

Generating Energy Trust Reports from Solar Pathfinder Assistant

Pathfinder Assistant is a software tool created by the makers of the popular Solar Pathfinder sun tool. With the tool and a digital camera, one can use the software to analyze the available solar resource and create custom reports.

A note on versions:

The currently available version of the software is 5.x. Upgrades are available for users of version 4.0 at a reduced cost. To update your software to the latest version available click **Help > Check for updates**. To determine the version of your software, click **Help > About...**

This guide will walk you through generating a report which includes the TSRF number necessary on Energy Trust applications. Detailed instructions on using the Solar Pathfinder can be found in the user manual: <http://www.solarpathfinder.com/pdf/pathfinder-manual.pdf>

Creating the report

- In the Create New Report dialog, enter the relevant information for the site.
- On the second tab for Analysis Settings, you have the option of entering the true azimuth or the compass azimuth. The Compass Azimuth field converts a magnetic heading to the true direction. The value entered in this field should be the compass heading that your arrays are facing. When the value is entered in this field, the True Azimuth field will be automatically adjusted to account for magnetic declination.

Array Orientation

Enter Compass Azimuth

True Azimuth: 180

Compass Azimuth: 163.8

Declination: 16d 12m

Azimuth Note

North = 0
East = 90
South = 180
West = 270

- Under the Ideal Settings section, *be sure to enter the ideal tilt and azimuth for the site from the table below*. For example, the ideal tilt and azimuth for Portland is 32° and 190°.

Ideal Settings

These values define the "ideal" settings that you want your site to be compared to (for percentage purposes).

Ideal Tilt (deg)
 [Set Default](#)
 Typically, the ideal tilt is the same value as the latitude of the site. However, you may need to override this value as needed by your energy rebate requirements.

Ideal Azimuth (deg)
 [Set Default](#)
 Typically, the ideal azimuth is 180 deg (south facing) for installations in the northern hemisphere. For installations in the southern hemisphere, azimuth is typically set to 0 deg (north facing). However, you may need to override this value as needed by your energy rebate requirements.

Site Location	Ideal Tilt	Ideal Azimuth
Astoria, Seaside, Cannon Beach, Warrenton	34°	191°
Burns, John Day, Canyon City, Hines	34°	175°
Eugene, Springfield, Sweet Home	30°	190°
Hood River	34°	178°
Medford, Klamath Falls, Grant's Pass, Ashland	32°	185°
North Bend, Coos Bay, Coquille, Bandon	33°	188°
Pendleton, Enterprise, La Grande	35°	177°
Portland, Hillsboro, Oregon City	32°	190°
Redmond, Bend, Prineville, Madras	36°	175°
Roseburg	33°	192°
Salem, Lincoln City, Corvallis, Silverton	32°	189°

- Finish the report generation by entering the details for your site, uploading the image, and indicating the shading.

Click **Tools>Options** to begin customizing your report so that it includes the required data:

- Click the “Report Columns” tab to select the data that will appear on your report.
 - **Actual Unshaded Solar Radiation** – This column is equivalent to the tilt and orientation factor (TOF) on the solar incentive applications.
 - **Actual Shaded Solar Radiation** – This column is equivalent to the total solar resource fraction (TSRF). This is a combination of the effects of shading *and* tilt and orientation and is the only number needed when filling out an application in PowerClerk. *This number is only accurate if you have input the correct ideal tilt and azimuth from the table above!*
 - Other columns may be useful for your own data, or interesting to your customers, but are not required to be submitted to Energy Trust.

Your report is now ready for submission to Energy Trust. For questions about this guide, or to report problems following the guide with your version of Pathfinder Assistant, please email the Solar Program staff at pv@energytrust.org.