SUSTAINABLE ENERGY DEVELOPMENT PROGRAMME

Semi-Annual Budget Monitoring Report

Financial Year 2024/25

May 2025

Budget Monitoring and Accountability Unit
Ministry of Finance, Planning and Economic Development
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ABBREVIATIONS AND ACRONYMS

AFD	Agence Française de Développement
AfDB	African Development Bank
CDAP	Community Development Action Plan
CGV	Chief Government Valuer
EACOP	East African Crude Oil Pipeline
EPC	Engineering, Procurement and Construction
ERT	Energy for Rural Transformation
EXIM	Export-Import Bank
FAT	Factory Acceptance Test
GERP	Grid Extension and Reinforcement Project
GoU	Government of Uganda
HPP	Hydropower Project
HSE	Health Safety and Environment
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	Kilovolts
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	Megawatts
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
RoW	Right of Way

SDR	Special Drawing Rights
TX	Transformer
UEDCL	Uganda Electricity Distribution Company Limited
UEGCL	Uganda Electricity Generation Company Limited
UETCL	Uganda Electricity Transmission Company Limited
UREAP	Uganda Rural Electrification Access Project

FOREWORD

At the start of the Financial Year 2024/25, the Government of Uganda outlined strategies to restore the economy back to the medium-term growth path with the ultimate vision of a self-sustaining, integrated economy. The strategy emphasized accelerating commercial agriculture, fostering industrialization, and expanding both service sectors and digital transformation. Key areas of focus included enhancing market access and leveraging technological advancements to drive economic growth.

The strategic interventions that were prioritized under various programmes included: roads under Integrated Transport and Infrastructure Services; 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.

Semi-Annual programme assessments were made, and it was established that performance was fairly good. This implies that programmes are on track, but with a lot of improvements required. 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 semi-annual performance of the four sub-programmes (Generation; Transmission and Distribution; Renewable Energy Development; Energy Efficiency and Conservation) under the Sustainable Energy Development Programme was fair, at 55.7%. The approved budget of the Government of Uganda (GoU) funds for the programme was USh 141.594 billion. The budget release under the programme at half-year FY2024/25 was USh 58.193 billion and the expenditure was USh 49.261 billion.

Performance

The performance of the Generation sub-programme was fair, at 69.2%. The two main planned outputs under the sub-programme were the completion of works at Karuma Hydropower Project (HPP) and Nyagak III. Although the works at Karuma HPP were completed and the completion certificate issued on 12th May 2024, remedial works on the defects at the plant were ongoing. However, the construction of the 119 resettlement houses for the vulnerable PAPs had not yet commenced.

Works at Nyagak III progressed well during the first half of FY 2024/24 and all remaining works had been completed. The hydropower plant was ready for commissioning and all test had been completed. The works on the 33kV evacuation line for the hydropower plant were at an advanced stage with 21km of the planned 24 km completed.

The overall performance of the Transmission and Distribution sub-programme was fair, at 62.4%, during the first half of FY 2024/25. The notable achievement during the period was completion of works on the Mirama-Kabale transmission line and the Kabale substation in December 2024. However, only five of the planned nine resettlement houses on the project had been completed.

Works on the Kampala-Metropolitan transmission project which commenced in February 2024 recorded good progress during FY 2024/25 after a slow start. Works at the Buloba substation were at 45% and a total of 295 out of 409 equipment foundations were excavated. Erection of the incoming 220kV gantries and foundations at the 132kV switchyard were also complete, while the construction of the plant house was at casting of the basement top slab. At the Mukono substation site, foundation works for the three transformers were complete, while works on equipment foundations was ongoing at the 132kV outgoing gantries.

The implementation of the Masaka–Mbarara 400 kV transmission project was still delayed by procurement challenges. The issues have since been resolved. Furthermore, due diligence of the best evaluated bidder was undertaken in October 2024 and the contract was expected to be signed in quarter 3 of the FY2024/25. The compensation of project-affected persons (PAPs) on this project was progressing slowly, and after all the delays the project has suffered, only 76% of the 2,683 PAPs had been processed.

Under the project entailing power supply to industrial parks and transmission line extension, construction works had commenced at Kabalega Industrial Park on the 132/66/33 kV substation. This substation will supply electricity to the planned developments at the industrial park, Kabalega Airport and the East African Crude Oil Pipeline (EACOP) pumping stations. Progress of the works was site levelling at 87% and design of the equipment was also in progress, at 57%.

All works 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 region (Butambala, Isingiro, Mbarara, Rukungiri) and Central region (Nakaseke, Luwero, Nakasongola, Kiryandongo, Wakiso) were completed and Bugala Island was finally connected to the grid in FY 2023/24. The defects liability period monitoring for all the completed works continued during FY 2024/25 and 3,483 connections had been achieved by half-year.

The Rural Electrification and Connectivity Project undertook works previously not completed under Energy for Rural Transformation (ERT III).The pending works on lines 12, 13,14, 15, 18, 19 and 21 were completed but works on lines 3, 16 and 20 were still incomplete. The implementation of the Resettlement Action Plan (RAP) on all the lines previously funded under ERT III was still incomplete due to low funding.

Under the Electricity Access Scale-Up Project, a total of 75,186 no-pole connections had been made. However, the procurement of contractors to undertake one-pole connections in the UEDCL territory was still under procurement. The construction on the medium- and low-voltage networks was yet to commence and a consultant was undertaking final surveys for detailed designs, Bill of Quantities (BOQ) and Line Installation Contractor (LIC) requirements. Also, MEMD was in the process of procuring contractors to undertake RAP, material supply, line construction and material logistics.

The performance of the Renewable Energy Development sub-programme in the first half of FY 2024/25 was poor, at 43.3%, and most of the activities were recurrent. The six sites for the installation of institutional biogas systems were identified , but procurement of a contractor to undertake the works was still ongoing. The procurement of a contractor for the installation of water heater systems and institutional cookstoves was also initiated after challenges of insufficient funding were faced in the previous FY. During the period the performance of six (6) mini-grids in Kasese and Rubirizi was monitored and studies to upgrade them were ongoing.

The performance of the Energy Efficiency and Conservation sub-programme was poor, at 48.0%. The road map for the development of the Minimum Energy Performance Standards (MEPS) for six (6) types of appliances was completed and engagements with the relevant stakeholders were ongoing. The procurement of the critical energy audit equipment was concluded. The review of existing electric vehicle charging standards was completed and a contract to supply and install two electric vehicle charging stations at Amber House was awarded.

Challenges

- The programme is not allocating sufficient funds for implementation of the GoU-funded rural electrification works and this continues to hinder progress on projects inherited from the defunct Rural Electrification Agency (REA).
- Transmission lines and rural electrification projects continue to experience delays due to land acquisition challenges. Progress on the remaining ERT III transmission line works was hindered, and several sections of the Mirama-Kabale transmission project experienced delays due to unresolved right-of-way (RoW) issues.

Conclusion

Uganda's electricity sector recorded fair performance in the first half of FY 2024/25, with 55.3% achievement against targets. Although the approved budget was USh 1.13 trillion, only 38.6% was released by mid-year, of which 92% was utilised. The country's electricity generation capacity rose

to 2,007 MW after the commissioning of the 600 MW Karuma HPP in September 2024. However, national grid access remains limited, especially in rural areas, where only 19% of households are connected. To bridge this gap, the Government, through the Electricity Connections Policy (ECP), has enabled nearly 197,400 last-mile connections during the review period.

The Government has also expanded the transmission grid to improve access and reliability. Uganda now has 42 substations with a transformation capacity of 6,945.5 MVA. Major transmission projects such as the Lira–Gulu–Nebbi–Arua line and the Mirama–Kabale line have extended electricity to previously underserved regions of West Nile and Kigezi. Despite progress, sector performance is constrained by delays in procurement, contract management, and resettlement, including pending compensation for people affected by the Karuma Project. Addressing these issues is vital for sustaining infrastructure development and improving electricity access across the country.

Recommendations

1. The land acquisition under MEMD should be prioritised and adequately funded to enable the early implementation of the RAP before projects can commence.

2. Implementing agencies should adequately staff projects to ensure that the responsibilities for contract management and procurement are clear to avoid unnecessary delays.

CHAPTER 1: BACKGROUND

1.1 Background

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

MoFPED, 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). BMAU work is aligned with budget execution, accountability, service delivery.

Starting in FY 2021/22, 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 (NDPIII). 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 coherence in implementing the PIAP interventions; the level of cohesion between sub-programmes; and the challenges of implementation.

The monitoring covered the following Programmes: Agro-Industrialisation; Community Mobilisation 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 (SED) Programme for the budget execution period of 1st July 2024 and 31st December 2024.

1.2 Programme Goal

The goal of the SED Programme is to meet the energy needs of the country by providing adequate, affordable, clean, and reliable energy for sustainable socio-economic growth and development. The SED Programme consists of four (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 to:

- Increase access to and utilisation of electricity;
- Increase the generation capacity of electricity;
- Increase the adoption and use of clean energy; and
- Promote the utilisation 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 towards the outcomes of the programme.

Table 1.1: Sustainable Energy Development Outcomes and Indicators

Outcome	Indicators
Objective 1: Increase access to and utilisation 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 the length of high-voltage transmission lines (km) from 2,354 km to 4,354 km
	Increase the length of the distribution network from 45,423.1 km to 70,000 km.
Objective 2: Increase electricity generation capacity	
Increased electricity generation capacity	Increase electricity generation capacity from 1,252.3 MW to 3500 MW
Objective 3: Increase the 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 utilisation 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 utilisation	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 the first half of FY 2024/25 (1st July 2024 – 31st December 2024). The interventions and respective outputs reviewed under each sub-programme – Ministry, Department, and Agency (MDAs)/Vote/Local Governments (LGs) – are listed in **Table 2.1.**

Table 2.1: Interventions, Outputs, and Implementing Agencies

Intervention	Outputs	Implementing Agency
Undertake preliminary development of large-generation plants	Construction of Nyagak III HPP	UEGCL
	Construction of Karuma HPP	
Seek approvals for the construction of a nuclear power generation	Atomic Energy Amendment Bill prepared	MEMD
	Awareness of the nuclear energy conducted	
	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 Uganda	
	Bilateral and multilateral cooperation coordinated	
Expand and rehabilitate the transmission network	Distance in km of high-voltage lines added to the transmission grid	UETCL
	Capacity of transformer capacity (MVA) added to the grid	
Expand and rehabilitate the distribution network	No. of km of medium-voltage lines added to the grid	MEMD
	No. of km of low-voltage lines added to the grid	MEMD
Reduce end-user tariffs	No. of last-mile connections made	MEMD
Promote the use of new and renewable energy solutions	Increased deployment of new renewable energy solutions	MEMD
	Off-grid mini-grids based on renewable energy promoted	
	Electric transport solutions promoted	
	Net metering framework developed	
	Technical capacity in renewable energy solutions developed	
	Increased uptake in improved cookstoves	
Promote the use of energy-efficient equipment for both industrial and residential consumers	Utilisation and adoption of efficient cooking techniques	MEMD
	Energy management among high energy-consuming facilities integrated and energy efficiency/conservation potential established.	MEMD
	Awareness of energy efficiency and sustainable energy utilisation created	MEMD
	Complementary 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 (MPSs) and Semi-Annual and Quarterly Work Plans, progress and performance reports of MDAs and LGs.

A total of seven (7) interventions in the MPSs were reviewed. The seven (7) reviewed interventions translated into 90% coverage of the approved budget for the FY2024/25. The selected interventions monitored were:

- Undertake preliminary development of large-generation plants.
- Finalise 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.
- Promote 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 to select interventions and outputs from the PIAPs, MPSs, and progress reports of the respective ministries, departments, and agencies (MDAs) for monitoring.

To aid mapping PIAP interventions against annual planned targets stated in the Vote MPSs 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 included: Literature review from key policy documents, including MPSs FY 2024/25; National and Programme Budget Framework Papers; A Handbook for Implementation of NDP III Gender and Equity Commitments; PIAPs (NDP III); Quarterly Progress Reports and Work Plans for the respective implementing agencies; Quarterly Performance Reports; the Budget Speech; Public Investment Plans (PIPs); Approved Estimates of Revenue and Expenditure; project reports; strategic plans; policy documents; aide-memoires; and Evaluation Reports for selected programmes/projects.

The monitoring team also reviewed and analysed data from the Integrated Financial Management System (IFMS), the Programme Budgeting System (PBS), the Budget Portal, the Quarterly Performance Reports and bank statements from some implementing agencies.

The primary data collection methods, on the other hand, included:

- 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 which, 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 team provided an objective interpretation of the field events. Quantitative data, on the other hand, was analysed 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 criteria in **Table 2.2.** Based on the rating assigned, a BMAU colour-coded system was used to alert the policymakers and implementers to 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 2024/25

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 the 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.

CHAPTER 3: PROGRAMME PERFORMANCE

3.1 Overall Performance

Financial performance

The total approved budget for the programme in FY 2024/25 is USh 1,1329.8 billion. However, at half-year, only 38.6% of the budget had been released and 92% spent. The low release and expenditure of funds under the Generation sub-programme was due to USh 228 billion retention funds allocated for payment to the Karuma HPP contractor. The funds were released and paid to the contractor after 31st December 2024. The programme financing by 31st December 2024 is summarised in **Table 3.1.**

Table 3.1: Financing of the Sustainable Energy Development Programme at 31st December 2024

Sub-Programme/ Cost Centre	Approved Budget (USh bn)	Release (USh bn)	Expenditure (USh bn)	Release as % of Budget	Expenditure as % of Release
Generation	327.40	18.79	16.86	5.7	89.7
Transmission and Distribution	797.07	412.78	380.39	51.8	92.2
Renewable Energy Development	1.45	0.97	0.78	74.6	80.4
Energy Efficiency and Conservation	4.25	3.91	3.70	91.9	94.7
Overall Performance	**1,1329.8**	**436.45**	**401.73**	**38.6**	**92.0**

Source: IFMS and PBS Quarterly Reports

Physical performance

The overall performance of the programme was fair, at 55.7%. The programme experienced good progress on the ongoing transmission works. Key achievements during the period were the completion of the Kole–Gulu–Nebbi–Arua transmission line connecting the West Nile region to the national grid. Another achievement was the commissioning of the Kabale–Mirama transmission line in December 2024 **(Table 3.2)**. Works on the Kampala Metropolitan transmission project commenced in July 2024, and approximately 45% of the works at Buloba and Mukono substations, whose scope accounts for 60% of the total works been done, while the procured mobile substation for Kawaala was in transit. The grid rural electrification schemes completed a year ago under China EXIM Bank and the African Development Fund (AfDB) were under defects liability monitoring. The residual works left on older projects, all consolidated under the Rural Electricity and Connectivity Project (RECP) progressed slowly and compensation was yet to be completed. The implementation of the Electricity Access Scale-up Project was yet to reach its full potential since procurement was yet to be concluded.

Table 3.2: Summary of Performance for the Sustainable Energy Development Programme for FY 2023/24

Sub-programme	Performance (%)
Generation	69.2
Transmission and Distribution	62.4
Renewable Energy Development	43.3
Energy Efficiency and Conservation	48.0
Overall Performance	**55.7**

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 MW added to the grid.

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

Performance

The overall sub-programme performance was fair, at 69.2% **(Table 3.3).** The works at Karuma HPP were achieved, and the plant was commissioned on 24th September 2024. Major works at Nyagak III HPP were also completed, pending the construction of the evacuation line. The preliminary planning, including data collection and consultations with stakeholders on the development of nuclear energy sources, was at an early stage. The budget for the interventions under the sub-programme is USh 327 billion, of which USh 18.79 billion was released, and USh 16.76 billion 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		Good performance of 83.4%. All major works on Karuma HPP and Nyagak III completed
Finalise plans and approvals for nuclear power generation		Fair performance of 55%. Atomic Energy Bill under review by Cabinet Standing Committee
Average performance intervention		**Fair performance of 69.2%**

Source: Author's Compilation

3.2.1 Undertake preliminary development of large hydro-power 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, completion of Karuma HPP works

and Resettlement Action Plan (RAP), and undertaking the construction of the ORIO mini-hydro and rural electrification works.

Performance of the intervention

The performance of the intervention was good, at 97.7%. The major works on all the hydropower projects were completed, and efforts were underway to address identified snags and carry out necessary remedial works. The budget for the intervention is USh 311.78 billion, of which USh 11.1 billion was released and USh 10.69 billion was spent by half-year FY 2024/25. The low release and expenditure were due to the delayed release of USh 228 billion in budgeted retention funds for the Karuma HPP contractor, which were not disbursed until the third quarter of FY 2024/25.

Karuma HPP

Construction works for Karuma HPP were completed during the FY 2023/24 and completion certificates for the project were issued on 12th May 2024 and 22nd May 2024 for the generation plant and transmission lines, respectively. The monitoring of the hydropower plant to identify and rectify the snags during operation was ongoing until the end of the 24 months defects liability period (DLP), with 9 months so far elapsed.

By half-year 2024/25, 80% of the civil works snags had been rectified, and 76% of the electromechanical snags had been worked on. However, the damaged log boom at the dam's power intake had not yet been replaced. Studies to determine an appropriate log boom design suitable for the prevailing hydraulic conditions were still ongoing.

L-R: Completed substation switchyard at Karuma HPP; Completed generation units in the Karuma HPP powerhouse

Construction of the 119 resettlement houses at Lapono Village for vulnerable PAPs under the Karuma HPP had not yet commenced. However, progress was made during the first half of FY 2024/25. MEMD received the National Environment Management Agency (NEMA) certificate for the Environmental and Social Impact Assessment (ESIA) study for the proposed construction site. The Ministry was also working with the Nwoya District Planning Committee to obtain the construction permit, which is required to initiate the building of the houses.

Construction works on Nyagak III HPP

Installed turbines at the Nyagak III Powerhouse

Construction works on Nyagak III HPP in Zombo District progressed well during FY 2024/25. The structural works on the access roads, dam structure surge tank, pipe conduit, penstock anchor blocks, and penstock piping were completed.

Civil works on the powerhouse, as well as the installation of electromechanical equipment, were completed. The installation of the control panels, transformers and turbine generators was completed and the no-load commissioning tests undertaken. The works on the 33 kV evacuation line from the power plant to the Nebbi substation was ongoing and 21 km of the planned 24 km had been constructed.

Undertake the construction of the ORIO mini-hydro and rural electrification works

The ORIO Mini Hydropower Project scope will involve construction of nine (09) mini hydropower plants (combined capacity of 6.7 MW) and construction of a local distribution network (288 km) in the project area as well as connecting up to 71,081 households and 2,300 small and medium-sized enterprises (SMEs) in the project area (Kasese, Bushenyi, Mitooma, Hoima, Kabarole, Bunyangabu and Bundibugyo Districts) as a single project.

The project is funded by the ORIO Infrastructure Fund (now "Invest International") of the Netherlands Government and co-financing from the Government of Uganda. The initial grant agreement was executed between the two Governments in June 2017 and expires in June 2025. However, following approval of the phased approach to the project implementation and the global impact of the Covid-19 pandemic, Uganda Electricity Credit and Capitalisation Company (UECCC) was able to negotiate a two-year extension to the grant agreement. The new expiry date is, therefore, 30th June 2027.

Contracts for both the civil and hydromechanical works and the electromechanical works were signed. An advance payment has been made to the electromechanical contractor, and commencement notices have been issued to both contractors. The detailed engineering design process is underway concurrently with survey works and is expected to be completed by April 2025 for all civil, hydromechanical, and electromechanical components.

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

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

Performance of the intervention

The performance of the intervention was fair, at 55%. Consultations continued on the amendment of the Atomic Energy Act, while the Nuclear Unit under MEMD continued to engage and receive technical support from the International Atomic Energy Agency (IAEA). The budget allocation for this intervention was USh 15.62 billion, of which USh 7.67 billion was released and USh 6.17 billion was spent.

Amendment of the Atomic Energy Act 2008 finalised

An International Atomic Energy Agency (IAEA) Expert Mission was conducted from 25th to 29th November 2024 to review and provide comments on the draft Nuclear Energy Bill. Additionally, on 26th November 2024, the Cabinet Standing Committee on Nuclear Energy was consulted to provide an update on the status of the Bill's development.

Awareness of the nuclear energy conducted

A consultative meeting with Busoga Kingdom officials on the Buyende Nuclear Power Project was conducted on 18th November 2024 at Bugembe. Also, awareness materials were produced ahead of the kick-off of the RAP study in Kasaato Village on 19th November 2024.

Human resource development plan for the nuclear power plant finalised

A draft human resource needs assessment for the CNST was prepared. A stakeholderrs' consultative meeting on the draft Nuclear Energy Local Content Strategy was conducted from 4th to 5th December 2024 at Amber House. A validation workshop for the draft Nuclear Energy Human Resources Planning Framework and proposed structures was held with the Ministry of Public Service (MoPS) on 22nd October 2024 in Jinja.

Bilateral cooperation on nuclear energy co-ordinated and implemented

Two (2) projects for the cycle 2026–2027 were designed while 10 IAEA-supported technical cooperation projects were monitored. Government concurrence/approvals for IAEA event were processed.

Nuclear Fuel Supply Strategy implemented

The Nuclear Fuel Supply Strategy was revised to align with the recommendations from the Integrated Uranium Production Cycle Review (IUPCR) Mission and other parties. Preparations for the IAEA Expert Mission on Uranium System Prospectivity Analysis for Uganda planned to be conducted in February 2025 were undertaken.

Spent Fuel and Radioactive Waste Management Strategy for Uganda prepared and implemented

Data collection was conducted in Kasaato, Buyende District in November 2024. Also conducted were consultations on establishing a waste management facility with the management of Luwero Industries.

A detailed analysis of the performance of the Generation sub-programme interventions is presented in **Table 3.4.**

Table 3.4: Performance of the Generation Sub-programme by 31st December 2024

Intervention	Output	Annual Budget (USh)	% of Budget Received	% of Budget Spent	Physical Score (%)	Remarks
Undertake preliminary development of large generation plants	Construction of Nyagak III HPP	0	0	0	97.0	All civil, electrical, and electromechanical works were completed
	Construction of Karuma HPP	239.4	3.4	3.34	98.0	All 6 generation units commissioned, DLP ongoing and rectification of defects was 80% for civil and 76% for electromechanical defects
Finalise plans and approvals for nuclear power generation	Amendment of the Atomic Energy Act 2008 finalised	2.2	0.75	0.67	60.0	Consultations with the cabinet standing committee were held
	Human resource development plan for the nuclear power plant finalised	2.2	0.75	0.67	50.0	Draft for human resource planning framework developed
	Awareness of the nuclear energy conducted	2.2	0.75	0.67	60.0	Consultations with Busoga Kingdom held
	Spent Fuel and Radioactive Waste Management Strategy for Uganda prepared and implemented	2.2	0.75	0.67	60.0	Data collection undertaken
	Bilateral and multilateral cooperation coordinated	2.231571	0.75	0.67	40.0	10 IAEA supported projects were monitored
	Nuclear Fuel Supply Strategy Implemented	2.231571	0.75	0.67	60.0	Detailed nuclear fuel resources exploration and evaluation launched
					69.2	***Output performance***

Source: Field Findings and MEMD Q2 Reports

Challenges under the sub-programme

- By the time the hydropower plant was commissioned, the resettlement of displaced PAPs from the Karuma HPP who were to be relocated to Lapono had not been undertaken since 2013.
- Though the works on the completed hydropower projects had been commissioned, several defects with the works still need to be fully resolved to maximise the life of the hydropower plants.

Conclusion

The Generation sub-programme made good progress towards increasing the power generation capacity on the grid, with the full commissioning of the Karuma Hydropower Project marking a key milestone during the financial year. However, UEGCL and MEMD should ensure that the remaining works/snags on the projects are handled conclusively. There is also a need to ensure the pending issue of the construction of the resettlement for project-affected displaced persons is finally addressed.

Recommendations

- MEMD should expedite the construction of the pending resettlement houses for PAPs to resolve long-standing resettlement obligations.
- The Project Steering Committee should ensure there is vigilant supervision and follow-up on the works to rectify the defects.

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 to and utilisation 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 include the expansion and rehabilitation of both the transmission and distribution networks, as well as the reduction of end-user tariffs. The sub-programme performance was good, achieving 60.8% of its targets. It had an approved budget of USh 797.07 billion, of which USh 412 billion was released, and USh 380.39 billion was spent.

Performance of interventions

The overall performance of the interventions under the sub-programme showed great improvement, at 62.4% **(Table 3.5)**. The highlights during the first half of FY 2024/25 include the completion and commissioning of the Kole–Gulu–Nebbi–Arua and Mirama Kabale transmission projects.

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

Intervention	Performance Rating	Remarks
Expand and rehabilitate the transmission network		Good performance, at 79.2%. Gulu–Agago and Gulu–Kole transmission lines energised. Works on West Nile transmission substantially complete.
Expand and rehabilitate the distribution network		Poor performance of 42.5%. There was slow progress on ongoing projects.
Reduce end-user tariffs		Fair performance of 68.5%. 197,000 connections were made out of the planned 300,000 annual target.
Overall intervention performance		**Fair performance at 62.4%**

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 of the rehabilitated transmission network. The major planned outputs under the intervention were the following transmission projects:

- 132kV Mirama–Kabale Transmission Project.
- Grid Expansion and Reinforcement Project.
- Masaka–Mbarara Expansion Transmission Project.
- Kampala Metropolitan Transmission Project.
- Power supply to Industrial Parks II.

The intervention performance was fair, at 62.4%. During the first half of FY 2024/25, there were several notable achievements. Among these were the completion of works on the Kole–Gulu–Nebbi–Arua and Kabale–Mirama transmission projects. The defects liability monitoring of the previously completed Gulu-Agago transmission project continued during FY 2024/25. Good progress was registered on the civil works for the Kampala Metropolitan transmission project, while the pending procurement issues on the Masaka–Mbarara transmission project were resolved.

Construction of 132 kV Mirama–Kabale Transmission Project

The scope of the project was to construct an 85 km transmission line from the Mirama substation and connect it to a newly constructed substation at Kabale, and the construction of rural grid extension lines in the region. The funding for the project came from GoU (USh 40 billion) and the Islamic Development Bank (IsDB), which provided a loan of USD 83.75 million (USD 37.82 million for the transmission component and USD 45.93 million for the rural grid extensions).

The project budget for FY 2024/25 is USh 70.96 billion, of which USh 50.43 billion was released and USh 50.336 billion was spent. As of 31st December 2024, a total of USD 26.828 million, representing 70.94% of the total loan amount of USD 37.82 million, had been disbursed.

All the works on the transmission line were completed, with 287 of the planned towers erected and stringing of the planned 85 km of the line also done. Works on the substations were substantially completed with the Mirama works energised in November 2024. The completion of the communication interface for the Kabale substation was completed by the end of January 2025, and the substation was subsequently commissioned.

Installed power transformers in the Kabale substation switchyard

The RAP implementation on the project was at 97%, with 2,457 of the 2,534 PAPs paid, and access to all the tower sites had been obtained to enable completion of works. The compensation for the remaining 3% was being finalised.

Grid Expansion and Reinforcement Project (GERP)

Under the World Bank-funded Grid Extension and Reinforcement Project (GERP), works were ongoing to connect West Nile to the national grid through the construction of 294 km of a 132 kV 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 FY 2024/25 is USh 15.8 billion. However, USh 31.452 billion was released, and USh 31.441 billion was spent during the first half of the FY. The release and expenditure exceeded the original budget due to contractor invoices surpassing the initially allocated funds. By mid-year FY 2024/25, loan disbursements had reached SDR 62.944 million, representing 97% of the total loan amount.

By half-year FY 2024/25, the transmission works had been completed, with all 897 towers on the Kole –Gulu–Nebbi–Arua line completed. The stringing of the 294 km of the line, including the river crossing, was also completed. All major works on the substations of Kole, Gulu, Nebbi and Arua were also completed, and the project was commissioned by the President on 3rd August 2024.

The compensation of PAPs was at 96% (3,466/3,603) progress and all the planned 65 resettlement houses for the vulnerable PAPs had been completed. There was a funding shortfall of USh 2.7 billion for completion of the pending RAP, the Livelihood Restoration Programme (LRP) and the Community Development Action Plan (CDAP).

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 supply of electricity. The project funding is a loan of Japanese yen (JPY) 13.659 billion from the Japan International Cooperation Agency (JICA), and the cost of the RAP 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, 220/132 kV substation; a new Buloba 2x125 MVA, 220/132 kV substation; a new Kawaala 2x40 MVA 132/33 kV substation; 1x20 MVA 132/11 kV Upgrade); Mutundwe substation reconfiguration to double busbar (upgrade); procurement of a new mobile substation 1x20 MVA, 132/33 kV; procurement of a new 1x250 MVA 220/132 kV power transformer for the Bujagali substation; reconductoring of Mukono-Kampala North, Kampala North-Lugogo, and Kampala North-Mutundwe transmission lines to a High Temperature Low Sag (HTLS) conductor.

In the first half of FY 2024/25, a total of JPY 3,361.43 million, representing 25% of the total loan amount of JPY 13,659 million, had been disbursed. The approved budget for the FY was USh 105.39 billion, while USh 108.766 billion was released, and USh 108.573 billion was spent by December 2024.

At the Buloba substation, clearance and topsoil stripping of the site were completed. The casting of 44% of the equipment foundations at the substation was done, and 60% of the slope protection for the substation site had been undertaken. The procurement and manufacturing of equipment and structures were at 50%. The Factory Acceptance Tests (FATs) for the two 125 MVA transformers for the Buloba substation had also been undertaken and they were ready for shipping.

The Mukono substation works progressed well and casting of five gantry foundations was complete, while 12 equipment foundations had also been completed. The procurement and manufacturing of equipment and structures was at 50%.

L–R: Completed foundation works at Mukono substation; Ongoing works at the Buloba substation planthouse

At the Kawaala substation, the FATs for three 40 MVA transformers were completed in December 2024. The preparation and paving of the location where the mobile substation had been undertaken and also the earthing of the whole site were completed. The mobile substation was in transit and arrived in Mombasa on 18th December 2024.

Implementation of the RAP was progressing well, with 98% of the 138 PAPs on the project 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 ongoing.

Power supply to Industrial Parks II

This project is currently funded solely by the Government of Uganda after delays in securing the planned funding from the China EXIM Bank. The project has the following components in three different industrial parks:

i. Power supply to Kabaale Industrial Park, with a scope for 3x80 MVA, 132/33 kV transformers, a GIS substation with an underground 220 kV transmission cable, and a 132 kV power supply and integration with the East African Crude Oil Pipeline (EACOP) substation.

ii. Supply and installation of a multi-ratio mobile substation (132/33 kV, 50 MVA) at Mbale Industrial Park, consisting of one 132 kV GIS switchgear, one 50 MVA transformer and five 33 kV cubicle Gas Insulated Switchgear (CGIS).

The budget for the project in the FY 2024/25 is USh 7.55 billion, and USh 3.211 billion (42%) was released while USh 2.837 billion (88%) was spent by December 2024. The total budget allocation for the project during the FY was not adequate to cover the planned scope of work, which risks delaying the progress of the project.

Ongoing earthworks at Kabaale Industrial Park substation

The progress of works at the sites was as follows:

At Kabaale Industrial Park, site levelling, excavation of the foundations for the three (3) power transformers, as well as the control building, were completed. Equipment manufacturing for the site had also commenced.

The supply and installation of a mobile substation at Mbale Industrial Park was delayed due to procurement-related challenges. However, the contract was eventually signed on 24th December 2024. Its effectiveness is still pending approval of the pre-financing agreement by the PS/ST, as it constitutes a loan to GoU.

Masaka-Mbarara 400 kV 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 EUR 35 million, while the AFD loan amount is EUR 37.1 million.

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

The project budget for FY 2024/25 is USh 29.26 billion. Of this, USh 0.264 billion was released, and USh 0.240 billion was spent by December 2024. The release and expenditure were solely from GoU funding, as project works had not yet commenced. Disbursements on the loan components remained low, with EUR 120,687 (0.33%) disbursed under the AFD loan and EUR 111,907 (0.32%) under the KfW loan. The low disbursement of loan funds was primarily due to delays in the procurement of the engineering, procurement and construction (EPC) contractors.

The delays in the procurement that arose due to whistle-blower complaints to the Inspector General of Government (IGG) and PPDA had been resolved and guidance to select the second-best evaluated bidder was given. UETCL was awaiting a no-objection to the updated evaluation report from the funders.

RAP implementation had reached 75.6%, with 2,039 out of 2,683 PAPs having received cash compensation. There are 25 PAPs who opted for resettlement through the construction of houses by UETCL; however, the procurement of a contractor for this work had not yet been completed.

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 household and SME 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 UECCC.

The budget for FY 2024/25 under GoU for the free connections policy was USh 1.0 billion, all of which had not been released by December 2024. However, materials procured using funds from development partners were available to support connections. A total of up to 94,519 connections were made countrywide using financial support from several development partners.[1] Most of the connections were undertaken within the UMEME and UEDCL areas of operation which have the largest customer footprint.

A detailed report on the breakdown of the free connections made using the different funding sources by the various service providers in FY 2024/25 is given in **Table 3.6**.

[1] World Bank, Islamic Development Bank (IsDB), African Development Bank (AfDB), Kreditanstalt für Wiederaufbau (KfW), French Development Agency (AFD), China EXIM Bank, Kuwait Fund, CFC-Common Fund for Commodities

Table 3.6: Electricity Connections for Period 1st July 2024 to 31st December 2024

	SERVICE TERRITORY				
INITIATIVE	**KIL**	**KIS**	**UEDCL**	**UMEME**	**WENRECO**
AFD				3,447	
AfDB			2,184		
CFC			369		41
EASP				46,333	
ERA FUNDED				1,599	
EXIM BANK	190	121	26,290		
GoU	1,377	239	3,779		3,849
IDB			15		
KfW			35		
KfW DENSIFICATION			237	376	
KUWAIT			2		6
KUWAIT FUND			331		33
NORAD					557
UREAP			3,109		
Grand Total	**1,567**	**360**	**36,351**	**51,755**	**4,486**

Source: MEMD Connections Database

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 performance of the intervention in the first half of FY 2024/25 was poor, as the newly initiated projects were still in the procurement phase and construction works had not yet commenced. The ongoing distribution network works are packaged under two projects: the Electricity Access Scale-up Project (EASP) and Rural Electrification and Connectivity Project (RECP). The works completed under the Uganda Rural Electricity Access Project (UREAP) were at defects liability monitoring.

Uganda Rural Electricity Access Project (UREAP)

Under the Uganda Rural Electrification Access Project (UREAP)[2], the scope was to construct a total of 1,427 km of medium-voltage lines and 1,170.7 km of low-voltage lines, installation of 500 transformers, and a 33kV submarine cable connection to Bugala Island in Kalangala District (Lot 6) and completion of 10,739 last-mile connections at project completion. 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).

[2] Jointly funded by GoU and African Development Bank (AfDB)

The total budget for the project in FY 2024/25 is USh 31.773 billion, of which USh 27.845 billion was released and USh 26.041 billion spent by December 2024.

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 6,10,11,12 and 13 were still under DLP monitoring.

The delivery of connection materials under Lots 8 and 9 was also completed. By mid-year FY 2024/25, a total of 3,483 last-mile connections had been completed. However, the completion of the RAP for the implemented schemes remained pending due to a lack of funding to carry out the activity.

Electricity Access Scale-up Project (EASP)

The project total financing is USD 638 million, which includes a World Bank-IDA loan of USD 331.5 million, World Bank-IDA grant of USD 112.5 million, and GoU funding of USD 10 million. The rest of the financing is from several grants. The project consists of five components: (i) Component 1 – Grid Expansion and Connectivity; (ii) Component 2 – Financial Intermediation for Energy Access Scale-up; (iii) Component 3 – Energy Access in Refugee Host Communities; (iv) Component 4 – Project Implementation Support and Affordable Modern Energy Solutions; and (v) Component 5 – Contingent Emergency Response.

The budget for FY 2024/25 is USh 314.98 billion, of which USh 36.51 billion was released and USh 15.574 billion spent by December 2024. The project disbursement by end of December 2024 was USD 23.711 million. The physical performance of the different project components is detailed in the sections hereunder:

i. Grid Expansion and Connectivity to scale up the last-mile national grid and mini-grid connectivity under the Electricity Connections Policy (USD 357.5 million).

By the end of December 2024, UMEME Limited had completed a cumulative total of 121,348 connections. The bid evaluation for the advance procurement of 30% of the connection materials and 15,000 ready boards was finalised. Additionally, contract negotiations for the procurement of the RAP consultant were concluded in December 2024.

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

The cumulative off-grid household connections/loans financed had reached 21,461, and 3,081 clean cooking solutions had also been financed.

Under the credit support facility, 34 financial institutions (FIs) had been accredited by UECCC. Also, Letters of Credit (LoCs) totalling USD 19.6 million had been approved for nine participating financial institutions (PFIs). Disbursements totalling USD 4.4 million have been made to six (6) PFIs.

The selection of Energy Service Companies (ESCOs) to supply and install the clean energy technologies under the results-based framework was undertaken. Grant agreements had been signed with 67 ESCOs and the national launch of the programme was undertaken on 4th December 2024.

Under the Public Institutions Programme, ESCOs under the Ministry of Water and Environment (MoWE) imported equipment, which has since been inspected and cleared. The Ministry of Education and Sports (MoES) was on schedule to tender contracts in January 2025 for the electrification of the beneficiary schools. MEMD completed the assessment of 140 public institutions and has selected the clean cooking technologies to be deployed in the first phase.

iii. Energy Access in Refugee Host Communities (RHC) to support the provision of energy access in refugee-hosting districts

Grid extension works in refugee-hosting districts (RHDs) had not commenced, as they awaited completion of project designs and the acquisition of key consultants, including the Independent Verification Agent (IVA), resettlement and land acquisition specialists. An OPM orientation workshop was conducted on 9th December 2024 for contractors and consultants, including GOPA and the IVA.

By December 2024, 1,753 off-grid connections had been provided in RHDs, of which 655 were for refugees. Also, 111 clean cooking solutions had been provided in refugee hosting districts, of which three (3) were to refugee customers.

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

The recruitment and staffing of the Project Coordination Unit and the Project Implementation Unit under MEMD and UECCC were still ongoing, and 32 positions of the planned 57 positions were yet to be filled. The recruitment process was still ongoing for the vacant positions.

The World Bank team conducted the 4th Implementation Support Mission for EASP during October 14 – 8 November 2024.

Uganda Rural Electrification and Connectivity Project (URECP)

The Uganda Rural Electrification and Connectivity Project (URECP) is a five-year initiative (FY 2023/24–FY2027/28) under MEMD. The project scope covers expansion of the grid (MV and LV), last-mile connections, and conducting of essential infrastructure development studies, such as pre-feasibility and feasibility studies, RAP, and technical design assessments. The project will also enhance capacity in key areas, including Advanced System Planning and Design, as well as the integration of SCADA systems.

The project budget for FY 2024/25 is USh 43 billion, of which USh 20.855 billion was released and USh 18.97 billion spent by December 2024. The summary of project progress is given in **Table 3.7**.

Table 3.7: Progress of Components under the URECP

URECP Component	Project Particulars	Progress
GoU 8 Lots (The scope consisted of 878km of medium-voltage lines, 1,237km of low-voltage networks and the installation of 430 distribution transformers)	Lot 1: Mubende, Mityana, Kabarole and Kyegegwa Districts	Works stalled and remaining works retendered
	Lot 2: Masaka, Gomba, Butambala, Rakai, Lwengo and Kiruhura	Re-tendered
	Lot 3: Mbarara, Buhweju, Rubirizi, Bushenyi, Sheema, Isingiro, Ntungamo and Kabale Districts	All works completed in October 2023
	Lot 4: Buliisa, Nwoya Gulu, Lira, Zombo and Kitgum Districts	All works completed in June 2023
	Lot 5: Kumi, Bulambuli, Bukedea, Mbale, Bududa, Budaka, Butalejja, Sironko, Manafwa and Luuka.	All works completed in June 2023
	Lot 7: Kiboga, Kyankwanzi, Hoima, Kibaale and Kagadi Districts	All works completed in July 2024
	Lot 8: Nakasongola, Nakaseke, Luwero, Wakiso, Buikwe, and Mukono Districts	All works completed in October 2023
Package A – 4 lots (Scope is 334 km of medium-voltage (MV), 909 km of low-voltage (LV) and installation of 304 distribution transformers.	Lot 1A: Namutumba and Iganga	81% progress, 74 km (MV), 200 km (LV)
	Lot 2A: Mayuge, Busia and Jinja	60% progress, 114 (MV), 217 (LV)
	Lot 3A: Bududa, Mbale, Butalejja and Tororo	68% progress, 73 km (MV),349 km (LV)
	Lot 4A: Mubende, Kiruhura, Kazo and Mbarara	82% progress, 73 km (MV), 143 km (LV)
GoU 7 lots (The overall scope of works shall cover the construction of approximately 649.3 km of MV and 1,706 km of LV with 468 transformers. The contractual scope is broken down per lot as shown in the table below.	**Lot 1:** Eastern Service Territory under Batch 1 (Tororo, Kibuku, and Pallisa Districts)	Advance payment made for all lots except Lots 4 and 7. All lots are at design and line route survey. Overall progress was at 21.2%
	Lot 2: Eastern Service Territory – Batch II (Busiki in Namutumba, Kumi Municipality – South Division, Kumi County in Kumi District, Kachumbala in Bukedea District, Mbale Northern Division in Mbale City, Serere, Bugiri and Bungokho North in Mbale District	
	Lot 3: North Western Service Territory (Kibaale, Bugangazi South in Kakumiro, Hoima City, Kikuube and Buyaga East in Kagadi Districts)	
	Lot 4: West Nile, Central North and North North West Service Territories, Ora in Zombo, Aringa South in Yumbe, Kole North in Kole, Gulu, Dokolo, and Lira East in Lira District	
	Lot 5: Western Service Territory (Sheema, Mitooma, Isingiro, Rubanda and Kisoro Districts)	
	Lot 6: Western and Rwenzori Service Territories (Busongora North in Kasese and Fort Portal Central in Kabarole District)	
	Lot 7: Central Service Territory (Bbale County in Kayunga, Mukono South in Mukono, Butambala, Mubende and Kiboga Districts)	

Source: MEMD Reports and Field Findings

Commissioned transformer installation at Kisasa village, Mbarara(GoU Lot 3)

Completed grid extension at Kisagazi TC, Mubende (GoU Lot 8)

Concrete pole electricity network in Anaka, Nwoya(UREAP Lot 7)

The overall performance of the Transmission and Distribution Sub-programme is summarised in **Table 3.8.**

Table 3.8: Performance of the Transmission and Distribution Sub-Programme by 30th June 2024

Intervention	Output	Annual Budget (USh)	% of Budget Received	% of Budget Spent	Annual Target	Physical Score (%)	Remarks
Expand and rehabilitate the transmission network	Distance in km of high-voltage lines added to the transmission grid	233	79.9	100	554	75.1	Mirama–Kabale transmission works completed. The works on Gulu–Agago and Kole–Gulu–Nebbi–Arua were under defects liability monitoring.
	Transformation capacity added to the grid (MVA)	100	79.9	100	480	83.3	
	No. of km of medium-voltage lines added to the grid	286	23.6	72	6000	40.0	All UREAP-funded projects completed Most GoU lots competed. Grid works under EASP had not yet commenced
	No. of km of low-voltage lines added to the grid	123	23.6	72	6000	45.0	
Reduce end-user tariffs	No. of last-mile connections	1	1	1	300000	68.5	Connections under EASP with UMEME and UEDCL commenced
						62.4	***Output performance***

Source: Field Findings and MEMD Q4 Reports

Challenges under the sub-programme

- The sub-programme is facing funding constraints. Several contracts had arrears that had been accumulated by the defunct Rural Electrification Agency.
- Several grid-extension projects had not completed the resettlement action.

Conclusion

The progress of implementation of interventions under the sub-programme by half-year FY 2024/25 was fair, at 62.4%. Several key milestones were achieved during the period, including the completion of pending works on the Kole–Gulu–Nebbi–Arua transmission line and the commissioning of the Kabale–Mirama transmission project. Monitoring of the defects liability period for electrification schemes under the UREAP was also nearing completion. However, progress on the Electricity Scale-Up Project remained minimal, as design consultants had only recently been procured. The procurement of additional consultants for land acquisition and

connection verification was still ongoing. There remains a critical need to resolve the long-standing compensation and RAP issues across all projects within the sub-programme.

Recommendations

- 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 use of clean energy with an intermediate outcome of increased consumption of alternative clean cooking energy. The planned interventions under the sub-programme in FY2024/25 was increased promotion and use of new and renewable energy solutions.

Performance

The overall performance was **poor**, at 43.3%. The sub-programme had a total budget of USh 1.45 billion, of which USh 0.68 billion (46.7%) was released, and USh 0.61 billion (90.4%) of the release was spent by 31st December 2024.

The planned outputs under the intervention are: increased deployment of new renewable energy solutions; off-grids based on renewable energy solutions promoted; and increased uptake of improved cookstoves **(Table 3.9).**

Table 3.9: Performance of Interventions under the Renewable Energy Development Sub-programme by 31st December 2024

Intervention	Performance Rating	Remarks
Promote the use of new and renewable energy solutions		Poor performance of 43.3%. Most of the planned activities were still at preparatory stages.
Average output performance		**Poor performance of 43.3%**

Source: Author's Compilation

Increased deployment of renewable energy solutions

The installation of the 10 planned street lighting systems in 10 towns was not carried out. However, sensitisation activities were conducted in the beneficiary town councils of Kumi, Alebtong, and Mityana, and the procurement process for the contractor to undertake the works was completed. Additionally, site surveys were conducted at seven public institutions comprising four (4) schools and three (3) health facilities with access to clean water supply to assess their suitability for solar water pumping systems, and the findings were disseminated.

Off-grids based on renewable energy solutions promoted

Work for upgrading Kanyegaramire and Kyamugarura mini-grids was at 30%, while project preparatory activities for upgrading six (6) mini-grids in Kasese and Rubirizi Districts had

commenced. There was poor progress of 20% for the Lake Victoria Access Project, while project preparatory activities for the GET Access Mini-Grids Project were ongoing.

Increased uptake of improved cookstoves

Working drafts of the standards on institutional biogas and institutional cookstoves were developed for further enrichment with the Technical Committee. The monitoring of energy cooking biomass stoves under Government and donor support was conducted in Jinja, Buikwe, Mityana, and Mubende. The Renewable Energy Department also created awareness in Kiboga District during the launch of Results-Based Financing (RBF) under EASP.

The performance of the outputs under the Renewable Energy Development Sub-programme is summarised in **Table 3.10**.

Table 3.10: Performance of the Renewable Energy Development Sub-programme by 31st December 2024

Intervention	Output	Annual Budget (USh)	% of Budget Received	% of Budget Spent	Annual Target	Physical Performance Score (%)	Remarks
Increased deployment of new and renewable energy solutions (solar water, heating, solar drying, solar cookers, wind, water pumping solutions and solar water pumping)	Increased deployment of new renewable energy solutions	0.48	46.7	90	100.00	40.00	Procurement completed for a contractor to undertake the street lighting in 10 towns
	Off-grids based on renewable energy solutions promoted	0.48	46.7	90	100.00	40.00	Upgrading of 6 mini-grids in Kasese was still at preparatory stage
	Increased uptake of improved cookstoves	0.48	46.7	90	100.00	50.00	Drafts standards developed for institutional biogas
	Total	**1.45**	**0.68**			**43.3**	***Output performance***

Source: Field Findings and MEMD Q4 Reports

Challenges under the sub-programme

- The main hindrance to the sub-programme performance is the low budget allocation. The activities under the sub-programme have remained at a scale that will not have a significant impact due to the low level of funding.

Conclusion

The sub-programme has been grappling with low funding, with total funding to all the activities amounting to less than USh 1.5 billion. This has highly constrained the sub-programme's ability to deliver on its intended outputs. This, coupled with the slow pace of procurement, has left the sub-programme with minimum impact. Without prioritisation of funding to this sub-programme, there is no way the reduction of reliance on biomass and other traditional sources of fuel will be achieved.

Recommendation

MEMD needs to prioritise funding for interventions under the sub-programme in the Medium-Term Expenditure Framework (MTEF); otherwise, consideration should be given to merging it with the Energy Efficiency sub-programme.

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 FY 2024/25 is the promotion of the use of energy-efficient equipment for both industrial and residential consumers. The planned outputs are: Adoption of alternative and efficient cooking techniques; Promotion of energy management among high-energy consuming facilities; Minimum energy performance standards developed; Electric mobility and fuel efficiency developed; Efficient and clean cooking program for Uganda implemented.

Performance of the intervention

The sub-programme performance was **poor,** at 48.0% **(Table 3.11)**. The sub-programme had a total budget of USh 4.25 billion, of which USh 3.46 billion was released and USh 3.43 billion was spent by December FY 2024/25.

Table 3.11: Performance of Interventions under the Energy Efficiency and Conservation Sub-programme by 31st December 2024

Intervention	Performance Rating	Remarks
Promotion of efficient equipment for both industrial and residential consumers		Poor performance of 48.0%.
Average output performance		**Fair performance of 48.0%**

Source: Author's Compilation

Adoption of alternative and efficient cooking techniques

Surveys were conducted among the suppliers of cooking technologies. The profiled technologies included: firewood/wood fuel; charcoal; LPG; electricity; biogas; briquettes; agricultural residues; paraffin; ethanol; solar; and volcanic rocks.

Promotion of Energy management among high energy-consuming facilities

A requisition for the supply of critical energy audit equipment was completed. The preliminary energy audits for selected public institutions was conducted in: Mbarara University of Science and Technology; Kabale University; Mountains of the Moon University; Busitema University; Soroti University; Busoga University; Gulu University; Lira University; and Muni University.

Minimum Energy Performance Standards (MEPS) developed

Engagements on standards enforcement were conducted with KACITA regarding conformity requirements for MEPS. An engagement with UNBS on the development of standards for five appliances was conducted. The appliances considered included: i) personal computers; ii) televisions; iii) electric fans; iv) distribution transformers; and v) electric vehicle supply equipment (EVSE).

Electric mobility and fuel efficiency program implemented

Engagements were held with ERA, UNBS, STI and MoWT held in relation to the development of a regulatory framework and standards for electric vehicle charging equipment. The installation of electric vehicle chargers was ongoing with the contract awarded for the supply of two (2) EV chargers and two (2) e-vehicles. The development of guidelines for vehicle fuel efficiency labelling commenced.

Efficient and clean cooking program for Uganda implemented

Profiling of the cooking technologies and appliances used in the country was completed and manufacturers/traders in the cooking appliances/technologies in the four regions were also identified. An engagement on the use of the product development, testing and certification centres for cooking appliances was undertaken. The preparation of the identified sites for the four (4) regional product development, testing and certification centres for cooking appliances was finalised. The evaluation of the procurement of testing equipment to be installed in the regional product development, testing, and certification centres for efficient cooking appliances had been completed.

The performance of the Energy Efficiency and Conservation Sub-programme is summarised in **Table 3.12**.

Table 3.12: Performance of the Energy Efficiency and Conservation Sub-programme by 31st December 2024

Output	Annual Budget (USh)	% of Budget Received	% of Budget Spent	Annual Target	Physical Performance (%)	Remarks
Adoption of alternative and efficient cooking techniques	0.71	0.58	0.57	81.4	40.0	Surveys undertaken for supplier of cooking technologies
Promotion of energy management among high energy-consuming facilities	0.71	0.58	0.57	81.4	40.0	Preliminary energy audits conducted in public universities
Minimum energy performance standards developed	0.71	0.58	0.57	81.4	50.0	Engagement with UNBS on dev't of standards for appliances
Electric mobility and fuel efficiency promoted	0.71	0.58	0.57	81.4	55.0	Contract awarded for supply of EV chargers
Efficient and clean cooking program for Uganda implemented	0.71	0.58	0.57	81.4	55.0	Equipment procurement for the product dev't and certification centres completed
Total	3.54	2.89	2.86	0.0	**48.0**	**Overall performance**

Source: Field Findings and MEMD Q2 Reports

Challenges under the Sub-programme

- The low budget MTEF allocations to the programme have been consistently too low for the outputs and activities to have any significant impact.

Conclusion

The overall performance of the sub-programme was poor, registering at 48%. There is a need for sustained promotion of energy-saving practices in households and improved energy efficiency within industries to reduce costs. Greater emphasis should also be placed on the development and enforcement of energy efficiency standards over time, to encourage consumers to adopt and utilise efficient technologies. Additionally, scaling up existing interventions is necessary to expand coverage and achieve meaningful impact. However, the current level of funding allocated to the sub-programme is insufficient for the numerous small-scale interventions to deliver significant results.

Recommendation

1. MEMD should support industrial and domestic energy consumers in adopting efficient technologies aligned with planned energy efficiency standards.

2. The functions of renewable energy and energy efficiency should be merged to create synergy and improve coordination of interventions.

CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Programme Conclusion

The overall performance of the programmes was fair, with an achievement rate of 55.3%. The budget for FY 2024/25 is USh 1,1329.8 billion, and the budget release at half-year was poor, at 38.6%, and expenditure was 92% of the release. Uganda's electricity generation capacity increased to 2,007 megawatts (MW), following the commissioning of the 600 MW Karuma Hydropower Project in September 2024. Despite this substantial increase in generation capacity, electricity access remains uneven across the country, with the lowest levels of 19% access in rural areas. To address this gap, GoU is implementing the Electricity Connections Policy (ECP), which achieved 197,390 new last-mile connections by the first half of FY 2024/25.

The Government's effort to expand the electricity transmission grid has also enhanced the national electricity coverage and improved access, particularly in underserved regions. The grid transmission network has grown to 42 substations, with a total transformation capacity of 6,945.5 MVA. The significant projects contributing to this expansion include the Lira–Gulu–Nebbi–Arua 132 kV line, which connected the West Nile region to the national grid in August 2024, enhancing power reliability in Northern Uganda. This was followed by the completion of the Mirama–Kabale transmission project in December 2024, which connected the Kigezi region to the national grid.

Despite the Government's prioritisation of funding to expand electricity generation capacity, the transmission grid, and access, implementation continues to face significant challenges. Inefficiencies in procurement, contract management, and delays in executing Resettlement Action Plans (RAPs) have hindered progress across ongoing projects. Notably, vulnerable PAPs displaced by the Karuma Hydropower Project had not been resettled, even after project completion. Additionally, several completed grid extension projects still have unresolved compensation issues due to a lack of prioritisation by MEMD. These issues must be addressed to avoid similar setbacks in future projects.

4.2 Recommendations

1. Land acquisition under MEMD should be prioritised and sufficiently funded to allow timely implementation of Resettlement Action Plans (RAPs) before project commencement.

2. Implementing agencies should ensure adequate project staffing and clearly define responsibilities for contract management and procurement to prevent unnecessary delays.

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ANNEX

Annex 1: Interventions, Outputs and Implementing Agencies

Intervention	Output	Implementing Agency
Undertake preliminary development of large-generation plants	Construction of Nyagak III HPP	UEGCL, MEMD
	Construction of Karuma HPP	
Seek approvals for the construction of a nuclear power generation	Energy policy, plans, regulation and monitoring	MEMD
	Atomic energy promotion and coordination	
	Membership to IAEA	MEMD
Expand and rehabilitate the transmission network	Distance in km of high-voltage lines added to the transmission grid	UETCL
	Capacity of transformer capacity (MVA) added to the grid	
Expand and rehabilitate the distribution network	No. of km of medium-voltage lines added to the grid	MEMD
	No. of km of low-voltage lines added to the grid	MEMD
Reduce end-user tariffs	No. of last-mile connections made	MEMD
Promote the use of new and renewable energy solutions	Increased deployment of new renewable energy solutions	MEMD
	Off-grids based on renewable energy solutions promoted	
	Net metering framework developed	
	Technical capacity in renewable energy solutions developed	
	Increased uptake of improved cookstoves	
Promote the use of energy-efficient equipment for both industrial and residential consumers	Utilisation of alternative and efficient cooking techniques	MEMD
	Promotion of energy management among high energy-consuming facilities	
	Minimum energy performance standards developed	
	Electric mobility promoted	
	Utilisation of alternative and efficient cooking techniques	

Source: Author's Compilation

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