

# Moving in the right direction

## Events continue apace in the US market – enough to give another boost to PHOTON's 2011 PV capacity estimate

Those who get news exclusively from television may think that just one thing happened in the solar industry between the end of August and mid-September: namely, that thin-film manufacturer Solyndra filed for bankruptcy and was raided by FBI agents. But there was much more happening around the US and Ontario than one company going out of business. The cumulative impact of all these industry developments led us to raise our expectations for total photovoltaic (PV) capacity to be added in the US market this year by just over 40 MW, from 1,885 MW to 1,925.4 MW.

There were also many developments that will have a more consequential impact on the market size in 2012 and beyond. The California Public Utilities Commission (CPUC), for example, unanimously approved the rules for the state's first Renewable Auction Mechanism (RAM) procurement. The first auction, which requires investor-owned utilities to procure 1 GW of energy from projects of no more than 20 MW, must be completed by November, though none of the solar systems receiving contracts will come on line this year. The state Legislature also approved \$200 million for the California

Solar Initiative (CSI), in order to keep its nonresidential program running.


On the federal level, the Department of Energy kept up a feverish pace of finalizing loan guarantees, including one for Project Solar Strong, which should result in 371 MW of PV installed on thousands of military homes around the country. The most tangible and immediate boost to our prediction, however, comes from New Mexico, where the start of operation at NRG Solar's 25 MW Roadrunner plant lifted our expectation for the US as a whole.

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### Alabama

Capacity added in 2010 (MW): 0.1

**Estimated capacity to be added in 2011 (MW): 1.0**

 The Tennessee Valley Authority (TVA) reduced the cap for its Generation Partners incentive program from 200 kW to 50 kW. See the update on Tennessee in this section for more details.

### Alaska

Capacity added in 2010 (MW): 0.5


**Estimated capacity to be added in 2011 (MW): 1.0**

Our research found no significant updates this month.

### Arizona

Capacity added in 2010 (MW): 60.0

**Estimated capacity to be added in 2011 (MW): 138.3**

 Thin-film manufacturer First Solar Inc. held a de-


dications ceremony at its new facility in Mesa. The factory is expected to begin producing by the third quarter of 2012. First Solar says it is investing just over \$300 million in the four-line, 250 MW facility.


 The National Science Foundation and the DOE will provide \$18.5 million in funding for the first 5 years of operation of a new national solar research facility at Arizona State University. The Center for Quantum Energy and Sustainable Solar Technologies will foster collaboration among universities.

### Arkansas

Capacity added in 2010 (MW): 0.3

**Estimated capacity to be added in 2011 (MW): 1.0**


 Little Rock-based non-profit Heifer International, which promotes sustainable agriculture around the world, began installing a 24 kW PV system in September.


 The Arkansas Economic Development Commission reported that 128 projects – 125 of which were solar – received incentives from a temporary program funded by federal stimulus dollars.


### California

Capacity added in 2010 (MW): 240.0

**Estimated capacity to be added in 2011 (MW): 610.0**

 In August, the California Public Utilities Commission unanimously approved the final rules and procedures governing the Renewable Auction Mechanism (RAM) procurement plan, which requires the state's investor-owned utilities to obtain 1 GW of renewable energy from projects 20 MW or smaller over the next 2 years. The first auction must be completed by November.

 On Sept. 1, SB 585, which adds \$200 million in funding to the California Solar Initiative, passed the state Senate. The bill has already been approved by the Assembly and Governor Jerry Brown is expected to sign it. Even if he does not sign it, it will become law.

 Fremont-based cylindrical thin-film module manufacturer Solyndra LLC suspended its manufacturing operations and filed for Chapter 11 bankruptcy. The company announced Aug. 31 that it would lay off, effective immediately, approximately 1,100 full-time and temporary employees (see article, p. 32).



☀ As part of the \$145 million awarded in September under the DOE SunShot Initiative, a total of \$35.7 million will go to 14 PV initiatives in California. Projects include next-generation materials research, streamlining of permitting, and downstream product development.

☀ Solopower Inc., which was awarded a \$197 million loan guarantee from the DOE, plans to expand its thin-film manufacturing capacity in San Jose.

☀ The US Secretary of the Interior Ken Salazar approved plans for an 8 km transmission line on public lands in the Southern California desert. The line will connect the 250 MW Imperial Solar Energy Center West Project proposed by CSolar Development LLC to the electric grid.

☀ The board of directors of Imperial Irrigation District, a Southern California balancing authority and transmission service provider, approved the Path 42 transmission-line upgrade project to transport 700 MW of additional power to Southern California Edison. The project should be completed in December 2013.

☀ 8minuteenergy Renewables and its partner Gestamp Solar announced generation interconnection agreements for 355 MW of PV projects. The first projects, including the 50 MW Chocolate Mountains Solar Farm, are expected to be completed by early 2013.

 **Colorado** 

Capacity added in 2010 (MW): 44.0

**Estimated capacity to be added in 2011 (MW): 122.0**

☀ In October, Boulder residents will begin voting on whether to create a municipal utility that would deliver electricity in place of Xcel Energy, a privately held company. The county election office will mail ballots Oct. 10 to 14 and accept mail-in ballots until Nov. 1.

☀ Real Goods Solar rolled out a residential financing plan in Colorado and California that promises homeowners PV systems with no up-front costs, lower monthly fees than their current utility bills and an option to own the systems after 6 years. The financing deal is called the PowerSavings Plan.

☀ San Miguel Power Association (SMPA), a rural electric cooperative in Western Colorado, selected Clean Energy Collective to develop a 1 MW community-owned solar farm. The two groups are looking for a site in the SMPA service territory to build the project.


☀ The Colorado Solar Energy Industries Association

(CoSEIA) is hosting an educational and networking event to help make financing for solar projects more accessible. The event follows a CoSEIA meeting with the Colorado Bankers Association and executives from First Bank, JP Morgan Chase, Wells Fargo and US Bank in August. The next event is planned for Oct. 11 in the Denver area.

☀ The DOE and Cogentrix Energy finalized a \$90.6 million loan guarantee for a 30 MW concentrating PV system, 4 months after the loan was first announced. Cogentrix has said the project should come on-line in the second quarter next year.

**Explanation of change:**

🕒 *Real Goods introduced a new financing plan with 4 months left in the year. Our estimate is this will add 2 MW of capacity in this time.*

 **Connecticut** 

Capacity added in 2010 (MW): 4.9

**Estimated capacity to be added in 2011 (MW): 9.0**

☀ Underwriters Laboratories acquired the quality assurance business of STR Holdings Inc., a Connecticut-based maker of PV encapsulants.

 **Delaware** 


Capacity added in 2010 (MW): 3.0

**Estimated capacity to be added in 2011 (MW): 18.0**

☀ The University of Delaware was awarded \$9.1 million in solar research and development funds from the DOE SunShot Initiative. About half the funding will go to projects involving thin-film copper-indium-gallium-diselenide (CIGS) cells. The single largest award is being given to a \$3.3 million project testing a patented design for crystalline silicon cells on thin-silicon wafers.

**Explanation of change:**

🕒 *Previous estimates did not include the recently completed Perdue solar farm.*

 **District of Columbia** 

Capacity added in 2010 (MW): 3.5

**Estimated capacity to be added in 2011 (MW): 3.5**

☀ Beginning Oct. 1, funding for fiscal year 2012 of the District of Columbia's renewable energy incentive program (REIP) begins. Administered by the District's Department of the Environment, the incentive provides an up-front rebate of \$1.50 per W for the first 3 kW, \$1 per W for the next 7 kW and 50¢ per W for the next 10 kW. Rebates are capped at \$16,500.

 **Florida** 

Capacity added in 2010 (MW): 35.0

**Estimated capacity to be added in 2011 (MW): 52.0**

☀ On Aug. 29, Florida Power & Light Co. (FPL) said it would re-open a solar rebate program with about \$5 million available for residential and commercial PV systems. FPL started accepting applications on Aug. 30 and quickly ran out of funds. The money came from unclaimed solar hot-water system incentives. It was distributed at a rate of \$2 per W for residential systems up to 10 kW and a slightly lower rate for commercial systems up to 32.5 kW.

☀ Darden Restaurants, an Orlando-based company that owns six chain restaurants, including Red Lobster and Olive Garden, said it's putting a 1.1 MW PV system on the roof of its 2-year-old Restaurant Support Center. Darden says the project will be completed by year's end.

☀ The Gainesville-based installer Solar Impact announced a 725 kW rooftop PV project on eight buildings owned by Alachua County Public Schools. Gainesville Regional Utilities will make feed-in-tariff payments of 29¢ per kWh for 20 years. The school district will collect \$72,500 per year in roof lease payments.

☀ PetersenDean Roofing and Solar Systems installed a 166 kW PV system on a new terminal at Page Field, an airport in Fort Myers. The state government contributed \$500,000 toward the installation cost.

☀ Progress Energy is donating a 100 kW PV system to the University of Central Florida and 10 kW of PV systems with battery backup to nine public schools participating in the utility's SunSense Schools program. The projects will all be completed by year's end.

**Explanation of change:**

🕒 *Additional rebate funds from FPL should add about 3 MW of capacity this year. The other four installation projects reported this month account for another 2 MW.*