

PVWatts Solar Calculator

- Developed by National Renewable Energy Lab
- Calculates Energy Production for a Grid-Tied System
- Not meant for Off-Grid Systems, but Provides useful Info about Solar Production by Month
- Easy to Use, has Solar Data for Alaska
- Search “PVWatts” or
 - <http://pvwatts.nrel.gov/pvwatts.php>

Trustworthy Weather Sites in Southcentral Alaska

- Elmendorf Airport, TMY₃
- Anchorage Airport, TMY₂
- Anchorage, Airport, TMY₃
- Talkeetna TMY₂

Demo!

SOLAR RESOURCE DATA

The recommended weather data source is initially listed below. This is usually a good choice for your location, but you can optionally change the weather data using the map below.

Selected weather data for your location

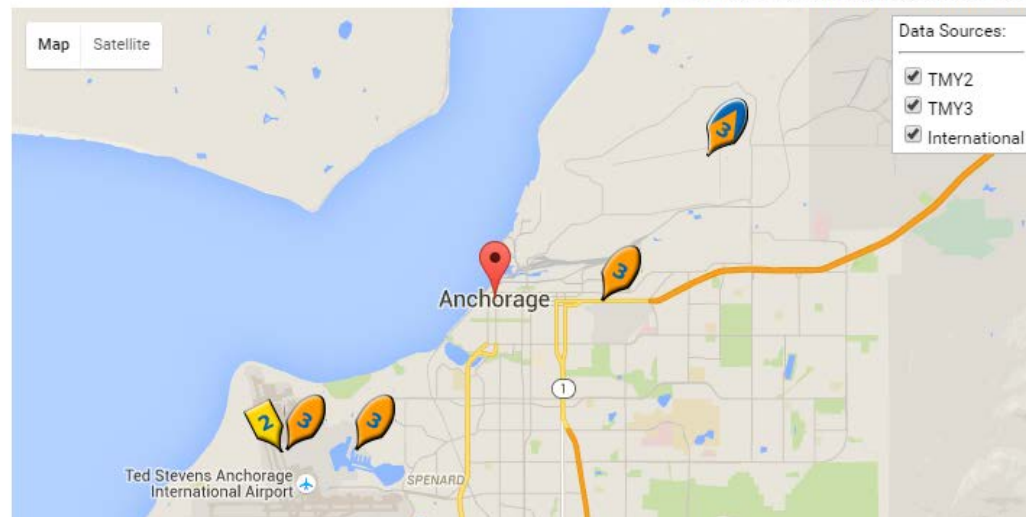
(TMY3) ANCHORAGE/ELMENDORF, AK

4.0 mi

Optionally, Select Different Weather Data

Currently, PVWatts® defaults to the closest TMY2 weather file (or international file). This will be the standard for the foreseeable future. We also offer the TMY3 locations and a 10 km gridded data set from SolarAnywhere®. We will not be including the older 40 km gridded data from PVWatts Version 2 as the other datasets are superior. The selected weather source pin is wrapped with a blue background. Click a different pin to select that source. If you enable SolarAnywhere® data for the continental US, then **double-click** anywhere on the map to select that grid cell (it must be enabled for each location). Refer to [Help](#) for more detailed information.








Enable SolarAnywhere® Gridded Data



SYSTEM INFO

RESTORE DEFAULTS

Modify the inputs below to run the simulation.

DC System Size (kW):	<input type="text" value="2.85"/>	
Module Type:	<input type="text" value="Standard"/> ▼	
Array Type:	<input type="text" value="Fixed (open rack)"/> ▼	
System Losses (%):	<input type="text" value="14"/>	  Loss Calculator
Tilt (deg):	<input type="text" value="45"/>	
Azimuth (deg):	<input type="text" value="188"/>	


Draw Your System

Click below to customize your system on a map. (optional)



Calculate System Losses Breakdown

Modify the parameters below to change the overall System Losses percentage for your system.

Soiling (%):	<input type="text" value="2"/>	
Shading (%):	<input type="text" value="3"/>	
Snow (%):	<input type="text" value="0"/>	
Mismatch (%):	<input type="text" value="2"/>	
Wiring (%):	<input type="text" value="2"/>	
Connections (%):	<input type="text" value="0.5"/>	
Light-Induced Degradation (%):	<input type="text" value="1.5"/>	
Nameplate Rating (%):	<input type="text" value="1"/>	
Age (%):	<input type="text" value="0"/>	
Availability (%):	<input type="text" value="3"/>	

Estimated System Losses:

14.08%

RESULTS

 [Print Results](#)


2,706 kWh per Year *

System output may range from 2,537 to 2,801kWh per year near this location.
Click [HERE](#) for more information.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)	Energy Value (\$)
January	0.55	42	7
February	1.17	81	14
March	3.20	244	41
April	5.02	348	59
May	5.47	394	67
June	6.40	434	73
July	4.90	342	58
August	4.39	309	52
September	3.74	260	44
October	2.13	163	28
November	0.81	59	10
December	0.39	30	5
Annual	3.18	2,706	\$ 458

User Comments

Optionally, add comments to include in the print out.

 Download Results: [Monthly](#) | [Hourly](#)

[Find A Local Installer](#)