



SUSTAINABILITY INITIATIVES

Request: Support funding opportunities and legislation to enhance municipal energy efficiency and renewable energy programs and expand residential and commercial programs focused on waste diversion solutions, energy efficiency, green building and green power in the city of Phoenix.

Community Value:

The city of Phoenix has a long-standing commitment to natural resource conservation and has actively participated in energy conservation, energy efficiency and environmental preservation since the early 1980s. During this time, the city's energy program has yielded more than \$120 million in energy cost savings/avoidance for municipal operations, reflecting a commitment to energy, environmental and fiscal responsibility.

Phoenix has adopted the following sustainability goals/strategies:

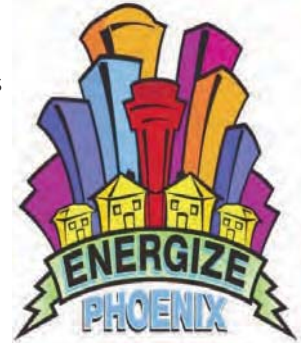
- A renewable energy target of 15 percent by 2025.
- A Climate Action Plan to reduce greenhouse gas emissions for city operations to 5 percent below 2005 levels by 2015.
- An energy-efficiency goal to reduce energy use 20 percent by 2020.
- A 40 percent waste diversion goal by 2020.

Background:

Solar Phoenix 2, a city initiative made possible by a \$25 million investment from the National Bank of Arizona, is currently underway and includes solar energy options for low- and moderate-income homeowners in Phoenix and surrounding areas. Solar Phoenix 2 is the second residential solar-financing program. The first Solar Phoenix program sold out in a year and funded solar systems on 445 homes, generating nearly three megawatts (MW) of solar power. Solar Phoenix 2 allows up to 1,100 qualified homeowners in the Arizona Public Service and Salt River Project utility service areas to adopt solar power without a large upfront investment. Homeowners can make the switch to clean energy with a custom-designed solar panel system from Paramount Solar that will save homeowners money on monthly electric bills. Systems can be installed with no money down and only a small monthly lease payment.

With more than 30 years of energy conservation and efficiency success in municipal operations, the city is seeking to replicate this success throughout the entire community. This success, along with key public private partnerships, resulted in the city receiving a \$25 million federal award from the U.S. Department of Energy Better Buildings Neighborhood Program and the American Recovery and Reinvestment Act of 2009 (ARRA) to launch the **Energize Phoenix** program in partnership with

Arizona State University and with support from Arizona Public Service. The Energize Phoenix program saves energy, creates jobs and is transforming a diverse array of neighborhoods along a 10-mile stretch of the METRO light rail system. Energize Phoenix goals include energy efficiency upgrades for up to 30 million square feet of commercial space and 1,700 residential units and generation of up to 1,000 sustainable jobs by linking and leveraging public and private resources.



While the city does not own an electric utility, it has an aggressive renewable energy goal and is committed to renewable energy projects, including solar, landfill and digester gas, and taking advantage of its millions of square feet of roof tops and acres of land. The city currently generates more than 13 MW of renewable solar energy (enough to power 2,600 homes) at 23 sites.



A number of larger solar projects (1 MW or greater) were recently completed. These projects were primarily financed via Solar Service Agreements, whereby the developer designs, builds and owns the solar array and the city purchases the power generated for use on site.

Solid Waste Diversion Focus:

The city of Phoenix collects residential garbage and recycling materials from more than 395,000 residences. In 2011, the city of Phoenix buried approximately 900,000 tons of material in the city-owned landfill; more than 600,000 of these tons were generated from the residential solid waste stream. Within the Phoenix metropolitan area, more than five million tons of residential solid waste materials were sent to regional landfills in 2011.



Although the city's commingled recycling program has been in effect for more than 20 years, the average diversion rate for the city of Phoenix was 13 percent in FFY 2012, well below the average national recycling rate of 34.1 percent. The city has set an ambitious goal to increase its current waste diversion rate to 40 percent by 2020.

A commitment to explore programs and partner with community and regional leaders to expand local waste diversion efforts has been adopted to ensure we reach the 40 percent goal by 2020. The city would greatly benefit from solid waste research and development focused on maximizing diversion, recycling and beneficial reuse of materials.

Funding for the development of a regional Research and Development Center of Excellence will allow the city to explore and identify regional solutions that meet the growing demand to minimize the amount of materials sent to regional landfills. Phoenix aims to collaborate with local businesses, academia and waste industry leaders to discover sustainable waste solutions that generate positive economic and environmental impacts and will preserve our local environment for generations to come.

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