

The new findings raise questions about compliance with the 2017 Treasury Instructions, which require budget estimates to align with strategic objectives and mandate systematic assessment of asset performance, functionality, and financial viability.

BY YAHUDU KITUNZI

Massive investments in Uganda's hydropower sector are facing scrutiny after new findings revealed persistent revenue shortfalls, and transmission bottlenecks at key generation plants. This has raised concerns about the country's ability to sustain loan repayments and meet its long-term electricity expansion goals.

The Auditor General's report of 2025 indicates that the concerns come as the government pushes to increase national generation capacity to 52,481MW by 2040 under the Uganda Vision 2040, backed by multi-billion-dollar infrastructure investments.

A review of quarterly operations and maintenance reports shows mixed performance across major hydropower stations. While the Nalubaale Power Station-Kiira Power Station complex exceeded expectations by dispatching 778.8GWh (112 percent) against a declared capacity of 695.6GWh, newer plants recorded lower outputs.

The Isimba Hydroelectric Power Station produced a net energy output of 1,046.41GWh, representing 72 percent of its declared available capacity of 1,451.06GWh. More concerning is the performance of the Karuma Hydroelectric Power Station, which generated 808.27GWh—only 30 percent of its declared available capacity of 2,652GWh.

Karuma's operational averages further highlight the challenge. In its first year, the plant operated at an average dispatch of 70MWh, increasing to 116MWh in the second year—both figures falling far below the minimum required dispatch of 300MW per hour necessary to effectively identify and rectify latent defects during the defects liability period.

As a result, the company realised Shs148.16 billion, just 46.8 percent of the projected Shs316.42 billion revenue.

The government constructed Karuma (600MW) and Isimba (183MW) to boost national generation capacity beyond the Nalubaale-Kiira complex, using on-lent loans from the Export-Import Bank of China amounting to US\$1.39 billion and US\$567.7 million respectively.

Bottlenecks

The Uganda Electricity Generation Company Limited (UEGCL) has since engaged the Electricity Regulatory Authority (ERA) and the Uganda Electricity Transmission Company Limited (UETCL) to explore options for allowing additional buyers to purchase

Auditor General raises red flags over power stations



Technicians at the Nebbi power substation. A review of quarterly operations and maintenance reports shows mixed performance across major hydropower stations. PHOTO/FELIX WAROM OKELLO

power directly from it. Transmission constraints remain a critical bottleneck, though.

Several Independent Power Producers (IPPs) were unable to fully evacuate power during the financial year due to grid interruption events linked to line faults, equipment failures, transformer outages, vandalism, SCADA limitations, and other transmission constraints.

As a result, Shs26.94 billion was recognised as deemed energy obligations across the four quarters. These are payments made for power generated but not transmitted.

The Auditor General's report shows that an idle transformer was found in Namanve. This transformer, named 132/33kV Tx1 with a capacity of 40 MVA, had been idle for 27 months due to an inter-turn fault on the red-phase winding. It was last used on March 14, 2023, and has since been decommissioned.

Another idle transformer was identified in Mutundwe. This transformer, named 132/11kV Tx3 with a capacity of 20 MVA, had been idle for eight months. A fault on the blue-phase winding meant it was last used on October 20, 2024. In Lugazi, two idle transformers were found. Ditto at Owen Falls. Agago and Namanve South also had one idle transformer apiece.

The findings raise questions about compliance with the 2017 Treasury Instructions, which require budget estimates to align with strategic objectives and mandate systematic assessment of asset performance, functionality, and financial viability.

Mr Job Kijja, the associate director at Innovations for Democratic Engagement and Action (IDEA), stated that "it is clear from the Auditor General's 2025 report that these so-called 'monuments of engineering' are fast becoming monuments of debt."

He added: "We are witnessing a classic debt trap fuelled by internal negligence. Karuma has become a fiscal black hole. When a project of this magnitude realises less than 47 percent of its expected revenue, the math simply doesn't add up."

Mr Kijja said Karuma is operating below the 300MW/h threshold required to trigger latent defect liability. "This is an engineering scandal. It is like driving a brand-new car only in the parking lot until the warranty expires—only to discover the engine is missing once you hit the highway."

He added that, if the Defects Liability Period (DLP) expires before the plant is stress-tested, contractors will walk away scot-free, leaving Ugandans to shoulder the cost of future repairs.

"While the plan targets 52,481MW, Uganda cannot even evacuate or consume a fraction of that today. Demand projections were either grossly incompetent or deliberately

inflated to justify massive loans."

White elephants?

Mr Kijja is convinced that white elephants have been built on the Nile. "The Auditor General's report shows Uganda is paying Shs26.94 billion in deemed energy—power we cannot use—because the transmission grid is crumbling or non-existent. This is a planning disaster. You cannot build a massive heart (generation) without the veins (transmission lines)."

Dr Paddy Mugambe, the dean of the School of Business and Management at Uganda Management Institute (UMI), stated: With a mismatch between anticipated production capacity and actual output, there is inevitably a mismatch between planned revenue and realised revenue.

He added: "Loan interest payments are fixed against projected income, but when revenue falls short, the government must cover the gap. Since

Uganda has no reserves earmarked for such contingencies, the burden falls squarely on taxpayers—either through higher taxes in the short run or increased borrowing in the long run. This diverts scarce resources away from essential public services toward servicing loans for projects that were poorly timed."

On Vision 2040, Dr Mugambe noted that the plan assumes rapid industrial growth capable of absorbing large amounts of electricity. Yet Karuma's low usage suggests demand has not grown as expected, or that infrastructure and exports have lagged behind. This points to a timing mismatch—generation capacity has been built faster than demand has developed. While the dams remain valuable national assets, underutilisation creates both financial and technical risks. The solution, per Dr Mugambe, lies in growing industrial demand, expanding exports, and ensuring strong oversight.

Mr Enock Kusasira Kabeera, UEGCL's head of communications, explained that Karuma's current output at 30 percent is due not to generation capacity but to limited demand.

"For us, we dispatch what we are asked to dispatch—that is where the challenge lies. The solution is to attract more factories and industries that can consume larger volumes of electricity. Once the distribution network is improved and more people are connected to the grid, UEGCL will be able to produce at full capacity," said Mr Kusasira.

He added that electricity generation is not based on installed capacity alone; it is driven by demand. On Isimba Dam, he noted that operating at 72 percent utilisation is "not bad" compared to Karuma's situation.

Yet vast swathes of Uganda continue to grapple with power outages. Mr Timothy Chemonges, the executive director of the Centre for Policy Analysis (CEPA), says such load shedding stems from transitional weaknesses that became apparent after Umeme's exit.

"The government underestimated the technical and managerial complexities of taking over power distribution without a fully prepared successor," he said. "UEDCL inherited a vast network with limited resources, outdated systems, and staffing gaps, while generation and transmission infrastructure remain weak—especially in linking new dams like Karuma to the national grid."

Maintenance goal

Mr Chemonges advised the government to focus on stabilising operations by improving maintenance, strengthening UEDCL's technical capacity, and providing clear, honest communication about load shedding schedules.

"Quick wins can also come from reducing system losses and ensuring better coordination between generation, transmission, and distribution agencies," he noted, adding, "Sustainable stability will depend on better governance, professional management, and a transparent framework that attracts credible private-sector participation."

Shs148b
KARUMA'S
GENERATED
REVENUE

What they say



Timothy Chemonges,
executive director of
CEPA

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Enock K. Kabeera, UEGCL's head of communications

The solution [to investment power gaps] is to attract more factories and industries that can consume larger volumes of electricity.



Mr Job Kijja, the associate director at IDEA organisation

When a project [Karuma works] of this magnitude realises less than 47 percent of its expected revenue, the math simply doesn't add up.