Swaziland residential energy storage

Swaziland residential energy storage

The Kingdom of Eswatini, formerly known as Swaziland, has began the procurement process for 40 MW of PV capacity. The projects, which will be assigned by 2020, will also include 40 MW of biomass. The new capacity will make the kingdom less dependent on power imports from South African utility Eskom, which currently faces a financial and operational crisis.

The Eswatini Energy Regulatory Authority (ESERA) has begun the process of procuring new generating capacity from independent power producers, with the support of Eswatini"s Ministry of Natural Resources and Energy (MNRE).

The authority now seeks to create a database of parties who may be interested in participating in the development of 40 MW of solar by 2020 and 40 MW of biomass by 2021. The projects, which will be part of the MNRE" recently released Short-Term Generation Expansion Plan, will be designed to reduce the country"s dependence on power imports from troubled South African utility Eskom, which is currently grappling with a financial and operational crisis.

"Due to the constraints faced by Eskom and the expected significant tariff increases from Eskom, the reliance by Eswatini on electricity imports from South Africa is no longer secured,” the ESERA said in the document.

Formerly known as Swaziland, the Kingdom of Eswatini issued its first utility-scale solar tender in June. It aims to increase the share of renewables in the country"s electricity mix to 50% by 2030. The current installed capacity of Eswatini Electricity Co. (EEC), a state-owned utility formerly known as Swaziland Electricity Co. (SEC), is only around 60 MW, which is enough to cover just 10% of the kingdom"s electricity demand. The vast majority of the electricity the small country consumes comes from Mozambique and South Africa, via the Southern African Power Pool (SAPP).

To get an accurate picture of energy efficiency in a country, it is important to first look at how and where energy is being used. Total final consumption (TFC) is the energy consumed by end users such as individuals

and businesses to heat and cool buildings, to run lights, devices, and appliances, and to power vehicles, machines and factories.

One way of looking at the overall energy efficiency of a country is to measure the total energy supply per unit of economic output (here adjusted for purchasing power parity). This reflects not only energy efficiency but also the structure of the economy, with services-oriented economies generally having a lower energy intensity than those based on heavy industry.

In most countries, heating and cooling make up the largest share of energy use in homes. While air conditioners, appliances and lights generally run on electricity, combustible fuels such as natural gas, oil, coal and biomass are still widely used for heating and cooking. Electrifying these end uses, for example by replacing fossil fuel boilers with efficient electric heat pumps, will be important for reducing CO2 emissions.

Residential energy intensity is largly driven by space heating, and to a lesser extent appliances. To allow cross-country comparisons, it is measured by floor area and temperature-corrected.

In most countries, transport energy use is dominated by oil used to fuel passenger cars, trucks and airplanes. Electrification of the transport sector, for example through the widespread rollout of EVs, is an important strategy for reducing CO2 emissions.