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# Solar power generation in Nepal is energy storage

## Overview

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According to a report released by energy think tank EMBER in October 2025, solar alone contributed 83 percent of the rise, while fossil fuels saw a slight decline, with generation falling in China and India. Nepal has a solar power potential of 432 gigawatts (432,000 megawatts), over ten times.

Estimates suggest the country can generate up to 50,000 terawatt-hours (TWh) of solar energy annually, which is approximately 7,000 times more than its current electricity consumption. These figures may appear imaginative, but in fact, Nepal is falling short of exploiting the basic potential of.

We have developed nearly 4000 megawatts of generation capacity, with hydropower and solar contributing almost entirely—making Nepal one of the greenest electricity producers in the world. Blessed with an estimated 83,000 MW of hydropower potential and about 42,000 MW of pumped storage potential.

Pumping water using daylight electricity in pumped storage, for peak generation. Increased solar PV deployment in Nepal can lead to periods of excess electricity generation during peak sunlight hours. Solar PV provides substantial opportunities for substantial, secure, rapidly-deployed.

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