Brown to Green: Make the Connection to Renewable Energy U.S. Department of Energy Solar Energy Technologies Program

# Solar America Cities

Accelerating Solar on a Local Level



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Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. DOE's Approach to Solar Market Transformation



GOAL Reduce market barriers to, and promote market expansion of, solar energy technologies through non-R&D activities.

#### Activities

- Solar America Board for Codes and Standards
- State Technical Outreach
- Utility Technical Outreach
- Solar America Cities
- Solar America Showcases
- Workforce Development
- Solar Decathlon

#### **Solar America Cities**



GOAL Accelerate solar adoption in the nation's electricity load centers by supporting cities' innovative efforts.



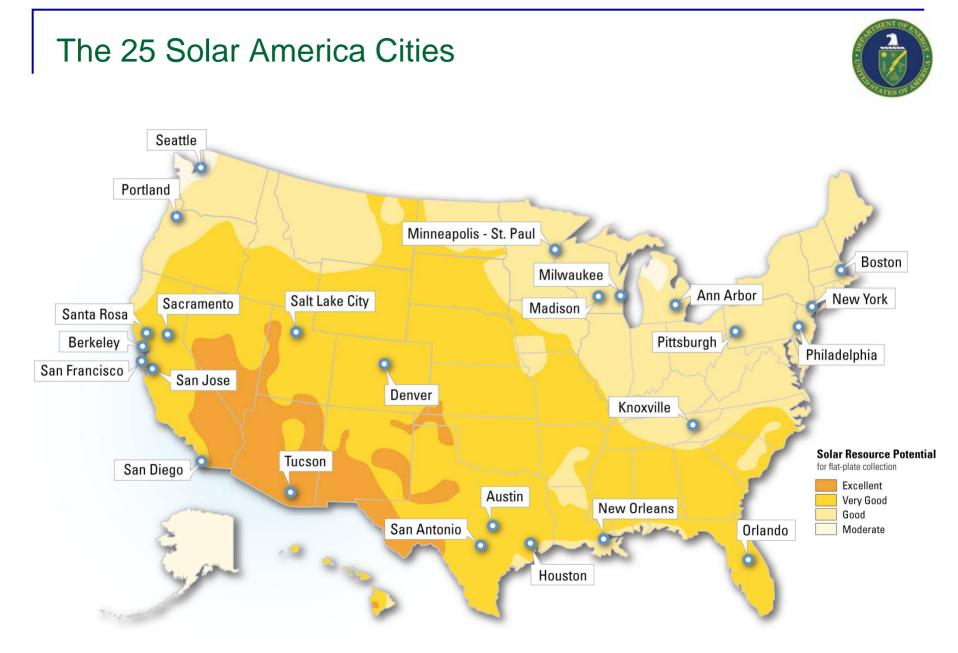
Solar America Cities contribute to DOE's goal of making PV cost-competitive with conventional grid electricity by 2015.



#### SELECTION PROCESS

Competitive awards granted to cities of 100,000 or more **committed** to:

- achieving a sustainable solar infrastructure
- through a comprehensive, city-wide approach
- that facilitates mainstream adoption of solar
- and serves as a model for other cities to follow.



### Solar America City Partnerships

#### **Financial Assistance:**

~\$200,000 per city

### **Technical Assistance:**

~\$250,000 per city

Multi-institutional "tiger teams" of solar experts provide tailored assistance based on city's needs













### Key Barriers to Solar Commercialization



- Lack of communication, information dissemination, and consumer awareness
- Inadequate codes and standards
- Lack of appropriate, consistent interconnection standards
- Lack of equitable and effective net-metering guidelines
- Inconsistent utility rate structure practices
- Complex permitting procedures and fees
- Inconsistent and lack of widespread incentives and other drivers
- Limited education/experience of key building trades with solar technology
- Lack of trained technical personnel, reliable installers, and maintenance services
- Lack of flexible, sophisticated, proven financial approaches

Market barriers increase the price of solar systems and the time before use. Market transformation activities aim to reduce prices and time, resulting in widespread deployment.

#### Solar America City Projects





- Streamlined permitting
- Solar access laws
- Building/zoning code review
- Creative financing programs
- Economic development studies

- Workforce development
- Code official/installer training
- K-12 Education
- Solar Mapping
- Public outreach

### What Makes Solar America Cities Unique?





- Federal/City partnership
- Financial assistance PLUS hands-on Technical Assistance to Cities
- Strong City and DOE network facilitates information sharing and replication potential.

### Solar America Cities – Maximizing the Network





#### **Outreach Tools**

- 2<sup>nd</sup> Annual Meeting, April 1-3, 2009 in San Antonio
- Solar America Cities website
- Regional workshops

#### **Crosscutting Analysis**

- Solar mapping
- Interconnection in area/spot networks
- Creative financing
- Rate structures

Solar America Cities – Going Forward



 Focus on helping 25 partner cities develop sustainable local solar markets

#### Potential New Activities

- Solar America Cities Special Projects
  - 1. Additional funding to cities ready to raise the bar
- City Technical Outreach
  - 1. Provides technical assistance to non-Solar America Cities.
  - 2. Uses a series of learning modules to provide best practices interested cities across the U.S.

#### New Activities: City Outreach

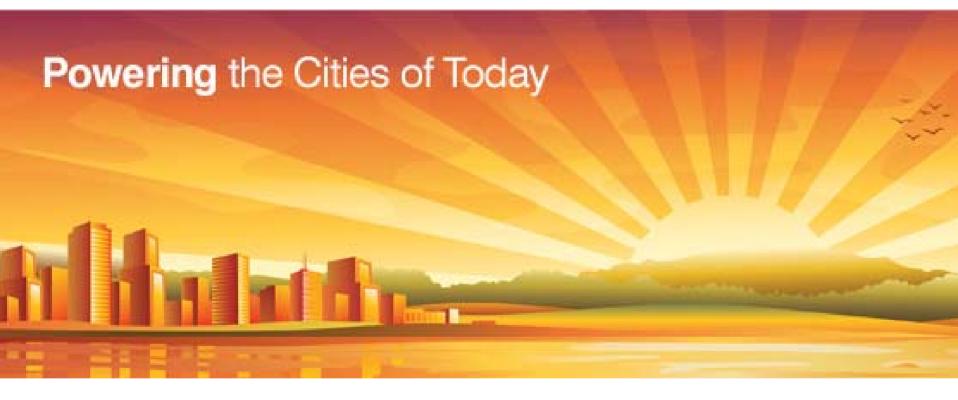


- Provides technical assistance to non-Solar America Cities.
- Uses a series of learning modules to provide best practices to interested cities across the U.S.
- Modules are mostly uniform across cities.
- Informational assistance only; no partnerships formed or financial assistance provided.









## www.solaramericacities.energy.gov