

Gigawatt of solar energy in Bhutan





Overview

How much solar energy will Bhutan produce?

According to the Renewable Energy Management Master Plan 2016, Bhutan has the potential to generate 12 gigawatts of solar power and 760 MW of wind energy. The first phase of the Sephu solar farm is expected to produce 25 million units of energy, enough to power 3,476 households, assuming an average urban household consumes five kilowatts of energy.

What is Bhutan's first solar power project?

The first phase of Bhutan's first utility-scale solar power project at Sephu in Wangdue Phodrang is set for completion by March next year. A utility-scale solar facility generates solar power and feeds it into the grid. The 17.38-megawatt solar farm is expected to generate around 24 million units of energy annually, once operational.

How much power does Bhutan have?

Bhutan's installed power generation capacity is approximately 1.6 gigawatts (GW). Over 99 percent of the country's installed capacity comes from hydropower plants, accounting for 1,614 megawatts (MW) of the country's total capacity of 1,623 MW in 2018. More than 99.97 percent of households have access to electricity.

How does electricity generation work in Bhutan?

In Bhutan, after the water falls through the turbines at the generating station, it flows through an exit tunnel, or tail race, rejoining the river 1.0 km downstream. Electrical energy is generated at the Chukha plant. Bhutan is a land-locked nation with many mountain glaciers and rivers. Only about 5% of the electrical energy generated at the Chukha plant is used in Bhutan.



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ENERGY PROFILE Bhutan

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