

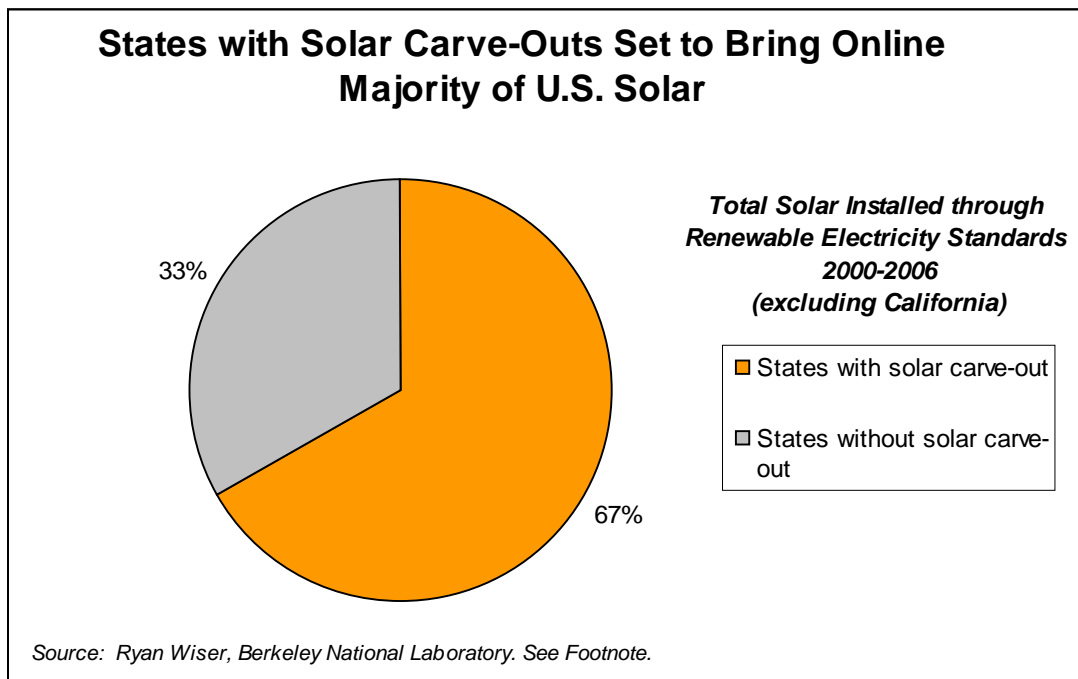


## Solar Carve-Outs

### *Deploying Solar within Renewable Electricity Standards*

Experience from the states demonstrates that a traditional Renewable Electricity Standard (RES)– where all eligible renewable resources compete – supports least-cost projects such as wind and biomass, but is very unlikely to deploy solar energy.<sup>1</sup> Given the unique peak energy shaving and job creation benefits solar energy offers, 19 of the 28 states with a RES have sought to grow local solar markets by adding a specific solar requirement- either a solar set aside (13) or a solar renewable energy credit multiplier (4) or a combination of the two (2). Experience from these 19 solar states is demonstrating that if we want an RES to advance functional solar markets a *solar carve-out is a necessary addition*.

According to analysis by Berkeley National Lab, states looking to deploy solar are moving towards solar carve-outs, and away from multipliers to create more predictable, sustainable solar markets. The main reason for the move is that multipliers have proved ineffective at deploying solar, and when a multiplier does work, it has a dilutionary effect, reducing the total amount of renewable energy procured to comply with an RES. **Analysis from Lawrence Berkley Lab shows that states with solar credit multipliers have not yet seen significant solar additions.**<sup>2</sup>



<sup>1</sup> Sinclair, Mark. "Mainstreaming Solar Electricity: Strategies for States to Build Local Markets." Clean Energy Group and Steve Weisman, Peregrine Energy Group. April 2008. < [http://www.cleanenergy.org/Reports/CEG\\_Mainstreaming-Solar-Electricity\\_Apr2008.pdf](http://www.cleanenergy.org/Reports/CEG_Mainstreaming-Solar-Electricity_Apr2008.pdf)>.

<sup>2</sup> Ryan Wiser, Berkeley National Laboratory, Presentation to NARUC, November 14, 2007, "Renewables Portfolio Standards: An Opportunity for Expanding State Solar Markets." < [www.solaralliance.org/public\\_resources/wiser\\_state\\_solar\\_rps\\_2007.ppt](http://www.solaralliance.org/public_resources/wiser_state_solar_rps_2007.ppt) >.

<sup>3</sup> IBID

## Case Studies- Solar Carve-outs at Work in the States

### **New Jersey**

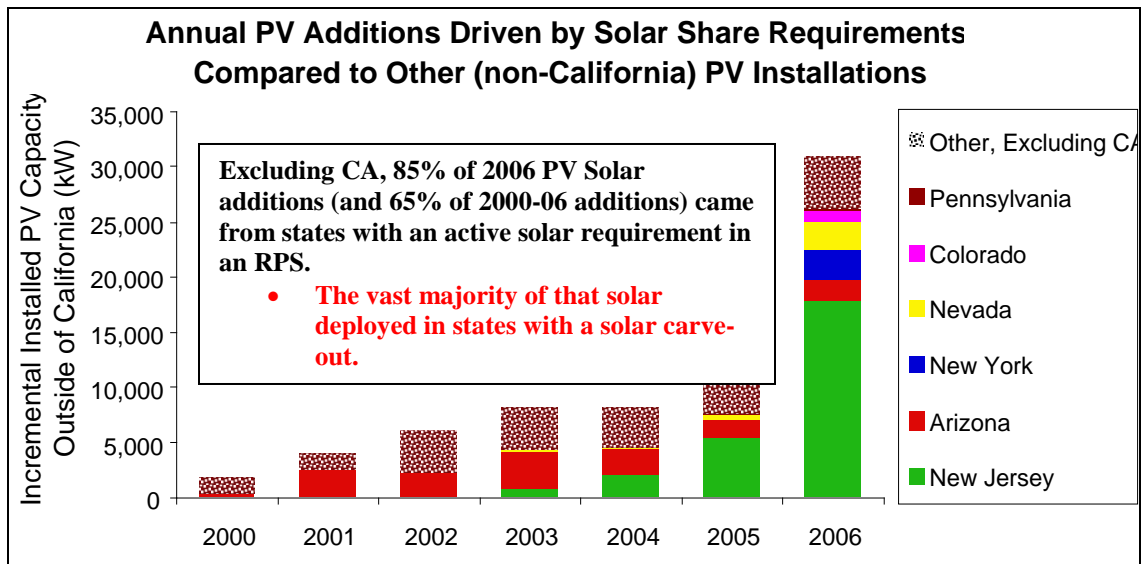
New Jersey is on track to meet 2.12 percent of its electricity needs (2300 megawatts) with solar energy by 2021. Today, with over 3,500 solar photovoltaic systems installed across the state, New Jersey is second only to California in the number solar panels installed. Like California, the successful deployment of solar in New Jersey is attributed to its specific solar set aside.

### **Arizona**

Arizona was one of the first states to adopt a renewable standard. The state's Environmental Portfolio Standard (EPS), instituted in 2001, had weighted renewable energy credits (RECs) for in-state manufacturing and distributed generation. After chronic non-compliance and widespread dissatisfaction with its results, on October 31, 2006 the Arizona Corporation Commission voted to scrap the EPS in favor of a new approach. The resulting Renewable Energy Standard and Tariff (REST) does not include weighted RECs. Instead, the new standard carves out a segment for distributed generation that grows to 30% (i.e. 4.5% of total retail sales) by 2025. One-half of the distributed renewable energy requirement must come from residential applications and the remaining one-half from nonresidential, non-utility applications.

### **New Mexico**

New Mexico similarly established a state renewable portfolio standard in 2002 with a REC multiplier for solar. However, several years into the program, very little solar had been installed in the state. In March of 2007, the state legislature passed SB 418, which increased the renewable standard to 20%, and explicitly required a diversification of resources. The New Mexico Public Resources Commission opened a docket, and after multiple hearings and expert testimony, concluded that REC multipliers were not effective in reaching the desired goal of resource diversification, and instead implemented both a solar and a distributed generation carve-out. PNM, the state's largest utility, acknowledged that it knew of no state in which weighting had resulted in significant solar deployment.



Source: Ryan Wiser, Berkeley National Laboratory. <sup>4</sup>

<sup>4</sup> Ryan Wiser, Berkeley National Laboratory, Presentation to NARUC, November 14, 2007, "Renewable Portfolio Standards: An Opportunity for Expanding State Solar Markets." [www.solaralliance.org/public\\_resources/wiser\\_state\\_solar\\_rps\\_2007.ppt](http://www.solaralliance.org/public_resources/wiser_state_solar_rps_2007.ppt).