

Pima County Environmental Quality
Advisory Council

“Take a Walk on the Solar Side”

Pima County Solar Development

May, 2012

Presented by Betty Stamper

Pima County Regional Solar Coordinator



U.S. Department of Energy's Solar America Cities Partnership

25 major U.S. cities are working to accelerate adoption of solar energy technologies for a cleaner, more secure energy future. The city solar partnerships have committed to developing a sustainable solar infrastructure that removes market barriers and encourages the adoption of solar energy by residents and businesses. These cities are taking a comprehensive, city-wide approach that lays the foundation for a viable solar market and provides a model for other cities to follow.

- ANN ARBOR, MI
- AUSTIN, TX
- BERKELEY, CA
- BOSTON, MA
- DENVER, CO
- HOUSTON, TX
- KNOXVILLE, TN
- MADISON, WI
- MILWAUKEE, WI
- MINNEAPOLIS – SAINT PAUL, MN
- NEW ORLEANS, LA
- NEW YORK CITY, NY
- ORLANDO, FL
- PHILADELPHIA, PA
- PITTSBURGH, PA
- PORTLAND, OR
- SACRAMENTO, CA
- SALT LAKE CITY, UT
- SAN ANTONIO, TX
- SAN DIEGO, CA
- SAN FRANCISCO, CA
- SAN JOSÉ, CA
- SANTA ROSA, CA
- SEATTLE, WA
- TUCSON, AZ



Pima County SOLAR AMERICA CITIES Grant

Solar One Stop Grand Opening



www.SolarOneStopAZ.org



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Welcome to Solar One Stop



Solar One Stop AZ provides the latest information about solar energy and how to take advantage of our region's abundant sunshine.

Whether you are a resident, business owner, solar developer or installer, here is a complete list of solar essentials. Learn about solar technologies, rebates and incentives, educational opportunities and solar events.

[LEARN MORE](#)

[NEW - Interactive map of commercial solar installations](#)

Welcome to the Tucson regional solar map that highlights commercial solar installations located in the City of Tucson and unincorporated Pima County. The solar systems were installed from 2000 through 2011 with the majority of installations occurring between 2009 and 2011.

-  [Solar Calculator](#)
-  [Incentives & Rebates](#)
-  [Maps](#)
-  [Upcoming Events](#)
-  [Who's Who in Solar](#)

Pima County Sustainability Initiative Resolution No. 2007-84



May 1, 2007

Pima County's Sustainability Initiatives Resolution No. 2007-84

Pima County is committed to creating and maintaining a sustainable community that promotes individual well-being and opportunity, sound resource conservation and stewardship, and a strong and diverse economy for all of its residents.

The breadth and scope of this commitment is reflected in Resolution No. 2007-84, which the Board of Supervisors unanimously adopted on May 1, 2007. Key elements of the resolution are highlighted below.

1. The Pima County Board of Supervisors supports sustainable development and the continual emphasis on sustaining a livable community.
 2. The Pima County Board of Supervisors supports implementation of a green building initiative and other sustainable initiatives regarding county facilities and vehicles, including the following goals and aspirations:
 - a. Shifting to more environment-friendly alternative fuels for its vehicular fleet such that: 25%, or a minimum of 100 vehicles, of the County's fleet of vehicles, excluding Sheriff patrol vehicles, shall consist of Alternative Fuel Vehicles by 2008. This percentage shall increase to 30% by 2009 and 50% by 2010.
 - b. Applying a green purchasing and waste reduction emphasis to all County facilities.
 - c. Maximizing County water resource assets including groundwater rights, surface rights and production and use of effluent to sustain and protect the County's natural environment.
 - d. Reducing water consumption by 15% in all County facilities by 2025. Water reduction strategies will include conducting water audits, replacing high water-use fixtures and replacing high water-use decorative landscaping with drought-tolerant native landscaping.
 - e. Doubling the number of County parks served by reclaimed water by 2018, subject to voter approval of bond funds to extend reclaimed water lines.
 - f. Designing and building all new occupied County buildings, including additions over 5,000 square feet, for which design is initiated after July 1, 2007, to achieve a minimum of LEED Silver certification level.
 - g. Maintaining all LEED certified County facilities under LEED for Existing Buildings and attempting to apply the same standard to all existing facilities.
 - h. Applying the above LEED criteria to all projects funded through County bonds as a condition
 - of funding and regardless of jurisdictional project sponsorship.
 - i. Designing and constructing at least one medium size County building with a net zero energy consumption.
 - j. Adhering to the Renewable Energy Standard adopted by the Arizona Corporation Commission such that 15% of all County facilities electrical energy consumption shall be generated from renewable resources by 2025.
 - k. Maximizing renewable energy resources from the production of methane in County wastewater treatment and landfill operations and use them to offset nonrenewable energy needs.
 3. Pima County will encourage the construction of new residential, commercial, and industrial facilities employing green building concepts throughout the County by embracing a sustainable development emphasis and by considering:
 - a. The creation of incentive based green building residential and commercial programs.
 - b. The incorporation of solar systems, solar orientation of structures, solar access, and smart growth principles into County development planning including exploring the possibility of requiring that a minimum of 50% of homes constructed after 2010 include direct solar assisted energy through solar hot water or photovoltaic elements.
 - c. The amendment of land use regulations to require that all new houses discharging to septic systems also be provided with a grey water reuse system.
 - d. The revision of design and construction standards to capture and mitigate stormwater generated on-site for purposes of water harvesting and the incorporation, into the pavement of parking lots and roads, of light-colored permeable materials to reduce heat-island effects, water runoff, and dust emissions.
- Through the implementation of these programs, as well as others undertaken as a result of the Board resolution, Pima County will strive to set an example for other communities desiring to achieve a high quality-of-life for their residents, protect their natural and cultural heritage, and provide meaningful economic opportunities.

Sustainability (sə-'stā-nə-'bi-lə-tē). Improving the quality of life for current generations without compromising the resources needed by future generations.



PIMA COUNTY Take a Walk on the Solar Side



“Adhering to the Renewable Energy Standard adopted by the Arizona Corporation Commission such that 15% of all County facilities electrical energy consumption shall be generated from renewable resources by 2025.”



PIMA COUNTY  **Take a Walk on the Solar Side**

Sullivan Jackson Employment Center

- 4.6 KW rooftop PV
- On line July 2009



Roger Road WW Reclamation Facility

- 1 MW single-axis tracking solar PV array (ground mounted)
- On line August 2010
- Supplies 15% of the facility's energy needs



PIMA COUNTY



Take a Walk on the Solar Side

Ina Road Wastewater Reclamation Facility



- 1.1 MW fixed solar PV array, ground mounted
- On line April, 2011
- Will save the County approximately \$2 million over 20 years



PIMA COUNTY  **Take a Walk on the Solar Side**



The Old West meets the 21st Century at the A-7 Demonstration Ranch between the Rincon Mountains and the San Pedro River

- A-7 Ranch is a learning laboratory for sustainable cattle ranching and resource management practices. Old windmills and generator-driven water pumps have been converted to solar power.
- Solar energy supplies 100% of the electricity used by the ranch residences and 30% of the ranch's overall needs.
- There are two separate residential solar arrays, 27 panels for each residence.
- Installation dates: January to April, 2011
- Cost savings estimated at \$18,500 per year



PIMA COUNTY



Take a Walk on the Solar Side



Pima County Renewable
Energy
Incentive District (REID)
ordinance

Approved by BOS 4/3/12

REID Site Types

- Tier 1 (Shovel-ready)
- Tier 2 (archaeological or Pima pineapple cactus survey/mitigation only)
- Ryan Airfield & Tucson International Airport

REID Site Criteria

- 17 criteria for Tier 1, 15 criteria for Tier
 - ~ 5 acre minimum site area
 - ~ Vacant, previously disturbed land, or underutilized
 - ~ Lies outside of Conservation Land System



PIMA COUNTY



Take a Walk on the Solar Side

REID Incentives

Coordination with Public Works Departments

- Reduced or waived fees
- Reduced or waived regulations
- Expedited review times



PIMA COUNTY  **Take a Walk on the Solar Side**

When there's a huge solar energy spill,
it's just called a "nice day"

www.votesolar.org



PIMA COUNTY  **Take a Walk on the Solar Side**

For further information please contact
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