

## **SolarInnovate Energy Solutions**

# **Communication base station solar photovoltaic power plant where in China**



## Overview

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Located in Kela Township, Yajiang County, Tibetan Autonomous Prefecture of Ganzi, southwest China's Sichuan Province, at an average altitude of 4,600 meters, it officially started grid-connected power generation on June 25, 2023. Does China have a spatial map of PV power stations?

Although some researchers released several PV power station maps, most only met a medium resolution of 30 meters [9, 10]. There thus still lacks a national map of China's PV power stations with a higher spatial resolution (i.e., 10 meters) that could provide a global understanding of PV's spatial deployment patterns.

Are ground-mounted PV power stations in China based on Sentinel-2 imagery?

Scientists led by the China Agricultural University have created a national-scale map and dataset of ground-mounted PV power stations in China. The data is based on Sentinel-2 imagery from 2020 and has a spatial resolution of 10 meters.

How many ground-mounted PV power stations are there in China?

According to our dataset, China has a total of 2467.7 km<sup>2</sup> ground-mounted PV power stations in 2020. The top three largest provinces refer to Xinjiang, Inner Mongolia and Qinghai, whose PV area ratio are 14.92%, 12.49% and 11.26%, respectively, with a total of nearly 40% of all the PV power stations of China.

Where are PV power stations located in China?

Interestingly, a large number of PV power stations lie along the Great Wall (including the northern parts of Hebei, Shanxi, Shaanxi, Ningxia and Gansu Province) and the Silk Road (mainly refers to Gansu and Xinjiang Province).

What is remote sensing derived dataset for large-scale photovoltaic power stations in China?

We provide a remote sensing derived dataset for large-scale ground-mounted

photovoltaic (PV) power stations in China of 2020, which has high spatial resolution of 10 meters. The dataset is based on the Google Earth Engine (GEE) cloud computing platform via random forest classifier and active learning strategy.

How big is China's ground-mounted solar power station?

The tool shows China ground mounted solar facilities occupied a surface of 2,467.7 km<sup>2</sup> at the end of December 2020. Scientists led by the China Agricultural University have created a national-scale map and dataset of ground-mounted PV power stations in China.

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