

Prediction of the Efficiency of Energy Generation from Renewable Sources

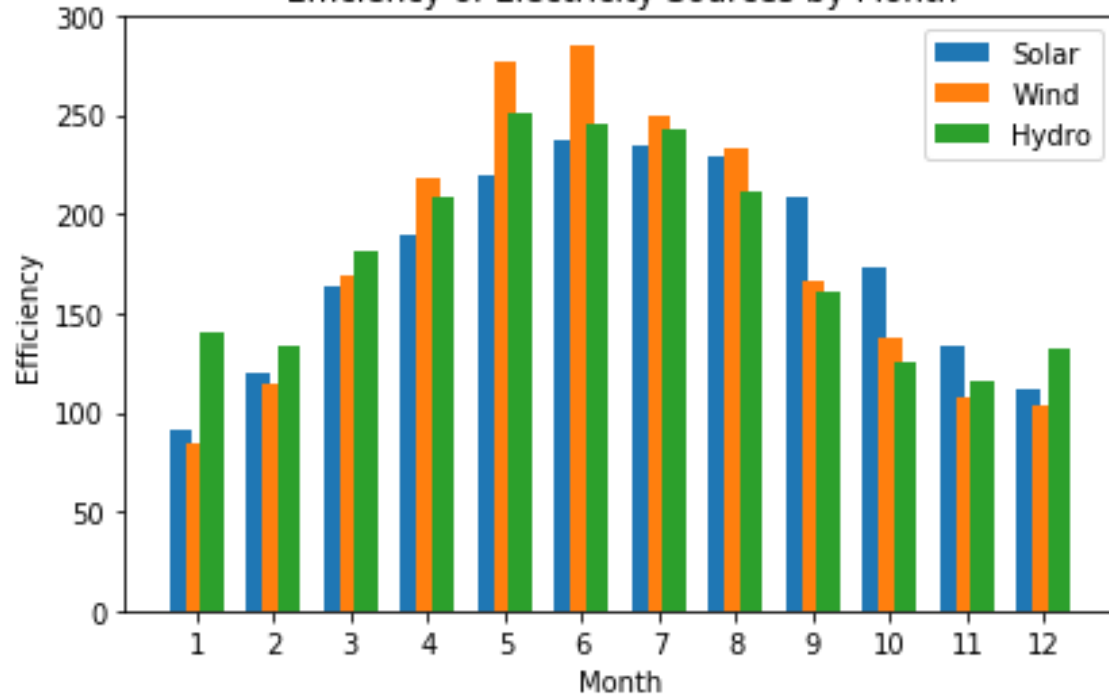
Michael Humbert

Introduction

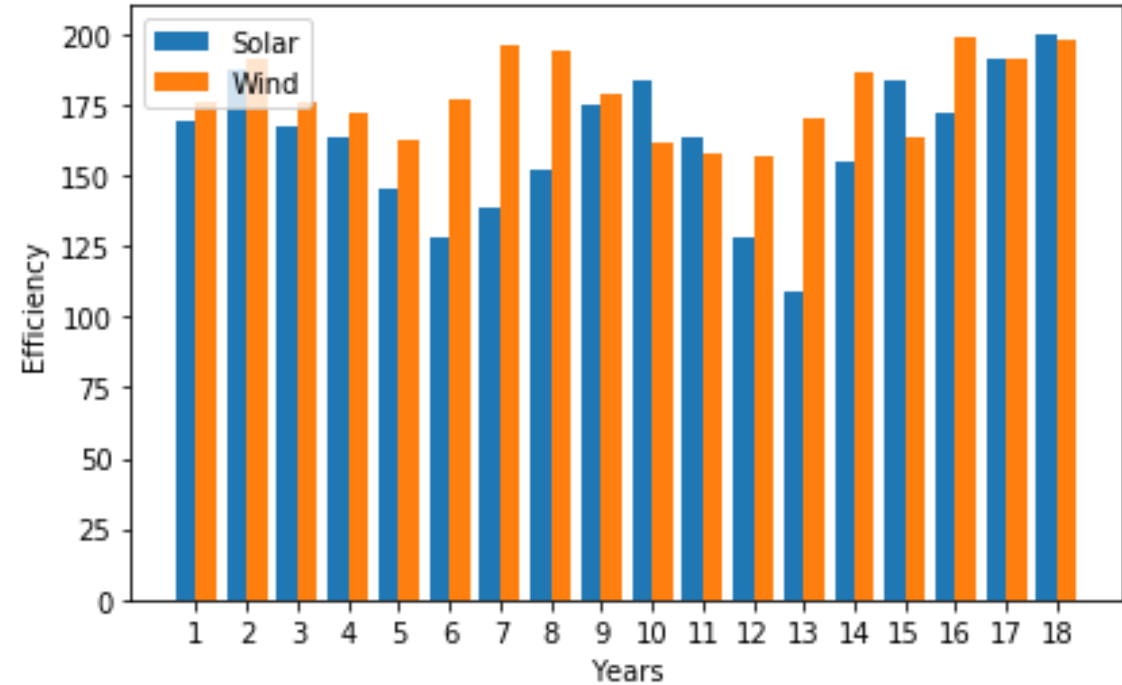
- Renewable energy is a necessity for a sustainable future
- Production from renewable energy sources is highly variable
- Energy can be purchased and stored during periods of high production/low demand to be sold in periods of low production/high demand

California Energy Production over Time

Efficiency of Electricity Sources by Month

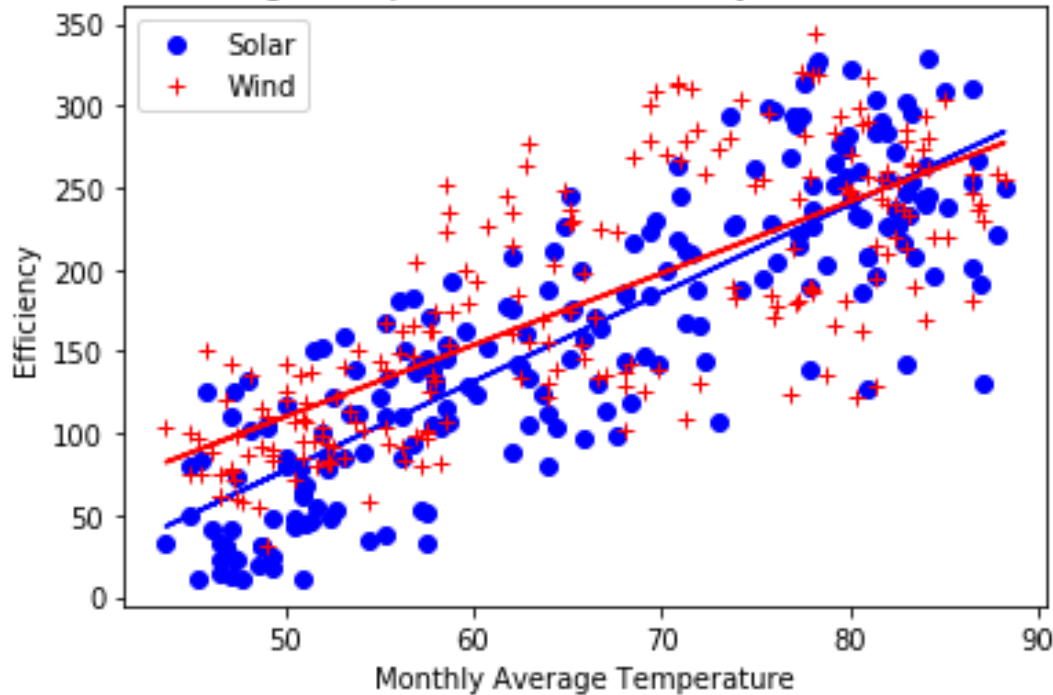


Efficiency of Electricity Sources by Year

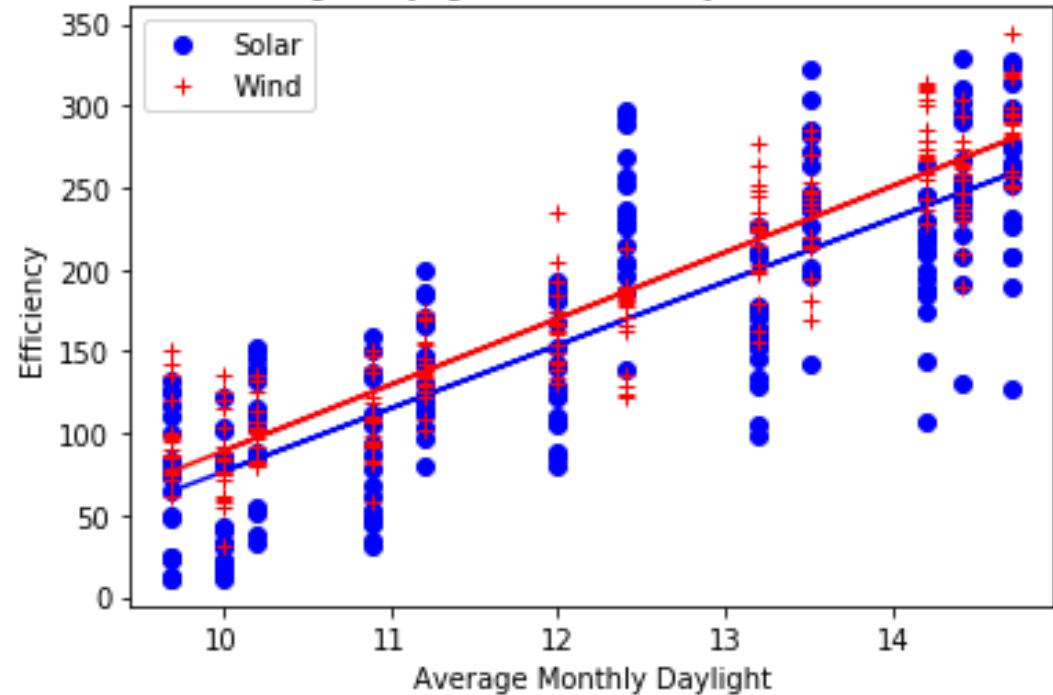


Possible Explanations for Monthly Differences

Affect of Average Temperature on Efficiency of Electrical Generation

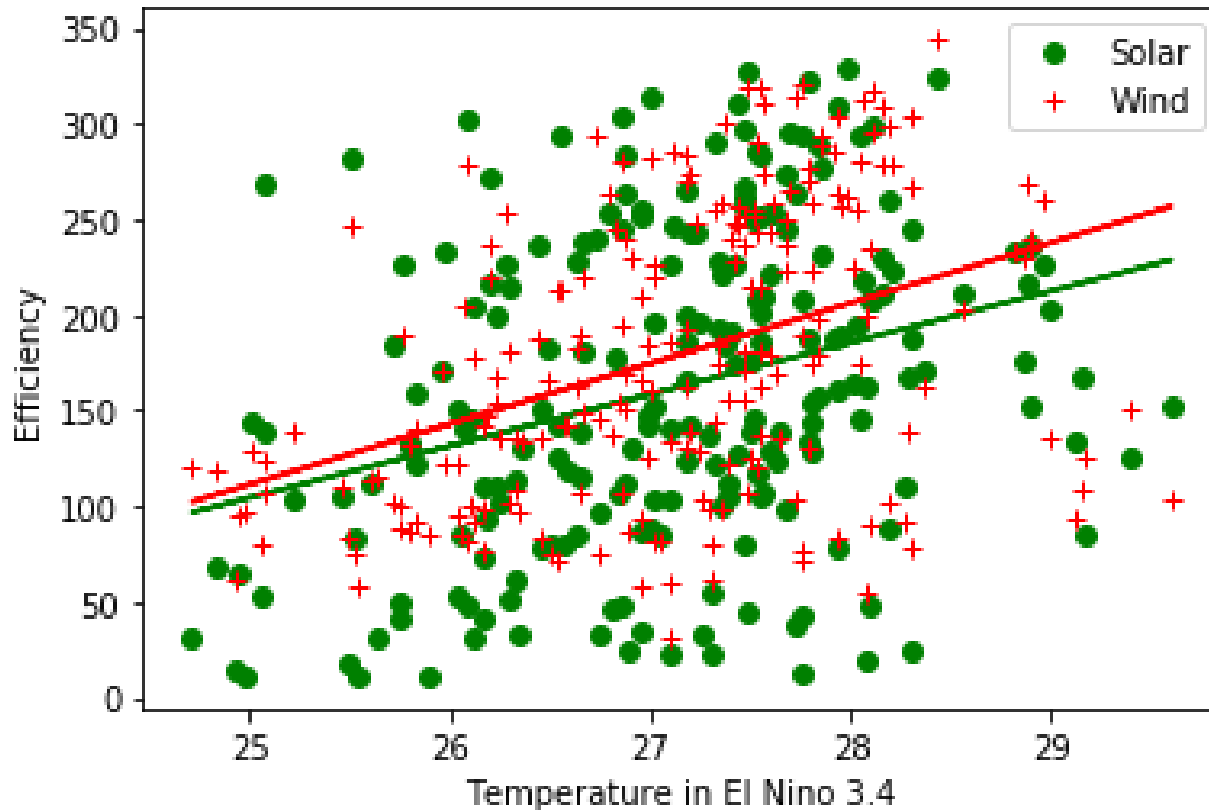


Affect of Average Daylight on Efficiency of Electrical Generation



Possible Explanations for Yearly Differences

Affect of Ocean Temperature on Efficiency of Electrical Generation



- Other possible data sources
 - Wildfires
 - Pollution