

## Uganda mass energy storage

#### Does Uganda have an integrated energy resource master plan?

MEMD (2023b), Concept Note: Developing an Integrated Energy Resource Master Plan for Uganda. UBOS (Uganda Bureau of Statistics) (2021), Statistical Extract. 2. Electricity Uganda's generation mix depends heavily on hydropower, which typically accounts for over 80% of the country's electricity.

#### What is Uganda's energy policy?

The Cabinet adopted the Energy Policy for Uganda in April 2023 and it was launched in September 2023. Regarding renewable energy, the policy states that "The government shall promote the sustainable development and utilization of all renewable energy resources in a socially and environmentally responsible manner" (MEMD, 2023).

#### What is energy access in Uganda?

The Uganda Energy Policy (2023) defines energy access according to the Multi-Tier Framework as the ability to obtain energy that is adequate, available when needed, reliable, of good quality, affordable, formal, convenient, healthy and safe for all required energy applications.

#### What is the biomass energy strategy Uganda?

the Biomass Energy Strategy Uganda (2013). The 2023 National Energy Policystates that the government shall promote "sustainable biomass energy production and utilization across all sectors... equitable and widespread use of affordable, clean and efficient cooking technologies [and]access to affordable, reliable and clean LPG energy services".

#### What energy resources does Uganda have?

Solid biomass, largely firewood, charcoal, and bagasse used in buildings and industry, accounts for 90% of the country's final energy consumption today. Importantly, the country has many domestic energy and mineral resources that can help realise the energy transition. Uganda has ample potential for solar, hydroelectric and geothermal power.

#### How much electricity does Uganda use?

While electricity represents only around 2% of Uganda's total energy consumption, over 80% of generating capacity is based on hydropower. Most of the remainder is also renewable, including several solar photovoltaic (PV) installations and thermal power plants that burn sugar cane bagasse.

In the ETP, Uganda meets its Nationally Determined Contribution (NDC) to the Paris Agreement in 2030 and peaks energy-sector emissions around 2040. Energy-related greenhouse gas emissions reach just above 20 Mt CO 2 -eq by 2030, in the range of Uganda''s mitigation targets specified in its conditional NDC, and peak at around 23 Mt CO 2 -eq ...

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§ Uganda has abundant Energy resources, especially hydrological and other renewable resources, yet there is widespread Energy poverty all over the country. There is an urgent need to develop the resources and improve Energy supply.

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As the government prioritized increasing Uganda's power production, foreign investment in the sector has increased. The Electricity Regulatory Authority (ERA) estimates that as of December 2022, installed electricity capacity in Uganda was 1,402 megawatts (MW) with demand at 843 MW, leaving a surplus of 559 MW.

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The National Energy Policy for Uganda 2023 focuses on expanding the electricity transmission and



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distribution grid networks; increasing energy efficiency; promoting the use of alternative sources of energy; and strengthening the policy, legal and institutional framework.

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