

# Botswana electricity storage and renewables

Can Botswana improve domestic energy security and access to modern energy services?

Significant wind and solar potential and abundant biomass residues present considerable opportunities for Botswana to enhance domestic energy security and increase access to modern energy services, according to a new report published by the International Renewable Energy Agency (IRENA).

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

A prominent objective of the Policy is to achieve a substantive penetration of new and renewable energy sourcesin the country's energy mix; the goal is to attain adequate economic energy self-suficiency and security, as well as positioning Botswana to fulfil its vision in becoming a regional net exporter, especially in the electricity sector.

## What is Botswana's primary energy supply?

Botswana's total primary energy supply (TPES) is fossil-based and largely reliant on oil products and coal, complemented by biomass and waste energy. A large proportion of TFEC comes from biomass energy in the form of traditional wood fuel (27.8%).

#### What is Botswana's energy potential?

For Botswana, the following technical potentials were identified: Wind (high capacity factor) - 1 152 MW. The least-cost analysis estimated a potential of 199 MW from renewable energy, 139 MW of which in utility-scale projects and 60 MW of-grid. The firm reserve margin would reach 23% in 2030, with zero net imports.

## What is the energy balance in Botswana?

Figures 6 and 7 present the energy balance in Botswana for 2018, describing the flows from production and imports (Figure 6) to total final energy consumption (Figure 7). Botswana's total primary energy supply (TPES) primarily comprises oil products (34.7%), coal (47.7%) as well as (traditional) biofuels and waste (19.1%), (Figure 6).

#### Who regulates the electricity sector in Botswana?

The Ministry of Mineral Resources, Green Technology and Energy Security (MMGE) leads the electricity sector through the Department of Energy, while the Botswana Energy Regulatory Authority (BERA) is tasked with regulating the sector by guaranteeing a competitive environment.

This new World Bank project will finance the necessary grid investment and Botswana's first 50MW utility-scale battery energy storage system to enable the first wave of renewable energy ...

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Botswana to enhance domestic energy security and increase access to modern energy services, according to ...

Establish a grid code that is conducive to variable renewable power; Revise the tariff-setting structure; Define a clear regulatory framework to manage risks involved in private sector participation; Perform a location ...

Botswana has vast, untapped renewable energy resources. It has set an admirable target of increasing renewable energy to 30 per cent of its energy mix by 2030 and 50 per cent by 2036. Also, the first wave of 335MW ...

Significant renewable energy potential presents opportunities for Botswana to enhance energy security and increase access to modern energy services. This is according to a new report published by the International ...

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