

# NATIONAL SOLAR JOBS CENSUS 2011

The *National Solar Jobs Census* is a product of The Solar Foundation's continuing commitment to supporting growth in the solar industry through research and education. First conducted in 2010, the Census establishes a credible solar jobs baseline and is designed to inform policymakers and employers about the substantial, positive impact the solar industry has on the U.S. economy. Recognizing the rapid pace of change in the industry, The Solar Foundation (in partnership with BW Research Partnership's Green LMI Division and Cornell University) recently produced the second Census of solar employers across the nation, providing updated solar employment figures and growth projections.



## SUSTAINED GROWTH ACROSS SECTORS

The solar industry continues to grow rapidly, and firms are hiring workers in manufacturing, installation, sales and distribution, and a variety of other categories. Over the last 12 months solar manufacturing jobs grew nearly 25 percent, and employers expect to add an additional 3,473 new jobs by August 2012. Jobs at solar installation firms grew by 5.6 percent and are expected to grow by an additional 22 percent - 13,068 new jobs - by August 2012. The number of sales and distribution jobs grew the fastest over the past 12 months, and this sector is expected to grow by another 35 percent over the next year. Growth is also expected in other sectors.

## A BRIGHT SPOT IN A DIM ECONOMY

Over the past year, U.S. solar jobs increased at nearly ten times the job growth rate of the rest of the economy. Employers are also highly optimistic about the state of their industry and expect to keep adding workers at a rapid pace. **As of August 2011, the U.S. solar industry employed an estimated 100,237 solar workers** - defined as those workers who spend at least 50 percent of their time supporting solar-related activities. Solar businesses added 6,735 workers since August 2010, which represents **industry-wide job growth of 6.8 percent**. During the same 12-month period, jobs in the overall economy grew by a mere 0.7 percent, while fossil fuel electric generation lost 2 percent of its workforce.

Subsector	2010 Jobs	2011 Jobs	2012 Jobs	2011-2012 Expected Growth	2011-2012 Expected Growth Rate
Installation	43,934	52,503	65,571	13,068	22%
Manufacturing	24,916	24,064	27,537	3,473	14%
Sales and Distribution	11,744	17,722	23,910	6,188	35%
Other	12,908	5,948	6,933	985	17%
Total	93,502	100,237	123,951	23,714	24%

*\* Due to the overlap that is common among vertically-integrated solar firms, improvements have been made to Census 2011 methodology. Though the number of solar manufacturing jobs appears to have declined, they have actually increased 24.9 percent since last August 2010. Also, fewer firms identified with the "other" category in this year's Census, opting for other segments of the value chain.*

## ENSURING CONTINUED GROWTH AND PROSPERITY

In addition to collecting information on the solar workforce, we also asked employers what factors were helping or hurting their businesses. Not surprisingly, the poor state of the national economy was a major factor. However, the policy environment is also important: many firms cited weak or non-existent state policies for encouraging solar investment, such as a lack of incentives and limited access to consumer loans or lines of credit.

Employers also reported several positive trends, such as the extension of the successful 1603 Treasury Program, effective state and local incentive programs, and increased consumer awareness of solar products and services. Improving local economic conditions and the presence of renewable portfolio standards (RPS) were seen as factors encouraging growth in the solar industry.

## RECOMMENDATIONS

Based on our research, there are a number of critical steps that solar stakeholders can take to help the solar industry continue its rapid growth.

**Policymakers** can develop incentives that increase the adoption of solar for consumers and businesses and promote rules that create a fair competitive environment for solar energy relative to fossil fuel projects. Since many solar jobs require advanced skills, policymakers should also continue to make public-sector investments in solar workforce training programs.

Solar **workforce training providers** should focus their efforts on workers who already have some occupational experience and should offer training for the full spectrum of solar jobs. Training program administrators should also coordinate with local employers to tailor their curriculum to employers' needs.

The solar **business community** should promote energy conservation through the use of solar and other renewable energy sources, work with state and local governments to improve incentive programs, and foster relationships with allied advocacy groups to educate the public about the benefits of solar energy.

## TOP 20 STATES FOR SOLAR JOBS

Rank	State	Solar Jobs	Rank	State	Solar Jobs
#1	California	25,575	#11	North Carolina	2,392
#2	Colorado	6,186	#12	Washington	2,301
#3	Arizona	4,786	#13	New Mexico	2,099
#4	Pennsylvania	4,703	#14	Nevada	2,025
#5	New York	4,279	#15	Utah	1,876
#6	Florida	4,224	#16	Maryland	1,782
#7	Texas	3,346	#17	Georgia	1,733
#8	Oregon	3,346	#18	Wisconsin	1,677
#9	New Jersey	2,871	#19	Virginia	1,528
#10	Massachusetts	2,395	#20	Illinois	1,491

The Solar Foundation recognizes that its Census methodology may undercount solar jobs in certain states and therefore may not align with other studies of solar employment or other solar activity metrics. The Foundation is committed to improving its understanding of the nuances of its data and methodologies, ensuring that its research products are as accurate as possible, and that its results are understood in the context of other ongoing solar energy research.

## THE SOLAR FOUNDATION