



## **Abengoa and BrightSource Energy partner to build the world's two largest solar power towers**

- Two of the world's leading concentrating solar power (CSP) companies join to build the 500 megawatt (MW) Palen solar complex.

Seville, Spain, March 15, 2013.- Abengoa (MCE: ABG.B), the international company that applies innovative technology solutions for sustainable development in the energy and environment sectors, and BrightSource Energy, a leading concentrating solar thermal technology company, today signed an agreement to jointly develop, build and operate the world's two largest solar power towers in California.

As joint partners, the two pioneers in solar power tower technology will work together to permit and finance the 500 MW Palen Solar Electric Generating System. Abengoa will build the plants as the Engineering, Procurement and Construction contractor, and will lead the operation and maintenance (O & M) of the plants once online. BrightSource will provide the solar field technology and plant design.

The Palen project consists of two 250 MW units located in a Department of Interior Solar Energy Zone in Riverside County, California. Together the plants will produce enough electricity to power 200,000 households and will prevent the emission of about 17 million tons of CO<sub>2</sub> over its life cycle.

With permitting and development under way, construction is expected to begin at the end of 2013 and will create more than 2,000 jobs. The solar plants are expected to come online in 2016.

Solar power towers generate power the same way as traditional power plants – by creating high temperature steam to turn a turbine. However, instead of using fossil fuels or nuclear power to create the steam, they use the sun's energy. At the heart of the system is a state-of-the-art solar field design, optimization software and a control system that allow for the creation of high temperature steam. The steam is then integrated with conventional power plant turbines to produce predictable, reliable and cost-competitive clean energy.



The Palen site has already received authorization from the California Energy Commission (CEC) for construction and operation of a 500 MW solar thermal project. In December 2012, BrightSource filed an amendment to the existing permit seeking authorization to deploy solar power tower technology.

Converting the project to solar power tower technology and low impact design will result in significantly less impacts than would have occurred under the original permits. The new design will reduce the project footprint by 13 percent, from 4,366 acres to approximately 3,800 acres, and use 50 percent less water by deploying a dry-cooling technology.

Each unit at Palen will feature a 750-foot tall tower that allows for a high concentration of heliostats. This design significantly reduces the amount of land required to produce energy - up to 33 percent less than a typical photovoltaic (PV) farm. Additionally, the design places mirrors on individual poles placed directly into the ground without concrete foundations, allowing the solar field to be built around the natural contours of the land, to retain native vegetation under the mirrors, and to avoid areas of sensitive vegetation.

Abengoa and BrightSource are both leaders in solar tower technologies and are pooling their collective experience. Abengoa operates four solar towers in Southern Europe, including the first in commercial operation worldwide since 2007, and is currently building a fifth tower in South Africa. The company currently has 743 MW of installed solar capacity around the world and 910 MW under construction. It is one of the few companies in the world that builds and operates both parabolic trough and tower CSP plants. BrightSource has solar towers in operation in Coalinga, CA, and in the Negev Desert and its technology is currently being deployed at the 377 MW Ivanpah Solar Electric Generating System, the largest solar tower facility under construction in the world.

## **About Abengoa**

Abengoa (MCE: ABG.B) is an international company that applies innovative technology solutions for sustainable development in the energy and environment sectors, generating electricity from the sun, producing biofuels, desalinating sea water and recycling industrial waste. ([www.abengoa.com](http://www.abengoa.com))

### **Communication Department:**

Patricia Malo de Molina Meléndez.

Tel: +34 954 93 71 11

E-mail: [communication@abengoa.com](mailto:communication@abengoa.com)

### **Investor relations:**

Bárbara Zubiría Furest.

Tel: +34 954 937 111

E-mail: [ir@abengoa.com](mailto:ir@abengoa.com)

# ABENGOA

Innovative technology solutions for **sustainability**



**BrightSource**  
*Limitless*

**You can also follow us on:**



twitter

@abengoa\_blog



Abengoa

**and on our blog:** <http://blog.abengoa.es>

## **About BrightSource Energy, Inc.**

BrightSource Energy, Inc. designs, develops and sells solar thermal power systems that deliver reliable clean energy to utilities and industrial companies. For more information on BrightSource Energy please visit [www.BrightSourceEnergy.com](http://www.BrightSourceEnergy.com).

### **For BrightSource information contact:**

Kristin Hunter

Tel: +1 (510) 250-8800

E-mail: [KHunter@BrightSourceEnergy.com](mailto:KHunter@BrightSourceEnergy.com)