

solmates

*A publication for APS Solar Partners
Winter 2002, Volume 3, Number 1*



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From the Desk of Ed Fox

New Solar Proposed

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Seeing STARs

Plants Update

did you know...

While solar cells rely on the sun's rays for energy, they actually operate more efficiently when they are cool. So, a solar photovoltaic system in the mountains will typically generate more electricity than a similar system in the desert.

From the Desk of Ed Fox

Vice President of Communications,
Environment and Safety

Thanks to Solar Partners like you, APS has successfully met the requirements of Arizona's Environmental Portfolio Standard (EPS) for 2001.

Last year, the Arizona Corporation Commission (ACC) adopted the EPS to help improve our state's environment through increased production of renewable energy. This mandate requires all ACC regulated utilities selling electricity in Arizona to generate a minimum annual percentage of their total retail sales from renewable sources. The minimum for 2001 was .2 percent and increases each year, eventually reaching 1.1 percent in 2007.

Through our Solar Partners program we have planned and built solar facilities that generate more than a full megawatt of clean, environmentally-friendly electricity.

As a result of this aggressive solar generation development, we were able to comply with the 2001 EPS requirement.

I want to thank you for your help in this accomplishment. With your continued support, we look forward to increasing our solar generating capacity and to developing new programs that will help us expand the production of clean, environmentally-friendly renewable energy.

OOPS! Please Send Us Your E-mail Address

We know many of you prefer to save a tree by receiving *SolMates* electronically. However, due to a computer problem, we have lost our e-mail address list. If you would like to receive *SolMates* online, please send your current e-mail address to Janet Crow at **Janet_Crow@aps.com**

Three Megawatts of Solar Proposed for Prescott

APS and the City of Prescott have an agreement that could add an estimated three megawatts of solar generation to the APS solar coffers and give Prescott the honor of hosting the world's largest solar-energy installation of its kind.

The agreement is to lease 30 acres of land, with an option for 70 acres, near the City of Prescott Airport that would be used to construct an initial 1,000 kilowatts of solar generation. The site could expand to 7,000 kilowatts in the future if we expand the agreement to 70 acres. APS plans to complete the initial 1,000-kilowatt of construction by the end of 2002.

The proposed solar installation will feature various innovative technologies including Amonix high-concentration solar arrays, APS tilt trackers and single-axis tracking arrays.

“The plan is to install up to three megawatts of solar energy within the next three years,” said APS Solar Consulting Engineer Herb Hayden. “When completed, the three-megawatt plant will be one of the largest photovoltaic installations in the world. It is something we are very excited about pursuing.”

The proposed facility comes on the heels of the 175-kilowatt plant built jointly in April of last year by APS and Embry-Riddle Aeronautical University in Prescott.

“We enjoy a special relationship with the City of Prescott,” said Hayden. “We also chose Prescott for this project because of its cooler weather and clear skies. For solar technology, that combination is conducive to more efficient operation.”

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Creating a Solar Future

Customers and APS — Partners in Progress

At aps.com, You'll Be Seeing STARS

Warning! When you next logon to aps.com, you may be seeing STARS.

That's because APS has added a new interactive feature to the solar section on its Web site.

The next Solar Test and Research Center (STAR) Open House is scheduled for May 4. But, if you prefer you can now take an online virtual tour that allows you to conveniently learn about our technological advances and research in solar technology from your computer. The new tour is part of an expanded solar section on aps.com and is set up so you can follow the tour from start to finish, or navigate to the technology that interests you.

Built in 1985, the APS STAR Center serves the research needs of both APS and solar equipment manufacturers and is the only facility of its kind in the United States. It is the research and development cornerstone of APS' solar efforts.

At STAR, APS is developing solar systems and devices on a small scale to validate their performance and build solar power plants at the lowest possible cost. You can still visit the APS STAR Center in person but a virtual tour is the next best thing to being there.

Yuma and Scottsdale Plants Update

Work on the newest APS solar plants is progressing.

While APS will unveil a new solar power plant near Yuma on April 10, which will



generate 100 kilowatts of power, the dedication of the City of Scottsdale's 150 kilowatt installation at its water processing facility is scheduled for April 27.

The plant is located at the APS Yucca Power Plant and will generate enough energy to serve about 31 homes. Construction began in October and the plant came online earlier this year.

APS also designed and built a 105 kilowatt hybrid solar plant that powers the Yuma Proving Ground's Smart Munitions Test Range.

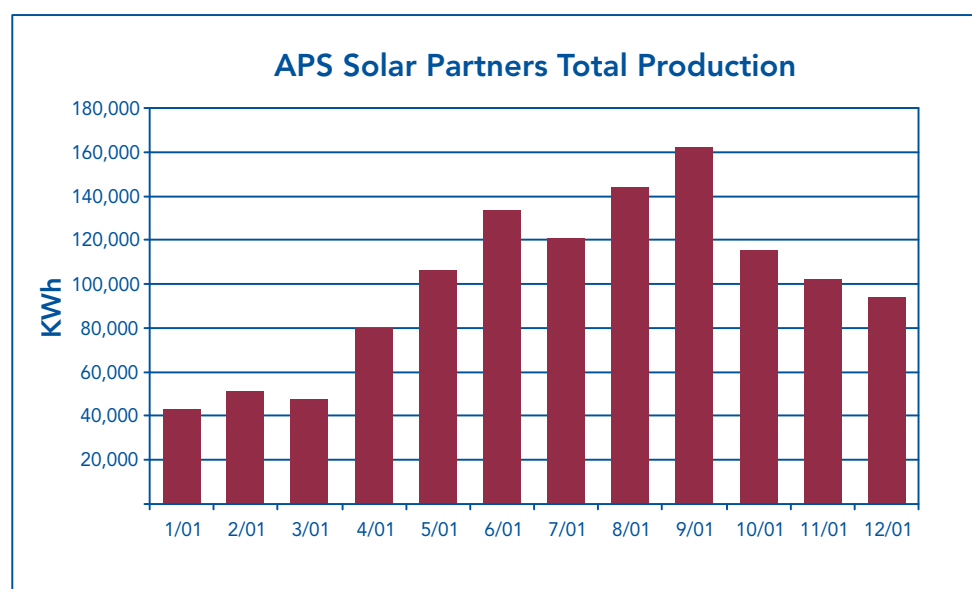


In north Scottsdale, the flat-panel, tracking plant will sit atop underground water storage tanks at the Scottsdale Water Campus near Pima Road and Union Hills Drive. The underground tank, with storage for millions of gallons of water, has a surface area of more than 40,000 square feet — perfect for a solar installation.

Once completed, the plant will feed electricity directly into the electric grid used by all APS customers. The plant consists of 512 modules specially anchored to the roof of the tank.

During their partnership, APS and the City of Scottsdale have combined to build 36 kilowatts of solar generation at the City's facilities. The City also purchases more than 40 megawatt-hours of solar energy annually under the APS Solar Partner Program.

The City and APS have just completed another project as well — a 2-kilowatt system at the City's Mustang Library.



You're Invited to an Open House!

At the APS Solar Test And Research Center — STAR

When: 8 a.m. to noon, Saturday, May 4, 2002

Where: 1500 E. University Dr., Tempe (on University, west of McClintock)

Advance reservations are required. RSVP: Janet Crow at 602-250-4990 or e-mail Janet_Crow@aps.com.

Note: Please wear comfortable shoes, not sandals, as the grounds of STAR are covered in loose gravel.

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