

**IVANPAH**  
Solar Electric Generating System



BrightSource



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## LATEST NEWS

### Time-Lapse Video of Ivanpah SEGS Unit #1 Construction



In just over one year's time, Ivanpah's Unit #1 tower has climbed an impressive 400 feet! An aerial camera positioned high above the solar project has captured the tower's construction. Click the video to watch a short time-lapse video of the tower's rapid ascent.

### Construction Update

The Ivanpah SEGS site entered the New Year with a bang. Construction of the solar plant is advancing on schedule, with over 1200 workers busy erecting the steel towers, preparing and installing heliostats, building solar boiler sections and much more. The team achieved great progress over the holidays and in the first month of the year. See below for construction highlights from December and January.



**1200**  
**WORKERS**  
**ON SITE**  
FEBRUARY 2012



*View from the top of the Unit #1 tower looking over the Ivanpah SEGS*

## Common Area



*The heliostat assembly building with mirrors ready for transport to the solar fie*

In the Common Area, the Pad Bonding Buildings and the Heliostat Assembly Building are nearing full production capacity. The heliostat assembly facility is approaching its goal of assembling 500 heliostats each day.

Construction on the permanent administration buildings continues to move forward, with roofing placed in January. Trenching and pipe-laying is underway for the natural gas pipeline. The project pipeline will interconnect with the existing Kern River Gas Transmission system to allow delivery of natural gas to Unit #1, Unit #2 and Unit #3.

## Unit 1

In the Unit #1 solar field, pylon installation continues, with more than 90 percent of the total 53,500 pylons that will be installed in the Unit #1 solar field. The team is installing heliostats onto the pylons in the solar field, with more than 8,000



*Unit #1 tower and power block*

solar receiver steam generator (SRSG, or boiler) sections into place. Work continues on installing the piping and conduit, while the remaining boiler section is built on the ground in preparation for a lift into place by crane in the coming weeks. As the boiler work nears completion, protective panels are installed onto the boiler. We are rapidly nearing a final height of 450-feet for the Unit #1 tower.

heliostats installed to date. Tractors pull wagons with specially designed racks that hold the completed heliostats into the solar field. Cranes lift the heliostats off of the racks and place them on the pylon where they are manually secured.

The Unit #1 tower now measures more than 400 feet. All nine steel sections of the tower are complete and the team has lifted four of the five



*Heliostats are transported to Unit #1 solar field*

In the Unit #1 power block area, work continues on the steam turbine, air-cooled condenser (ACC) and plant services building. The steam turbine generator is now aligned on its foundation, and the plant service building is enclosed. The team will begin installing electrical equipment in the coming weeks.

The first A-frame for the ACC and is now set into place. The ACC allows Ivanpah to be "dry-cooled" versus wet-cooled, reducing water usage by more than 90% over using conventional wet cooling systems.

## Unit 2



*Unit #2 tower and power block*

heliostat mirrors. More than 14% of the total pylons needed have been inserted in the Unit #2 solar field, and a few hundred heliostats are installed as well.

Eight steel sections are now in place at the Unit #2 tower that stands at more than 300 feet. The remaining sections of the tower are being built on the ground in the power block area and will be lifted into place by crane. The team is assembling the boiler sections to be lifted into place once the nine steel sections are complete. In the power block area, general earth work is ongoing, including the completion of concrete foundations for the plant service building and steam turbine generator.

In the solar field, the team has completed the "ring roads," or dirt paths placed within the solar field to allow workers to access the heliostats and wash the

## Unit 3

At Unit #3, the team placed the concrete foundation for the tower in December, and set the first tower steel in January. Tower erection is now through tier two. General earthwork is ongoing as the team



*Unit #3 tower and power block*

prepares for concrete placements for the plant services building, ACC and steam turbine generator.

The team assembled the tower crane in preparation for lifting steel sections into place. An interesting fact - there are only 22 tower cranes of this kind in the world, and the Ivanpah SEGS is currently home to three!

## Ivanpah Wins "CSP Project of the Year" Award from Solar Power Generation



*BrightSource's Mike Bobinecz (left) accepts the "CSP Project of the Year" award from Solar Power Generation USA.*

On January 28, 2012, Solar Power Generation USA recognized the Ivanpah SEGS with the "CSP Project of the Year" honor, a prestigious award given by the leading industry conference organizing group. The award was accepted by BrightSource's Mike Bobinecz, Project Director and Vice President, BrightSource Construction Management, BrightSource Energy. Solar Power Generation selected Ivanpah for the award for the significant impact the project will have in advancing solar thermal electricity production in the US. Additionally, Solar Power Generation commended Ivanpah as a great example of how a well-structured, large-scale project can still attract the necessary investment to succeed.

For more information about the IVANPAH project, please visit our website: [www.ivanpahsolar.com](http://www.ivanpahsolar.com)