



State Solar Policy Initiatives: Recent Development & Lessons Learned

SOLAR 2008

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Clean Energy States Alliance

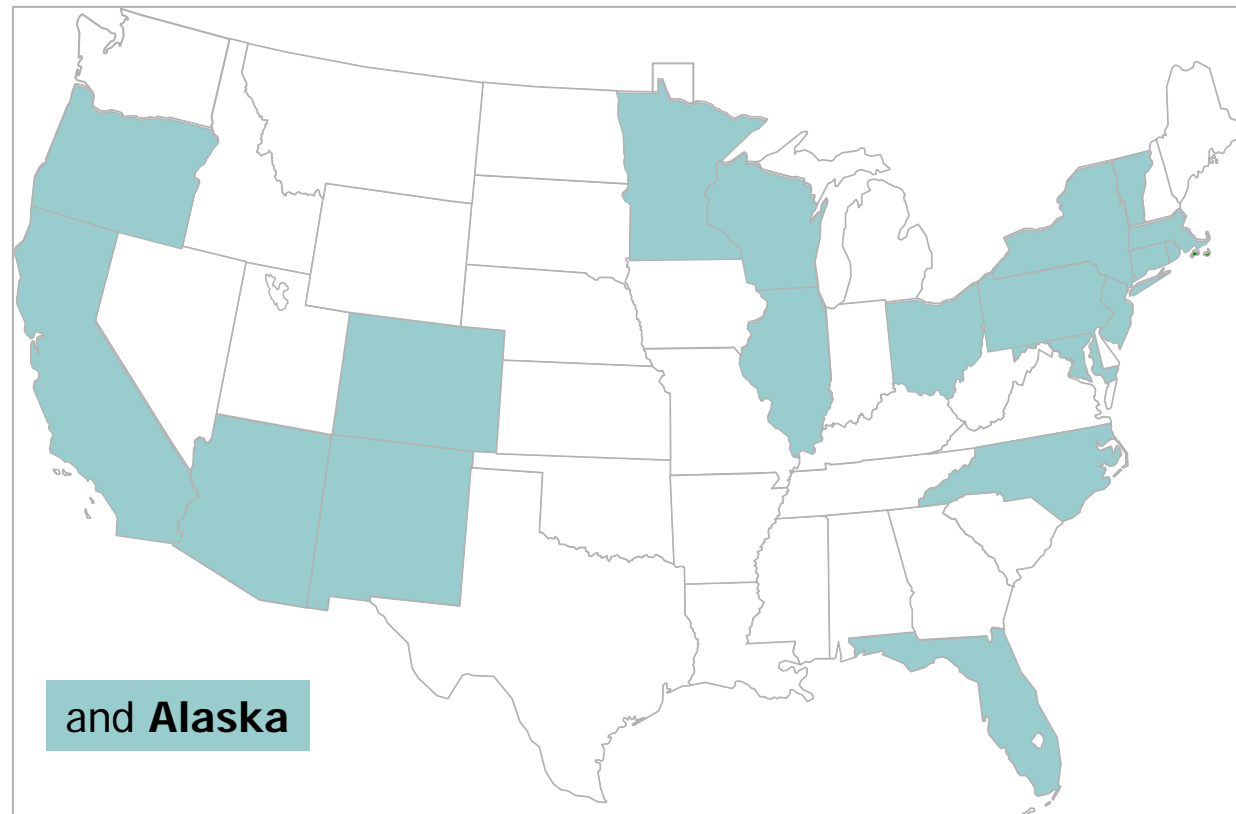
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Clean Energy States Alliance (CESA)

www.cleanenergystates.org



- Multi-state consortium of 18 states
- Nearly \$6 billion to invest in next ten years

Top States for PV Installations in 2007⁽¹⁾

	2006 (MW)	2007 (MW)	06-07%	Cumulative Installed PV ⁽¹⁾
California ⁽²⁾	69.5	87.1	25%	327.0
New Jersey ⁽³⁾	17.9	19.2	7%	43.5
New York	2.9	4.4	52%	18.7
Nevada	3.2	14.6	356%	18.6
Arizona	2.1	2.8	33%	15.1
Massachusetts	1.5	1.4	-7%	14.5
Colorado	1.0	12.5	1150%	4.6
Texas	0.6	0.7	20%	3.8
Connecticut	0.7	1.8	157%	2.8
Oregon ⁽⁴⁾	0.5	1.1	120%	2.8
All Others	3.0	4.4	47%	19.8
TOTAL	103.0	151.7	47%	471.2

(1) Capacity through 2007, grid-connected, MW-dc; (2) CEC, SGIP, CSI & SMUD only; (3) incentives in addition to Solar-REC; (4) Energy Trust service territory only (Portland General Electric and Pacific Power)

Source: IREC and CESA, March 08



Why States are Supporting Solar

- **PV – a growing success because of state incentive programs**
 - High visibility
 - Most practical technology for residential sector
 - Desirable in long-term capacity mix – energy security, fuel diversity, environment, peak coincidence



Barriers Facing States in Mainstreaming Solar

- **Public's lack of knowledge and confidence in solar technology**
- **Large initial investment**
 - Residential systems average \$35-\$40k
 - Commercial systems: \$50k to \$6 mm
- **Lack of streamlined interconnection standards and simple permitting practices**



Major State Solar Policy Tools

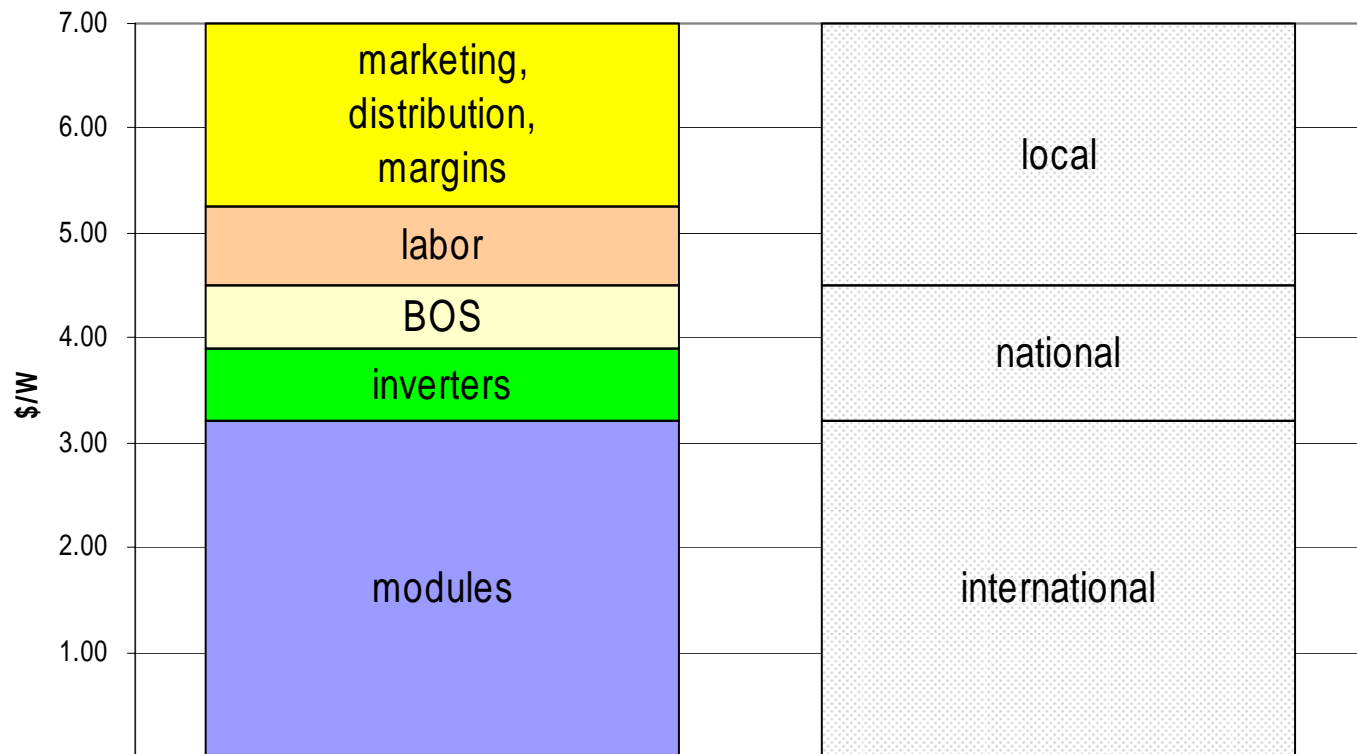
- **State incentives – capital rebates or performance-based incentives**
 - More than 30 states with solar incentives
 - Funded by system benefit charge
 - “Come & Get It” approach
- **Simplified interconnection standards, net metering, and rate structures that reward solar production during critical peak periods**
- **Exemption from state and local property taxes**
- **RPS & Renewable Energy Credits create new demand and revenue streams**
- www.dsireusa.org provides database of incentives



Substantial Local Content

**Non-module costs are decreasing, driven by local scale and learning
(CEC example: \$8.83/W in 2004 → \$8.57/W in 2005)**

30-50% Local Content





State Solar Program Objectives

- **Encourage PV system cost reductions through increased manufacturing volume, with progressively lower levels of public support needed**
- **Directly engage public with minimal transaction costs**
- **Set incentive level right**
- **Grow local infrastructure**
- **Lower costs of marketing, distribution, installation, support**





DOE Solar America Initiative – State Solar Technical Outreach

- **3-year initiative to assist states to advance solar**
 - **CEG/CESA partnership with DOE, Council of State Governments, and other partners**
- **Objectives:**
 - **Provide information & technical assistance to states for new & expanded solar programs**
 - **Identify & foster adoption by states of solar best practices**
 - **Pursue strategic opportunities for states & DOE to advance solar**



Observations & Recommendations

- **Solar PV is a growing success because of state government support programs**
- **If you choose to subsidize PV:**
 - **Long-term program with rational phase-out plan (e.g., Japan, Germany)**
 - **Clear, transparent, customer-friendly rules**
 - **Simple program design**
 - **Long term financing**
 - **Walk the Talk: state buildings**
 - **It takes a Village to build an Industry**



Presenters: State Solar Innovation

- **California Solar Initiative:**
Sanford Miller, California Energy Commission
- **New York Solar Program:** Vicki Colello, NYSERDA
- **Use of Renewable Portfolio Standards to Advance Solar:**
Ryan Wiser, LBNL
- **New Directions for Jersey Solar Program:** David Hill, VEIC





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