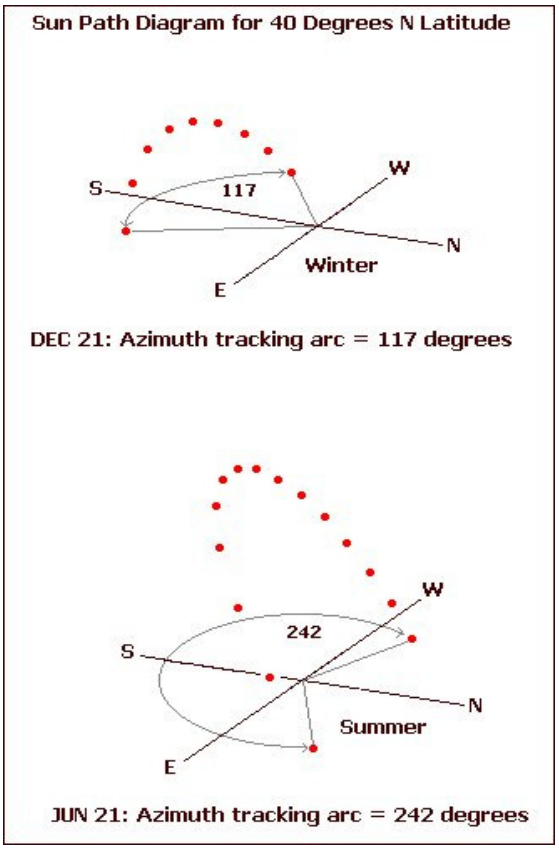
THE WATTSUN TRACKING ADVANTAGE: A CASE STUDY IN SPRINGFIELD, MO.

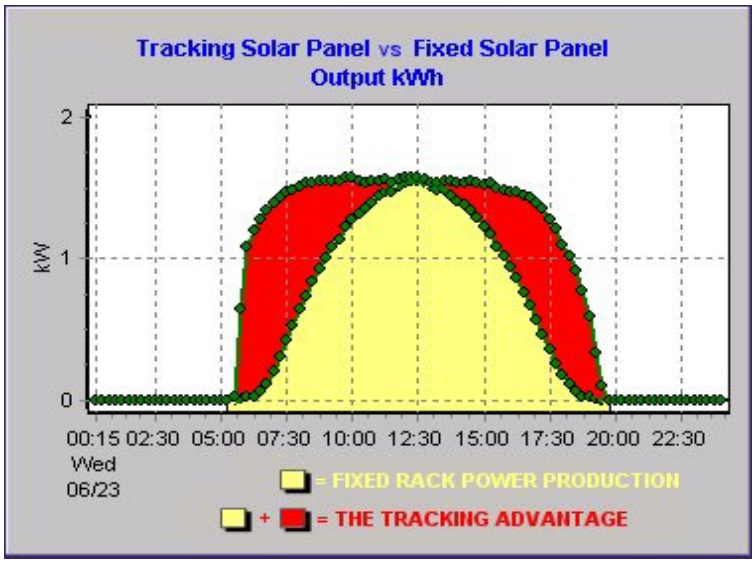
A Wattsun Azimuth Tracker points at the sun all day long. Our Azimuth Trackers rotate on the mounting pole and track the sun from sunrise to sunset. The picture above is an installation of a Wattsun Azimuth Tracker compared to an identical array on a fixed rack. This photo was shot near sunset in the summertime. Notice that the modules on the fixed rack are shaded while the tracker is still following the sun and harvesting power.

The chart on the right illustrates this point. Daylight is at a minimim during the Winter and at a maximum during the Summer. The arc of the sun is smallest in the Winter and longest in the Summer. Wattsun Trackers exploit all the available solar power.

The Tracking Advantage results in improvements of 24% in the Winter and 42% in the Summer. **In July, a fixed rack system would have to have a 42% larger solar array to match an array equipped with the Wattsun Solar Tracker Advantage!**



TRACKING: EXPLOITING THE LONG DAYS OF SUMMER.



Data collected for June 23, 2004. Springfield, MO. Merge of two graphs.

The information presented here is from an installation in Springfield, MO. You can access daily, weekly and monthly power production data from two identical PV arrays. One is fixed and other equipped with the Wattsun Dual-Axis Tracker.

The link to the online preformance data:
City Utilities: Springfield, MO

The graphs are "screen shots" of the City Utilities web page provided by:
Enerwise Global Technologies
The graph on the left is a combination of fixed and tracking data images.

The graph above is a combination of the power curves for two identical arrays. One array is fixed and the other is on a Wattsun Dual-Axis Tracker. The power curves are typical of a clear, cloudless summer day. The yellow area under the smaller bell curve represents the delivered energy by the fixed rack. The area under the larger curve (red plus the area in yellow) is the power delivered by the tracked array. The tracked array increases the delivered power by 40%. **The fixed array would have to be 40% larger to match the output of the tracker.**

Comparison of the power curves is important for another reason. The tracked array delivers peak output for about ten hours and the fixed array peaks for only two hours. The tracker provides maximum output from 7:30 to 5:30 while the fixed array only peaks from 11 to 1. **The tracked array maintians full power five times longer than the fixed array.**