

Should You Invest in Solar Panels?

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Motivation

Considerations when buying solar panels:

Cost

- Installation
- Maintenance
- Rebates

Return

- Power generated
- Cost of electricity
- Household electricity budget

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Cost

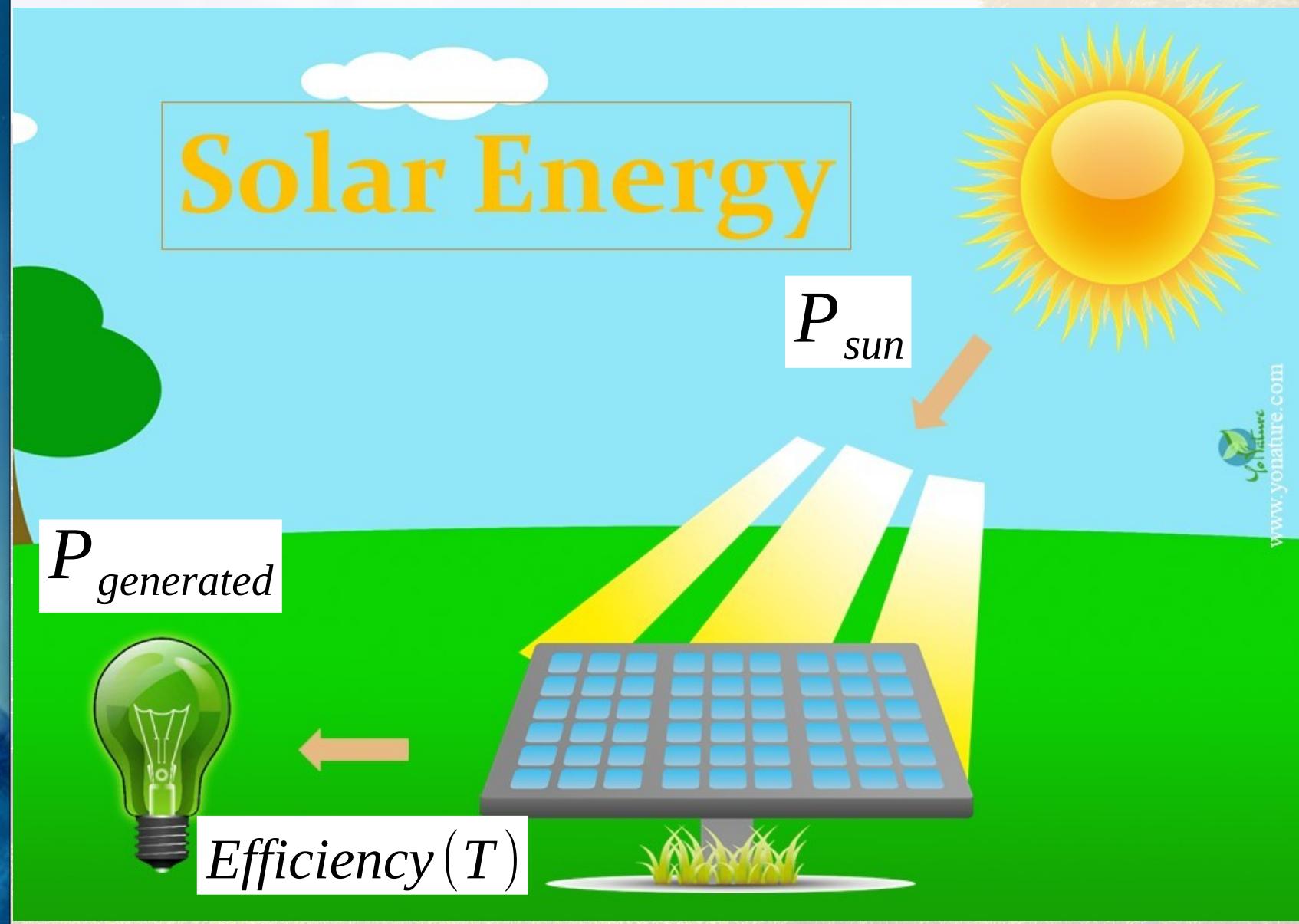
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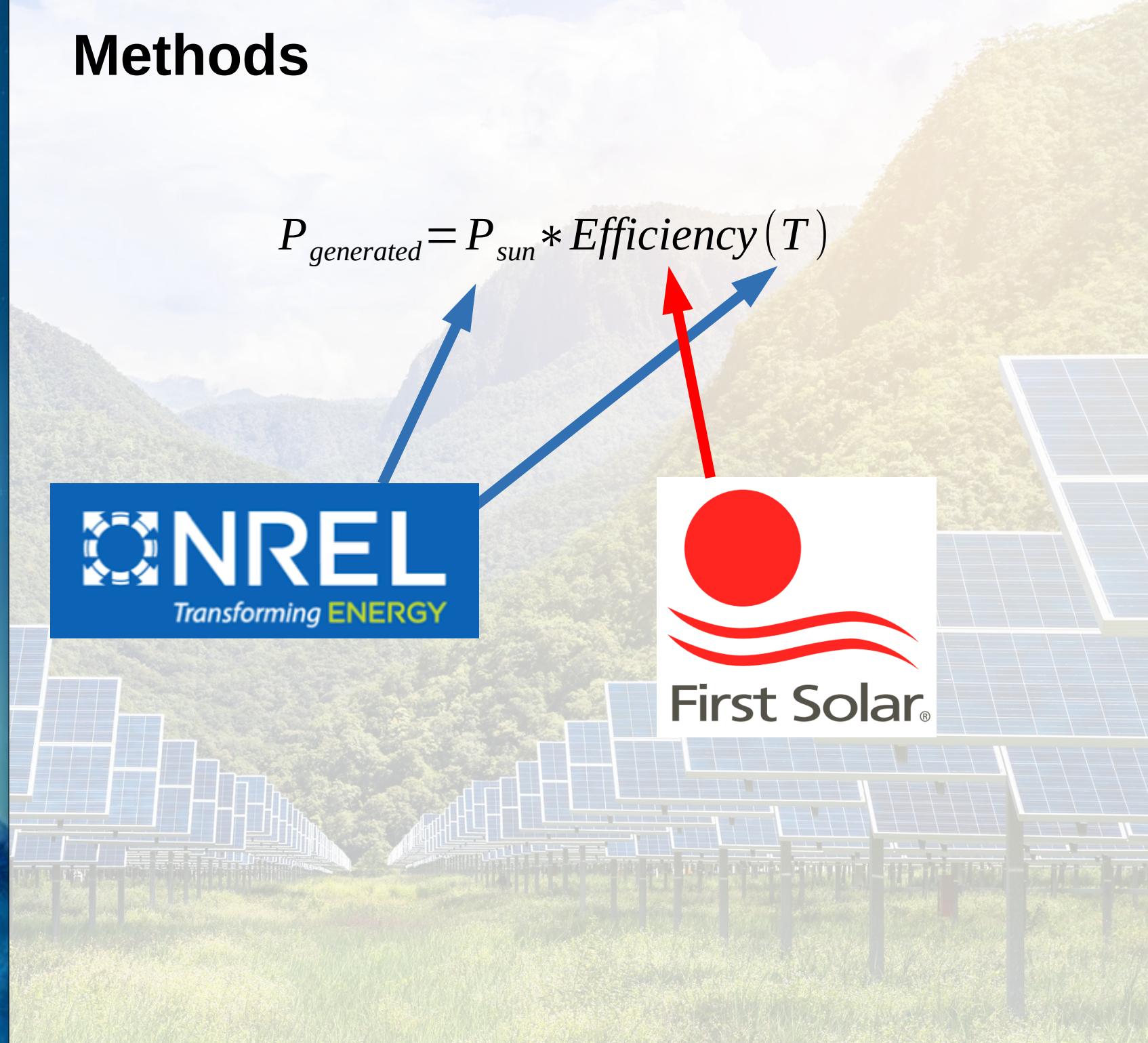
Methods

$$P_{generated} = P_{sun} * Efficiency(T)$$

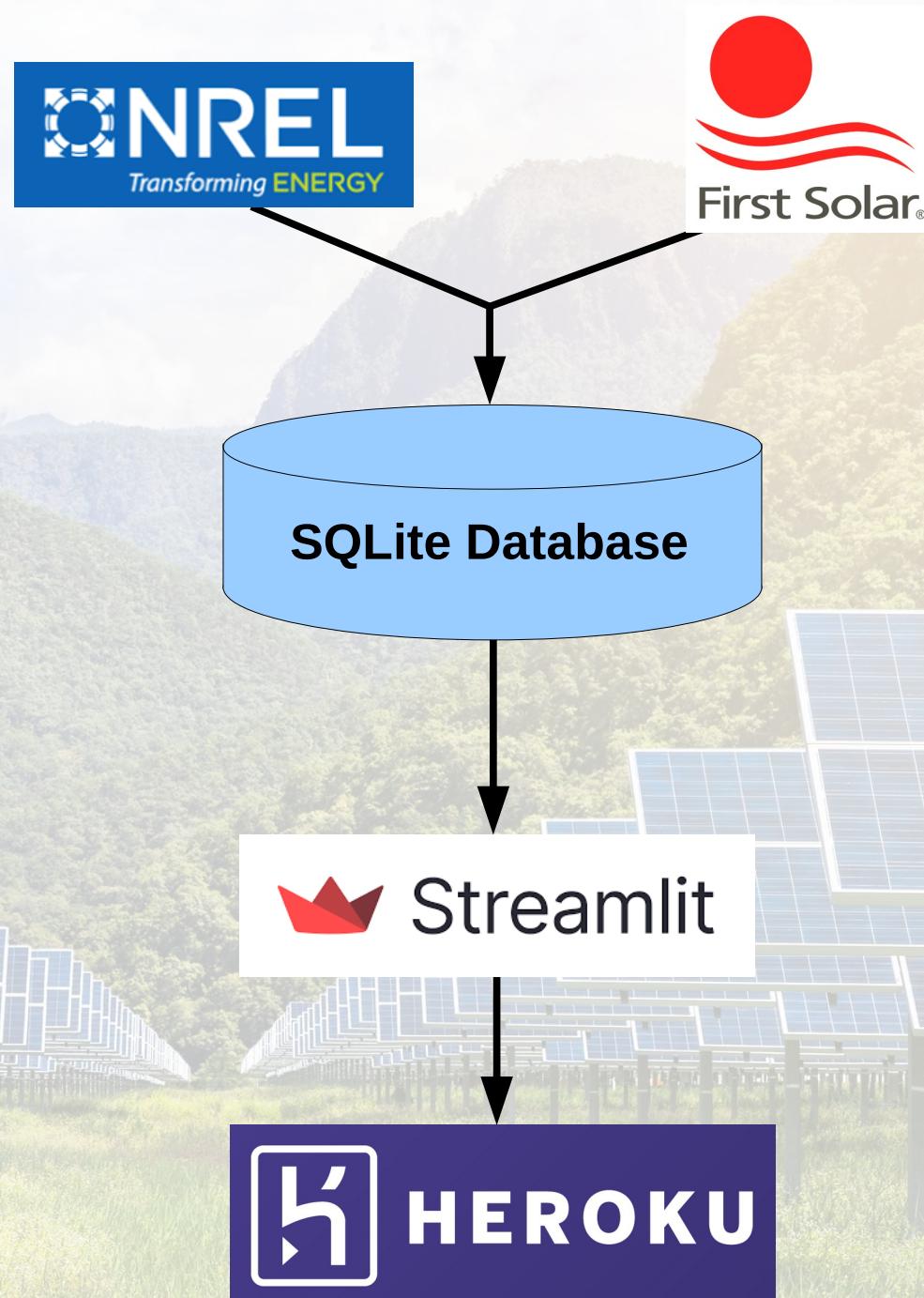


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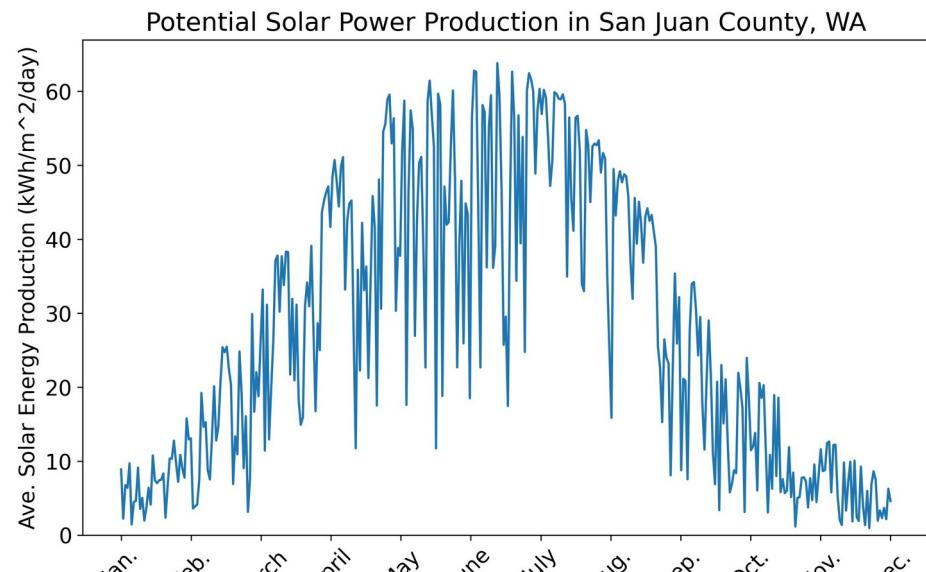
Data Pipeline



EDA Sanity Check

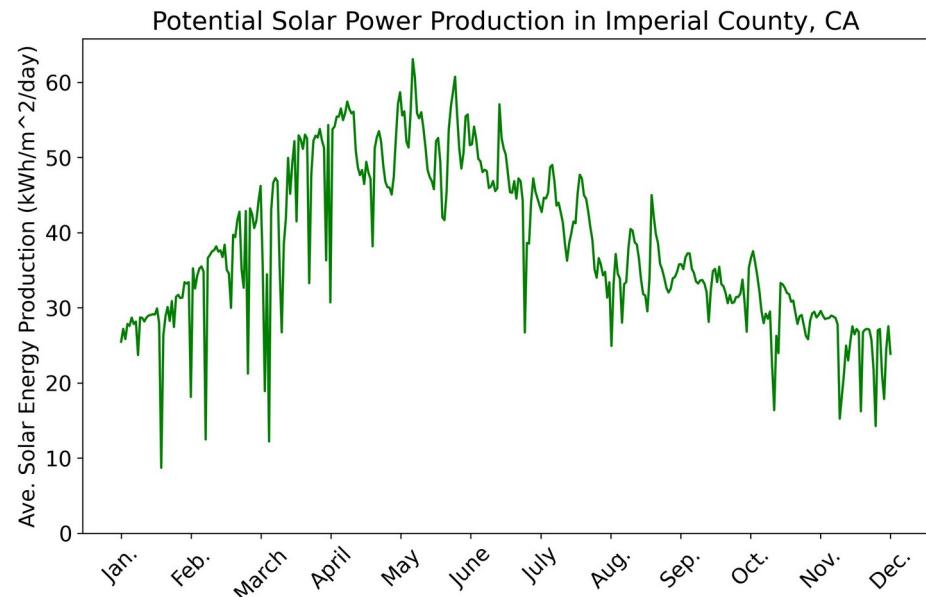
Northern WA:

- Has a Winter
- Many cloudy days



Southern CA:

- Barely has a Winter
- Mostly sunny year round



#8

Web App Prototype

DE Project solar streamlit app

solar-power-estimator17.herokuapp.com/#solar-power-performance-estimator

Solar Power Performance Estimator

This app uses publicly available climate data and solar panel specs to estimate monthly performance of solar panels in US counties. Warning: This is a prototype and this analysis has not been imperically verified.

County/State Comparison

Fill out county/state 1 and county/state 2 to see how potential solar power production compares between the two.

Location 1 is a...
 County
 State

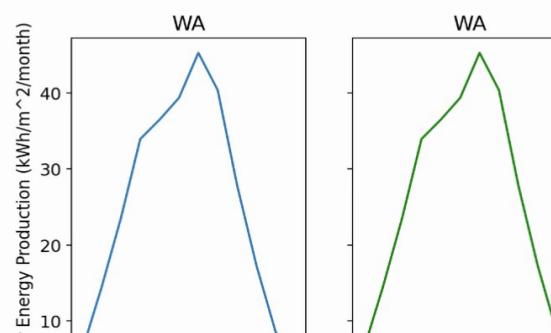
Location 2 is a...
 County
 State

State 1
WA

State 2
WA

Approximate Production in WA (per m²)
300 kWh/year

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300 kWh/year



Questions?

