



AZSC



AZ Solar Center Newsletter

[www.azsolarcenter.org]

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American Solar Electric, Inc

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The Arizona Solar Center's mission is to present unbiased information about renewable energy in Arizona, particularly solar energy, its most abundant renewable 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 ***

In sunny Scottsdale Arizona, community associations large and small are embracing the possibility of Solar Thermal Pool Heating as a way to make an environmental impact, get control of their budgets and offset energy costs. Terravita's "Solar Walkway" is a unique expression of how one community chose to make this positive impact.



Terravita is a well established north Scottsdale luxury golf development that takes pride in their ongoing green initiatives. The community is nestled into the Sonoran desert landscape at the southern base of Black Mountain with approximately 1380 homes, a beautiful clubhouse and an Olympic-size pool. In September 2008, Tim Horn and the club's capital improvements committee began looking at the difference pool solar would make in reducing energy costs. With the assistance of Sun Systems, Inc., energy audits were performed with favorable results and the project was adopted into the board's 2009 – 2010 capital improvement plan.



This almost football field long project is a dual purpose design serving as a shade structure over a 20' wide walkway extending between pool community center and clubhouse. The corrugated metal roof with its south by southeast orientation is pitched at 17 degrees and supports 106 unglazed 4' x 8' pool solar collectors totaling 3,392 sq. ft. The balance of the structure is fabricated in metal with the exception of pre-existing decorative pillars supporting the trailing edge of the roof structure.

When the automated solar system goes active it produces more than 1.6 million Btu per day or approximately 588 million Btu per year. The system is expected to offset current

natural gas usage by 37%, saving Terravita homeowners more than \$22,000 per year. APS rebates reduced the out of pocket cost by \$17,242, resulting in a payback of just 2.5 years for the solar portion of the project. With the addition of the commercial pool covers that were also installed, savings over the 15 year life of the project is expected to be more than \$690,000.

(For more information contact: info@sunsystemsinc.com)

System Specification

No. of solar collectors: 106 (4' x 8')
Estimated annual generation: 588 MMBtu
Installers: Sun Systems Inc,
Keegan Builders and Desert to Mountain
Architecture, LLC



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:



Around the State

Cochise College has a new wind turbine courtesy of Southwest Windpower. Chuck Hoyack, Dean of the Douglas Campus, and Kevin Butler, VP for Administration, are seen here holding the Air Breeze that was donated to the college by Flagstaff based Southwest Windpower for a solar/wind-hybrid education project.



The power generated by the wind turbine and additional photovoltaic solar panels will be used to run a small kiosk and kiosk shelter that will showcase the outputs from another solar facility that is being constructed at the Douglas Campus.

Q&A

Q: What is ARISEIA?

A: The Arizona Solar Energy Industries Association (AriSEIA) is a non-profit trade association representing local, national and international solar companies in the Arizona market. The group's focus is on education, professionalism and promotion of public policies that support deployment of solar technologies in Arizona. AriSEIA is a recognized chapter of the national solar industry trade association (SEIA) which is headquartered in Washington, D.C.

AriSEIA's website, www.arizonasolarindustry.org

For further information on AriSEIA contact Michael Neary at 602-708-1497.

You have a question? We may have an answer!

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. For the months of February and March we have the following:

Location	February	March	
Phoenix:	114	138	kWh/kW
Tucson:	115	144	kWh/kW
Yuma	115	142	kWh/kW
Flagstaff	113	139	kWh/kW

Please send us your system generation numbers.

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.

Utility Updates

More details of TEP's 30 MW future solar program mentioned in the October newsletter include the BRIGHT TUCSON COMMUNITY SOLAR PROGRAM, where customers can claim their own stake in one of the several new solar arrays that would be built in the Tucson area. Upon ACC approval, customers can purchase 150 kWh blocks of solar energy generated by a local PV array beginning in mid-2010. Each block would add \$3 to monthly bills and customers can purchase enough blocks to cover all of their electric use, which would be approximately six blocks or an additional \$18 per month.

(For more information contact DHutchens@tep.com)

From the Capitol

There are several bills making their way through the AZ Legislature that are of interest to the solar community.

HB2051 Corporation Commission; contractors, regulation:

This bill prohibits the ACC from placing any additional requirements on contractors.

HB2063 Solar energy; permit fees:

Caps the fee charged for building permits for solar energy devices.

HB2381 Renewable energy; legislative authority:

Challenges the Arizona Corporation Commission's 's authority to mandate a Renewable Energy Standard.

HB2697: extends the State Tax Credit for solar energy devices to December 31, 2017.

(For more information on House Bills visit www.azleg.gov/bills.asp)

Upcoming Events

April 17: ECO Avenues Trade Show / Exposition, Estrella Mountain Community College, Avondale, AZ

www.ecoavenues.com

April 24: Peoria Earth Day Event, Rio Solado Park, 83rd Ave. & Thunderbird

April 27: Congresswoman Gabrielle Giffords, Solar Power 101. Dusenberry-River Branch Library, 5606 E. River Rd., Tucson. www.giffords.house.gov/legis/solar-events.shtml

May 17—22: Solar 2010 Annual Conference of the American Solar Energy Society Phoenix Convention Center www.solar2010.org

(For more information on upcoming events see the full calendar at www.azsolarcenter.org/events-calendar.html)
