

# **East African Hydropower Energy Storage Project**





## Overview

---

Countries such as Libya, Egypt, Sudan, and the Democratic Republic of Congo (DRC), Ethiopia, Kenya, Rwanda, Tanzania, and Uganda are in Eastern Africa Power Pool (EAPP). In this region, pumped hydr.

What's happening with energy storage in Africa?

A roundup of energy storage news from across the continent of Africa, with Morocco's ONEE shortlisting bidders for a pumped hydro project, Somalia launching a grid-scale solar and storage tender, and a microgrid pairing grid-scale solar, BESS and diesel at a mine in Zambia. Morocco: utility ONEE progresses 300-400MW pumped hydro.

Can hydropower expansion improve energy access in East Africa?

The latest EAPP master plan 10 analyses the sensitivities in hydropower production for specific dry, wet and driest year combinations based on historical hydro inflows. Kammen et al. 11 discuss the inherent risks involved in relying heavily on hydropower expansion to improve energy access in East Africa.

Which country has the largest hydropower potential in East Africa?

Ethiopia is a fast growing economy and Kenya has the largest economy in East Africa; Tanzania or Uganda are rebounding after economic crisis. Ethiopia shows the largest hydropower potential of 260,000; followed by Kenya with 40,000 GWh. Several countries in the region jointly share the electricity generated by some hydropower stations.

Can hydropower improve electricity access in the Eastern African Power Pool?

If you find something abusive or that does not comply with our terms or guidelines please flag it as inappropriate. Notwithstanding current heavy dependence on gas-fired electricity generation in the Eastern African Power Pool (EAPP), hydropower is expected to play an essential role in improving electricity access in the region.

What role does hydropower play in Africa's Development?



Hydropower's role in Africa's development is growing, but it starts from a low base. Approximately 10% of the continent's technical potential has been harnessed to date, yet the sector already delivers around 20% of electricity generation from a total installed capacity of 43.5GW of conventional hydropower.

What is the Africa hydropower modernisation programme?

Modernising existing assets is also a strategic priority. The African Development Bank has launched the Africa Hydropower Modernisation Programme, backed by an initial budget US\$9.72 million. It will support the modernisation of 12 privately led projects in eight countries.



## East African Hydropower Energy Storage Project

---



### HydroNews Africa & the Middle East

As Africa and the Middle East face growing energy demands, hydropower is taking center stage in the shift toward clean, reliable, and affordable energy. In our latest special edition of ...

### Hydropower Archives

Hydropower Business and markets Zambia: Govt cuts red tape to spur uptake in solar energy projects 14 April 2025 Business and markets Kenya: Marked increase in EV energy use, ...



### Energy Storage: The key to energy access in East Africa

Pumped hydro dams are prominently used as energy storage in East Africa, but that is changing with the increase in renewable energy and battery energy storage systems.

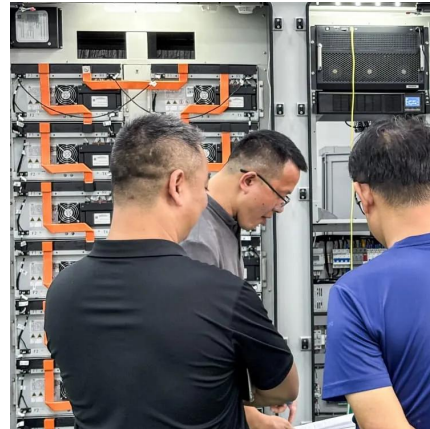
### Hydropower in East Africa

Ethiopia shows the largest hydropower potential of 260,000; followed by Kenya with 40,000 GWh. Several countries in the region jointly share the





electricity generated by some hydropower ...



### [Top 5 largest energy storage projects in Africa](#)

The Noor I CSP plant features a full-load molten salt storage capacity of three hours, while the Noor II and III CSP plants are able to store ...



### **Twelve moments that shaped the future of sustainable hydropower ...**

XFLEX HYDRO underscores the enduring relevance of hydropower, a renewable energy technology that has been a cornerstone of power systems for over 150 years, while uncovering ...



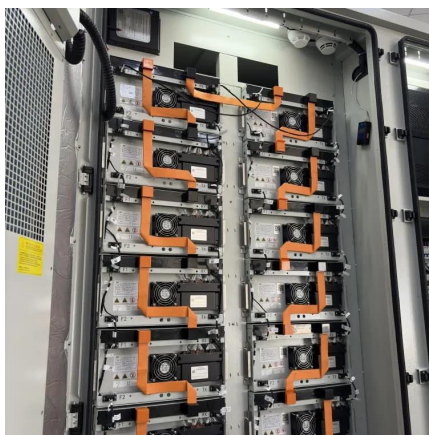
### **Africa hydropower regional profileHydropower in Africa**

The strategy targets a 17% increase in hydropower generation from 2023 levels and includes 7.8GW of new hydro and pumped storage capacity in Siberia ...



## Ethiopia Drives East Africa's Hydropower Boom as Region ...

Globally, over 475 GW of conventional hydropower and 600 GW of pumped storage projects are in the pipeline. But challenges such as climate change, water shortages, ...

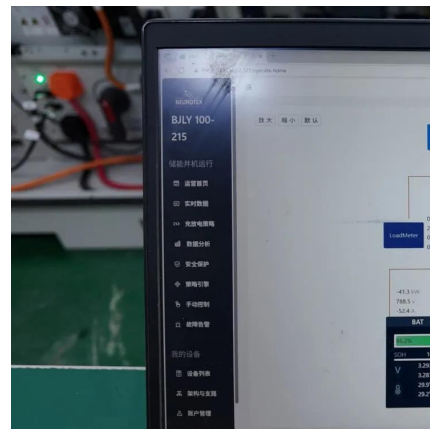


## [Top 5 largest energy storage projects in Africa](#)

The Noor I CSP plant features a full-load molten salt storage capacity of three hours, while the Noor II and III CSP plants are able to store energy for up to seven hours each, thus ...

## Africa: energy storage news from Morocco, Somalia and Zambia

A roundup of energy storage news from across the continent of Africa, with Morocco's ONEE shortlisting bidders for a pumped hydro project, Somalia launching a grid ...



## Applicability of Hydropower Generation and Pumped Hydro Energy Storage

Energy storage for medium- to large-scale applications is an important aspect of balancing demand and supply cycles. Hydropower generation coupled with pumped hydro storage is an ...



## Hydropower in East Africa

Ethiopia shows the largest hydropower potential of 260,000; followed by Kenya with 40,000 GWh. Several countries in the region jointly share the electricity ...

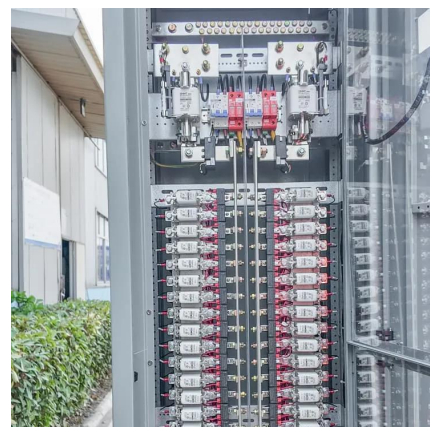


## Resilience of the Eastern African electricity sector to

In this study, we develop a framework consisting of long-term models for electricity supply and water systems management, to assess the vulnerability of potential expansion ...

## Drivers, Impacts and Mitigation of Increased ...

Hydropower reservoirs are essential for the climate-neutral development of East Africa. Hydropower production, however, is threatened ...





## Major Energy Infrastructure Projects: Top 10 in Africa ...

These top 10 major energy infrastructure projects are on the way to draw out the future energy security. Among the biggest hydropower dams ...

## Greening hydropower in Africa

Hydropower dams offer a pathway for low-carbon energy supply in Africa, yet unchecked dam expansion can harm the environment. A study shows how the integration of ...



## The role of energy storage in supporting Africa's hydropower projects

With an abundance of hydropower potential, African nations are increasingly looking to boost their energy independence through investments in storage technology.

## Rubagabaga

EAP developed, engineered, financed, constructed and now operates the plant. Rubagabaga HPP was the first containerized plug & play hydropower project in Africa and received an ...





## Investments in the Power Sector in Africa: 700 large projects

More than 200 large, ongoing, and upcoming solar power projects represent the largest share of renewable energy projects in Africa. Hydropower comes in second with about 100 projects. A ...



## Applicability of Hydropower Generation and Pumped Hydro ...

This work reviews the technological feasibility of hydropower generation and also pumped hydro storage and its geographical distribution around the world. There is also an emphasis on ...



## [Top 5 Largest Energy Storage Projects in Africa](#)

With the energy transition currently underway in Africa, the rapid increase in energy production to meet both demand and emissions reduction ...





## Ethiopia leads East Africa's hydropower surge, reflecting global ...

The sector is also experiencing rapid growth in pumped storage hydropower (PSH), which is crucial for grid stability and integrating variable renewables. The global ...



## Africa hydropower regional profileHydropower in Africa

The strategy targets a 17% increase in hydropower generation from 2023 levels and includes 7.8GW of new hydro and pumped storage capacity in Siberia and the Far East.

## The role of energy storage in supporting Africa's hydropower ...

With an abundance of hydropower potential, African nations are increasingly looking to boost their energy independence through investments in storage technology.



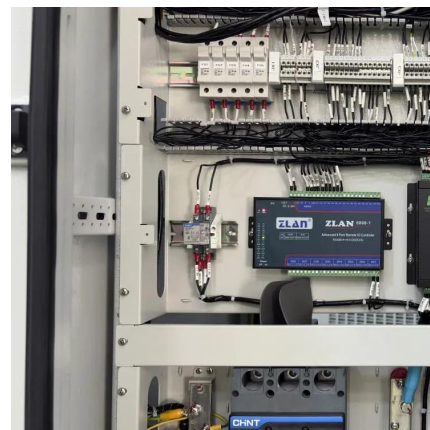
## Op-Ed: Energy storage is the key to energy access in East Africa

Pumped hydro dams are prominently used as energy storage in East Africa, but that is changing with the increase in renewable energy and battery energy storage systems.



## Applicability of Hydropower Generation and Pumped ...

Applicability of Hydropower Generation and Pumped Hydro Energy Storage in the Middle East and North Africa - Free download as PDF File (.pdf), Text File ...



## Hydropower growth in Africa needs to double to meet IEA ...

The International Energy Agency (IEA) recently launched its Africa Energy Outlook 2022. The report explores how to transform Africa's energy sector to achieve development ...

## Africa: energy storage news from Morocco, Somalia ...

A roundup of energy storage news from across the continent of Africa, with Morocco's ONEE shortlisting bidders for a pumped hydro project, ...





## Rubagabaga

EAP developed, engineered, financed, constructed and now operates the plant. Rubagabaga HPP was the first containerized plug & play hydropower project ...

## Hydropower in South and Central Asia

South and Central Asia advance hydropower through regional cooperation, cross-border energy trade, and major project milestones supporting shared energy security.



## Contact Us

---

For catalog requests, pricing, or partnerships, please visit:  
<https://talbert.co.za>