

Scottsdale Benefits from Solar Energy

Scottsdale, Arizona, the west's most western town, features all of the characteristics that both residents and visitors desire from a community. Voted a "Most Livable City" by the U.S. Conference of Mayors in 1993, Scottsdale is also among the top 30 U.S. cities in which to raise children, according to a study by Zero Population Growth. These two distinctions recognize Scottsdale's status as an innovative and environmentally sensitive community.

Scottsdale joined the Rebuild Arizona partnership to further promote and implement their vision of being environmentally friendly. Scottsdale is also partnering with Arizona Public Service (APS) Company, a Rebuild Arizona partner through their APS Solar Partners Program, which helps to promote the development and use of solar energy. Rebuild Arizona believes that solar power will play an important role in the future and the State's energy leaders have taken a proactive stance to realize the benefits of solar energy now.

Solar Initiatives

Construction of Scottsdale's first photovoltaic (PV) project, the Via Linda Campus located in the City Corporation Yard, began in April 1999. This project replaced over 8,000 square feet of covered parking canopies with PV roofs, generating enough solar power to supply 7-10 single-family homes equipped with air conditioning. Solar partner participants, APS

and the U.S. Department of Energy, through the Utility Photovoltaic Group program, funded the installation of the carport roof.



New Solar-Generating Roof - photovoltaic laminate roofing generating 34 kWh of clean renewable energy.

Once construction was completed at the Via Linda Campus, an additional two kilowatts of solar power was installed on the Civic Center Library roof in October 1999. The City of Scottsdale held their first planning session earlier this year with APS and developed the preliminary plan to add approximately 50 kW in four different types of solar panel installations. The four types the city hopes to install include: integration of solar into new construction, installation on a flat roof where the equipment is visible, traditional roof mounted solar panels and a ground-mounted installation.

Being Green Goes a Long Way

In May 2000, Arizona became one of the first states in the nation to require utilities to

PARTNERSHIP FACTS:

- **Total Commercial Building Area Committed:** 1.6 million square feet
- **Estimated Cost Savings:** Energy savings are approximately \$300,000 per year. \$51,800 a year on maintenance cost and annual pollution avoidance of over 5.6 million pounds for all three air pollutants combined.
- **New and Notable Innovations:** Arizona became the first state in the nation in May 2000 to require utilities to produce a small portion of their electricity from solar sources.

produce a small portion of their electricity from solar sources. The Arizona Corporation Commission unanimously approved a requirement that utilities must generate at least 0.2 percent of their power from renewable sources in 2001, with at least 50 percent of that from solar sources. The target will gradually increase to 1.1 percent by 2007, as long as the cost of renewable energy declines to a level the commission considers reasonable.

Since the implementation of the Solar Partner Program for residential customers in 1997, APS has extended their program to non-profit, school and governmental entities that have solar



Solar powered unit located along a median at the Scottsdale airport.

installations. In June 2000, the City began to purchase solar power for libraries, purchasing a total of 40,500 kWh of solar energy each year, making Scottsdale the largest retail purchaser of solar power in Arizona. Scottsdale is using the savings from their current energy-efficiency projects to pay for the slight additional cost of purchasing solar power.

“Solar is now an essential part of Arizona’s energy mix, with the creation of the Solar Portfolio in the State Corporation Commission’s recent restructuring action and the public’s growing desire for non-polluting energy,” states Daniel Aiello, Environmental Architect and Chair of the Arizona Solar Energy Advisory Council.

Some of Scottsdale’s energy-efficient projects include retrofitting all 230 traffic signals with Light Emitting Diodes (LEDs) and retrofitting City facilities with energy-efficient lighting. To date, Scottsdale has converted 23 intersections and retrofitted over 1.5 million square feet of facilities. They have also installed solar-powered lighting for monument-type signs in landscape medians, eight solar-powered flood warning devices in Indian Bend Wash and a pilot-controlled system for “as needed” lights for night time landings at Scottsdale Airport.

The Future of Arizona

Scottsdale is demonstrating leadership in energy conservation, efficiency and renewable energy and contributing to a sustainable community. Through its commitment to solar power as a viable option for the growing electrical demands of Arizona, Scottsdale will help pave the way for others to reap the benefits of renewable energy.

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