



U.S. Department of Energy  
**Energy Efficiency  
and Renewable Energy**

Bringing you a prosperous future where energy  
is clean, abundant, reliable, and affordable

# DOE Solar Energy Technologies Program Peer Review

**State and Utility Outreach**

**State Legislative Outreach on Solar Technology and Policy  
Options**

**Glen Andersen**

**Denver, Colorado**

**March 9-10, 2009**



- **Staff Qualifications:**

- NCSL program staff are have worked developing state legislative outreach for 8-10 years each.
- The team has both policy and technical expertise, providing them with the great ability to translate technical subject matter into terms easily understood by the average state policymaker
- The energy team has successfully staffed numerous energy policy meetings/working groups and committees, bringing together broad range of viewpoints and stakeholders to increase the flow and exchange of ideas. NCSL has well established outreach mechanisms (including an award-winning website), committees, working groups and large meetings providing opportunities to share ideas.



# Solar Energy Institute in Washington

Washington, D.C., October 18-19th, 2007

- Fifteen legislators and legislative staff attended NCSL's two-day conference
- Toured solar homes during the DOE Solar Decathlon.
- Provided legislators with a basic understanding of solar energy technology, the solar market, barriers to adoption, and state policies that have been instrumental in promoting the adoption of solar energy.
- Follow-up discussions



# Solar Energy Institute in Washington

Washington, D.C., October 18-19th, 2007

- Evaluation
  - Of the 11 policymaker and staff that filled out evaluation forms, all "strongly agreed" that they had an increased working knowledge of solar power technologies and policies.
  - 6 attendees introduced legislation on renewable energy: 8 solar specific bills and 6 renewable energy bills.



## Solar Legisbrief

April/May 2008

- Provides state policymakers with a short introduction to solar energy and a snapshot of state solar policy.
- Delivered to all state legislators and staff throughout the 50 states.
- It is also used in answering information requests.

**National Conference of State Legislatures**  
**LEGISBRIEF**  
 BRISING PAPERS ON THE IMPORTANT ISSUES OF THE DAY  
 Vol. 34, No. 22

**Solar Energy Heats Up**  
 By Correy Webb

*Solar power is an abundant natural resource that is proving reliable in many states. Solar technologies use the sun's energy to provide heat, hot water and electricity for homes and businesses. Systems can be sized to power a single house or perform like a large utility-scale power plant. Few power generation technologies have as little effect on the environment as solar, which quietly generates electricity from sunlight and produces no air pollution or hazardous waste. In response to escalating energy prices, concerns about climate change and other energy challenges, many introduced legislation to advance solar technologies.*

*Solar is a local, safe and clean energy alternative.*

*State incentives can help solar energy become cost-effective.*

**A Clean Energy Alternative**  
 Solar technology addresses several important issues for states:

- Provides power during peak demand when energy is most costly.
- Used for homes, buildings and other sites, it reduces the need to build expensive new transmission and delivery systems.
- Provides greenhouse gas-free energy generation.
- Provides job security by promoting domestic energy production and renewable industries in states.

**Solar Potential in the United States.** Although solar has gained recognition as a local, safe and clean energy alternative, several barriers remain to widespread adoption. Prices for solar are higher than for conventional energy sources or wind, partially due to the demand for solar panels. The cost of solar is expected to decline as technologies are refined and markets expand for renewable energy.

**Subsidies can help solar energy become cost-effective immediately, as demonstrated in Germany and Japan.** Due in part to a policy that requires utilities to buy solar power at higher than normal rates, Germany—which receives about the same amount of sun as cloudy Seattle, Wash.—is the global leader in solar energy production. Japan has been able to phase out its subsidies due to a more cost-competitive solar market.

**Although solar is not the only answer to U.S. energy challenges, this renewable energy option can make an important contribution.** Since the 1970s, solar energy has seen a 100-fold price decrease. It now produces millions of watts per year and has created a \$2 billion national market, according to the U.S. Department of Energy.

**State Financial Incentives for Solar Energy**

- Direct Incentives
- Rebates (17 states)
- Grants (14 states, District of Columbia)
- Production Incentives (3 states)
- Tax Credits, Deductions/Exemptions (22 states)
- Low-Interest Loans (20 states)
- Sales Tax Exemptions (13 states)
- Property Tax Exemptions (28 states)
- Solar in Renewable Portfolio Standards (12 states, District of Columbia)
- Industry Requirement (3 states)

Source: Interstate Renewable Energy Council, October 2007



# Technical Assistance

- Provided state legislators and staff with information and analysis on request.
- More than 250 requests answered during FY 2008.
- Requests concerned renewable energy policy and numerous solar specific questions.
- In depth contact with a number of states
  - *Hawaii*. NCSL worked with the chair of the house energy committee there, providing input on the governor's feed-in tariff and decoupling plans, and providing state policy information on these plans.
  - *Texas* Provided policymaker, who was author net metering legislation, with detailed information on net metering issues to assist in his work with the PUC. Legislator attended Solar Institute.



## State Solar Legislation Database

- 2007-2008 enacted solar legislation
- 185 solar-related bills enacted since 2007
- Press Release
- 2009 update

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*The Forum for America's Ideas*

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### Energy Database

[Database Home](#)

Last updated: April 28, 2009

The National Conference of State Legislatures tracks energy legislation to bring you up to date, real-time information about energy-related bills that have been introduced in the fifty states and the District of Columbia. The Energy Policy Database is updated and summarized bi-weekly.

State(s):  
All States  
Alabama  
Alaska  
Arizona  
Arkansas  
California  
Colorado  
Connecticut  
Delaware  
District of Columbia

Topic(s):  
Gasoline  
Greenhouse Gas Emissions  
Idling  
Metal Theft  
Motor Vehicle Emissions  
Oil and gas  
Renewables / Alternative Energy  
**Solar**  
State Energy Policy / Plan  
Water

Keyword in Title or Summary:

Year:  
Any

Primary Sponsor:

Status:  
All

Bill Number:

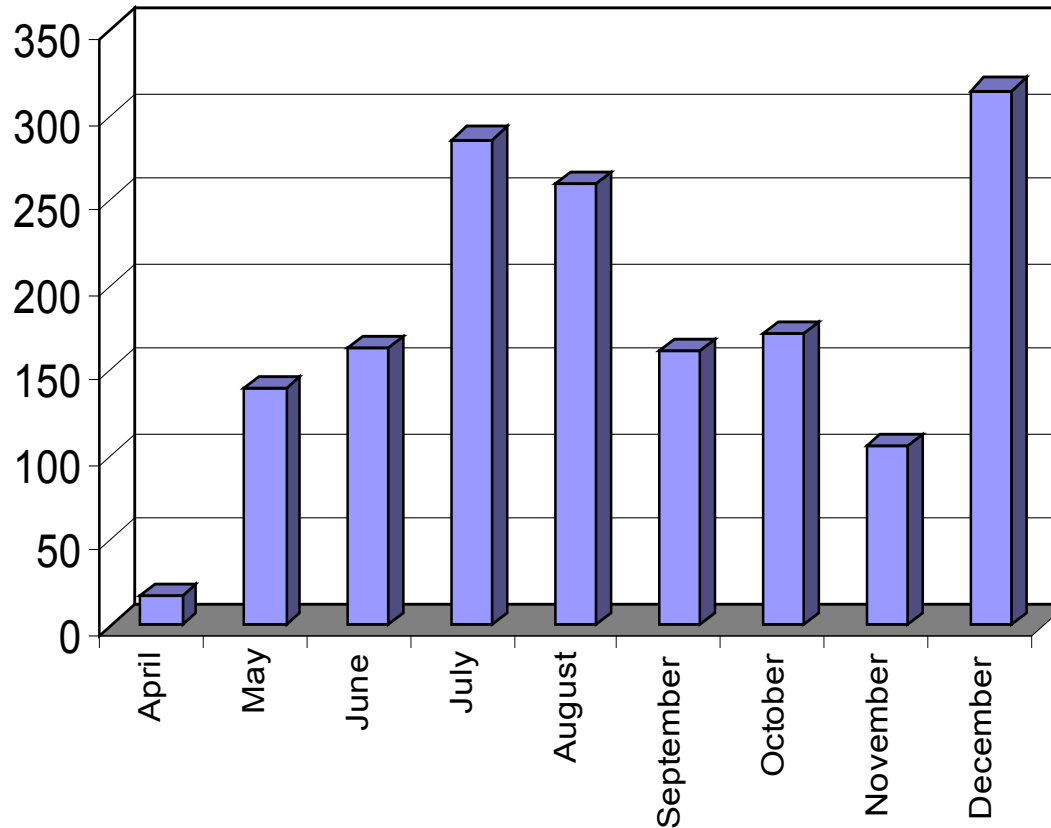
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## State Solar Legislation Database

### Visits 2008





## State Renewable Energy Policy Overviews

- 17 States
- Highlights renewable energy policy approach
- Discussion of policies

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NCSL Home > State & Federal Issues: Issue Areas > Energy > State Renewable Policy Overviews

### State Renewable Energy Policy Overviews

NCSL staff has developed renewable energy policy overviews for the states listed below. The overviews, based on information provided by [dsireusa.org](http://dsireusa.org) and the National Renewable Energy Lab, show the renewable energy incentives and mandates in place in a state, as well as an analysis of how effective the policies have been.

*NOTE: NCSL provides links to other Web sites from time to time for information purposes only. Providing these links does not necessarily indicate NCSL's support or endorsement of the site.*

To view PDF files, you must install [Adobe Acrobat Reader](#).

#### State

<a href="#">Arizona</a>	<a href="#">Colorado</a>	<a href="#">Connecticut</a>
<a href="#">Delaware</a>	<a href="#">Kansas</a>	<a href="#">Maryland</a>
<a href="#">Minnesota</a>	<a href="#">Missouri</a>	<a href="#">New Jersey</a>
<a href="#">New Mexico</a>	<a href="#">North Carolina</a>	<a href="#">Ohio</a>
<a href="#">Oklahoma</a>	<a href="#">Pennsylvania</a>	<a href="#">Texas</a>
<a href="#">Virginia</a>	<a href="#">Washington</a>	



## **Budget**

Operations have been within budget, with expenses coming in about \$1800 under for fiscal year 2008.



## Plans for FY 2009

- **Solar Policy Guide**
  - Collaboration with DOE, the North Carolina Solar Center, and others to complete the solar policy guide for state legislators.
  - Will utilize case studies to demonstrate successful programs
  - Distributed to Clean Energy Working group, highlighted in press release, posted on web page, sent out for information requests.
  - Targeted Release Date: April.
- **Energy Policy 101 initiative**
  - Targets new legislators on energy and environment committees.
  - Provides basics of how the energy grid works and the role that energy policy plays in providing consumers with energy.
  - Meeting in June, 2009.
  - Solar energy policy will be discussed and highlighted in meeting sessions, which will include discussions of RPS and



## Plans for FY 2009

- Maintain Solar Database
- NCSL will publish an article on renewable portfolio standards in its State Legislatures Magazine: April/May
- Sessions on renewable energy during tribal legislators conference in May.
- NCSL Energy Summit pre-conference to Legislative Summit
- Technical Assistance
- Solar Institute with solar Decathlon tour



- The Solar Institute demonstrated increased knowledge among policymakers, increasing the likelihood of more informed solar related policy creation. It also showed that attendees to act on their knowledge by pursuing initiatives
- Technical assistance allows NCSL staff to have direct contact with legislators, providing them with information and insight on effective legislation from around the country.
- Outreach materials, such as the RPS article that will appear in the State Legislatures magazine, will reach all legislators and staff, providing a rationale behind solar incentives and the economic and energy security benefits that can accrue from solar energy and renewable energy infrastructure in general.
- Meetings and meeting sessions provide legislators the opportunity to interact, share ideas and from other policymakers and shareholders. NCSL research shows that state lawmakers place high value on these activities.
- Materials and technical assistance help legislators make sense of the various policy options available, allowing them to tailor the best options