

## Ion implanters Getting ready for large-scale use in high-efficiency cell production



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### Double-glass modules

Glass-glass panels are a major trend among manufacturers – and for good reason

### SPI 2013 preview

Largest US solar show has interesting products on display in Chicago

### Monitoring systems

Data logger test shows issues for recognizing snow coverage on PV systems

### Cell testers

LED lamps are the hottest new products in survey for IV measurement devices

## Expanding solar heating, cooling would bolster US economy

With no end in sight to the political dysfunction in Washington, what can the private sector do to help spur job creation and economic growth in the future in the US?

Here's one good idea: The Solar Energy Industries Association (SEIA) recently released a comprehensive new report outlining ways to create 50,250 new American jobs and save more than \$61 billion in future energy costs by expanding the use of innovative and cost-effective solar heating and cooling (SHC) systems across the nation.

Prepared by BEAM Engineering, a Boston-based consulting firm that focuses on energy system design and implementation, this new, first-of-its-kind report provides a roadmap for dramatically increasing SHC capacity in the US from 9 GW thermal to 300 GW thermal by 2050 through the installation of 100 million new SHC solar panels nationwide. Thermal energy is typically measured in terms of British Thermal Units (BTUs) but can also be converted to W.

Today, approximately 44 percent of American energy consumption is attributable to heating and cooling. According to projections by BEAM Engineering, ramping up the installation of SHC systems across America would allow the US to generate nearly 8 percent of its total heating and cooling needs through clean, affordable solar energy.

SHC is the most efficient renewable technology for generating thermal heat and costs are as low as 6¢ per kWh.

Another big advantage of SHC, according to the report, is the positive impact it has on the environment. Expanding SHC can help to displace an estimated 226 million tons of carbon emissions annually. That's the equivalent of taking 47 million passenger cars off the road!

In addition to creating tens of thousands of new jobs and dramatically reducing electricity costs, BEAM Engineering says the SHC roadmap provides a wealth of other advantages, including:

- Saving \$19.1 billion to homeowners, businesses, schools and government by deferring the need for electric and natural gas infrastructure expansion and repairs
- Raising \$2.1 billion annually in increased federal tax revenue through job creation and economic growth
- Increasing America's annual manufacturing GDP by \$1.4 billion

This is a common sense plan that's good for America. Moving forward, if policymakers want to create new jobs, spur economic development and reduce our nation's dangerous dependence on foreign energy sources, we need sustained investments in technologies like solar heating and cooling – not hot and cold public policies. ● rr



Solar Energy Industries Association (SEIA)

▲ Rhone Resch, president of the US Solar Energy Industries Association (SEIA), writes a monthly column on solar power in the US..

### Indiana

**Solectria Renewables supplies inverters for largest airport solar installation in North America.** US PV inverter manufacturer Solectria Renewables LLC will supply EPC contractor Cenergy Power with inverters for a 12.5 MW (DC) PV power plant Cenergy is building at Indianapolis International Airport. The IND Solar Farm, which is scheduled to be commissioned in October, will rely on 20 Solectria Renewables SGI 500XT inverters. When completed, the installation will be the largest solar power plant located on airport real estate in North America. The ground-mounted solar tracking project is being installed on about 75 acres of land leased from the Indianapolis International Airport Authority (IAA). Indiana-based joint venture partners Johnson Melloh Solutions and Telamon are developing the project.

In April, the IAA selected the same joint venture to develop a second 10 MW PV power plant on another parcel of land at the airport leased from the IAA. Power generated by the two facilities will be sold to Midwest utility Indianapolis Power & Light Company under 15-year power purchase agreements.

### Nevada

US thin-film solar company **First Solar Inc. announced that it has acquired the 250 MW**

**Moapa Solar Project in Clark County, Nevada from solar developer K Road Power Holdings LLC.** Construction is due to begin in the fourth quarter of 2013, while the entire project is scheduled to be completed by the end of 2015.

The project, located on about 2,000 acres of land owned by the Moapa Band of Paiute Indians, is the first-ever utility-scale solar project approved for development on tribal lands. The site represents about 3 percent of the tribe's 71,954 acres, which are held in trust by the US Government. The project was the 17th solar project approved for development on land managed by the Department of the Interior and the 31st renewable energy project approved by Interior since 2009.

In November 2012, the Los Angeles City Council approved a power purchase agreement (PPA) for the Moapa project between K Road and the Los Angeles Department of Water and Power (LADWP). Under the 25-year PPA, LADWP will purchase up to 250 MW of the project's output »at a very competitive flat price.«

**BLM scales down First Solar's Silver State Solar South project in Nevada.** US thin-film company First Solar Inc.'s Silver State Solar South project has been scaled down to 250 MW from 350 MW for environmental reasons. The US Bureau of Land Management (BLM) has released

the Final Supplemental Environmental Impact Statement (EIS) and amendments for the project, which is due to be built on public land near Primm, Nevada. Thus begins a 30-day protest period and a 60-day Governor's consistency review. A final decision on the project cannot be made until these two reviews have been completed.

To improve desert tortoise connectivity within the Ivanpah Valley and lessen reductions to recreational areas in the Jean Lake/Roach Lake Special Recreation Management Area, the BLM recommends a smaller project size. The changes are the result of extensive public comment periods on the Draft Supplemental EIS as well as discussions with state and federal agencies.

The Silver State South proposal expands on the Silver State North project, a 50 MW project that the BLM approved on Oct. 12, 2010. Silver State North began operation in May 2012, making it the first utility-scale solar facility to come online on public lands managed by the BLM.

### Utah

Utah-based investment firm **Energy Capital Group LLC (ECG) is developing a 300 MW solar power plant in Delta, Utah** that will be built adjacent to the 1,800 MW Intermountain Power Plant (IPP). The IPP is a two-unit coal-fired power plant that supplies power to Los