



AZSC



AZ Solar Center Newsletter

[www.azsolarcenter.org]

Volume 1, Issue 2

This Newsletter is Sponsored by
American Solar Electric, Inc

December 2009

The Arizona Solar Center's mission is to present unbiased information about renewable energy in Arizona, particularly solar energy, its most abundant resource. In conjunction with the mission, the Arizona Solar Center uses its website, www.azsolarcenter.org, to support commerce and industry in the development of solar and other sustainable technologies.

*** Featured Project ***

Ever since she was a little girl Mitzi Epstein has had a lifelong dream to help the environment. Now, living with her husband, Rick, in Tempe she feels that her dream has come true. The Epsteins have "gone solar" and have a 7,560 Watt solar electric system installed on their home rooftop.

This didn't just happen overnight! For the last three years Mitzi and Rick followed the solar incentive programs being offered by their utility, Salt River Project, and the various incentives being offered by the state and federal governments. Finally, deciding that the time was right, they contracted with Dependable Solar Products to design and install their solar system.

Homeowners Associations can sometimes be problematic to residents wishing to install solar panels on their rooftops. Indeed the Epstein's HOA exercises very strict rules regarding the quality of their neighborhood, but they cooperated fully and the Epstein's plans were approved without problems.



Although questions such as "how large a system do you want?" needed to be addressed, Dependable Solar walked Mitzi and Rick through the whole process and got them to

the position they're in today – after the first full month of operation they saw their SRP electricity bill GO DOWN!

The Epstein's rooftop was not perfectly solar-aligned, and so additional modules were installed facing both East & West.

Using "PV Watts" to determine the estimated kWh system output based on the different Azimuth directions, the calculations showed that the Epsteins should expect to see approximately 12,728 kWh reduced from their annual SRP usage.

Mitzi's recommendations to others considering going solar – "Now is the time to do it. Solar has never been more affordable – and you'll be helping the environment!"



Rick and Mitzi Epstein

System Specification

- System Capacity: 7.56 kWDC
- PV Modules: 36 Suntech 210 Watt modules
- Inverter: 2 Kaco 360 I xi inverters
- Estimated annual generation: 12,728 kWh
- Installer: Dependable Solar Products



Each AZSC Newsletter will showcase a Featured Project. If you would like one of your projects to be considered for this article please send a one page description of your project with four photographs to Janet@cactusmooneducation.com

We thank the following AZSC Sponsors:



From the Energy Office

According to The Arizona Department of Commerce Energy Policy Update dated October 5, 2009, imported solar panels are facing unexpected tariffs. The solar panels are treated as electric generators, subject to a duty of 2.5%. According to the New York Times, some Chinese companies are planning on moving final assembly of solar panels to the United States.

Utility Updates

Tucson Electric Power:

TEP has unveiled plans to work with private partners to develop 30 megawatts (MW) of new local solar generating capacity by January 2012, including a giant 25-MW system that will be nearly twice as large as the nation's largest photovoltaic (PV) array. The company also proposed an innovative plan to let customers purchase "blocks" of locally-generated solar energy beginning next year.

Around the State

Another wind farm may soon be generating power in Arizona. Western Wind Energy Corp. plans to build a combined wind and solar-energy project off Interstate 40 Southwest of Kingman. The wind plant will generate 11 MW of power, with 300 kW coming from solar panels and the rest from wind turbines. UniSource Energy Services has agreed to buy the power from the project.

The solar homes tour was a great success. Over 1,500 people signed up to tour the solar homes. Our sincere thanks to all the home owners who opened their doors.

Solar Production, How Does Your System Compare?

We would like to show typical solar PV system performance figures in this newsletter so that you can compare the performance of your system with others in the state. We realize that solar system performance will depend on your location in the state so we're trying to get information from around the state to post here. For the months of October and November we have the following:

Location	October	November	
Phoenix:	141	119	kWh/kW
Tucson:	147	121	kWh/kW

Please send us your system generation numbers.

Seasonal Tip

Do you have an older solar water heater in the desert regions of Arizona? If you do, it is probably an Open Loop or Direct System which means that the water is heated directly in the solar collector. This type of system usually has recirculation freeze protection. With this type of freeze protection, sensors turn the pump on when the system may be in danger of freezing and water is pumped through the solar collector to raise its temperature.

Proper maintenance is critical to keeping your system working properly and to prevent freezing. Since we are now approaching the coldest time of the year it is important to make sure that your freeze protection is working properly. The best way to insure that your system is working properly is to have a qualified solar technician inspect your system.

Q&A

Q: What on earth are those mirror things I see at 75th Avenue and Northern?



A: They are Tessera Solar's 1.5 MW Dish Stirling solar farm. The mirrors concentrate the sun's energy onto a Stirling heat engine which in turn powers an electric generator. There will be 60 dish/engine units at the site when it is completed early next year.

You got a question? We may have an answer!

Upcoming Events

December:

December 25th—Christmas Day—"Merry Christmas"

For more information on upcoming events see the full calendar at www.azsolarcenter.org

Your suggestions are welcomed: If you have suggestions or ideas as to how we can make this newsletter more useful or interesting please let us know. Contact us at Janet@cactusmooneducation.com with your ideas.