 7 for connecting Bugala island in Kalangala to the grid using a marine cable were completed and the newly constructed grid on the island was commissioned and energized.

Most works under Energy for Rural Transformation (ERT III) project were completed. The completed and commissioned schemes on the project were lines 1, 2, 4, 11, 15,18,19 and 21. The commissioning of lines 15, 18 and 19 was partially done and works on lines 3, 12, 13, 17 were in the final stages of implementation with progress at over 90%. The remaining works could not be completed due to lack of funds to pay the contractors and clear the pending compensation.

Under the bridging of the demand-supply balance gap through Accelerated Rural Electrification Project (AREP), several grid extension lines were commissioned countrywide. Cumulatively a total of 3,202.46km of Medium Voltage (MV) lines with 1,744 transformers installed and 6,827.82 km of associated Low Voltage (LV) networks were commissioned, with 180,228 complete single phase pre-paid meters supplied for new free connections.

The performance of the Renewable Energy Development sub-programme by end of the FY 2023/24 was fair at 51.4%. The sub-programme was severely affected by underfunding and slow procurement. The six sites for installation of institutional biogas systems were identified but construction at two of the planned sites was not undertaken due to procurement delays. The installation of water heater systems and institutional cook stoves were not procured due to insufficient funds.

The Energy Efficiency and Conservation sub-programme performance was fair at 67.5%. A survey was commissioned to collect data on the type of electric appliances imported into the country and Minimum Energy Performance Standards (MEPS) for six (6) types of appliances were developed. The review of existing electric vehicle charging standards was completed and formulation of a masterplan for electric vehicle infrastructure and market development was being undertaken.

Challenges

- The programme did not allocate sufficient funds to implement the rural electrification works, which greatly hindered the progress of the projects inherited from the defunct Rural Electrification Agency.
- Transmission lines and rural electrification projects continue to experience delays due to land acquisition challenges. Progress on the remaining ERT III lines works could not be completed and several sections of the Mirama-Kabale transmission project were delayed due to outstanding right of way.

Conclusion

The Sustainable Energy Development Programme takes up the largest share of the energy sector budget, it continues to grapple with several project implementation challenges. Most of these challenges can be traced to delayed procurement of works, and challenges in the acquisition of RoW for the electricity infrastructure. The budget allocation for outputs contributing to rural electrification, promotion of renewable energy, and energy efficiency under the programme remains low for them to have a significant impact.

Recommendations

- The MEMD should prioritize funding for rural electrification initiatives and activities to ensure optimal utilization of the excess electricity generation capacity.
- The land acquisition project under MEMD should be adequately capitalized to facilitate early land acquisition before project financing negotiations begin.



CHAPTER 1: BACKGROUND

1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, "To formulate sound economic policies, maximize revenue mobilization, and ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development."

The MFPED through its Budget Monitoring and Accountability Unit (BMAU) tracks the implementation of programmes/projects by observing how values of different financial and physical indicators change over time against stated goals, indicators, and targets (how things are working). The BMAU work is aligned with budget execution, accountability, service delivery.

Starting in FY 2021/22, the BMAU is undertaking Programme-Based Monitoring to assess performance against targets and outcomes in the Programme Implementation Action Plans (PIAPs) of the third National Development Plan (NDP). Semi-annual and annual field monitoring of government programmes and projects is undertaken to verify the receipt and application of funds by the user entities and beneficiaries, the outputs and intermediate outcomes achieved, and the level of gender and equity compliance in the budget execution processes. The monitoring also reviews the coherency in implementing the PIAP interventions; the level of cohesion between subprogrammes; and the challenges of implementation.

The monitoring covered the following Programmes: Agro-Industrialization; Community Mobilization and Mindset Change; Digital Transformation; Human Capital Development; Innovation, Technology Development and Transfer; Integrated Transport Infrastructure and Services; Manufacturing; Mineral Development; Natural Resources, Environment, Climate Change, Land and Water Management; Public Sector Transformation; Sustainable Development of Petroleum Resources; and **Sustainable Energy Development**.

This report presents findings from monitoring the Sustainable Energy Development Programme for the budget execution period of 1st July 2023 and 30th June 2024.

1.2 Programme Goal

The goal of the Sustainable Energy Development Programme is to meet the energy needs of the country by providing adequate, affordable, clean, and reliable energy for sustainable socioeconomic growth and development. The SED Programme consists of 4 sub-programmes namely: Generation, Transmission and Distribution, Renewable Energy Development, and Energy Efficiency and Conservation.

The lead MDA for the implementation of the programme is the Ministry of Energy and Mineral Development (MEMD), with other key implementing agencies being the Uganda Electricity Transmission Company Limited (UETCL) and Uganda Electricity Generation Company Limited (UEGCL).

1.3 Programme Objectives

The specific objectives of the programme are:

- Increase access and utilization of electricity
- Increase the generation capacity of electricity
- Increase adoption and use of clean energy, and
- Promote utilization of energy-efficient practices and technologies.

1.4 Programme Outcomes and Indicators

The NDP III outlines outcomes and the targets to be delivered under each of the programme objectives. The indicators in Table 1.1 will be used to measure the progress toward the outcomes of the programme.

Table 1.1: Sustainable Energy Development Outcomes and Indicators

Outcome	Indicators
Objective 1: Increase access a	nd utilization of electricity
Increased electricity access	Increase the percentage of households with access to electricity from 50% to 80%.
	Increase grid reliability from 88% to 90%.
	Increase electricity consumption per capita (kWh per capita) from 100kWh to 578kWh.
	Increase the length of High voltage transmission lines (km) from 2354km to 4354km.
	Increase the length of the distribution network from 45,423.1km to 70,000km.
Objective 2: Increase electricity	y generation capacity
Increased electricity generation capacity	Increase electricity generation capacity from 1,252.3MW to 3500MW
Objective 3: Increase adoption	and use of clean energy
Increased energy consumption	Increase primary energy consumption (million tonnes of oil equivalent) from 15.2 to 21.74 million tonnes of oil equivalent
Objective 4: Promote utilization	n of energy-efficient practices and technologies.
Increased consumption of alternative clean cooking energy	Reduce total energy losses (%) on the distribution network from 19.6% to 12.6%.
Efficient energy utilization	Increase % of adoption of energy-efficient technologies from 30% to 50% across all consumer categories

Source: NDP III



CHAPTER 2: METHODOLOGY

2.1 Scope

This monitoring report is based on selected interventions in the Sustainable Energy Development Programme. The monitoring covered interventions implemented during FY 2023/24 (1st July 2023 -30th June 2024). The interventions and respective outputs reviewed under each sub-programme; Ministry, Department, and Agency/(MDAs)/Vote/Local Governments are listed in Table 2.1

Table 2.1: Interventions, Outputs, and Implementing Agencies

Intervention	Outputs	Implementing Agency		
Undertake preliminary	Construction of Nyagak III HPP	UEGCL		
development of large- generation plants	Construction of Karuma HPP			
Seek approvals for the	Atomic Energy Amendment Bill prepared	MEMD		
construction of a nuclear	Awareness of the nuclear energy conducted			
power generation	Preparation for construction of a Centre for Nuclear Science and			
	Local content strategy for nuclear energy development prepared			
	Spent fuel and radioactive waste management strategy for			
	Bilateral and multilateral cooperation coordinated			
Emandard D. J. 199. (Distance in law of high college Page 11, 11, 11, 11, 11, 11, 11, 11, 11, 11	LIETOI		
Expand and Rehabilitate the Transmission	Distance in km of high voltage lines added to the transmission	UETCL		
Network	Capacity of transformer capacity (MVA) added to the grid			
Expand and Rehabilitate	No. of km of medium voltage lines added to the grid	MEMD		
the Distribution Network	No. of km of low voltage lines added to the grid	- WEWE		
	140. Of Kill of low voilage lines added to the grid			
Reduce End User Tariffs	No. of Last-mile connections made	MEMD		
Promote the use of new	Increased deployment of new renewable Energy solutions	MEMD		
and renewable energy	Off-grid mini-grids based on renewable energy promoted	1		
solutions	Development of grid-connected renewable energy systems			
	Electric transport solutions promoted	-		
	Net metering framework developed	<u>-</u>		
	Technical capacity in renewable energy solutions developed			
	Increased uptake in improved cook stoves			
Promote the use of	Utilization and adoption of efficient cooking techniques	MEMD		
energy-efficient equipment for both	Energy management among high energy consuming facilities integrated and energy efficiency /conservation potential	MEMD		
industrial and residential consumers	Awareness of energy efficiency and sustainable energy utilization created	MEMD		
	Complimentary policies on energy efficiency developed	MEMD		

Source: Author's Compilation

Monitoring involved analysis and tracking of inputs, activities, processes, outputs, and in some instances intermediate outcomes as identified in the Programme Implementation Action Plan (PIAP), Ministerial Policy Statements (MPS) and Semi-Annual and Quarterly work plans, progress and performance reports of MDAs and LGs.

A total of seven (7) interventions in the MPS were reviewed. The seven reviewed interventions translated into 90% coverage of the approved budget for FY2023/24. The selected interventions monitored were:

- Undertake preliminary development of large-generation plants
- Finalize plans for the development of nuclear power generation
- Expand and rehabilitate the Transmission Network
- Expand and rehabilitate the Distribution Network
- Establish mechanisms to reduce the end-user tariffs
- Promotion of the use of new and renewable energy solutions
- Promote the use of energy-efficient equipment for both industrial and residential consumers

2.2 Approach and Sampling Methods

Both qualitative and quantitative methods were used in the monitoring exercise. The physical performance of interventions, planned outputs, and intermediate outcomes were assessed through monitoring a range of indicators. The progress reported was linked to the reported expenditure and physical performance.

A combination of random and purposive sampling was used in selecting interventions and outputs from the PIAPs, Ministerial Policy Statements (MPS), and progress reports of the respective Ministries, Departments, and Agencies for monitoring.

To aid mapping PIAP interventions against annual planned targets stated in the Vote MPS and quarterly work plans, a multi-stage sampling was undertaken at four levels: i) Sub-programmes ii) Sub-sub-programmes iii) Local governments, and iv) Project beneficiaries. Regional representation was considered in the selection of districts and outputs.

2.3 Data Collection and Analysis

2.3.1 Data collection

The monitoring team employed both primary and secondary data collection methods. Secondary data collection methods include: Literature review from key policy documents including, Ministerial Policy Statements (MPS) FY 2023/24; National and Programme Budget Framework Papers; A Handbook for Implementation of NDPIII Gender and Equity Commitments, PIAPs, (NDP III), quarterly progress reports and work plans for the respective implementing agencies, Quarterly Performance Reports, Budget Speech, Public Investment Plans, Approved Estimates of Revenue and Expenditure, project reports, strategic plans, policy documents, Aide Memoires and Evaluation Reports for selected programmes/projects.

Review and analysis of data from the Integrated Financial Management System (IFMS); Programme Budgeting System (PBS); Budget Portal; Quarterly Performance Reports and Bank statements from some implementing agencies.



Primary data collection methods on the other hand include:

- Consultations and key informant interviews with Institutional heads, project/intervention managers, household heads, and service beneficiaries at various implementation levels.
- Field visits to various districts, for primary data collection, observation, and photography.
- Call-backs in some cases were made to triangulate information.

2.3.2 Data Analysis

The data was analysed using both qualitative and quantitative approaches.

Qualitative data was examined and classified in terms of constructs, themes, or patterns to explain events among the beneficiaries (interpretation analysis) and reflective analysis where the monitoring teams provided an objective interpretation of the field events. Quantitative data on the other hand was analyzed using advanced Excel tools that aided interpretation.

Comparative analyses were done using percentages, averages, and cross-tabulations of the outputs/interventions; intermediate outcome indicators, and overall scores. Performance of outputs/interventions and intermediate outcome indicators was rated in percentages according to the level of achievement against the annual targets. The sub-programme score was determined as the weighted aggregate of the average percentage ratings for the output/intermediate outcomes in the ratio of 65%:35% respectively.

The overall programme performance is an average of individual sub-programme scores assessed. The performance of the programme and sub-programme was rated based on the criterion in **Table 2.2.** Based on the rating assigned, a BMAU colour-coded system was used to alert the policymakers and implementers on whether the interventions were achieved or had very good performance (green), good performance (yellow), fair performance (light gold), and poor performance (red) to aid decision making.

Table 2.2: Assessment guide to measure performance in FY 2023/24

Score	Performance Rating	Comment
90% and above		Very Good (Achieved at least 90% of outputs and outcomes)
70%-89%		Good (Achieved at least 70% of outputs and outcomes)
50%- 69%		Fair (Achieved at least 50% of outputs and outcomes)
49% and below		Poor (Achieved below 50% of outputs and outcomes)

Source: Author's Compilation

Ethical considerations

Introduction letters from the Permanent Secretary/Secretary to Treasury were issued to the respective MDAs monitored. Entry meetings were held with the Accounting Officers or delegated officers upon commencement of the monitoring exercise. Consent was sought from all respondents including programme or project beneficiaries. All information obtained during the budget monitoring exercise was treated with a high degree of confidentiality.

2.4 Limitations

- Limited credible outcome performance data in the programme institutions; in some cases, the analysis was done at the output level.
- Lack of reliable and real-time financial data on donor financing which was not accessible on the IFMS.
- Limited access to credible expenditure data especially for agencies/subventions that still operated manual accounting systems.

2.5 Structure of the Report

The report is structured into four chapters. These are the introduction, Methodology, Programme Performance, Conclusion, and Recommendations respectively.



CHAPTER 3: PROGRAMME PERFORMANCE

3.1 Overall performance

Financial Performance

The total budget approved budget for the programme was Ug shs 1,432.72 bn which was revised to Ug shs 1,643.64 bn. The overall budget release under the programme was good at 84.8% and expenditure was 88.6% of the release. There was supplementary funding totaling Ug shs 182.652 bn for Energy for Rural Transformation (ERT III), Bridging the Demand Gap Through Accelerated Rural Electrification (TBEA), Gulu-Agago transmission project, Isimba Hydro Power Plant (HPP) and Karuma HPP. The programme financing by 30th June 2024 is summarized in Table 3.1.

Table 3.1: Financing of the Sustainable Energy Development Programme at 30th June 2024

Sub-Programme/ Cost Centre	Approved budget (Ug shs bn)	Revised Budget (Ug shs nn)	Release (Ug shs bn)	Expenditure (Ug shs bn)	Release as % of budget	Expenditure as % of release
Generation	560.44	605.44	544.66	541.49	97.2	99.4
Transmission and Distribution	670.29	906.56	481.62	369.11	71.9	76.6
Renewable Energy Development	2.18	2.18	1.87	1.4	85.8	74.9
Energy Efficiency and Conservation	8.41	8.41	4.28	2.71	50.9	63.3
Policy, planning and support services	101.4	121.05	106.8	94.81	105.3	88.8
Overall Performance	1,342.72	1,643.64	1,139.23	1,009.52	84.8	88.6

Source: IFMS and PBS Quarterly Reports

Physical performance

The overall performance of the programme was fair at 66.4 %. There was improvement in the works on the on-going transmission projects and large hydropower generation projects (Table 3.2). The Transmission and Distribution sub-programme works although hindered by Right of Way (RoW) showed improved progress during FY2023/24. Most of the works at Karuma HPP were completed and a completion certificate issued to the contractor. The Gulu-Agago transmission line was completed and energized and works on the Kole-Gulu-Nebbi Arua transmission line and its associated substations (Kole, Gulu, Nebbi, and Arua) were substantially complete. Works on the Kampala Metropolitan transmission project finally commenced in February 2024. Most of the grid rural electrification schemes were also completed with only residual works left under ERTIII.

Table 3.2: Summary of Performance for the Sustainable Energy Development Programme for FY2023/24

Sub-programme	Performance (%)
Generation	71.4
Transmission and Distribution	75.2
Renewable Energy Development	51.4
Energy Efficiency and Conservation	67.5
Overall Performance	66.4

Source: Author's Compilation

3.2 Generation Sub-programme

The sub-programme objective is to ensure adequate generation capacity for economic development and it contributes to the programme outcome of "increased electricity generation capacity added to the grid". The outcome indicator for the sub-programme is the generation capacity in Mega Watts (MW) added to the grid.

The planned interventions under the sub-programme are: Undertake preliminary development of large generation plants and finalize plans and approvals for construction of a nuclear power generation plant.

Performance

The overall sub-programme performance was good at 71.4 % (Table 3.3). The planned completion of works at Karuma HPP was achieved and the plant was commissioned. The completion certificate for the works was issued on 12th May 2024 with the plant operations under defects liability monitoring. The budget for the interventions under the sub-programme was Ug shs 605.44 bn, of which Ug shs 544.86bn was released and Ug shs 541.49bn was spent by the end of the financial year.

Table 3.3: Performance of interventions under the Generation Sub-programme

Intervention	Performance Rating	Remarks
Undertake preliminary development of large-generation plants		Very good performance of 92.8%. All major works on Karuma HPP completed. Defects liability period for Isimba HPP completed
Finalize plans and approvals for nuclear power generation		Fair performance of 50%. Atomic energy bill approved by the cabinet and draft bill under review.
Average intervention performance		Good performance of 71.4%

Source: Author's Compilation

3.2.1 Undertake preliminary development of large hydropower generation plants

The intervention is jointly implemented by Uganda Electricity Generation Company Limited (UEGCL) and the Ministry of Energy and Mineral Development (MEMD). The planned outputs under the intervention were the construction of Nyagak III HPP, Karuma HPP, and the completion of Isimba HPP defects liability.



Performance of the intervention

The performance of the intervention was good at 92.8%. The budget for the intervention was Ug shs 601.9 bn of which Ug shs 541.2 bn was released and Ug shs 538.0 spent during the financial year 2023/24.

Construction works on Nyagak III HPP



Installed turbines in the powerhouse at Nyagak III



Completed dam and spillway structure at the Nyagak III HPP

Construction works on Nyagak III HPP were ongoing in Zombo District with overall progress at 97%. Completion of the project was delayed due to funding challenges because the private partners failed to obtain loan financing. There was a release of Ug shs 22.95 bn during the FY2023/24 to complete the remaining works and Ug Shs 22.745 bn was spent.

The structural works on the access roads, dam structure surge tank, pipe conduit, penstock anchor blocks, and penstock piping were completed and the river diverted to its original course. Civil works on the powerhouse and installation of the electro-mechanical equipment in the powerhouse was completed. The installation of the control panels, transformers and turbine generators had been done awaiting the necessary commissioning tests.

The works on the evacuation line from the power plant to Nebbi substation had not commenced and this will further delay the commissioning and

operations of the project.

Completion of Karuma HPP works

Construction works for Karuma HPP were completed during the FY. A Completion certificate for the work on the hydropower plant was issued on 12th May 2024. The total cumulative certified payment to the contractor was US\$ 1,363,553,804 which equates to 97.5 % of the original contract price of US\$ 1,398,516,759.

All major civil, electrical, and electromechanical works at Karuma HPP had been completed at the project. Unit start-up commissioning of six units was completed and all the 600MW successfully synchronized on the national grid. The overall completion progress for the transmission

component of the project was 100% and the completion certificate for the transmission line and substations works was issued on 22nd May 2024.

The works to rectify the identified snags were ongoing during the financial year. The progress of the snag completion was 90% for the civil works at the dam and intake area, 70% for the civil works on the main powerhouse, and 70% for the Main Access Tunnel road.

The major remaining snag still to be resolved on the project is the replacement of the damaged log boom. The contractor submitted a design which the Owner's Engineer rejected as it was found to be technically inadequate. The continued accumulation of trash (waste) due to the lack of the logboom was frequently clogging the intakes to the turbines and this was affecting the operations of the power plant.





L-R: Completed Karuma HPP powerhouse room; Spillway structure house at Karuma HPP

All the works on the Employer's Permanent Camp were completed and completion certificates were issued. Among the completed facilities includes the residential houses (type A, B and C, D and E), the visitor's hostel, club house building and swimming pool, access road network and drainage system, electric power system and street lighting, water supply system and wastewater treatment system.

The Community Development Action plan for Karuma HPP did not receive any funding during the FY 2023/24. The construction of the 119 resettlement houses at Lapono Village for the vulnerable Project-Affected Persons on the Karuma HPP had not commenced. The required Environmental and Social Impact Assessment (ESIA) had not been undertaken.

Completion of the defects liability period for Isimba HPP

The defects liability period for Isimba HPP was completed in March 2023 but there were still outstanding works. By 30th June 2024, 774 out of the 801 snags had been closed, only 10 remained open with 17 in progress. A total of 621 of the 763 Warranty Service Requests had been closed with 43 still open and 44 in progress. Works were ongoing for slope stabilization of the riverbank slopes.

A disputes board had been constituted to refer to the issues of contention between the contractor and the Government.



3.2.2 Finalize plans and approvals for construction of a nuclear power generation plant

The planned outputs under the intervention are Atomic Energy Act, 2008 finalized; Awareness of nuclear energy conducted; Preparation for construction of a Centre for Nuclear Science and Technology conducted; Spent fuel and radioactive waste management strategy for Uganda prepared and implemented; and IAEA cooperation coordinated.

Performance of the intervention

The performance of the intervention was fair at 50%. The siting for the planned nuclear generation plant was completed and the community engagement commenced. The Nuclear Unit under MEMD also continued to engage and receive technical support from the International Atomic Energy Agency (IAEA). The budget allocation for this intervention was Ug shs 3.459bn of which Ug shs 3.038bn was released and Ug shs 2.2bn was spent.

Amendment of the Atomic Energy Act, 2008 finalized

Cabinet reviewed the final draft principles for amending the Atomic Energy Act, 2008, and approved it on 12th June 2023, subsequently, 8 technical meetings have been held to review the draft bill.

A National Stakeholders Consultative workshop was conducted on 12th June 2024 with representatives from Parliament, Government MDAs, Local Government Academic institutions and media. An official request was also sent to IAEA and United Nations Office on Drugs and Crime (UNODC) to provide comments on the draft bill in line with international legal regime on nuclear energy.

Awareness of the nuclear energy conducted

One (1) sensitization seminar was conducted at Soroti University on the Centre for Nuclear Science and Technology. Engagement of Project Affected Persons (PAPs) for Buyende Nuclear Power Project in Buyende District was undertaken and 1,200 PAPs participated in the engagement.

Human resource development plan for the nuclear power plant finalized

Data for modeling human resource requirements for the nuclear power programme was collected and IAEA was requested to provide the latest Nuclear Power Human Resource modelling software. A retreat on human resource planning framework for nuclear facilities was conducted in collaboration with the Ministry of Public Service.

Bilateral cooperation on nuclear energy co-ordinated and implemented

Bilateral meetings were held to discuss cooperation proposals from Hunton Andrews, GNE Advisory, Worley and Replanet Africa. A Memorandum of Understanding on capacity building for the nuclear industry in Uganda was signed between the Ministry of Energy and Mineral Development and Lesedi Nuclear Service (Pty) Ltd.

Nuclear Fuel supply strategy implemented

The draft Nuclear Fuel Supply Strategy for Uganda was revised, following the Cabinet's approval of the 2023 Energy Policy, which updated the country's electricity generation targets. Feasibility studies and ESIA for the Center for Nuclear Science and Technology (CNST) was undertaken.

A field activity for uranium exploration was undertaken in Lwensankala, Sembabule District in September 2023 and detailed exploration was undertaken in April 2024. Pitting and trenching were carried out within the uranium anomaly, samples were collected and taken to the laboratory for analysis.

Nuclear waste management strategy for Uganda prepared and implemented

A virtual IAEA expert mission reviewed the Spent Fuel and Radioactive Waste Management Strategy for Uganda in September 2023 and the Terms of Reference (TOR) for siting a Centralized Radioactive Waste Management Facility were updated. A site survey for the centralized radioactive waste management facility in Nakasongola district was conducted. A member of staff participated IAEA training on Borehole Disposal of Disused Sealed Radioactive Sources (DSRS) in Kuala Lumpur, Malaysia, from 4th to 15th September 2023.

IAEA Technical cooperation coordinated

Regional animal disease diagnostic centres in Moroto and Tororo Districts were monitored. Ten IAEA supported technical cooperation projects in the fields of agriculture, safety, uranium exploration, energy and water resources were implemented. The country programme note for the cycle 2026/27 was finalized and submitted to the IAEA for review.

A detailed analysis of the performance of the Generation Sub-programme interventions is in Table 3.4.

Table 3.4: Performance of the Generation Sub-programme by 30th June 2024

		Financial Performance			Physical Performa		
Intervention	Output	Annual Budget (Ug shs bn)	% of budget received	% of budget spent	Annual Target	physical score (%)	Remarks
Undertake preliminary development of large-	Construction of Nyagak III HPP.	22.95	99.11	100.0	100	97.0	All civil, electrical, and electro-mechanical works were completed.
generation plants	Construction of Karuma HPP.	485.46	94.42	99.9	100	100.0	All 6 generation units commissioned DLP commenced.
	Completion of defects liability Period for Isimba HPP.	85.73	62.29	100.0	763	81.3	The defects liability period was completed, however, work on defects continues.
Finalize plans and approvals for nuclear	Amendment of the Atomic Energy Act, 2008 finalized.	0.43	100.00	87.8	100.00	60.0	Cabinet approved draft bill which has been shared with the IAEA.



		Financial I	Performance	е	Physical Performa		
Intervention	Output	Annual Budget (Ug shs bn)	% of budget received	% of budget spent	Annual Target	physical score (%)	Remarks
power generation	Human resource development plan for the nuclear programme.	0.43	100.00	87.8	100.00	50.0	Working with IAEA to acquire Human Resources.
	Awareness on the nuclear. energy conducted.	0.43	100.00	87.8	100.00	60.00	Engagement held in Buyende with 1200 participating.
	Preparation for construction of a Centre for Nuclear Science and Technology conducted.	0.43	100.00	87.8	100.00	40.00	Steering team for technology center created and MOU signed and to oversee implementation.
	Spent fuel and radioactive waste management strategy for Uganda prepared and implemented	0.43	100.00	87.8	100.00	40.00	Siting of radioactive waste management facility ongoing. staff trained on the reuse and recycling of disused radioactive sources.
Finalize plans and approvals for nuclear	Bilateral and multilateral cooperation coordinated	0.43	100.00	87.8	100.00	60.00	10 IAEA supported projects were implemented
power generation.	Nuclear Fuel supply strategy implemented	0.43	100.00	87.8	100.00	40.00	Detailed nuclear fuel resources exploration and evaluation launched.
Outcomes Pe	rformance	597.16	537.57	536.83	-	62.84	Output performance
Outcome Indicator			Annual	Achiev	Score		
				Target	ed	(%)	Remark
Increased general the grid	eration capacity	added to		788	783	99.4	Karuma HPP fully commissioned

		Financial Performance			Physical Performance		
Intervention	Output	Annual Budget (Ug shs bn)	% of budget received	% of budget spent	Annual Target	physical score (%)	Remarks
	Finalize plans and approvals for nuclear power generation		40	30	75.0		
Average Outo	omes					87.2	
Overall sub-programme Performance						71.4	

Source: Field Findings and MEMD PBS Quarterly Reports

Challenge under the Sub-programme

Significant delays in addressing social issues related to the projects, particularly concerning the compensation and resettlement of Project-Affected Persons. For example, the resettlement and compensation program for PAPs associated with the Karuma Hydropower Project to Lapono has not been implemented since 2013.

Conclusion

The Generation Sub-programme made good progress towards increasing the power generation capacity on the grid and the full commissioning of the Karuma HPP works was a key milestone during the FY. However, UEGCL and MEMD should ensure that the remaining works/snags and the pending issues such as resettlement are addressed conclusively.

Recommendation

The appointment of an adjudicator to help resolve the implementation challenges on the Karuma HPP needs to be done as soon as possible by MEMD and UEGCL so that the contentious issues on the project can be resolved.

3.3 Transmission and Distribution Sub-programme

The sub-programme is responsible for promoting; increased investment in power transmission and rural electrification. The sub-programme contributes to the programme outcome of "increased access and utilization of electricity". The outcome indicators for the sub-programme are; increased electricity access and reduction in losses on the grid.

The planned interventions under the sub-programme are: to expand and rehabilitate the transmission network, expand and rehabilitate the distribution network, and reduce end-user tariffs.

Performance of the intervention

The sub-programme had a budget of Ug shs 906.56 bn. The released funds amounted to Ug shs 481.62 bn, and the total expenditure amounted to Ug shs 369.11bn.



The overall performance of the interventions under the sub-programme showed great improvement at 75.2 % (Table 3.5). Some of the highlights under the sub-programme include the completion of all the Lots under the African Development Bank funded by UREAP, including the grid interconnection to Bugala Island. The Gulu-Agago and Kole-Gulu Transmission segments were energized therefore adding Gulu town to the transmission grid. Works on the transmission segments such as the Gulu-Nebbi, and Nebbi-Arua were in advanced stages of implementation.

Table 3.5: Intervention performance for Transmission and Distribution Sub-programme

Intervention	Performance Rating	Remarks
Expand and Rehabilitate the Transmission Network.		Good performance at 84.6%. Gulu-Agago and Gulu-Kole transmission lines energized. Works on West Nile transmission were substantially complete.
Expand and Rehabilitate the Distribution Network.		Poor performance of 42.5% Most grid extension works were commissioned but residual works were not completed due to delays.
Reduce End User Tariffs		Good performance with 286,590 connections made out of the planned 300,000 annual target.
Overall intervention performance		Good performance at 75.2%

Source: Authors' Compilation

3.2.1 Expand the Transmission Network to Key Growth Areas

The intervention is the responsibility of Uganda Electricity Transmission Company Limited (UETCL) and the Ministry of Energy and Mineral Development (MEMD). The performance indicators under the intervention were: the number of kilometres of high voltage lines added to the grid and the distance in kilometres (km) of the rehabilitated transmission network. The major planned outputs under the intervention were the following transmission projects:

- Entebbe-Mutundwe Expansion Project
- 132kV Mirama-Kabale Transmission Project
- Grid Expansion and Re-enforcement Project
- Gulu Agago Transmission Project
- Masaka-Mbarara Expansion Project
- Kampala Metropolitan Transmission Project
- Power supply to industrial parks II

The intervention performance was good at 84.6%. During the FY2023/24, the Gulu-Agago transmission projects were completed and the defects liability monitoring for the works was ongoing. The works on the Kole-Gulu-Nebbi-Arua transmission project were also substantially completed with more than 95% progress. The only pending section of the works was the 1 km river crossing at Packwach. Civil works on the Kampala-Metropolitan transmission project finally commenced after delays due to procurement issues.

Construction of 132 kV Mirama-Kabale Transmission Project

The scope of the project is to construct an 85km transmission line from the Mirama substation and connect it to a newly constructed substation at Kabale, and construction of rural grid extension

lines in the region. The funding for the project is Government of Uganda (GoU) (Ug shs 40bn) and Islamic Development Bank (IsDB) loan of US\$ 83.75 million (US\$ 37.82 million for the transmission component and USD 45.93 Million for the rural grid extensions). The project budget for FY2023/24 was Ug shs 69.85 bn of which Ug shs 24.077 bn was released and Ug shs 24.077 bn spent.

By 30th June 2024, US\$ 14.641 million (34.69%) of the total loan amount of US\$ 37.82 million had been disbursed. The low disbursement was due to slow progress of the on-going transmission line works, and the substation works that just commenced in July 2023.

The transmission line works that had been plagued by delays showed improved progress after the requested price revision for the contract was approved. The progress of the works on the T-line was as follows: 287 of the planned 294 foundations were completed, and 203 of the planned 294 towers had been erected. The stringing of 47 km of the planned length of 85km had also been undertaken but was still behind schedule because some sections lacked erected towers.

The contract for Lot 2 (Kabale 132/33 kV substation and extension of the 132kV Busbar at Mirama Substation) works started on 3rd July 2023 and overall progress was at 71%. The earthworks at the Kabale substation were completed, erection of equipment foundations at both Kabale and Mirama substation was also complete.



On-going civil and electro-mechanical works at the Kabale substation site



Stringing of the conductors on the Kabale-Mirama Transmission line at Bukinda, Rukiga District.

The installation of steel structures for the equipment at the two substations was at 75% progress while the plant house construction had progressed to 75%. Some of the equipment had been manufactured and delivered to site, among these were the Disconnectors, Circuit breakers, surge arrestors, auxiliary transformers and earthing conductors.

The RAP implementation on the project was at 96% with 2,434 of the 2,534 PAPs paid. The acquisition of the 5.45 acres for the Kabale substation had been fully done to enable works commence and the pending 4% cases in the line corridor were being handled by MEMD.

Grid Extension and Reenforcement Project (GERP)

Under the World Bank-funded Grid Extension and Re-enforcement Project (GERP), works were ongoing to connect West Nile to the



national grid through the construction of 294 km of 132kV double circuit transmission line from Kole, through Gulu and Nebbi, to Arua as well as new four substations at Kole, Gulu, Nebbi and Arua with a transmission interconnection from Gulu to Olwiyo.

The project budget for FY2023/24 was Ug shs 35.63bn, with Ug shs 0.5 bn released and Ug Shs 0.418 bn spent during the FY. The loan disbursement at the end of the FY was SDR 56.89 million which is 88.07 % of the total loan amount.

By end of FY 2023/24, the overall progress of the transmission works (Lot 1) was at 98.2 % with 896 towers erected out of the planned 897. All major right of way issues had been resolved and line stringing had been completed except the 2km at the Packwach Nile crossing.

Overall progress of construction of the Kole and Gulu substations (Lot 2) was 96.8% with all electromechanical and electrical equipment works completed. The Kole and Gulu substations were energized on 29th November 2023 and 17th November 2023 respectively. The major pending works at these two locations were the drainage works and paving of the switchyard roads.

Progress of construction of Nebbi and Arua substations (Lot 3) at end of FY2023/24 was 96.3%. All major electrical and electrotechnical equipment had been installed at the two substations and pre-commissioning testing was on-going at Nebbi substation. Compensation of Project Affected Persons was at 95% (3,383/3,592) progress and the planned 65 resettlement houses for the vulnerable PAPs had been completed.



L-R: Final works at the Arua substation; Completed transmission line section for the R-Nile crossing at Packwach



Gulu-Agago Transmission Project

The scope of the project includes, construction of an 83km transmission line connecting Gulu substation to a newly constructed substation at Agago commenced. The funding of the project is a 40 million Euro loan from Kreditanstalt für Wiederaufbau (KfW) and the aim is to evacuate electricity from Agago and Achwa hydropower plants.

The project budget during the FY 2023/24 was Ug shs 108.9bn, of which Ug shs 54.065 bn was released and Ug shs 54.062 bn was spent. Most of the released funds were for payment of deemed energy to the Achwa HPP developer. The total amount disbursed on the loan by end of FY 2023/24 was Euros 18.533 million (46.38 %) of the EUR 40 million loan.

Overall project progress of the works for the transmission line (Lot 1) was 100% and all of the planned 254 towers of the line had been erected and the stringing of the planned 83km of the T-line was completed. The transmission line was energized on 18th November 2023 and the snags on the transmission line works completed.

The overall progress of substation works (Lot2) were at 99.8%. The extension bays at the Gulu substation and Agago HPP switchyard were energized on 18th November 2023. All mechanical and electrical works at Agago HPP were completed. The commissioning tests at the substation were on-going with the pending tests being the primary injection tests on the 33kV section of the substation. The road works and the stone pitching at the Agago substation yard were still pending.



On-going road works at the substantially complete Agago switchyard

The RAP implementation was at 98.9%, with 468 of the 473 project-affected persons (PAPs) paid. Of the pending five RAP cases, payment for two was being processed and three cases were still under dispute.

Additionally, construction of the 17 resettlement houses had been completed and handed over to the beneficiaries.

Masaka-Mbarara 400kV Transmission Line Project and Associated Sub-Stations

The project is jointly funded by Kreditanstalt für Wiederaufbau/German Development Bank (KfW), Agence Française de Développement(AFD)/ French Development Bank, and the Government of Uganda. The KfW loan is EURO 35 million, while the AFD loan amount is EURO 37.1 million.

The project scope comprises: the construction of a 132km long 400 kV double circuit transmission line between the 220kV Masaka substation and the 220kV Mbarara North substation and the addition of two new line bays at both Masaka and Mbarara substations.

The project budget was Ug shs 99.7bn while Ug shs 21.319 bn was released and transferred to UETCL during the FY. The disbursement on the AFD loan was EUR 120,687 (0.33%) while that on the KfW loan was Euro 111,907(0.32%). The disbursement on the loan funds was still very low



due to delay in the procurement of the Engineering, Procurement and Construction (EPC) contractors.

The delays in the procurement had arisen due to whistle blower complaints to the IGG and PPDA investigations. The Solicitor General guided that the second-best evaluated bidder be awarded the contract and UETCL was therefore in the process of seeking a no objection from the funder in light of this guidance.

The RAP implementation was at 74% with 1,958 of the 2,651 PAPs compensated. A total of 211 (37%) of the original land titles were received from the PAPs out of the expected 572 land titles. The sub-division of 83 out of 162 titles was completed by the consultant and returned to UETCL. There are 24 PAPs on the project who opted for UETCL to compensate them by constructing a resettlement house but the procurement of the contractor to had not been completed as yet.

Kampala Metropolitan Transmission System Improvement Project

The Kampala Metropolitan Transmission System Improvement Project aims to reinforce the electricity grid in the Kampala metropolitan area for a reliable future electricity supply. The project funding is a loan of Japanese Yen (JPY) 13.659bn from the Japan International Corporation Agency (JICA), the cost of the Resettlement Action Plan is to be covered by GoU counterpart funding. The loan signature date was 26th April 2018.

The scope of the project includes: Construction of a new Mukono 3x125MVA, 220/132kV substation; new Buloba 2x125MVA, 220/132kV substation; a new Kawaala 2x40MVA 132/33kV substation; 1x20MVA 132/11kV Upgrade), Mutundwe Substation reconfiguration to double Busbar (upgrade), procurement of a new mobile substation 1x20MVA, 132/33kV; procurement of a new 1x250MVA 220/132kV power transformer for Bujagali Substation; Reconductoring of Mukono-Kampala North; Kampala North-Lugogo; Kampala North-Mutundwe transmission lines to High Temperature Low Sag (HTLS) Conductor.

The disbursement on the loan by end of FY 2023/24 was JPY 2,907.7 million (21.29%) of the JPY 13,659 million. The budget for FY2023/24 was Ug Shs. 61.82 Bn, while the release was Ug Shs. 4.652 Bn which was transferred to UETCL.

The contracts for Lot 1-Construction of Buloba Substation and associated transmission lines and upgrading of Mutundwe and Bujagali substations was signed on 7th August 2023 and Lot 2-Construction of the new Mukono substation and associated transmission lines, upgrading of Kawaala Substation and reconductoring Mukono-Kampala North; Kampala North-Lugogo; Kampala North-Mutundwe transmission lines were signed on 7th August 2023.

The contractor (Lot 1 and 2) had completed the topographic survey and geotechnical investigations for New Mukono, Buloba, Mutundwe, Kawaala, and Bujagali substations. The site clearance and top soil stripping of the Buloba substation site was also completed and site clearance of the Mukono substation site had commenced at 90% progress.



On-going earth works at the Mukono susbtation site in Mbalala, Mukono

The contract for Lot 3 - supply of a mobile substation (132/33-11kV) was signed on 19th May 2023 and an advance payment of 30% had been made to the supplier.

The design progress was at 96% and the manufacturing of the auxiliary transformers, 33kV switchgear, trailer and LV panels was on-going and estimated at 30%. The order for the production of control and protection panels and 132kV cable jointing material had been made. The shipping of some of the

materials required to connect the Kawaala substation to the mobile substation temporarily had been undertaken. The site clearance at Kawaala substation where the mobile substation is to be parked had commenced.

Implementation of the RAP was progressing well and 134 (97%) of the 138 PAPs on the project had been compensated. The corridors of the transmission line and substations along the Mukono, Kawaala, and Buloba project area had been demarcated and the substation land procured. The extra land required in Mukono was acquired and handed over to the contractor and works were on-going.

3.2.2 Establish mechanisms to reduce the end-user tariffs

This intervention aims at increasing the number of consumers connected to the grid through the implementation of the free connections policy and provision of a credit support facility in support of wiring for on-grid households, Small and Medium Enterprise connections and three-phase connections for commercial enterprises. The output indicator for this intervention is the number of new connections undertaken. This intervention is being undertaken by MEMD and Uganda Electricity Credit and Capitalization Company (UECCC).

The budget for the free connections policy was Ug Shs 7.896 bn of which Ug Shs 7.561 bn was released and Ug Shs 7.420 Bn was spent. The connections materials purchased using AfDB funding under UREAP had been delivered. The connections using these materials commenced during the second half of the FY 2023/24 and the impact will be felt during the next FY.

A total of 286,590 connections were made countrywide during the FY2023/24. A total of 97,712 connections were customer-funded, while under the free connection policy¹, a total of 188,878 (65.9%) out of 300,000 planned connections were made country-wide using GoU funding and financial support from several development partners².

¹ Potential beneficiary are those who require either a no-pole or one pole service for connection to the grid

² World Bank, Islamic Development Bank (IDB), African Development Bank (AfDB), Kreditanstalt für Wiederaufbau (KfW), French Development Agency (AFD), China EXIM Bank, Kuwait Fund



A detailed report on the breakdown of the free connections made using the different funding sources by the various service providers in FY2023/24 is given in Table 3.6.

Table 3.6: Electricity connections for period 1st July 2023 to 30th June 2024

Funding Source	KIL	KIS	KRECS	UEDCL	UMEME	WENRECO	Grand Total
AFD	-	-	-	-	43,800	-	43,800
CAPEX	-	-	-	-	5	-	5
CUSTOMER FUNDED CONNECTIONS	143	50	177	681	96,306	355	97,712
EASP (WORLD BANK)	-	-	-	-	48,763	-	48,763
ERA FUNDED	-	-	-	-	42,171	-	42,171
CHINA EXIM BANK	1,159	734	1,878	20,627	-	2,657	27,055
GoU	3	43	60	402	-	413	921
HYBRID FINANCING FRAMEWORK	-	-	-	7,701	-	-	7,701
IDB	-	-	-	93	-	-	93
KfW DENSIFICATION	109	-	-	720	2,098	-	2,927
KUWAIT FUND	-	-	-	91	-	87	178
OTHERS	-	-	145	89	1,509	231	1,974
THREE PHASE SERVICES	-	-	-	-	586	-	586
UDB LOAN	-	-	-	-	12,666	-	12,666
AfDB	-	-	-	-	38	-	38
Grand Total	1,414	827	2,260	30,404	24,7942	3,743	286,590

Source: MEMD

3.2.3 Expand and Rehabilitate the Distribution Network

This intervention aims to undertake grid expansion and densification, evacuation of small generation plants, and quality of supply projects. The expected outputs under this intervention are to expand and rehabilitate the distribution grid in rural areas and, off-grid and mini-grid distribution lines constructed.

The intervention's performance showed notable improvements during FY2023/24. Significant progress was made in several projects, including the Energy for Rural Transformation III, Uganda Rural Electrification Access Project, and the Demand Gap through the Accelerated Rural Electrification Programme. The newly launched Electricity Access Scale-up Project (EASP) also showed progress.

Energy for Rural Transformation III

The project includes several planned components: off-grid energy access for grid extensions and connections, off-grid energy access for solar PV installation for public institutions in rural areas, provision of credit facilities to enhance electricity access, and quality standards enforcement support. Additionally, the plan was to strengthen institutions, finance a transaction advisor (TA),

and develop capacity to accelerate electricity access. The project was also to support the Government of Uganda to monitor and evaluate the impact of ERT III.

The budget for the project in FY2023/24 was Ug shs 27.214 bn and Ug shs 26.386 bn was released while the expenditure was Ug shs 26.348 bn. The project completion date was extended from 30th June 2023 to 30th June 2024 to allow completion of the pending works on some of the lines. The progress of the project was hampered when the funder halted works for the grid extension lines in October 2022 due to contractors undertaking works before PAPs were compensated. The loan period for this project expired and the remaining works are being completed using GOU funding.

By the end of FY 2023/24, most of the works had been completed, and the commissioning of the schemes was underway.

The compensation on all the lines had not been completed due to lack of funds. The implementation progress of the lines under ERT III is summarized in table 3.7

Table 3.7: Progress of the different lines under ERT III

Line	Status			
LIIIC	Status			
Line 1 (Mubende District)	Completed and handed over to distribution network			
Line 2 (Kiruhura and Mbarara Districts)	operator, DLP period completed			
Line 3 (Terego, Yumbe, Koboko and Moyo Districts)	89.3% progress, Conductor stringing and TX installation still on-going			
Line 4 (Arua and Nebbi Districts)	Completed and commissioned, under DLP			
Line 11 (Gomba and Butambala District)	Completed and commissioned, under DLP			
Line 12 (Mukono District)	89.8 progress, stringing and TX installation not completed			
Line 13 (Masaka, Rakai, Kyotera, Lwengo and Lyantonde Districts)	Completed and commissioned, under DLP monitoring.			
Line 14 (Mubende, Kibaale and Kagadi Districts)	Completed and partially commissioned, under DLP monitoring			
Line 15 (Kamwenge and Kitagwenda Districts)	Completed and commissioned, under DLP monitoring			
Line 16 (Ntungamo and Rwampara Districts)	95.5% progress, Stringing and TX installation ongoing, partially commissioned			
Line 17 (Kanungu and Rukungiri Districts)	96.7% progress, Stringing and TX installation ongoing, partially commissioned			
Line 18 (Ibanda District)	Completed and commissioned, under DLP monitoring			
Line 19 (Bundibugyo and Ntoroko Districts)	Completed and commissioned, under DLP monitoring			
Line 20 (Kole, Lira, Agago, Alebtong and Otuke Districts)	93.9% progress, Stringing and TX installation partially commissioned			
Line 21 (Kalaki, Soroti, Amuria, Dokolo and Kaberamaido Districts)	Completed and commissioned, under DLP monitoring			

Source: MEMD PBS Quarterly Reports



Bridging the Demand Supply Gap through the Accelerated Rural Electrification Programme (BDSGAREP)

Under Bridging the Demand Gap through the Accelerated Rural Electrification Programme (BDSGAREP)³, the government was targeting to electrify a total of 287 sub-county headquarters and surrounding areas in all the regions of the country.

The total contract sum for the project is US\$ 212,669,840.08 with US\$ 205,055,529.98(96.4%) disbursed by the 30th June 2024. The budget for FY2023/24 was Ug shs 91.97 bn, while the release was Ug shs 120.1451 bn, and expenditure was Ug shs 114.625bn. The project got supplementary GOU funding of Ug Shs 32.3 bn.

A total of 6,827.82km of low voltage distribution lines and 3,202.64 km of medium voltage distribution lines had been constructed, and a total of 1,744 transformers were installed on the completed networks. A total of 180,228 single-phase prepaid meters were also procured as part of the project to aid in undertaking free connections.

Table 3.8: Progress of BDSGAREP as at 30th June 2024

Region	Parameters	Lengt	Tx Installation	
		MV	LV	
Eastern Region	As-built scope	952.85	2,675.48	608
Central Region	As-built scope	773.47	1,443.10	404
South-WesternRegion	As-built scope	697.22	1,670.19	441
Northern Region	As-built scope	788.92	1,039.05	291
Overall Total	As-built scope	3,535.23	7,439.73	1,744

Source: MEMD PBS Quarterly Reports

Uganda Rural Electricity Access Project (UREAP)

Under the Uganda Rural Electrification Access Project (UREAP)⁴, the scope was to construct a total of 1,427km of medium voltage lines, 1,170.7km of low voltage lines, installation of 500 transformers, and a 33kV submarine cable connection to Bugala Island in Kalangala District and 10,739 last mile connections at commissioning. The project consists of Lots 1-7 and Lots 10-13 for additional works. Lot 9 is for the supply of last-mile connection materials (meters and service cables).

The project financing mix is comprised of a loan of US\$100 million and a grant of EUR 11.205 million. The disbursement rate of the funds stood at 84.99% for the loan and 96.4% for the grant. The total budget for the project during FY2023/24 was Ug shs 27.769 billion, with Ug shs 21.121 bn (76.04%) released and Ug shs 20.985 bn (75.57%) spent.

All construction works on the project had been completed by July 2024, and the Defects Liability Period (DLP) monitoring for Lots 1-5 was completed, while Lots 7,10,11,12 and 13 were still under DLP monitoring. The delivery of connection materials under Lot 8 was also completed. The long-delayed installation of the 7km marine cable from Bukakata to Bugala Island under Lot 6

³ Funding by a USD 212.669 million loan from China-EXIM Bank

⁴ Jointly funded by GoU and African Development Bank (AfDB)

was finally completed, and the entire system (marine cable and grid network) was commissioned and placed under DLP monitoring.



Completed grid extension scheme under ERT III in Nakiyaga TC, Masaka District



Commissioned rural electrification scheme under TBEA in Nabinonyi TC, Namutumba



Grid extension network constructed under TBEA for Kikondeka TC, Sembabule



Completed electricity network extension in Kochi Goma TC, Gulu

Electricity Access-Scale up Project (EASP)

The project total financing is USD 638 million, which includes a World Bank- IDA loan of US \$331.5 million, World Bank-IDA grant of US \$112.5 million, GOU funding of US\$ 10 Million. The rest of the financing is from a number of grants. The project became effective in July 2023 and the budget for FY 2023/24 was Ug shs 212.773 bn, while the release was Ug shs 135.499 bn (63.7%) and expenditure was Ug shs 25.457 bn (11.96%). The low absorption rate was attributed to delays in project design and the procurement of consultants and contractors. By the end of June 2024, the project had disbursed US\$13.646 million of the loan funds.

The project consists of four (4) components and the progress of each of the components is detailed as follows:

1. Grid Expansion and Connectivity to scale up of last-mile national grid and mini-grid connectivity under the Electricity Connections Policy.

Approval of the specifications for the connection materials and ready boards received from the World Bank and procurement of connection materials of 123,000 (30% of connection target) had been initiated. Advance procurement of 15,000 ready board solutions was also initiated using Standard Bidding Documents (SBDs) and the shortlist for firms that responded to the Expression



of Interest (EOI) was awaiting a No-objection from the World Bank. Under the Results Based Framework, 48,736 connections had been made and most of these were in the UMEME footprint (33,097).

The procurement of the project design and supervision consultant (PDSC) was completed in May 2024, while the procurement of the RAP consultant was being finalized. The construction of the grid extensions was awaiting input from the RAP and supervision consultants.

2. Financial Intermediation for Energy Access Scale-up to support the Uganda Energy Credit Capitalization Company (UECCC) scale-up and expand the scope of its existing line of credit facility.

UECCC published a call for Expressions of Interest (EOI) from Financial Institutions (FIs) to participate in the Financial Intermediation Component in September 2023. Out of 42 EOIs, 30 were accredited: 12 Tier I-III, and 18 under Tier IV, and one (1) Leasing company. In June 2024, two additional Financial Institutions in Tier I were evaluated and shall be accredited as participating institutions increasing the number of accredited FIs to 32. Accreditation leads to execution of Participating Agreements and then the FIs can formally apply for credit support facilities.

The selection of Energy Service Companies (ESCOs) to supply and install the clean energy technologies under the results-based framework had progressed and 35 ESCOs had passed both the technical and financial evaluation.

The consultant engaged to develop standards and specifications for the cookstoves completed the task. The developed specifications were incorporated in the standard bidding documents (SBDs) for procurement of the institutional cookstoves and biogas systems and were forwarded to the WB for review. The tendering process was awaiting the No-Objection from the Bank.

3. Energy Access in Refugee Host Communities (RHC) to support the provision of energy access in Refugee Host Districts.

Grid Extensions in the Refugee Host Districts (RHDs) had not started because the supervision and RAP consultants were yet to commence work. However, preliminary survey for grid connectivity in various RHDs (Adjumani, Madi Okollo, Obongi, Terego, Yumbe, Isingiro, Kamwenge, Kikube, Kiryandongo, Koboko, Kyegegwa, Lamwo districts) and Industrial parks (Nebbi, Pader, Soroti, Kasese, Rukungiri, Kisoro Industrial Parks) was ongoing.

4. Project Implementation Support and the establishment and operations of the Project Coordination Unit (PCU) at the MEMD, and the PIUs at MEMD and UECCC.

The recruitment of staff for the Project Coordination Unit and the Project Implementation Unit under MEMD and UECCC respectively was still ongoing, with 32 of the planned 57 positions yet to be filled. The overall performance of the Transmission and Distribution Sub-programme is summarized in Table 3.9.

Table 3.9: Performance of the Transmission and Distribution Sub-Programme by 30^{th} June 2024

	Financial Performance Physical Performance			Performance						
Intervent ion	Output	Annual Budget (Ug shs)	% of budget receive d	% o budge spent		nnual arget	Cum. Achieved Quantity	Physical Score (%)	Remarks	
Expand and Rehabilit ate the Transmis sion Network	Distance in km of high voltage lines added to the transmission grid	263	27.8	100	45	500	3862	85.82	Gulu-Agago transmission project completed, works on the Kole-Gulu- Nebbi Arua project substantially completed.	
	Transformati on capacity added to the grid (MVA)	113	27.8	100		480	400	83.33		
Expand and rehabilita te the distributi on network	No. of km of medium voltage lines added to the grid	262	84.9	63		2000	800	40.00	Most rural electrification schemes under ERT III, UREAP, and TBEA were completed, and at DLP	
	No. of km of Low voltage lines added to the grid	112	84.9	63		2000	900	45.00		
Reduce End User Tariffs	No. of Last- mile connections made	8	95.8	98	3	00000	286590	95.53	Connection materials had been received and free connections were on-going.	
								69.94	Output performance	
Outcome I	Performance	I					I			
	Outcome Indi	ndicator			Annual Target		Achieved %	Score (%)	Remark	
	Grid reliability	,					98	100		
	% of populatio	on with access to electricity 50 58					58	100		
	Outcome performance						55	Level of achievement of outcomes		
	Overall sub-p	Overall sub-programme Performance						75.2		

Source: Field Findings and MEMD PBS Quarterly Reports



Challenges under the Sub-programme

- Delayed completion of transmission and distribution infrastructure as a result of right-of-way issues due to the slow compensation process.
- Delays in the procurement process as a result of administrative reviews and other approvals that are required by the funders.

Conclusion

By the end of FY 2023/24, the implementation of interventions under the sub-programme progressed well, achieving a rate of 75.2%. Several key milestones were reached, notably the energization of the Gulu-Agago T-Line, which facilitated the evacuation of electricity from Achwa HPP and reduced high deemed energy charges due to un-dispatched electricity. Additionally, substantial progress was made on the Kole-Gulu-Nebbi-Arua T-Line, with only the Nile River crossing at Packwach remaining. Most rural electrification schemes under the Uganda Rural Electricity Access Project and Bridging Demand through Accelerated Rural Electrification, as well as works under Energy for Rural Electrification III, were completed. However, the programme continues to face challenges, including delayed compensation for ongoing and completed projects. Procurement delays stemming from administrative reviews and other procedural requirements have also hindered project implementation.

Recommendation

The Government should capitalize the recently created land acquisition project to enable an early and smooth land acquisition process even before project funding can be secured.

3.4 Renewable Energy Development Sub-programme

The objective of the sub-programme is to increase the adoption and the use of clean energy with an intermediate outcome of increased consumption of alternative clean cooking energy. The planned interventions under the sub-programme in FY2023/24 was increased promotion use of new and renewable energy solutions.

Performance

The overall performance was fair at 51.4%. The sub-programme had a total budget of Ug shs 1.878bn, of which Ug shs 1.611bn (61.8%) was released and Ug shs 1.172 bn (72%) of the release was spent by 30th June 2024.

The planned outputs under the intervention are: increased deployment of new renewable energy solutions; off-grids based on renewable energy solutions promoted; development of grid-connected renewable energy systems; net metering framework developed and technical capacity in renewable energy solutions developed; increased uptake of improved cook stoves (Table 3.10).

Table 3.10: Performance of Interventions under the Renewable Energy Development Subprogramme by 30thJune 2024

Intervention	Performance rating	Remarks
Promote the use of new and renewable energy solutions		Fair performance of 51.4%. The construction of the solar arrays for 15 mini-grids stalled. Installation of institutional cookstoves for 5 sites was still at procurement stage.
Average output performance		Fair performance of 51.4%

Source: Author's Compilation

Increased deployment of new renewable energy solutions

The monitoring of the six (6) mini-grids in Kasese and Rubirizi under the World Wildlife Fund (WWF)/EU project and currently in the process of transferring operations to another developer. Carried out surveys and technical studies of the islands on Lake Victoria for the development of Mini grids in Buvuma, Kalangala and Wakiso Districts.

The procurement of a consultant to support the development of standards for institutional biomass cooking stoves and biogas was on-going and the World Bank had given clearance for the bidding process to begin. The procurement of 15 solar water pumping demonstration systems was underway, and the evaluation of bids was in progress.

The procurement of the two planned large water heating systems was not undertaken. Additionally, the installation of the ten planned street lighting systems in ten towns was delayed due to procurement issues.

Off-grids based on renewable energy solutions promoted

The works on the 15 planned mini-grids in Southern Uganda had stalled although the works on the distribution networks had been completed. MEMD was in the process of procuring another implementing partner after the previous developer Winch Energy departed. Direct procurement had been initiated to find another developer.

Net metering framework developed

Grid interconnection of the 516 KW solar plant at Kololo Ceremonial grounds was on-going and the licensing process on the net metering basis embarked on technical meetings with utility operator (UMEME) and the Electricity Regulatory Authority was held. The Electricity Regulatory Authority was undertaking consultations with stakeholders on the draft framework for net metering.

Technical capacity in renewable energy solutions developed

Two staff were trained on wind energy by India's Ministry of New and Renewable Energy (MNRE), under the India Government's Technical and Economic Cooperation (ITEC) Programme. The training covered policy, technology and project development aspects of Wind energy. Also, four (4) ministry staff being sponsored to undertake postgraduate studies at Masters level.



Increased uptake of improved cook stoves

Site identification for regional product development and demonstration centres for improved cookstoves was conducted in Eastern and Northern Uganda. Potential sites included vocational training institutions, schools, and universities. The ten (10) sites were identified and the procurement initiated for five (5) sites that includes: 1.Rwantsinga high School, Rubaya Subcounty, Kashaari county Mbarara District, 2. Nyakasura School, Kabarole District, 3. St. Michael High School-Rugazi, Rubirizi District, 4.Bukedi College-Kachonga Butaleja district, 5.Mother Kevin Senior Secondary School, Walukuba, Jinja City.

The performance of the outputs under the Renewable Energy Development Sub-programme is summarized in Table 3.11.

Table 3.11: Performance of the Renewable Energy Development Sub-programme by 30th June 2024

Output	Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieve d Qty	Physical performa nce Score (%)	Remarks
Increased deployment of new renewable energy solutions	0.44	85.7	75	100.0	40.0	40.0	Procurement of 15 solar pumping stations on-going
Off-grids based on renewable energy solutions promoted	0.31	120.0	75	15.0	0.0	0.0	Procurement 15 solar arrays for Southern Uganda stalled
Net metering framework developed	0.31	120.0	75	2.0	0.0	0.0	Solar plant works at Kololo airstrip on-going
Technical capacity in renewable energy solutions developed	0.31	120.0	75	4.0	4.00	100.0	4 staff under- going training at the master's level
Increased uptake of improved cook stoves	0.31	120.0	75	10.0	2.00	20.0	400 household cooking stoves given out
Total	1.68	1.87				32.00	Output performance
Outcome Performan	се	•	•		1	-	1
Indicator				Target	Achieved		Indicator Performance (%)
Increased consumption		40	3	35	87.5		
Average Indicator Per					87.5		
Overall Performance							51.4

Source: Field Findings and MEMD Q4 Reports

Challenges under the sub-programme

- The main hindrance to the sub-programme performance was inadequate budget allocation, which led to activities being conducted at a scale insufficient to achieve significant impact.
- Several of the sub-programme outputs were not delivered due to delays in procurement.

Conclusion

The sub-programme continues to struggle to deploy and promote renewable energy solutions on a large scale due to funding constraints. During the FY2023/24, the ambitious planned installation of 15 solar-mini grids in Rakai and Isingiro stalled while several other planned outputs such as the solar street lighting and the solar water heater systems were not undertaken due to delayed procurement.

Recommendation

The MEMD should allocate more funding in the MTEF for interventions under the sub-programme such as increased use and deployment of renewable energy to reduce the reliance on biomass.

3.5 Energy Efficiency and Conservation Sub-programme

This sub-programme aims at promoting energy-efficient practices and technologies. The planned intervention under this sub-programme in FY2023/24 is the promotion of the use of energy-efficient equipment for both industrial and residential consumers. The planned outputs are: utilization of alternative and efficient cooking techniques; Promotion of Energy management among high energy consuming facilities; Awareness of sustainable energy and sustainable energy created; and Complementary policies on Energy efficiency developed.

Performance of the Intervention

The sub-programme performance was fair at 67.5 % (Table 3.12). The sub-programme had a total budget of Ug shs 8.41bn of which Ug shs 4.28 bn was released and Ug shs 2.71bn was spent by during the FY2023/24.

Table 3.12: Performance of Interventions under the Energy Efficiency and Conservation Sub-programme by 30th June 2024

Intervention	Performance Rating	Remarks
Promotion of efficient equipment for both industrial and residential consumers		Fair performance of 67.5%. Two energy efficiency standards were drafted.
Average output performance		Fair performance of 67.5%

Source: Author's Compilation

Promote the use of energy-efficient equipment for both industrial and residential consumers

The energy assessment of industrial energy-consuming facilities in Kasese Industrial and Business Park was completed. This assessment evaluated the state of energy efficiency in three companies: Wetu Commodities, Mt. Rwenzori Coffee Farmers' Cooperative Union, and Gulu Agricultural Development Agency Ltd.



In Mbale Industrial and Business Park, three companies were assessed on the state of energy efficiency namely Lida Perfect Establishments Ltd, Hang Da Textile Co. Ltd, and Grace Foam (U) Ltd). For Kampala Business and Industrial Park, three more companies were also assessed; Leaf Tobacco & Commodities (LTC) Ltd, Sta Cafe Ltd, and Kawacom (U) Ltd).

Utilization of alternative and efficient cooking techniques

The consultant prepared an integrated clean cooking strategy and action plan to accelerate the penetration of e-cooking in Uganda's cooking mix. Three companies including UpEnergy, Biogas Solutions Uganda Limited, and Energro were supported to kickstart activities for the supply of EPCs within Uganda.

Promotion of Energy management among high energy-consuming facilities

Preliminary data was obtained for electricity consumption for consumers served by Umeme Limited under code 20-40. Technical Assistance was provided for the implementation of energy management systems to companies in all the Industrial Parks in the form of training.

Minimum Energy Performance standards (MEPS) developed

Technical committee meetings for the development of the EAC harmonized standards for refrigerators and air conditioners took place. MEPS for six (6) selected appliances were identified. The selected appliances were PCs, TVs, Electric fans, Distribution Transformers, Electric Pressure Cookers and EV chargers. The development process for these standards also commenced.

Electric Mobility Promoted

Stakeholders for the electric vehicles charging infrastructure masterplan development were identified for Kampala metropolitan. Stakeholder entities included Kampala City Council Authority (KCCA), Mukono Municipality, Entebbe Municipality, Kira Municipality and Nansana Municipality. Existing standards for Electric Vehicle Supply Equipment (EVSE) have been identified and analysed for adaptability. Energy Policy provisions for electric vehicle charging have also been assessed. The procurement of Pilot charging infrastructure commenced with the development of specifications. Two electric vehicle charging points were installed at MEMD offices at Amber House.

The performance of the Energy Efficiency and Conservation Sub-programme is summarized in Table 3.13.

Table 3.13: Performance of the Energy Efficiency and Conservation Sub-programme by 30th June 2024

	Financial Performance			Physical Performance			
Output	Annual Budget (Ug shs)	% of budget received	% of budget spent	Annual Target	Cum. Achieve d Quantity	Physical Performanc e (%)	Remarks
Promote the use of energy efficient equipment for both industrial and residential consumers	1.6826	0.8552	0.541	32.15	80.00	80.00	3 companies were assessed on the state of energy efficiency

Utilization of alternative and efficient cooking techniques	1.6826	0.8552	0.541	32.15	60.00	60.00	Developing a Strategy for clean cooking was in progress
Promotion of energy management among high energy consuming facilities	1.6826	0.8552	0.541	32.15	60.00	60.00	technical assistance provided to companies in industrial park
Electric mobility promoted	1.6826	0.8552	0.541	32.15	2.00	0.00	Pilot infrastructure for electric car charging installed at Amber House
Minimum Energy performance standards	1.6826	0.8552	0.541	32.15	0.00	0.00	3 draft standards developed
	8.413	4.276	2.705			50.00	Output performanc e
Intermediate out	come perf	ormance	;				•
Indicator			Annual Target	Achieve d		Indicator Performanc e (%)	
No. of electric charging transport stations established			2	2		100	
Average Indicator Performance						100	Level of achievement of outcomes
Overall Programme Performance						67.5	

Source: Field Findings and MEMD PBS Quarterly Reports

Challenges under the Sub-programme

- Small and medium enterprises (SMEs) lack access to energy-efficient equipment due to the high initial acquisition costs.
- The low budget MTEF allocations to the programme have been consistently too low for the outputs and activities to have any significant impact.

Conclusion

Overall performance of the sub-programme was fair at 67.5%. There is still more effort needed to optimize the use of energy in homes and enhance efficiency in the industries to save on costs. However, the level of funding to the sub-programme currently is not adequate for the interventions to have a high impact. There was still need to develop and set the standards over the years so that



energy consumers are inclined to buy and use efficient technologies but the scaling up of existing interventions needs to be done so that there is increased coverage in order to have impact.

Recommendation

- The MEMD and other stakeholders should increase collaboration in order to develop and enforce the required energy efficiency standards required to guide the use of energy.
- The MEMD should support industrial and domestic energy consumers to enable them to access the most efficient technologies to tie in with the planned energy efficient standards.

CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Programme Conclusion

The overall performance of the programme was fair at 66.4%. Universal access to electricity remains one of the Government's priorities and the level of electricity access throughout the country increased to 58% of the population. Several rural grid extension schemes under rural electrification were completed with funding from GoU and development partners. The was also good progress in extending the transmission grid with approximately 368 km of high-voltage lines added to the grid. The areas that previously were not connected to the transmission grid such as Gulu and Agago in Northern Uganda were added to the national grid, and the works to connect the West Nile region were in the final stages of completion.

Completion of major works at Karuma HPP was achieved and the six-generation units successfully synchronized to the electricity grid, although the plant was not being fully dispatched due to lack of load. Implementation challenges due to inefficiency in procurement, contract management and delayed resettlement action plan continued to hamper the progress of on-going projects. The vulnerable project-affected persons displaced by the Karuma HPP had not been compensated even after the completion of works, and several completed grid extension projects had pending compensation due to the laxity of MEMD and there was need to resolve the matter quickly.

4.2 Recommendations

- The land acquisition under MEMD should be adequately capitalized to enable the early implementation of resettlement action plan before projects can commence.
- The programme implementing agencies should be more thorough during the procurement process to minimize the delays due to the administrative reviews that arise as a result of poorly handled processes.



REFERENCES

Uganda Electricity Generation Company Limited (2024) Karuma Hydropower Project status report up to June 30th 2024.

Uganda Electricity Generation Company Limited (2024) Nyagak III Hydropower Project status report up to June 30th 2024.

Ministry of Energy and Mineral Development (2023/2024), Ministerial Policy Statement, Vote; 017

Ministry of Energy and Mineral Development (2023/2024), Quarter 1 to 4 FY 2023/24 reports

Ministry of Energy and Mineral Development (2024), Energy for Rural Transformation (ERT) III Progress Report up to June 30th 2024.

Ministry of Energy and Mineral Development (2023), Uganda Rural Electricity Access Project (UREAP) Progress Report up to June 30th 2024.

Ministry of Energy and Mineral Development (2024), Bridging the Demand Gap through the Accelerated Rural Electrification Programme (BDGAREP) progress report up to June 30th 2024.

Ministry of Energy and Mineral Development (2024), Uganda Electricity Access Scale-Up Project (EASP) Progress Report up to June 30th 2024.

Uganda Electricity Transmission Company Limited (2024), Project Implementation Progress Reports up to June 30th 2024.



Plot 2 -12 Apollo Kaggwa Road P. O. Box 8147, Kampala - Uganda www.finance.go.ug