

# solmates

*A publication for APS Solar Partners  
Spring 2002, Volume 3, Number 2*



## inside this issue

From the Desk of Ed Fox

Southwest Renewable Energy Fair

Yuma and Scottsdale Plants Dedicated

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Solar Partners Help Costs Plummet

EPS Credit Purchase Program

## did you know...

Since the inception of the Solar Partners program in 1996, the manufacture and sale of photovoltaic (PV) panels worldwide has increased 340 percent. In 1996, manufacturers sold PV panels capable of generating 89 megawatts. Last year's total sales produced 396 megawatts.

## From the Desk of Ed Fox

Vice President of Communications,  
Environment and Safety

Welcome to the latest edition of *SolMates*. In this issue we touch upon several topics which I think are at the heart of APS' solar efforts.

The cornerstone of the APS Solar Partners program is to build awareness of renewable energy sources such as solar and to help make this environmentally-friendly technology a more viable and cost-efficient alternative to traditional energy sources.

That's why I am so appreciative of the contribution you, as an APS Solar Partner, make to our program and toward helping us reduce the cost of building solar resources. By supporting the Solar Partners program you are directly helping to create awareness and an increased demand for this renewable resource.

At the Solar Test and Research (STAR) Center, APS is working on new designs and installation techniques used in building power plants. APS also works with industry manufacturers to establish best practices in the development of photovoltaic materials. That combination of research and experience translates into efficiencies that allow APS to lower the cost of producing solar energy.

Another important development in APS' solar initiatives is the introduction of the APS EPS Credit Purchase Program. Through this new program, APS will help customers offset the cost of installing new solar systems, in exchange APS will purchase their solar credits.

The EPS Credit Purchase Program is a win-win for customers and for APS. Not only does this program reward customers for being environmentally conscious, it helps APS meet EPS requirements established by the Arizona Corporation Commission (ACC).

Long before the ACC mandate, APS was a proponent of the development of renewable energy. We will continue to implement innovative programs and look for opportunities to add value for our customers interested in making solar a viable energy source.

## Southwest Renewable Energy Fair

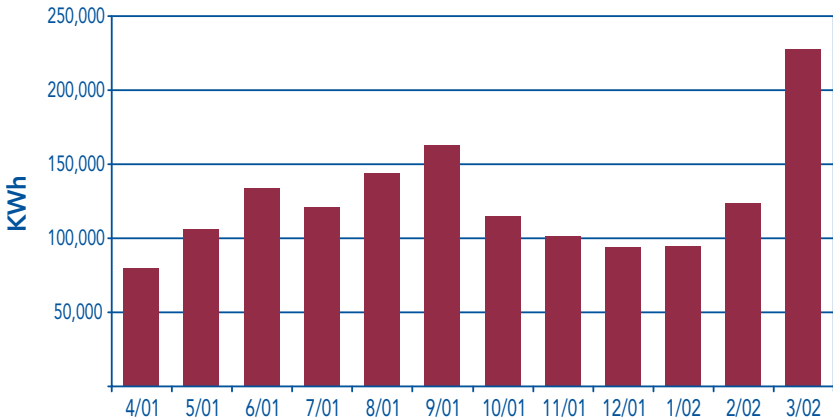
Come explore the latest developments in renewable energy technology at the Southwest Renewable Energy Fair, August 9-11 in scenic Flagstaff. Join industry experts as they demonstrate new products and methods to generate energy from earth-friendly renewable resources. The fair includes workshops and activities for the entire family. Keynote speaker Dennis Weaver will discuss ways of living in harmony with the ecosystem.

For more information, visit the Energy Fair's Web site at: [www.gfec.org/swref](http://www.gfec.org/swref) or call 800-595-7658.

## Yuma and Scottsdale Plants Dedicated

APS unveiled two new solar power plants in April — at the APS Yucca Power Plant on April 10, and at the City of Scottsdale's water processing facility on April 27. Combined these two Solar Partner Power Plants represent 420 kilowatts DC of new generation.

**APS Solar Partners Total Production**  
4/01 - 3/02



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## Creating a Solar Future

### Customers and APS — Partners in Progress

#### Solar Partners Help Costs Plummet

The cost of environmentally-friendly solar electricity is coming down thanks to increased demand from APS Solar Partners. As more Solar Partners purchase solar generated electricity, APS is able to build more solar generation plants. This helps increase the demand for solar equipment — photovoltaic cells, PV panels and other devices used in solar generation — driving down the price of these components. Ultimately, this helps decrease the price of generating energy from the sun.

Another factor in the drop in solar electricity cost is more efficient plant construction. In 1997, APS built the 82-kilowatt Flagstaff Solar Generating Plant for \$748,000 — producing AC (alternating current) electricity for \$9.13 per watt. Our recently completed Yuma Solar Generating Plant, also an 82-kilowatt facility, was built for \$574,000, producing AC electricity for just \$7 per watt — a 23 percent cost reduction in five years.



Flagstaff

Through experience and consistency of design, APS has been able to reduce many of the design and engineering costs that went into building the early plants, further reducing the total cost of producing solar electricity.



Yuma

The goal of the APS Solar program is to advance the technology to produce solar electricity at reduced cost. With the help of Solar Partners, APS is making great strides toward achieving that goal.

#### Environmental Portfolio Standards Support Renewable Energy Sources

Environmental Portfolio Standard (EPS) requirements established by the Arizona Corporation Commission (ACC) mandates that every utility in Arizona must provide an annual percentage of its energy from a renewable resource.

Through the ACC's mandate, an EPS charge of \$.000875 per kilowatt-hour has been added to customer bills to help utilities fund renewable energy programs.

Money collected by APS through the EPS charge on customers' bills are used directly to fund an EPS Credit Purchase Program and to help develop more renewable resources.

#### APS Announces the EPS Credit Purchase Program

For the environmentally minded, investing in a solar system is usually a "rewarding" experience.

Our EPS Credit Purchase Program rewards both the customer and APS.

The customer who installs a new photovoltaic (PV) solar energy system benefits by receiving a one-time payment from APS. This payment is for selling APS the credits associated with the energy generated by their PV system.

The program benefits APS because we can use the energy credits to meet ACC mandated Environmental Portfolio Standard (EPS) requirements.

Customers who participate in the credit purchase program receive a one-time payment of \$2 per watt DC (direct current) electricity (based on the manufacturer's rating) for purchasing and installing a new photovoltaic system capable of producing five kilowatts or less. For example, customers installing a

new 1,000-watt solar system on their homes will receive a one-time program payment of \$2,000 from APS.

To qualify for this program:

- \* Customers must purchase a new photovoltaic solar system rated at 5 kilowatt or less.
- \* Installations must meet APS interconnection requirements.
- \* Customers must sign an interconnection agreement with APS.
- \* The system must use UL-rated components and meet IEEE 929 specifications.
- \* A licensed contractor must install the system.
- \* The system generation must be metered separately and the kilowatt-hour credits may, at APS' option, be recorded annually. The meter (not provided by APS) must be accessible and marked "solar meter."

#### Customers Can Sell to APS Electricity Produced by Their New Solar System

Customers have the option of selling excess electricity generated by their new photovoltaic system back to APS. Customers electing to sell back excess power can do so by switching to APS' EPR4 rate. The purchase amount earned will be credited on customer's monthly bills.

Customers, who will use all the energy generated by their system or customers choosing not to sell their excess electricity back to APS, can remain on their current rate plan.

Complete EPS Credit Purchase Program and EPR4 rate details can be found on the APS Web site, [aps.com](http://aps.com) in the Solar Partners Plus section or by calling 602-216-0318 (metro Phoenix area) or 800-659-8148 (other areas).



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