Solar rooftop power generation data

Overview

The National Laboratory of the Rockies Photovoltaic (PV) Rooftop Database (PVRDB) is a lidar-derived, geospatially-resolved dataset of suitable roof surfaces and their PV technical potential for 128 metropolitan regions in the United States. The PVRDB data are organized by city and year of lidar. A group of scientists has developed an open-source dataset comprising three years' worth of data from Hong Kong's largest behind-the-meter rooftop solar power project. Power generation was collected at 5-minute intervals, and meteorological data at 1-minute. Scientists from the Hong Kong University. Solar rooftop potential for the entire country is the number of rooftops that would be suitable for solar power, depending on size, shading, direction, and location. Access our tools to explore solar geospatial data for the contiguous United States and several international regions and countries. Dive into stories demonstrating POWER's impact worldwide. You can find more about Ember's methodology in this.

Solar rooftop power generation data

Estimating rooftop solar technical potential across the US

We provide a detailed estimate of the technical potential of rooftop solar photovoltaic (PV) electricity generation throughout the contiguous United States.

Solar Rooftop Potential

Satellite maps, irradiance data, equipment specifications, and other factors inform the bids that installers present to customers to assist them in understanding the potential costs and benefits of solar panels ...

Solar Resource Data, Tools, and Maps , Geospatial Data Science , NLR

Solar Resource Maps and Data Find and download resource map images and data for North America, the contiguous United States, Canada, Mexico, and Central America. Solar Supply ...

Open-source dataset for rooftop PV generation in urban environments

Scientists from the Hong Kong University of Science and Technology have created a new high-resolution three-year dataset of rooftop PV generation in urban environments. The open-source ...

NASA POWER , Homepage

NASA POWER's Dependable Data Ensures Dependable Energy for U.S. Utility Company Reliable solar and weather data provides accurate performance monitoring for 360 community solar garden ...

Application of Satellite Data for Estimating Rooftop Solar

High-quality satellite and reanalysis data were used to determine the power output of the solar photovoltaics. Additionally, high-resolution (2 m × 2 m) European Settlement Map data, ...

Forecasting rooftop photovoltaic solar power using machine learning

This study uses machine learning ensemble models to predict solar power

at Commercial building of Saudi Arabia, KSA. The meteorological data gathered from the research location includes ...

Solar power generation, 2025

Electricity generation from solar, measured in terawatt-hours.

A high-resolution three-year dataset supporting rooftop photovoltaics

The dataset comprises measured PV power generation data and corresponding on-site weather data gathered from 60 grid-connected rooftop PV stations in Hong Kong over a three-year ...

PV Rooftop Database -- OpenEnergyDataPortal

The National Laboratory of the Rockies

Photovoltaic (PV) Rooftop Database (PVRDB) is a lidar-derived, geospatially-resolved dataset of suitable roof surfaces and their PV technical ...

Contact Us

For catalog requests, pricing, or partnerships, please visit: https://www.kidsandparents.pl