Off-Grid Power Predictor

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Portland, Oregon

INSIGHT

126M
Grid-Tied Homes (US)

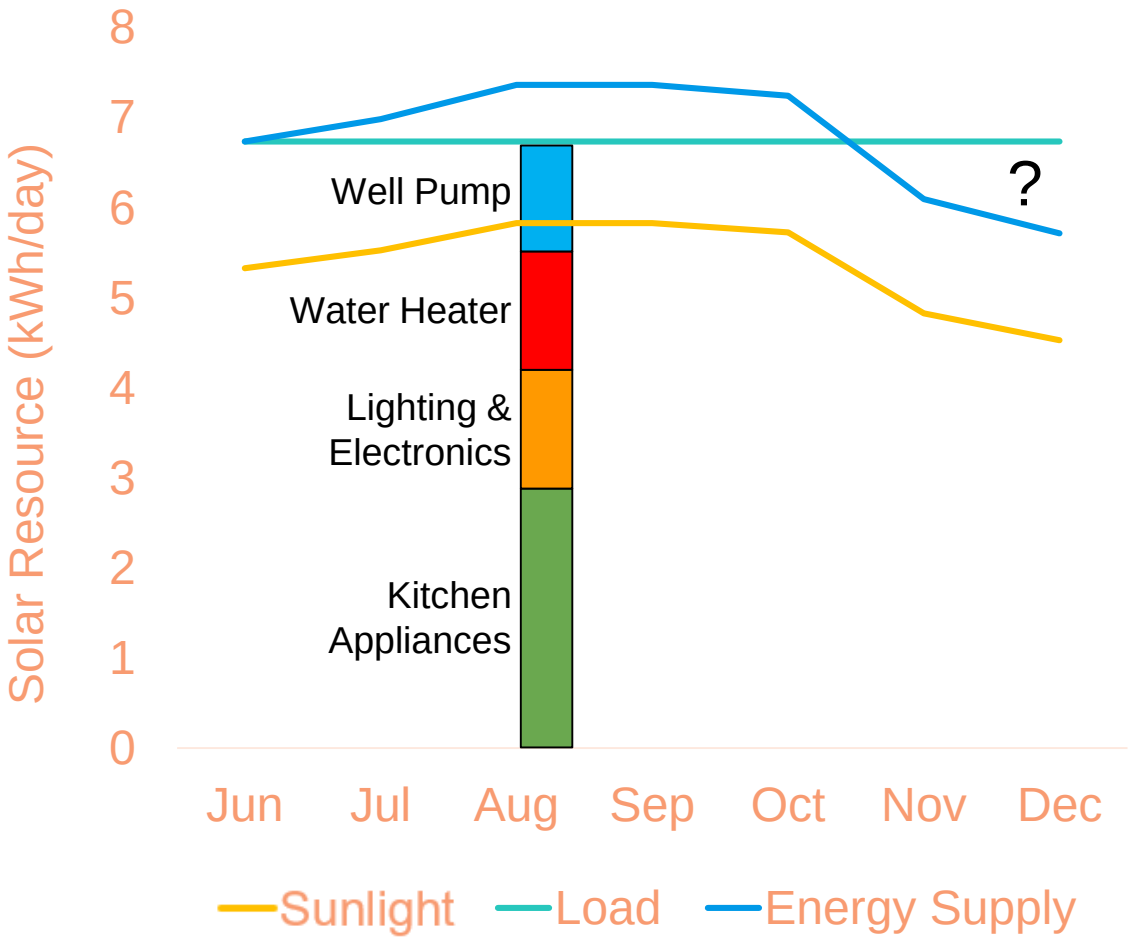
30 kWh / day

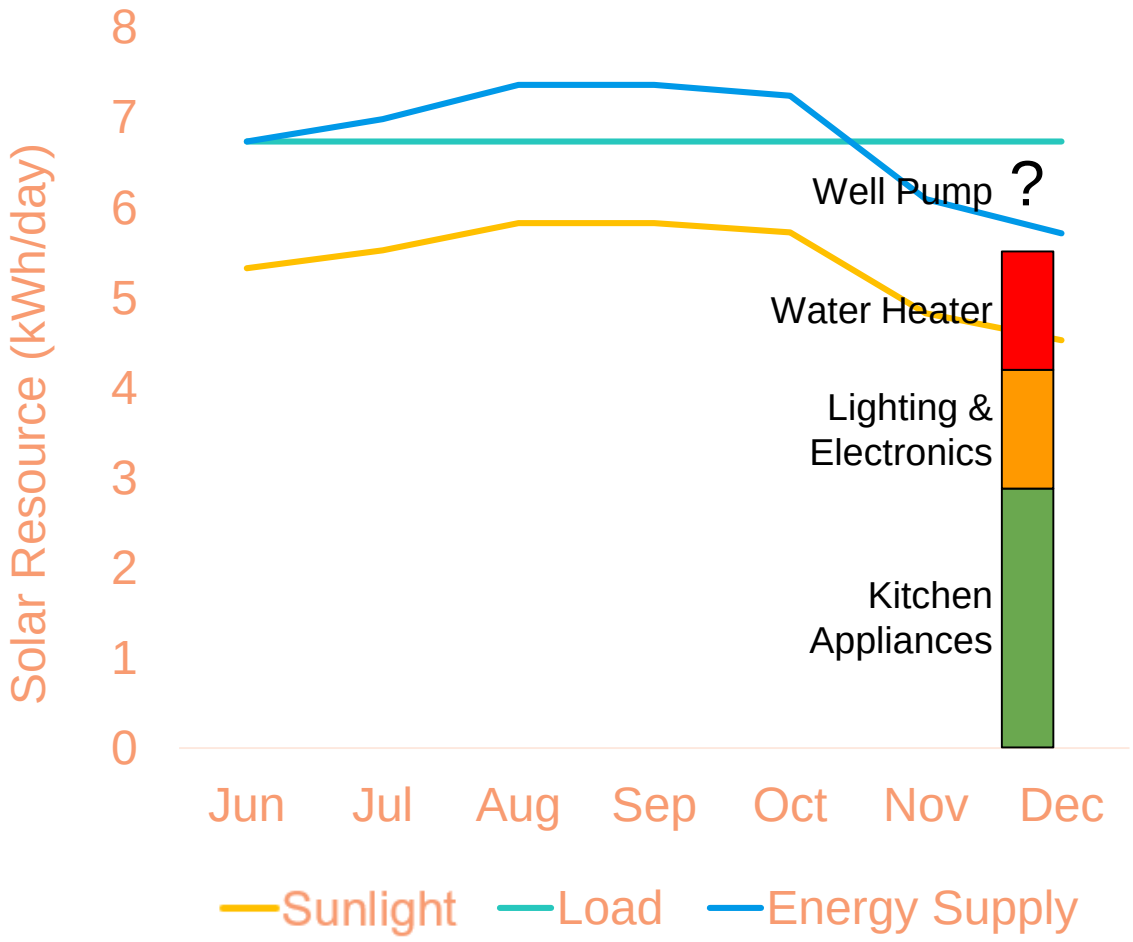
200,000
Off-Grid Homes (US)

8 kWh / day

4M
Off-Grid Homes (worldwide)

0.5 kWh / day


Solar Resource (kWh/day)
8
7
6
5
4
3
2
1
0
Well Pump
Water Heater
Lighting &
Electronics
Kitchen
Appliances
?
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Sunlight
Load
Energy Supply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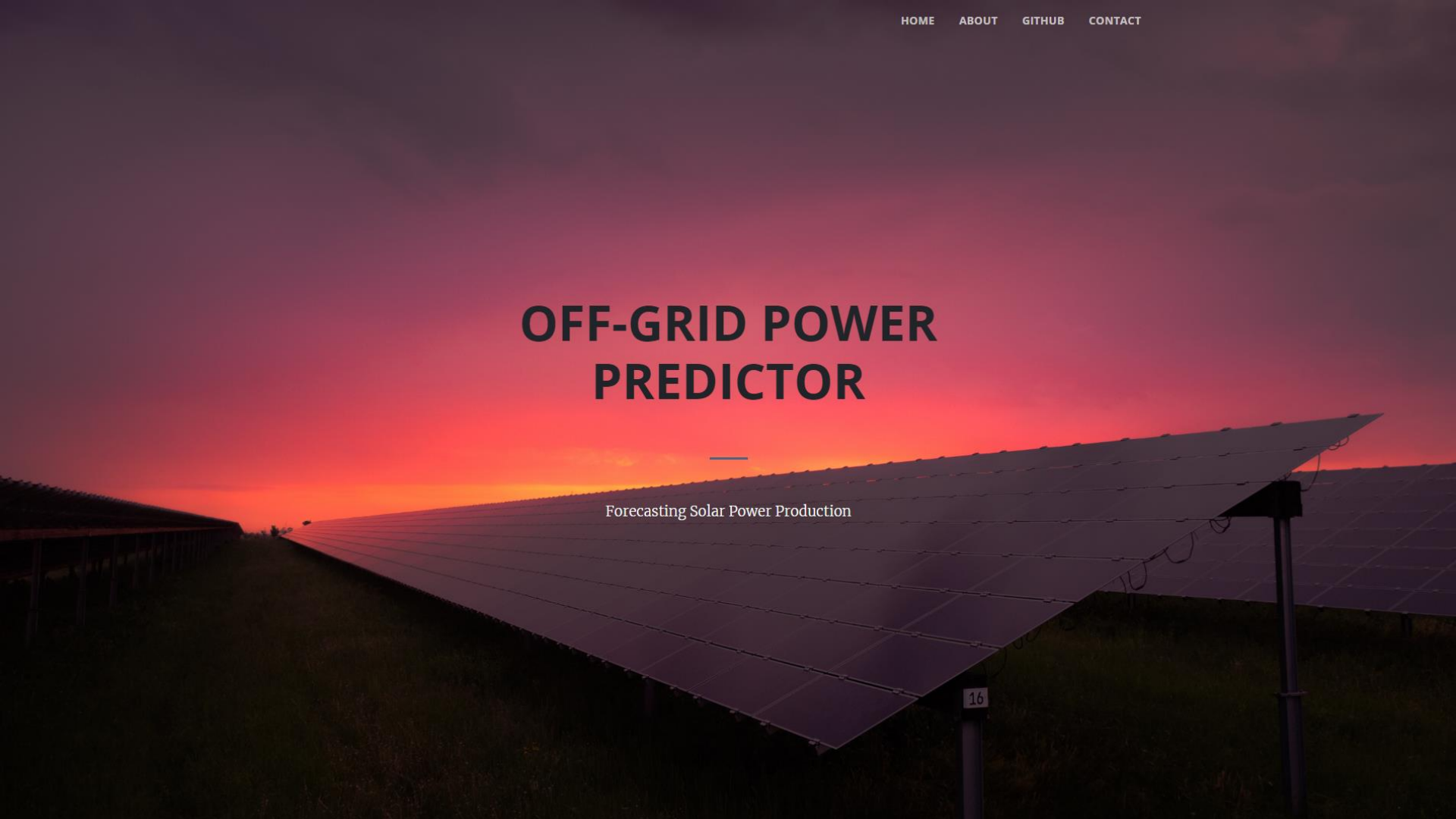


OFF-GRID POWER PREDICTOR

Forecasting Solar Power Production

Forecasting Solar Power Production

Input a city and state in the United States

Hackberry, AZ

Input the system size in kilowatts (kW)

1.4

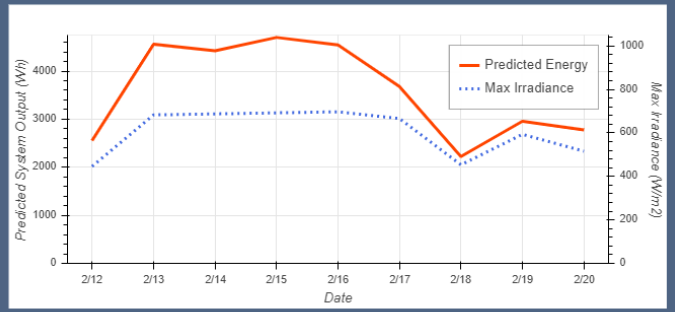
POWER PREDICTION

This week your system should generate an average of

3.6 kWh / day

System Size: 1.4 kW

SEE THE DATA



Full Forecast

More at Dark Sky

41°
and falling
Wind: 4 mph

Clear.
Partly cloudy starting tomorrow morning.

Today	Tue	Wed	Thu	Fri	Sat	Sun	Mon
47°	58°	57°	59°	63°	56°	50°	48°
24°	24°	40°	49°	40°	32°	29°	32°


Measurement and Instrumentation Data Center
(MIDC)

WEATHER UNDERGROUND

WEATHER UNDERGROUND

NREL
NATIONAL RENEWABLE ENERGY LABORATORY

WEATHER UNDERGROUND

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EXTREME GRADIENT BOOSTING WITH XGBOOST

WEATHER UNDERGROUND

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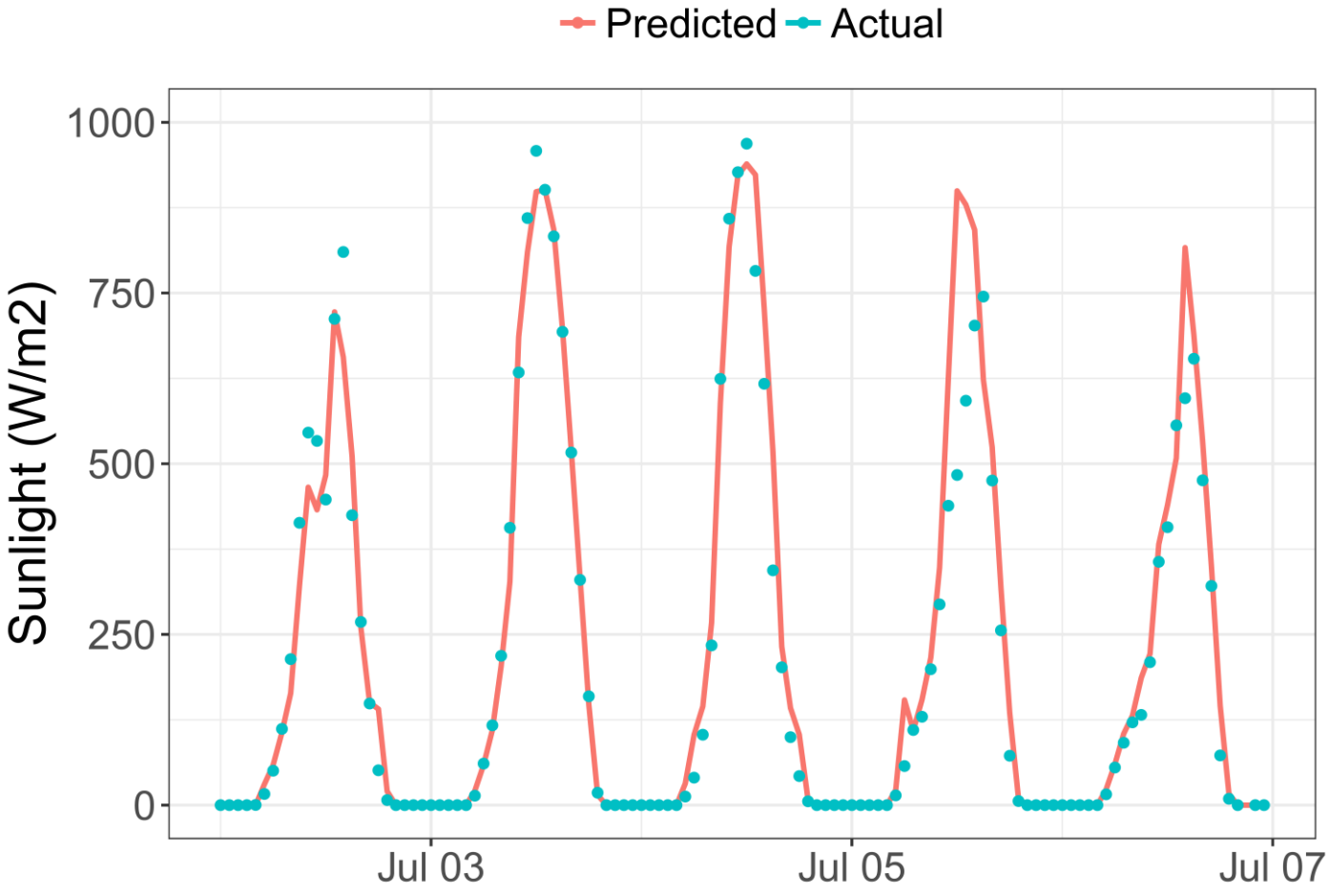
EXTREME GRADIENT BOOSTING WITH XGBOOST

Next week's predicted sunlight and power



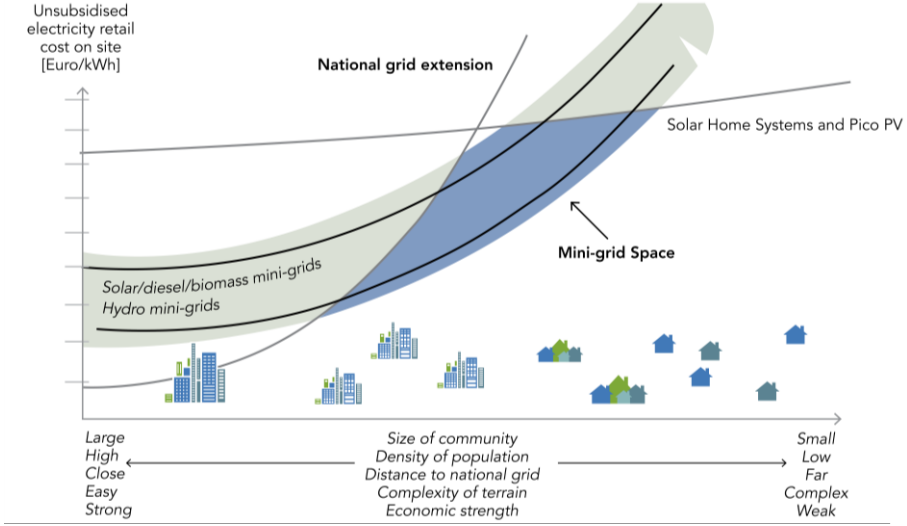
Improvement of
40%

RMSE =
$39\ W/m^2$

AME =
$1.1\ W/m^2$

Project Sunroof

PVWatts™



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SweetSense

Schatz Energy Research Center

SERC