

By Benon Ojiambo

Government has commenced the process to undertake key studies leading to the development of the proposed 400-megawatt Kiba hydropower plant.

The Ministry of Energy and Mineral Development has hired a consortium of Iranian and Italian companies to undertake feasibility studies and environmental and social impact assessments in preparation to develop the project.

The consortium that consists of Sering International, an Italian engineering consultancy firm, as well as Ab-Niru Consulting Engineers Co. and Aban Pazhou Consulting Engineers Co., is expected to deliver its findings in the next 18 months.

UPSTREAM OF MURCHISON FALLS

The proposed 400MW Kiba is expected to be located in Murchison Falls National Park along River Nile in Nwoya district, upstream of Murchison Falls and downstream of the proposed 840MW Ayago power project. Development of this project is one of the initiatives the Government is taking to increase the country's electricity generation as it races against time to beat the growing demand for the utility.

Proposed Kiba dam feasibility study commences



Eng. Nsubuga (third-right), exchanging copies of signed contracts with representative of the consultants to undertake feasibility studies and social impact assessments of the Kiba dam project

FAST-TRACKING KIBA

"The urgency to fast-track Kiba is demonstrated by the emerging generation deficit and the narrowing firm capacity margin," Ruth Nankabirwa, the minister of energy and Mineral Development, said on Friday during the studies' flag off in Kampala. According to Nankabirwa, Uganda's installed generation capacity currently stands at about 2,094.1 MW.

OPERATIONAL LIMITATIONS

However, she says this does not mean that Uganda is able to generate this full capacity at all times for reasons like hydrological variability especially on small hydro plants, plant availability, intermittency of solar generation, transmission constraints, spinning reserve requirements and other operational limitations. Quoting Uganda Electricity Transmission

Company Limited (UETCL) figures, Nankabirwa said Uganda's available firm capacity is estimated at about 1,450 MW.

This is juxtaposed with a peak system demand that was registered at 1,337.15MW in February 2026, 26MW more than it was recorded in January 2026.

INCREASING PEAK DEMAND

Additionally, the latest UETCL figures indicate that Uganda's peak demand has grown consistently over the last six years, nearly doubling from 737.24MW in 2020 to 1350.61MW by end of last year, driven by new industrial loads, data centres and regional export commitments.

"This leaves a very narrow dependable supply margin, before accounting for new industrial loads, data centres and export growth. The pressure on the system is increasing rapidly. Demand growth in 2025 was estimated at 19.86% for domestic demand and 20.82% for system demand.

At this rate, the country's demand-supply balance will tighten further. Dispatchable generation must be

prepared in time if Uganda is to avoid supply shortages and maintain system reliability," Nankabirwa said.

Eng. Emmanuel Nsubuga, representing the Permanent Secretary, explained that similar studies have been done previously on the project, recommending the establishment of a run-of-river base-load plant with an above-ground powerhouse, similar to the one at Isimba.

POWER GENERATION CONSTRAINTS

Caroline Aguti, the assistant commissioner for health, safety and environment at the energy ministry, urged the consultants to address emerging issues that have been experienced at other facilities such as the water weeds that have affected power generation at Karuma power plant.

Gaetano Beninati, a representative for Sering International said they have been in Uganda for the last ten years and that they have required information.

"We have collected all the necessary information and documents required. We care a lot about the environment and we know very well that we shall focus on maximising as much as possible but we need to take into consideration all the environmental constraints," Beninati said.