# **SOLAR** PRO. Eswatini solin energy

### Is Eswatini a sustainable country?

A nation that has long relied on neighboring South Africa and Mozambique for unsustainable fossil fuel-based electricity imports, renewable energy in Eswatini is quickly diversifying. The transformative journey culminated at the COP26 conference, where Eswatini committed to an ambitious 50% surge in renewable energy production by 2030.

#### Are solar panels a viable source of electricity in Eswatini?

Photovoltaic (PV) solar cells are increasingly prominent sources of small-scale electricity productionin Eswatini. The government actively encourages the adoption of solar panels in residential and commercial buildings to provide both electricity and water heating.

#### What is Eswatini's energy revolution?

Eswatini's energy revolution is a testament to its dedication to sustainability and self-sufficiency. As Eswatini strides into the future with renewable energy,the convergence of local innovation,international collaboration and growth-oriented policies promises to illuminate every corner of the nation.

### What is the main energy source in Eswatini?

Hydroelectric powercurrently stands as one of the most prominent energy sources in Eswatini. The EEC operates four hydropower plants, constituting 15% of the country's electricity production and plans to bolster the existing infrastructure.

#### Why is Eswatini energy system important?

These resources could meet the entire national demand for electricity if fully exploited, whilst the excess energy could provide exporting opportunities to Eswatini's neighbours. The overall goal for the Eswatini energy system is therefore to reduce dependency on electricity imports.

#### What challenges does Eswatini face?

The key challenge facing the country's energy system is a lack of security of energy supply: Eswatini imports around 70 percent of its power, despite being well-endowed with conventional and renewable energy resources, including coal, solar, hydro, wind and biomass residues from the sugar and forestry industries.

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It aims to align growth and development with Eswatini's NDC commitment to generate 50% of energy from renewable sources by 2030 and COP 28 goals to shift from fossil fuels to green energy by 2048. In Eswatini, access to electricity stands at 85%, with a current demand of 233 MW and growing.

Edwaleni Solar Power Station, is a 100 megawatts solar power plant under construction in Eswatini. The solar farm is under development by Frazium Energy, a subsidiary of the Frazer Solar Group, an Australian-German conglomerate. The solar component is complemented by a battery energy storage system, expected to be

Eswatini is investing in renewable energy infrastructure and financing for new installations. Governmental initiatives, alongside private sector investments, are focusing on harnessing Eswatini's abundant renewable energy potential, including hydroelectricity, solar power and biomass.

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renewable energy while addressing global challenges such as climate change, energy security, and economic resilience. In the context of evolving energy landscapes, embedded solar generation emerges as a key component of future-ready power systems. By integrating solar power generation directly into homes, businesses, and industrial operations,

developing areas. Energy self-sufficiency has been defined as total primary energy production divided by total primary energy supply. Energy trade includes all commodities in Chapter 27 of the Harmonised System (HS). Capacity utilisation is calculated as annual generation divided by year-end capacity x 8,760h/year. Avoided

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- 6 ???· The policy brief presents a road plan for the Kingdom"s Just Energy Transition. It seeks to link growth and development with Eswatini"s Nationally Determined Contributions (NDC) pledge to generate 50% of its energy from renewable sources by 2030, as well as COP28"s goal of transitioning from fossil fuels to renewable energy by 2048.
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