



SUSTAINABLE ENERGY DEVELOPMENT PROGRAMME

Annual Budget Monitoring Report

Financial Year 2024/25

September 2025

Budget Monitoring and Accountability Unit
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ABBREVIATIONS AND ACRONYMS

AFD	Agence Française de Développement
AfDB	African Development Bank
CCS	Clean Cooking Solution
CGV	Chief Government Valuer
CNST	Centre for Nuclear Science and Technology
CPF	Country Programme Framework
ESIA	Environmental and Social Impact Assessment
EPC	Engineering, Procurement and Construction
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
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
IAEA	International Atomic Energy Agency
IDA	International Development Association
IFMS	Integrated Financial Management System
IPC	Interim Payment Certificate
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
kV	Kilovolts
LV	Low-Voltage
MDAs	Ministries, Departments and Agencies
MEMD	Ministry of Energy and Mineral Development
MEPS	Minimum Energy Performance Standard
MoFPED	Ministry of Finance, Planning and Economic Development
MoU	Memoranda of Understanding
MoWT	Ministry of Works and Transport
MPS	Ministerial Policy Statement
MV	Medium-Voltage
MW	Megawatts
NEC	National Enterprise Corporation
NEMA	National Environment Management Authority
NDP III	Third National Development Plan
NICCS	National Integrated Clean Cooking Strategy
OGS	Off-Grid Solar
PAPs	Project-Affected Persons
PBS	Programme Budgeting System
PIP	Public Investment Plan
PPP	Public-Private Partnership
PUE	Productive Use of Energy
RAP	Resettlement Action Plan
TOR	Terms of Reference



UECCC	Uganda Energy Credit Capitalisation Company
UEDCL	Uganda Electricity Distribution Company Limited
UEGCL	Uganda Electricity Generation Company Limited
UETCL	Uganda Electricity Transmission Company Limited
UIRI	Uganda Industrial Research Institute
UNBS	Uganda National Bureau of Standards
UREAP	Uganda Rural Electrification Access Project



FOREWORD

The Government of Uganda outlined strategies, for FY 2024/25, to restore the economy back to the medium-term growth path with the ultimate vision of a self-sustaining, integrated economy. The strategies 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.

The Annual programme assessments have been made, and it was established that performance was fairly good. This implies that programmes are on track, but with a lot of improvements required. The challenges noted, are not insurmountable. These monitoring findings form a very important building block upon which programmes can re-strategize for FY 2025/26.

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.

Partick Ocailap

For Permanent Secretary/ Secretary to the Treasury



EXECUTIVE SUMMARY

The overall annual performance of the Sustainable Energy Development Programme during FY 2024/25 was fair, at 61.5%. The original approved budget for the programme was US\$ 1,135.65 billion, which was revised to US\$ 2,063.282 billion, whereas the budget release was US\$ 2,298.36 billion and the expenditure was US\$ 1,349.8 billion. There was a supplementary budget of US\$ 463.9 billion to cater for the payment of the UMEME concession buyout.

Performance

The performance of the Generation Sub-programme was good, at 71.3%. The sub-programme fell short of the outcome target of increasing electricity generation capacity, with 2,057 megawatts (MW) achieved of the planned 3,500 MW. The key highlights of performance were the completion of works at the 600 MW Karuma Hydropower Plant (HPP), Nyagak III HPP and the commencement of works on the ORIO Mini-Hydropower Project. All the construction works at Nyagak III HPP, including the evacuation line to the Nebbi substation, were completed, and the power plant was commissioned. Physical works on the ORIO Mini-Hydropower Project commenced at the end of FY 2024/25 for the four sites under phase one. River diversion works were ongoing at Hoimo in Hoima, while work on the access roads at Igassa and Nsongye in Bunyaruguru were underway. The contractor also mobilised to start works for Nchweru HPP in Mitooma.

The Transmission and Distribution Sub-programme performance was also fair, at 66.4%. There was good progress on the transmission line works, while the rural electrification works were poor. The transmission network grew to 2,547 km and 43 substations, and, as a result, the grid reliability increased to 98%. A key achievement in FY 2024/25 was the completion and commissioning of the 85 km Mirama-Kabale transmission line in February 2025, which significantly improved supply reliability in the Kigezi Region and strengthened the capacity to support the planned iron ore processing industry. Good progress was also made on the Kampala Metropolitan Transmission Project, with foundation works completed at four substations. The Buloba substation works reached 70%, with major equipment installed, Mukono was at 44% with equipment delivered, Bujagali at 60% and Mutundwe at 80%. Works at Kawaala substation were yet to start.

Under the Power Supply to Industrial Parks Project (Phase II), construction commenced at Kabalega Industrial Park on a new 132/66/33 kV substation, reaching 60% completion, with most foundations in place, to supply electricity to the industrial park, Kabalega Airport, and the East African Crude Oil Pipeline (EACOP) pumping station. The procurement for the Masaka-Mbarara 400 kV transmission project was finalised after delays, though the Resettlement Action Plan (RAP) remained constrained by inadequate funding, while financing agreements for the Karuma-Tororo 400 kV line and the proposed 132/33 kV Ntinda substation under the EPC+Financing model were still being concluded.

Under the distribution network, a major milestone was the handover of the electricity distribution network from UMEME to the Uganda Electricity Distribution Company Limited (UEDCL) in April 2025. A total of 197,390 new last-mile electricity connections were added to the grid, raising the total number of electricity customers to 2,305,296 and achieving a 51% access rate countrywide. However, rural electrification grid extensions performed poorly as the Rural Electrification and Connectivity Project made limited progress, with the implementation of Government of Uganda-funded lots postponed because of persistent financial shortfalls. The works on the Kuwait-funded schemes in Rukungiri, Mitooma, Kasese, Bushenyi, and Mbarara resumed, and contractors mobilised to start construction activities. Under the Electricity Access Scale-Up Project (EASP),



most grid extensions were still at the design and surveying stages. Significant progress was achieved under EASP through the Ministry of Water and Environment (MWE), which undertook 40 solar water supply schemes, most of which were completed, thereby boosting access to clean energy for water provision. However, the solar electrification of selected schools under the Ministry of Education and Sports (MoES) did not commence, pointing to gaps in delivering social-sector-related energy interventions despite the progress made in other areas.

The performance of the Renewable Energy Development Sub-programme during FY 2024/25 was fair, at 56.5%. The construction of twin demonstration improved institutional cook stoves in 10 selected schools was undertaken, and five hybrid solar/wind systems for pumping water were installed in Karamoja. The review of the Biomass Energy Strategy was undertaken, and new standards for biofuels and clean cooking technologies were adopted. However, the upgrading of the six solar mini-grids in Kasese and Rubirizi was still at the procurement stage due to funding challenges.

The Energy Efficiency and Conservation Sub-programme performed fairly, at 51.6%. The relevant standards for the Minimum Energy Performance Standards (MEPS) were identified and submitted to the relevant technical committees. The review of existing electric vehicle (EV) charging standards was also completed. However, most of the planned outputs and activities were not undertaken due to low funding under the sub-programme. For example, the procurement of critical energy audit equipment and the contract to supply and install two EV charging stations at Amber House were not concluded due to funding constraints.

Challenge

Programme funding was inadequate to implement the GoU-funded components, with activities under rural electrification projects, and Renewable Energy and Efficiency Sub-programmes being the most affected.

Conclusion

The Sustainable Energy Development Programme recorded overall fair performance, with the Generation Sub-programme performing well following the commissioning of Karuma HPP and Nyagak III HPP. However, the achieved generation capacity of 2,057 MW fell short of the target of 3,500 MW. The transmission network expanded to 2,547 km and 43 substations, with electricity access rising to 51% countrywide. Major milestones included the commissioning of the Mirama-Kabale line and the transfer of UMEME's distribution network to UEDCL, though rural electrification lagged due to funding gaps. Progress continued on Kampala Metropolitan substations, the Kabalega Industrial Park Supply Project, and procurement for the Masaka-Mbarara 400 kV line, while RAPs and financing for other projects faced delays. The Renewable Energy Development Sub-programme performed fairly, with modest progress on solar mini-grid schemes, hybrid systems in Karamoja, and clean cooking initiatives. The Energy Efficiency and Conservation Sub-programme also performed fairly, with the standards for biofuels, clean cooking, and EV charging advanced but grappling with funding delays.

Recommendation

MEMD should rationalise the number of ongoing projects, and new projects should not be taken on so that the funding requirements do not exceed the available resources.



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, 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 III). 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 (SED)**.

This report presents findings from monitoring the Sustainable Energy Development Programme for the budget execution period of 1st July 2024 and 30th June 2025.

1.2 Programme Goal

The goal of the Sustainable Energy Development Programme (SED) 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 (04) 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 the Uganda Electricity Generation Company Limited (UEGCL).

1.3 Programme Objectives

The specific objectives of the programme are:

- Increase access and utilisation of electricity.
- Increase the generation capacity of electricity.
- Increase adoption and use of clean energy.
- Promote 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 are 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 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 electricity consumption per capita (kWh per capita) from 100 kWh to 578 kWh.
	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 3,500 MW.
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 utilisation of energy-efficient practices and technologies.	
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 FY 2024/25 (1st July 2024 – 30th June 2025). The interventions and respective outputs reviewed under each sub-programme, Ministry, Department, and Agency (MDA)/Vote/Local Government 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
	Completion of Karuma HPP works	
	Construction of ORIO mini-hydro dams	UECCC
Seek approvals for the construction of a nuclear power generation	Atomic Energy Amendment Bill prepared.	MEMD
	Awareness of nuclear energy conducted.	
	Preparation for construction of a Centre for Nuclear Science and Technology conducted.	
	Local Content Strategy for nuclear energy development prepared and implemented.	
	Spent fuel and radioactive waste management strategy for Uganda prepared and implemented.	
	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.	
	Development of grid-connected renewable energy systems.	
	Electric transport solutions promoted.	
	Net metering framework developed.	
	Technical capacity in renewable energy solutions developed.	
	Increased uptake in improved cook stoves.	
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 Plans (PIAPs), Ministerial Policy Statements (MPSs) and semi-annual and quarterly work plans, progress and performance reports of MDAs and Local Governments (LGs).

A total of seven (07) interventions in the MPSs were reviewed. The reviewed interventions translated into 90% coverage of the approved budget for FY 2024/25. The selected interventions monitored were:

- i. Undertake preliminary development of large-generation plants.
- ii. Finalise plans for the development of nuclear power generation.
- iii. Expand and rehabilitate the transmission network.
- iv. Expand and rehabilitate the distribution network.
- v. Establish mechanisms to reduce the end-user tariffs.
- vi. Promote the use of new and renewable energy solutions.
- vii. 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 (MPSs), and progress reports of the respective MDAs for monitoring.

To aid mapping of PIAP interventions against annual planned targets stated in the Vote MPSs and quarterly work plans, multi-stage sampling was undertaken at three levels: i) sub-programmes; ii) sub-sub-programmes; and iii) 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 of key policy documents, including Ministerial Policy Statements (MPSs) for FY 2024/25; National and Programme Budget Framework Papers; PIAPs (NDP III); quarterly performance reports and work plans for the respective implementing agencies; 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; as well as review and analysis of data from the Integrated Financial Management System (IFMS) and the Programme Budgeting System (PBS).

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 in some cases, which 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 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	Green	Very Good (Achieved at least 90% of outputs and outcomes)
70% – 89%	Yellow	Good (Achieved at least 70% of outputs and outcomes)
50% – 69%	Light Gold	Fair (Achieved at least 50% of outputs and outcomes)
49% and below	Red	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

1. Limited credible outcome performance data in the programme institutions; in some cases, the analysis was done at the output level.
2. Lack of reliable and real-time financial data on donor financing, which was not accessible on the IFMS.
3. 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: Introduction; Methodology; Programme Performance; and Conclusion and Recommendations.



CHAPTER 3: PROGRAMME PERFORMANCE

3.1 Overall performance

Financial Performance

The original approved budget for the programme was US\$ 1,135.65 billion, which was revised to US\$ 2,063.282 billion, whereas the budget release was US\$ 2,298.36 billion and the expenditure was US\$ 1,349.8 billion. There was a supplementary budget of US\$ 463.9 billion to cater for the payment of the UMEME concession buyout. The release for the Generation, and Transmission and Distribution Sub-programmes was more than the budget (Table 3.1) because the work invoiced by the contractors exceeded the original budget due to good progress of works. However, the low expenditure in the Generation Sub-programme was due to the retention funds budgeted for Karuma HPP and Isimba HPP, which were not utilised. The absorption of external funds for the transmission projects under the Transmission and Distribution Sub-programme was also low. The programme financing by 30th June 2025 is summarised in Table 3.1.

Table 3.1: Financing of the Sustainable Energy Development Programme at 30th June 2025

Sub-Programme/ Cost Centre	Approved Budget (US\$ bn)	Release (US\$ bn)	Expenditure (US\$ bn)	Release as % of Budget	Expenditure as % of Release
Generation	332.187	438.477	164.220	132.0	37.5
Transmission and Distribution	1,725.201	1,853.986	1,179.885	107.5	63.6
Renewable Energy Development	1.472	1.472	1.389	100.0	94.4
Energy Efficiency and Conservation	4.423	4.423	4.304	100.0	97.3
Overall Performance	2,063.28	2,298.36	1,349.80	111.39	58.73

Source: IFMS and PBS Quarterly Reports

Physical Performance

The overall performance of the programme was fair, at 61.5%, with the Generation Sub-programme performing well, while the rest were fair (Table 3.2). The works on the Karuma and Nyagak III Hydropower Plants (HPPs) were completed and plants were connected to the grid. While the progress on the ongoing transmission and generation projects was good, that on the rural electrification projects was poor. During FY 2024/25, the works on the Gulu-Agago and the Kole-Gulu-Nebbi-Arua and Mirama-Kabale Transmission Projects were completed, and the projects were under defects liability monitoring. Works on the Kampala Metropolitan Transmission Project commenced in July 2024 and progressed well during FY 2024/25. The grid rural electrification schemes funded by China Exim Bank and the African Development Bank (AfDB) were under defects liability monitoring, having been completed a year ago, while progress on the residual works left on projects under Energy for Rural Transformation Phase Three (ERTIII) progressed slowly due to low funding. Some components under the Electricity Access Scale-up Project, like the solar water pumping schemes, commenced; however, the main works comprising the grid extensions had not yet started.

**Table 3.2: Summary of performance of the Sustainable Energy Development Programme for FY 2024/25**

Sub-programme	Performance (%)
Generation	71.3
Transmission and Distribution	66.4
Renewable Energy Development	56.5
Energy Efficiency and Conservation	51.6
Overall Performance	61.5

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 megawatts (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 good, at 71.3%. The outcome indicator for increasing the electricity generation capacity to 3,500 MW was not achieved, with 2,057 MW realised, which was below the planned NDP III target of 3,500 MW. However, there was good progress in the performance of the annual planned targets during FY 2024/25. The works at Karuma HPP were completed, and the plant was commissioned on 24th September 2024. All works at Nyagak III HPP were also completed, and the plant was connected to the grid on 2nd July 2025.

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 97.6%. Works on Karuma, Isimba and Nyagak III were completed.
Finalise plans and approvals for nuclear power generation		Fair performance of 68.3%. Preparations continued to strengthen legal and technical capacity in nuclear technology, but progress on the amendment of the law was poor.

Source: Author's Compilation

3.2.1 Undertake preliminary development of large hydropower generation plants

The intervention is implemented by Uganda Electricity Generation Company Limited (UEGCL), Ministry of Energy and Mineral Development (MEMD) and the Uganda Energy Credit Capitalisation Company (UECCC). The planned outputs under the intervention were the construction of Nyagak III HPP, completion of Karuma HPP works and Resettlement Action Plan (RAP), and the construction of the ORIO Mini-Hydro and associated rural electrification works.

Performance of the Intervention

The performance of the intervention was good, at 97.6% with most of the planned works under the intervention completed during the FY2024/25.

Construction of Karuma Hydropower Plant

The Karuma Hydropower Plant (HPP) was commissioned, and the project completion certificates for the generation plant and transmission lines were issued on 12th May 2024 and 22nd May 2024, respectively. The monitoring of the hydropower plant to identify and rectify the snags during operation was ongoing until the end of the 24-month defects liability period. By the end of FY 2024/25, 98% of the civil defects and 99% of the electro-mechanical defects had been rectified. The major pending defect was the replacement of the log boom at the dam intake.

The construction of the 119 resettlement houses at Lapono Village for the vulnerable Project-Affected Persons (PAPs) on the Karuma HPP had not commenced. MEMD had received the National Environment Management Authority (NEMA) certificate for the Environmental and Social Impact Assessment (ESIA) study for the site where construction of the resettlement houses is planned. The Ministry was working with the Nwoya District Planning Committee to process the construction permit to pave the way for the construction works.

Construction of Nyagak III Hydropower Plant

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 and installation of the electro-mechanical equipment in the powerhouse were also completed.

The installation of the control panels, transformers and turbine generators was also completed, and the 24 km evacuation line to the Nebbi power substation was constructed. The hydropower plant was commissioned on 2nd July 2025.



Completed Nyagak III power house building



Installed electromechanical equipment in the Nyagak III Power house

Construction of the ORIO Mini-hydro and rural electrification works

The ORIO Mini Hydropower and Rural Electrification Project's objective is to provide a captive and reliable electricity access to contribute to the economic development of the project areas. The implementing agency is the Uganda Energy Credit Capitalisation Company (UECCC). The project focuses on the construction of nine (9) mini hydro power plants and local distribution networks totalling 288 km, as well as the connection of 71,081 households and 2,300 Small and Medium Enterprises (SMEs).

The total project cost is US\$ 207.4 billion, of which US\$ 49.8 billion (EURO 12.2 million) is a grant from the ORIO Infrastructure Development Fund of the Netherlands Government, while the rest is co-financing from the Government of Uganda (GoU).

This project entails the construction of nine (09) mini hydropower plants with a combined capacity of 6.7 MW and is to be undertaken in two phases. The project sites are located in the seven (07) districts of Western Uganda, namely: Hoima, Kabarole, Bundibugyo, Bunyangabu, Kasese, Mitooma, and Bushenyi.

The overall project construction progress was at 5%, while the RAP activities at all nine mini-hydro sites were completed. The scope of the RAP included: cash compensation for a total of 401 PAPs and construction of six (06) resettlement houses.



The Phase I works at four of the nine mini-hydro plants in Bunyangabu (Nsongya, Igassa), Mitooma (Nchwera), and Hoima commenced in January 2024 and were in the early stages. By July 2025, the construction of the camp sites at the Hoimo site in Hoima was ongoing at 80%, and river diversion was at 90%. The mobilisation of equipment was ongoing for the Mitooma site, while access roads were being constructed for the sites in Bunyangabu.



The main contractor was also undertaking detailed engineering designs for all civil, hydro-mechanical (H&M) and electro-mechanical (E&M) works. The manufacture of the electro-mechanical equipment also commenced, and the feasibility study of the phase one distribution network was at 53%. The Phase II works, on the other hand, are scheduled to start by October 2026, and to last for 36 months.

River diversion works at the Hoimo mini-hydro site, Hoima

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

The planned outputs under the intervention were: Atomic Energy Act 2008 finalised; awareness of nuclear energy conducted; preparation for construction of a Centre for Nuclear Science and Technology conducted; Nuclear Fuel Supply Strategy implemented; spent fuel and radioactive waste management strategy for Uganda prepared and implemented; IAEA cooperation coordinated.

Performance of the intervention

The performance of the intervention was fair, at 68.3%. 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).

Amendment of the Atomic Energy Act 2008 finalised

Technical consultations within the Ministry of Justice and Constitutional Affairs (MoJCA) and with other stakeholders were conducted, and a Cabinet paper to support the Bill submission was developed. An internal stakeholder meeting with the Atomic Energy Council was also concluded.

Awareness of nuclear energy conducted

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

Human resource development plan for the nuclear power plant finalised

The draft Human Resource Needs Assessment for the Centre for Nuclear Science and Technology (CNST) was prepared. A stakeholders' consultative meeting on the draft Nuclear Energy Local Content Strategy was conducted in 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. The Terms of Reference (TOR) for the preparation of a national database for potential players in the nuclear industry were undertaken.

Bilateral cooperation on nuclear energy was coordinated and implemented

Five (5) IAEA projects were supported and monitored under the current Country Programme Frameworks (CPF) project cycle periods, while 15 staff from different MDAs were supported to undertake short- and long-term professional technical training courses under the IAEA platform.

Nuclear Fuel Supply Strategy implemented

Consultations on the establishment of the National Nuclear Fuel Resources Analytical Laboratory were undertaken at the Government Analytical Laboratory, Uganda National Bureau of Standards (UNBS), the Ministry of Works and Transport (MoWT), Uganda Industrial Research Institute (UIRI), Kyambogo University, Busitema University, Busoga University and Mbarara University of Science and Technology. The Nuclear Fuel Supply Strategy was also implemented and disseminated.

Spent fuel and radioactive waste management strategy for Uganda prepared and implemented

A geological assessment of the potential site for the National Centralised Radioactive Waste Management Facilities in Buyende District was undertaken and the siting report updated. Consultations were also undertaken with the National Enterprise Corporation (NEC) on the establishment of the nuclear waste management facility.

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 30th June 2025

Intervention	Output	Annual Budget (US\$ bn)	% of Budget Received	% of Budget Spent	Physical Performance (%)	Remarks
Undertake preliminary development of large generation plants	Construction of Nyagak III HPP	0.0	0.0	0.0	97.0	All works were completed and the plant commissioned.
	Construction of Isimba HPP	65.3	50.9	18.4	98.0	98% of the defects had been corrected. The 2% pending defects are on the spillway and will need a complete plant shutdown to correct.
	Construction of Karuma HPP	239.5	360.3	118.6	98.0	Defect liability monitoring was ongoing, rectification of defects was at 98% for civil and at 99% for electromechanical defects.
Finalise plans and approvals for	Amendment of the Atomic Energy Act 2008 finalised.	2.6	2.6	2.6	70.0	Cabinet memo to support the Bill submission prepared.



Intervention	Output	Annual Budget (USh bn)	% of Budget Received	% of Budget Spent	Physical Performance (%)	Remarks
nuclear power generation	Human resource development plan for the nuclear power plant finalised.	2.6	2.6	2.6	75.0	Draft for the Human Resource Planning Framework developed.
	Awareness about nuclear energy was conducted.	2.6	2.6	2.6	75.0	Consultations with the Busoga Kingdom were held.
	Spent fuel and radioactive waste management strategy for Uganda was prepared and implemented.	2.6	2.6	2.6	65.0	Data collection undertaken for potential sites.
	Bilateral and multilateral cooperation is coordinated.	2.6	2.6	2.6	65.0	5 IAEA-supported projects were monitored.
	Nuclear Fuel Supply Strategy implemented.	2.6	2.6	2.6	60.0	Detailed nuclear fuel resources exploration and evaluation launched.
					78.1	Output performance
Outcomes Performance						
Outcome Indicator			Annual Target	Achieved	Score (%)	Remark
Increase in electricity generation capacity (MW)			3,500	2,054	58.7	
Outcome Performance					58.7	
Overall Sub-Programme Performance					71.3	Overall performance of the sub-programme

Source: Field Findings and MEMD Q4 Reports

Challenge under the Sub-programme

The continued delay in the completion of the resettlement of the displaced PAPs from Karuma HPP, who were to be relocated to Lapono Village.

Conclusion

The Generation Sub-programme made good progress towards increasing electricity power generation. During FY 2024/25, the full commissioning of the Karuma HPP and the completion of Nyagak III HPP were achieved. However, UEGCL and MEMD should ensure that the remaining works/snags and the pending resettlement of displaced people are addressed conclusively. There is a need to expedite the development of other power generation sites to keep up with the growing electricity demand.

Recommendations

1. UEGCL and MEMD should closely supervise the rectification of the identified defects on the completed projects so that the assets can achieve a long operational life.
2. MEMD and UEGCL should expedite plans for the development of other generation sites to keep up with the growing demand.

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 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 were: to expand and rehabilitate the transmission network; expand and rehabilitate the distribution network; and reduce end-user tariffs.

Performance of Interventions

The sub-programme performance was fair, at 66.4%. The electricity access reached 51%, compared to the NDP III target of 60%. The outcome target of improved reliability for the grid was achieved, with 98% compared to the 90% target. However, electricity consumption was at 218 kWh per capita, falling short of the 578 target despite an increase in electricity access. The sub-programme received supplementary funding of US\$ 463.9 billion for payment of the UMEME end-of-concession fees.

The highlights during FY 2024/25 include the completion and commissioning of the Kole-Gulu-Nebbi-Arua Transmission and Mirama Kabale Transmission Projects. However, the outcome indicator of increasing the transmission length to 4,354 km was not achieved, with 2,547 km realised. A summary of the sub-programme performance is given in Table 3.5.

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

Intervention	Performance Rating	Remarks
Expand and rehabilitate the transmission network		Good performance, at 75.2%. Kole-Gulu-Nebbi-Arua and Mirama-Kabale Projects were completed.
Expand and rehabilitate the distribution network		Poor performance of 42.5% Most of the old grid extension works had completed DLP. Grid works under EASP not yet commenced.
Reduce end-user tariffs		Fair performance of 65.8%. 197,390 new connections were made out of the planned 300,000 annual target.

Source: Authors' Compilation

3.2.1 Expand the Transmission Network to Key Growth Areas

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



- a) 132 kV Mirama-Kable Transmission Project
- b) Grid Expansion and Reinforcement Project
- c) Masaka-Mbarara expansion
- d) Kampala Metropolitan Transmission Project
- e) Power supply to Industrial Parks II
- f) Construction of 400 kV Karuma-Tororo transmission line and 132 kV Ntinda substation

The intervention performance was good, at 75.2%. During 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. Good progress was made on civil works for the Kampala Metropolitan Transmission Project, while the procurement challenges on the Masaka-Mbarara Transmission Project were resolved.

a) 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 construction of rural grid extension lines in the region. The funding for the project was from the Government of Uganda (GoU) (US\$ 40 billion) and an Islamic Development Bank (IsDB) 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 was US\$ 70.96 billion, of which US\$ 69.83 billion was spent.

All the works on the transmission line were completed, with 287 of the planned towers erected and the stringing of the planned 85 km of the line undertaken. Works on the substations were completed by November 2024, and the project was officially commissioned in February 2025. The project was under defects liability monitoring.



Completed Kabale 132 kV substation

b) Grid Extension and Reinforcement Project (GERP)

Under the World Bank-funded Grid Extension and Reinforcement Project (GERP), works to connect West Nile to the national grid were completed and under defects liability.

During FY 2024/25, the transmission works were completed, with all 897 towers on the Kole-Gulu-Nebbi-Arua line erected. The stringing of the 294 km of the 132 kV double-circuit transmission line from Kole, through Gulu and Nebbi, to Arua, including the river crossing at Pakwach, 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 completed works were under defects liability monitoring by UETCL.

c) 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 Japan International Cooperation 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 3x125 MVA, 220/132 kV substation; a new Buloba 2x125 MVA, 220/132 kV substation; a new Kawaala 2x40 MVA 132/33 kV substation and 1x20 MVA 132/11 kV transformer 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 High Temperature Low Sag (HTLS) conductor.

The overall progress of the Buloba substation works was 70% complete as of July 2025. Major civil works, which included the equipment foundations and the control building superstructure, had been completed. The two power transformers were delivered on site and had been partially assembled.

The Mukono substation works progressed well and were at 44% in July 2025. All major equipment for the substation had been delivered to the site. The erection of most of the equipment structures, including the two main gantries in the switchyard, was completed. Works at the Mutundwe substation progressed well, with 80% of the foundations completed.

At the Kawaala substation, the Factory Acceptance Tests (FATs) for three 40 MVA transformers were completed in December 2024. The installation of the mobile substation at the Kawaala substation was at 99% and awaiting final termination of the cabling. The progress at the Bujagali substation was at 60%, with all equipment foundations completed. The progress of work on the transformer foundation was at 80%. The shipping of the transformer was planned after completion of the foundation works.



L-R: Ongoing construction works at the 132/33 kV Buloba substation; installed mobile substation at Kawaala

d) 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 3 x 80 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).
- iii. Supply and installation of a 125 MVA, 220/11 kV at the Sukulu Industrial Park substation.

The budget for the project in FY 2024/25 was US\$ 7.55 billion, and all the funds were released and spent. The funds released to the project were not sufficient, which was delaying the progress of the works. The overall progress of the construction of the Kabaale Industrial Park substation and underground cable line was at 46%. The civil and electrical designs had progressed to 99%. Placement of orders for equipment manufacturing was at 61%. Construction work was at 13%.

The preliminary site activities for the site offices, utility connections, workers' accommodation, and bush clearing were complete. Site levelling civil works, such as cutting, murram filling and compaction, were also completed. Foundation works for the control room building were advanced, and the roof slab casting and transformer foundations were ongoing.



Ongoing foundation works at Kabaale substation in Hoima

e) Masaka-Mbarara 400kV Transmission Line Project and Associated Substations

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 220 kV Masaka substation and the 220kV Mbarara North substation, and the addition of two new line bays at both the Masaka and Mbarara substations.

The disbursement of the AFD loan was EUR 120,687 (0.33%), while that of the KfW loan was Euro 111,907(0.32%). The disbursement of the loan funds was still very low due to the delay in procuring the Engineering, Procurement and Construction (EPC) contractors, and works had not commenced.

Despite the procurement delay, the obstacles hindering the EPC contractor's procurement were resolved. Clearance to award the contract to the second best evaluated bidder – TBEA –, as recommended by the Solicitor General, was granted by AFD, and due diligence for the best evaluated bidder was completed awaiting contract signing.



The Resettlement Action Plan (RAP) implementation was at 82% (2,191 of the 2,673 PAPs cash compensation). A total of 25 PAPs on the project opted for resettlement houses, but the procurement of the contractor had not been yet completed.

f) Construction of 400 kV Karuma-Tororo Transmission Line and 132 kV Ntinda Substation

The Karuma-Tororo transmission project is a planned 400 kV double-circuit power line being constructed to connect the 600 MW Karuma Hydropower Plant to a new substation on the border with Kenya to strengthen Uganda's national power grid and enable power exports.

The project scope is a 346 km 400 kV double-circuit transmission line from the Karuma Hydropower Plant to a 400/220 kV substation at the Uganda-Kenya border in Tororo. The project was packaged for development under the EPC+Financing model with a Memorandum of Understanding (MOU) signed with Kalpataru Power Transmission Sweden AB.

The budget for the project during FY 2024/25 was US\$ 21.455 billion, of which US\$ 15.926 billion was released and US\$ 5.029 billion spent. The full cost of the project was still awaiting the conclusion of the financing agreements.

The feasibility study, Environmental and Social Impact Assessment (ESIA) and the Resettlement Action Plan (RAP) study are complete. The final RAP report was approved by the Chief Government Valuer (CGV) in late December 2024. The EPC contractor submitted a bid that was cleared by the UETCL Contracts Committee. A commercial contract was signed on 26th March 2025, and a letter to the Ministry was submitted, forwarding the signed commercial contract to facilitate finalisation of the financing arrangements.

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 to aid wiring for on-grid household, SME connections and three-phase connections for commercial enterprises.

The performance was fair, at 65.8%. Under the connections policy, several connections were made under several ongoing projects. A total of up to 197,390 connections were made countrywide using financial support from several development partners¹.

3.2.3 Expand and rehabilitate the distribution network

This intervention aims to undertake grid expansion and densification, the 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.

Electricity access reached 51%, compared to the NDP III outcome indicator of 60%. The performance of the intervention during FY 2024/25 was poor because the ongoing projects were

¹ World Bank, Islamic Development Bank (IDB), African Development Bank (AfDB), Kreditanstalt für Wiederaufbau (KfW), French Development Agency (AFD), China Exim Bank, Kuwait Fund, CFC.



grappling with funding constraints, with some still at procurement. The distribution network works were packaged under four projects, namely:

- a) Bridging the Demand-Supply Balance Gap through the Accelerated Rural Electrification Programme Project (BDSGAREP)
- b) Uganda Rural Electricity Access Project (UREAP)
- c) Electricity Access Scale-up Project (EASP)
- d) Rural Electrification and Connectivity Project (RECP)

The works under UREAP and BDSGAREP Projects were completed during FY 2023/24, but were still under defects liability period monitoring. On the other hand, the EASP and RECP were ongoing, but making slow progress.

a) Bridging the Demand-Supply Balance Gap through the Accelerated Rural Electrification Programme Project (BDSGAREP)

The project was financed through a credit facility amounting to USD 212,669,840.08 from the Export-Import Bank of China (China Exim Bank). The initial duration of the loan facility was 48 months. However, this was later revised to 60 months. The loan proceeds were earmarked to finance the construction and implementation of the project, targeting the Eastern, Northern, Southwestern, and Central Service Territories across the country.

All the project works were completed, covering a total of 210 sub-county headquarters, 3,202.46 km of medium-voltage (MV) lines, 6,827.82 km of associated low-voltage (LV) networks, the installation of 1,744 transformers, and the supply of 180,228 complete single-phase pre-paid meters across 87 districts. Defects liability monitoring was completed for 142 schemes in the Eastern Region, 78 schemes in the Central Region, 69 schemes in Southwestern Uganda and 111 schemes in the Northern Region.

b) 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 MV lines, 1,170.7 km of LV lines, installation of 500 transformers, and a 33 kV submarine cable connection to Bugala Island in Kalangala District (Lot 6) and 10,739 last-mile connections at commissioning. The project comprised Lots 1–7, additional works under Lots 10–13 executed using savings from the loan for the original scope, and Lots 9–10 for the supply of last-mile connection materials (meters and service cables).

All construction works on the project were completed by July 2024, and the defects liability period (DLP) monitoring for all Lots 1–13 was completed at the time of monitoring in July 2025. A total of 39,701 connections were undertaken under the project

c) 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, a World Bank-IDA grant of USD 112.5 million, and GoU funding of USD 10 million. The rest of the financing is from a number of grants. The project became effective in July 2023.

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



The performance was poor, with overall project physical progress at 10%. The project was behind schedule, with two of the planned five years having elapsed. The major achievements in the first two years of the project were: a total of 317,663 grid and off-grid connections made out of the overall target of 1,223,500; and the provision of clean energy cooking solutions.

The grid line constructions, on the other hand, were yet to begin, pending conclusion of the procurement of a contractor, and the institutional solar PV system installations for water systems were in the final stages, while those for educational institutions and health centres were yet to begin. The recruitment of staff for the Project Implementation Units (PIUs) and the Project Coordination Unit (PCU) was also not yet complete.

Detailed progress under each of the project components is stated hereunder:

Component 1 – Grid Expansion and Connectivity: A total of 174,629 grid connections, including 35,841 Electricity Connection Policy (ECP) connections arrears, had cumulatively been made by 30th June 2025 by UMEME. The connections under UEDCL were yet to commence because the implementation agreement for Results-Based Financing (RBF) was yet to be finalised. The procurement of more connection materials for the different batches was at various levels and behind schedule. For example, the evaluation and justification with the Bank for the procurement materials for 410,000 connections and 15,000 ready boards for vulnerable households was at bidding stage. A concept note to benchmark on the approach for installation of 300,000 ready boards was also developed and comments received from the World Bank.

The construction on the MV and LV networks had not commenced. The procurement of a Planning Design and Supervision Consultant (PDSC) to undertake planning, engineering designs and supervision of works was concluded. MEMD, in partnership with the consultant, were in turn undertaking surveys, detailed designs, a Bill of Quantities (BoQ), and procurement of contractors to undertake a Resettlement Action Plan (RAP), material supply, line construction and material logistics. All preliminary surveys were completed and the preliminary designs were conducted in the districts of Masaka, Rakai, Kyotera and Ntungamo. However, none of the procurements had been concluded.

Component 2 – Financial Intermediation for Energy Access Scale-up: To boost off-grid connections under the Credit Support Facility (CSF), total Lines of Credit (LoC) amounting to USD 21.8 million (US\$ 85.7 billion) for nine (09) Participating Financial Institutions (PFIs), and Partial Credit Guarantees worth USD 1.8 million for two (02) PFIs were approved by 30th June 2025. The disbursement level was at USD 8.8 million, and to that effect, a total of 143,034 off-grid solar connections were made by June 2025. –

The RBF, on the other hand, also became effective in December 2024, and aims at providing subsidy rates (30%–67%) to promote the usage of the various off-grid technologies. The Grant Allocation Committee cumulatively approved USD 26.5 million for Off-Grid Solar (OGS), USD 5.3 million for Productive Uses of Energy (PUE) and USD 5.6 million for Clean Cooking Solutions (CCS). A total of 940 Productive Uses of Energy (PUEs) had been sold and 59,315 CCS financed by 30th June 2025. To electrify public institutions, the civil works for solar installations at 40 water stations countrywide under four lots was at 80%, with 28 of these substantially complete. The procurement of a contractor to undertake four additional water schemes under Lot 5, worth USD 0.5 million, was at contract signature.

The Ministry of Health (MoH) and the Ministry of Education and Sports (MoES), on the other hand, were in the process of procuring contractors to undertake works. The best evaluated bidders were selected for three lots of 15 seed schools each, totalling 45 schools. The MoH also identified a total of 136 health centres to be electrified in the first phase under three lots.



Completed solar water supply scheme at Purongo in Nwoya District



Completed solar water supply scheme at Ntungu, Isingiro District

Component 3 – Energy Access in Refugee Host Communities: A total of 10,241 OGS connections were made in the Refugee-Hosting Districts (RHDs) by 30th June 2025. This represents 22.3% of the project target. A total of 4,721 Clean Cooking Solutions (CCS) were also provided in the RHDs, of which 128 units were for refugee customers. The construction of voltage networks in the respective refugee settlements had, however, not started, awaiting the conclusion of engineering designs and procurement of contractors by MEMD.

d) Rural Electrification and Connectivity Project (RECP)

The project aims at electrifying a total of 3,026 parishes through the construction of 8,188 km of Medium-Voltage (MV) and 13,550 km of low-voltage (LV) lines and installation of associated distribution transformers installed.



The project scope comprises: Kuwait-funded schemes in the Northern and Western Regions; three (03) clusters of lot-based schemes funded by the Government of Uganda (GoU), namely GoU eight (08) lots, GoU seven (07) lots, and GoU Package A four lots; and construction of the Muzizi B substation and power evacuation lines for mini-hydropower plants in Kibaale, Kabarole and Kasese. The progress of the projects was majorly affected by low counterpart funding, leading to contractor cash flow challenges.

Under Kuwait-funded schemes, Lot 1A in the districts of Kiryandongo, Kakumiro, Nebbi, Pachwach, and Madi-Okolo was completed and the DLP ended. For Lot 1B, covering Kasese, Bushenyi, Mitooma, Rukungiri, and Mbarara, overall progress remained at 72% for more than two years. This was because the previous contractor experienced severe financial challenges after the COVID-19 pandemic and was unable to complete the contract. By July 2025, MEMD had procured a new contractor after obtaining a “No objection” from the funder to utilise the loan balance with additional funds from the GoU to complete the remaining project scope. Works were expected to resume by September 2025 and to last 12 months.

Under GoU eight (08) lots funding, Lots 3–8 in the various districts countrywide were completed and under DLP monitoring. The contractors for Lots 1 and 2 faced cash flow challenges coupled with delayed payment of counterpart funds, which resulted in the termination of the contracts. Retendering for these lots was ongoing (Lot 1 – Mityana, Wakiso, Kyenjonjo, Mpigi, Kasanda; and Lot 2 – Masaka, Gomba, Butambala, Kyotera, Lwengo, Kiruhura, Kyotera, Sembabule, Mbarara, Lyantonde).

For the GoU seven (07) lots package³, all contracts for the seven lots had been awarded and pole erection was ongoing in the various districts, with overall progress at 35% (design and line route survey completed, material procurement at 53%, site construction works at 15%, and commissioning at 0%).

Under GoU Package A, the overall progress of the four (04) lots in the districts of Namutumba, Iganga, Mayuge, Busia, Jinja, Bududa, Mbale, Butalejja, Tororo, Mubende, Kiruhura, Kazo, and Mbarara was at 73% stalled progress. The delay in paying contractors stalled progress, with some Interim Payment Certificates (IPCs) pending for over one and a half years. Most contractors had, therefore, demobilised from the sites.

The construction of the Muzizi B substation and power evacuation lines for Bukinda and Lower Nkusi Hydropower Projects (HPP) in Kibaale District was completed, with the substation energised on 2nd August 2024. The DLP was scheduled to close in August 2025. Construction of the 104 km evacuation line from Sindila and Ndugutu HPPs to the Kanyambeho substation in Fort Portal City, Kabarole reached 29% progress, while the 85 km evacuation line from Lubilia and Nyamagasani I and II HPPs to the Nkenda substation, Kasese stood at 15% progress.

The overall performance of the Transmission and Distribution Sub-programme is summarised in Table 3.6.

³ Lot 1: Eastern Service Territory (Tororo, Kibuku, and Pallisa); Lot 2: Eastern Service Territory (Namutumba, Kumi, Bukedea, Mbale, Serere, Bugiri); Lot 3: North-Western Service Territory (Kibaale, Kakumiro, Hoima, Kikuube, Kagadi); Lot 4: West Nile, Central North and North North-West Service Territories (Zombo, Yumbe, Kole, Gulu, Dokolo, Lira); Lot 5: Western Service Territory (Sheema, Mitooma, Isingiro, Rubanda, Kisoro); Lot 6: Western and Rwenzori Service Territories (Kasese, Kabarole); and Lot 7: Central Service Territory (Kayunga, Mukono, Butambala, Mubende, Kiboga).



Table 3.6: Performance of the Transmission and Distribution Sub-Programme by 30th June 2025

Interventi on	Output	Annual Budget (USh bn)	% of Budget Receiv ed	% of Budget Spent	Annual Target	Cum. Achiev ed Quantit y	Physical Perform ance (%)	Remarks
Expand and rehabilitate the transmissio n network	Distance in km of high voltage lines added to the transmission grid	239	271.4	51	554	416.5	75.2	Mirama-Kabale transmission works completed; and Kole- Gulu-Nebbi-Arua were under defects liability monitoring.
Expand and rehabilitate the distribution network	No. of km of medium voltage lines added to the grid	968	67.0	76	6,000	2,866.0	40.0	All UREAP and TBEA- funded projects completed DLP. Grid extensions under EASP had not yet commenced.
	No. of km of low-voltage lines added to the grid	415	67.0	76	6,000	3,582.0	45.0	
Reduce end-user tariffs	No. of last-mile connections	1	1	1	300,000	197,390	65.8	Connections under EASP were mostly undertaken by UMEME.
							56.5	Output performance
	Outcome Indicator				Annual Target %	Achiev ed %	Score (%)	Remark
	Length of high-voltage transmission network				4,354	2,547	58	
	% of population with access to electricity				60	51	85	
Outcome Performance							72	
Overall Performance							66.4	

Source: Field Findings and MEMD Q4 Reports

Challenges under the Sub-programme

1. Delays in the procurement process have been a major constraint negatively affecting the transmission and electrification projects.
2. Slow implementation of RAP due to the administrative processes and funding shortfalls for this component.

Conclusion

The Transmission and Distribution Sub-programme performance for FY 2024/25 was fair, at 66.4%. Several key milestones were achieved, notably the completion of the Kole-Gulu-Nebbi-Arua and Kabale-Mirama transmission lines. All the rural electrification schemes under the Uganda Rural Electricity Access Project (UREAP) and Bridging Demand through Accelerated Rural (BDAR) were commissioned. However, the programme continued to grapple with challenges arising from delayed compensation on ongoing and completed projects. The issue of procurement delays arising from administrative reviews and other procedural requirements also continued to be a hindrance to project implementation.

Recommendation

The Government should capitalise 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 FY 2024/25 was increased promotion use of new and renewable energy solutions.

The planned outputs under the intervention were: increased deployment of new renewable energy solutions; promotion of off-grid systems based on renewable energy solutions; development of grid-connected renewable energy systems; a net metering framework developed; and technical capacity in renewable energy solutions developed; increased uptake of improved cook stoves.

Performance

The overall performance was fair, at 56.5%. Feasibility studies for four mini-hydropower plants were completed, and institutional capacity building in renewable energy continued during the FY2024/25.

Table 3.7: Performance of interventions under the Renewable Energy Development Sub-programme by 30th June 2025

Intervention	Performance Rating	Remarks
Promote the use of new and renewable energy solutions		Fair performance of 56.5%. The 6 mini-grids were not upgraded due to low funding. 10 institutional cook stoves constructed.
Average output performance		Fair performance of 56.5%

Source: Author's Compilation

Increased deployment of new renewable energy solutions

Feasibility studies for Manafwa Mini-hydro (4.8 MW) in Manafwa, Kyenjoki Mini-hydro (3.5 MW) in Bundibugyo, Bujuku Pico-hydro (30 kW) in Kasese, and Namayiba Pico-hydro (10 kW) in Mbale were completed. The project development of the sites continued to be supported through public-private partnerships (PPPs), concessional financing, and technical assistance from development partners, including GET.FiT, UECCC, GIZ, EnDev, and ElectriFI.



Net metering framework developed

The sensitisation was conducted, and monitoring of the works and performance for the company issued with a licence, as well as the existing net metering systems. Technical capacity in renewable energy solutions was developed.

Capacity building conducted for renewable energy

A total of 275 electricians were trained in repair and maintenance of electric cooking solutions (electric pressure cookers, induction cookers and infrared cookers).

Increased uptake of improved cook stoves

Construction of 65 tubular biodigesters was undertaken. The planned 10 institutional cook stoves in the selected educational institutions were installed. The sites included Rwantsinga High School, Mbarara District; Nyakasura School, Kabarole District; St. Michael High School Rugazi, Rubirizi District; Bukedi College, Kachonga, Butaleja District; Mother Kevin Senior Secondary School, Jinja City; Riverside College Tirinyi (RCT) Seed Secondary School, Kibuku District; Luwero Senior Secondary School, Luwero District; Bombo Army Senior Secondary School; Bulu Parents Senior Secondary School, Butambala District; and St. Andrew Kaggwa's Senior Secondary School, Luwero District.

The performance of the outputs under the Renewable Energy Development Sub-programme is summarised in Table 3.8.

Table 3.8: Performance of the Renewable Energy Development Sub-programme by 30th June 2025

Output	Annual Budget (US\$)	% of Budget Received	% of Budget Spent	Physical Performance Score (%)	Remark
Increased deployment of new renewable energy solutions	0.36	100.0	95	50.00	Feasibility studies for 4 mini-hydro sites completed.
Net metering framework developed	0.36	100.0	95	50.00	Sensitisation for net-metering undertaken.
Capacity building conducted on renewable energy	0.36	-	95	70.00	Training undertaken for electricians in repairing renewable energy devices
Increased uptake of improved cook stoves	0.36	100.0	95	70.00	Cook stoves constructed in 10 selected schools.
Total	1.45	1.45		60.00	Output performance
Outcome Performance		Target%	Achieved%	Indicator performance (%)	
Share of clean energy used for cooking		50	25	50	
Average indicator performance				50	Average indicator performance
Overall Performance				56.5	Overall sub-programme performance

Source: Field Findings and MEMD Q4 Reports



Challenge under the Sub-programme

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

Conclusion

As Uganda makes the transition towards renewable energy, solar energy and mini-grids are steadily expanding electricity access, although clean cooking adoption remains far behind, with most households still relying on biomass. There is a need to scale up solar off-grid systems, expanding mini-grids with stronger financial and regulatory support, while also accelerating the uptake of clean cooking solutions to address health, environmental, and gender challenges.

Recommendation

MEMD should allocate more funding in the MTEF for interventions under the sub-programme, especially installing more mini-grids countrywide to increase electricity access, and the promotion of clean cooking solutions.

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 was the promotion of the use of energy-efficient equipment for both industrial and residential consumers. The planned outputs were: adoption of alternative and efficient cooking techniques; promotion of energy management among high energy-consuming industries; minimum energy performance standards developed; Electric Vehicle and Fuel Efficiency Programme for Uganda implemented; and Efficient and Clean Cooking Programme for Uganda implemented.

Performance of the Intervention

The sub-programme performance was fair, at 51.6% (Table 3.12). The sub-programme did not meet its outcome indicator target of increased adoption of energy-efficient technologies, with 25% achieved of the planned target of 50%.

Table 3.9: Performance of interventions under the Energy Efficiency and Conservation Sub-programme by 30th June 2025

Intervention	Performance Rating	Remarks
Promotion of efficient equipment for both industrial and residential consumers		Fair performance of 51.6%. Most of the planned outputs were not fully delivered.
Average output performance		Fair performance of 51.6%

Source: Author's Compilation

Adoption of alternative and efficient cooking techniques

Consultations were undertaken in collaboration with the Uganda National Bureau of Standards (UNBS) as the development of Minimum Energy Performance Standards (MEPS) for electric cooking appliances progressed. Final draft standards for electric cooking appliances, including standards for electric pressure cookers (EPCs), electromagnetic induction cookers and infrared cookers, are in place.



Promotion of energy management among high-energy-consuming facilities

Preparations for Energy and Minerals Week 2025 were initiated with documentation of the concept. The appraisal of energy efficiency measures for eight public institutions and three industrial parks was undertaken. Certified Energy Manager Training was conducted at Forest Cottages, Bukoto, between 23rd and 27th June 2025, and an evaluation of the Certified Energy Manager Training was conducted.

Minimum Energy Performance Standards (MEPS) enforced

Engagement with the UNBS was concluded on the development of MEPS for Electric Vehicle Supply Equipment (EVSE), personal computers, televisions, electric fans and distribution transformers. In this regard, relevant standards regarding each proposed MEPS have been identified and assigned to the relevant technical committees for drafting.

Electric Vehicle and Fuel Efficiency Programme for Uganda implemented

The engagement with UNBS on the drafting of standards for Electric Vehicle Supply Equipment (EVSE) was conducted, and relevant International Electro-Technical Commission (IEC) and Standardisation (ISO) standards were identified. The review of TOR for the development of a regulatory framework for Electric Vehicle (EV) charging infrastructure was done. The monitoring of the utilisation of two (2) EV chargers installed at Amber House was conducted.

The tailored training on electric mobility was conducted in June 2025, covering introduction to EVs, battery as a core component, energy system impact, and regulation and case studies. This training was part of the process of developing a regulatory framework for EV charging in Uganda. The Department also disseminated information about EV charging during the National Science Week from 15th to 20th June 2025, at Kololo Independence Grounds through an exhibition.

Efficient and Clean Cooking Programme for Uganda implemented

Engagement meetings relating to the establishment of four (04) regional product development, testing and certification centres for cooking appliances were held with Kyambogo University, Busitema University, Gulu University and Nyabyeya Forestry College. The review of the National Integrated Clean Cooking Strategy (NICCS) was also undertaken.

The performance of the Energy Efficiency and Conservation Sub-programme is summarised in Table 3.10.

Table 3.10: Performance of the Energy Efficiency and Conservation Sub-programme by 30th June 2025

Output	Annual Budget (USh)	% of Budget Received	% of Budget Spent	Physical Performance (%)	Remarks
Adoption of alternative and efficient cooking techniques	0.85	0.85	0.83	50.0	Final drafts of standards for electric cooking appliances were made.
Promotion of energy management among high-energy-consuming facilities	0.85	0.85	0.83	50.0	The appraisal of energy efficiency measures for public institutions undertaken.
Minimum energy performance standards developed	0.85	0.85	0.83	50.0	The MEPS were drafted and handed to the technical committees.
Electric Vehicle and Fuel Efficiency Programme for Uganda implemented	0.85	0.85	0.83	60.0	TOR drafted for the development of a regulatory framework for EV infrastructure.
Efficient and Clean Cooking Programme for Uganda implemented	0.85	0.85	0.83	60.0	Engagement meetings relating to the establishment of four (04) regional product development were held.
Total	4.25	4.25	4.14	52.5	Output performance
Indicator		Annual Target	Achieved	Indicator Performance (%)	
Increase adoption of energy-efficient technologies		50	25	50	
Average Indicator Performance				50	Level of achievement of outcomes
Overall Performance				51.6	Overall performance of the sub-programme

Source: Field Findings and MEMD Q4 Reports

Challenges under the Sub-programme

1. There is a lack of incentives to adopt energy-efficiency initiatives due to a lack of legal framework that mandates adoption.
2. The low budget MTEF allocations to the programme have been consistently inadequate for the outputs and activities to have any significant impact.

Conclusion

Overall performance of the sub-programme was fair, at 51.6%. The progress made in the promotion and adoption of energy efficiency in domestic and industrial installations was limited. There is a need to expedite the formulation of the minimum energy performance standards so that there is regulation of the electric appliances that are imported into the market. The sub-programme needs to continue to undertake stakeholder engagement and mass sensitisation so that energy



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

Recommendations

1. MEMD, together with UNBS, should expedite the standards required for the minimum energy performance.
2. MEMD needs to prioritise funding to the sub-programme so that its activities are on a scale that will have an impact countrywide.



CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

4.1 Programme Conclusion

Overall, the energy sector recorded fair progress in FY 2024/25. Significant achievements were registered in generation and transmission. The completion of works and commissioning of Karuma HPP and Nyagak III HPP increased the country's total generation capacity to 2,057 MW. The transmission network expanded to 2,547 km and 43 substations, with the Northern Region, West Nile and Kabale finally connected to the transmission network, and grid reliability improved to 98%. However, performance under rural electrification was poor, constrained by procurement delays and inadequate funding. The Renewable Energy Development Sub-programme registered fair progress, notably through the installation of biodigesters. The construction of improved institutional cook stoves in selected schools, and the adoption of clean cooking strategies progressed, although work on the solar mini-grid remained stalled. The Energy Efficiency and Conservation Sub-programme also performed fairly, with several key outputs, including the procurement of energy audit equipment and the installation of electric vehicle (EV) charging infrastructure, not achieved due to insufficient financing.

4.2 Recommendations

1. MEMD should prioritise funding for the Renewable Energy and Energy Efficiency Sub-programmes so that there is an increase in access to electricity and clean energy sources, especially in the underserved areas.
2. The programme implementing agencies should be more thorough during the procurement process to minimise the delays due to the administrative reviews that arise as a result of poorly handled processes.



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