

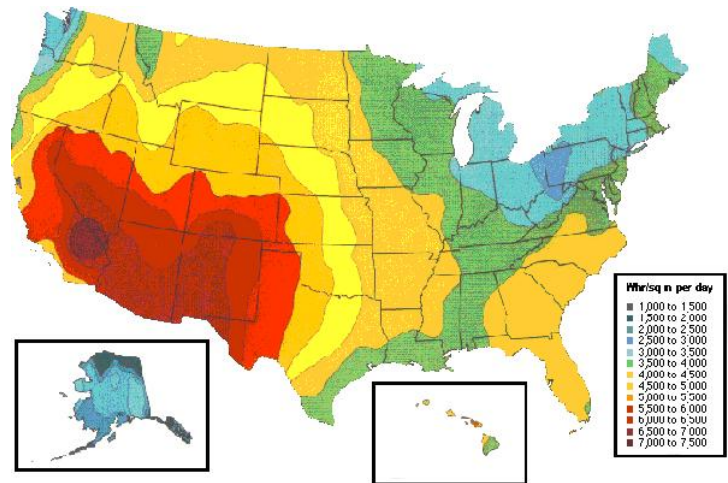
Solar

One of the best places in the world to generate electricity from solar energy is in the US southwest, particularly Arizona. Arizona utilities are national leaders in the research and development of solar technologies for the generation of electricity. They have been exploring ways to generate electricity from the sun for more than 25 years. As a result, Arizona currently has some of world's largest solar electric generation plants, providing Arizona utilities a wealth of knowledge concerning the operation of these types of power plants.

In addition to a world-class resource, the Arizona solar market is being driven by the Environmental Portfolio Standard (EPS) adopted by the Arizona Corporation Commission. The EPS requires that retail sellers of electricity in Arizona provide a percentage of retail electricity sales from specific renewable energy resources. Utilities must derive at least 1.1 percent of the total retail energy sold from new solar resources or environmentally-friendly renewable technologies. This Standard is currently under review and a new proposal would increase this requirement to a proposed target of 15 percent of all energy generated through renewable energy sources by 2025. Funding for the EPS comes from a Systems Benefit Charge that currently provides \$18 million a year to the state's investor owned utilities. This would increase under the current proposal to more than \$60 million annually.

Since implementation of the portfolio in 2001, more than 13 megawatts of

solar electricity has come on-line in the state. The majority of this generation is represented by large projects. Arizona Public Service (APS) has almost five megawatts of solar generating capacity installed or planned at locations in Tempe, Flagstaff, Prescott, Gilbert, Glendale, Scottsdale, Red Rock and Yuma. Tucson Electric Power has more than 4.8 megawatts of solar electric generating capacity, mainly at its Solar Generating Station near Springerville, Arizona. Salt River Project also has built solar generating stations with almost 875 kW installed. All of these projects involve photovoltaic technology with the exception of a one megawatt concentrator solar power plant APS dedicated in April 2006.



The solar resource itself is not limited to certain parts of the state, or tied to location of forest, landfills or an underground supply, as are other renewable resources. The solar resource is available throughout the state although utility experience is that cooler ambient temperatures are the best conditions for solar generation from Photovoltaic.

In summary, although the state's solar resource is largely untapped; few places in the world can match Arizona's available resource.

Baseline Solar Use: Installed capacity per year

Resource	2000 and prior	2001	2002	2003	2004	2005	Total
Solar (PV)	> 1.5 MW	2.15 MW	2.38 MW	3.62 MW	1.47 MW	1.84 MW	12.96 MW
CSP	100 kW	0	0	0	0	1 MW	1.1 MW