Solar Panel Potential Energy

Reason:

Optimizing solar energy output will encourage investment in renewable energy and lead to a cleaner planet.

-predictability and efficiency

Description of the data sources:

NIST Photovoltaic Array Database - https://pvdata.nist.gov/

Features: A database covering minute to minute solar panel output and weather data from 2015 to 2018.

Extract data from: https://developer.nrel.gov/.

Features: Database covering hourly weather data. We can customize the api attributes based on features we need.

Questions

Can data analysis be used to more strategically implement solar arrays?

Can one predict the output of a solar panel array based on weather data?

Is there a particular set of conditions (features) that optimizes panel output?

Data Exploration

Analysis