



BrightSource
Limitless



1999 Harrison St., Suite 2150 Oakland, CA 94612 510-550-8161 www.brightsourceenergy.com

HIDDEN HILLS PROJECT FACTS

A BRIGHTSOURCE ENERGY CONCENTRATING SOLAR POWER PROJECT



The Hidden Hills solar thermal power system will use BrightSource's proven solar tower technology to produce clean, reliable solar electricity to more than 178,000 homes. Located in Inyo County, California, the two-unit power system will be built on approx. 3,280 acres and will create construction jobs for 2,300 workers.

HIDDEN HILLS AT A GLANCE

- **Location:** Hidden Hills, Pahrump Valley, Inyo County, CA, approx. 45 miles west of Las Vegas, NV
- **Size:** 3,280 acres (private land)
- **Power Production:** 500 MW nominal (540 MW gross)
- **Homes Served Annually:** 178,000
- **Customer:** PG&E
- **Expected Construction Start Date:** 2013
- **Expected Completion Date:** 2015



ECONOMIC BENEFITS

- **Construction Jobs:** 2,300 workers at peak of construction. (2 years of construction). BrightSource and its construction partners have a track record for hiring local workers for construction.
- **Permanent Operations & Maintenance Jobs:** 100
- **Employee Wages:** Approx. 550 million* in wages and employees earnings

- **State & Local Tax Benefits:** Approx. \$290 million* in local and state taxes

*Preliminary estimates only, based on the power plant's first 25 years of operation

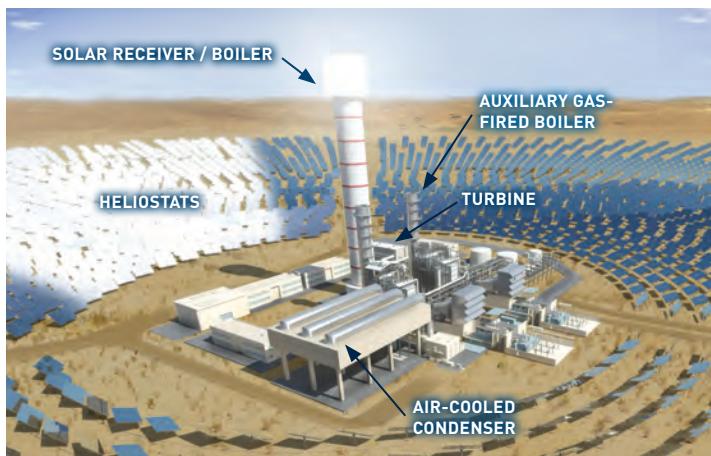
TECHNOLOGY

- Hidden Hills will produce electricity the same way that most of the world's electricity is produced – by creating high-temperature steam to turn a conventional turbine. However, instead of burning fossil fuels to create the steam, we use the clean and infinite sun as fuel.

- At the heart of BrightSource's proprietary power-tower solar thermal system is an innovative solar field design, optimization software and a control system that allow for the creation of high temperature steam.

- At Hidden Hills, over 340,000 software-controlled mirrors will track the sun in two dimensions and reflect the sunlight to boilers that sit atop two 750 foot tall towers. When the concentrated sunlight strikes the boilers' pipes, it heats the water to create superheated steam.

- This high-temperature steam is then piped from the boiler to a standard turbine where electricity is generated. From here, transmission lines carry the power to homes and businesses.



ENVIRONMENTAL BENEFITS

Wet CSP/Conventional Cooling vs. BrightSource's Dry CSP Cooling	
Trough Wet Cooling ¹	0.85 Gal/KWh
Nuclear ²	0.72 Gal/KWh
Coal ²	0.5 Gal/KWh
Combined Cycle Gas ²	0.19 Gal/KWh
BrightSource's Tower Dry Cooling ¹	0.03 Gal/KWh

¹Source: California Energy Commission

²Source: Nuclear, Coal and Combined Cycle numbers from World Forum report - Thirsty Energy: Water and Energy in the 21st Century

- **Efficient Land Use:** With its taller towers and optimized solar field design, BrightSource's solar tower technology uses 25% less land than competing solar technologies, including photovoltaic and trough solar.
- **Improves Air Quality:** BrightSource's solar plants avoid millions of metric tons of carbon dioxide (CO₂) emissions over the plant's life. A BrightSource plant will have 85% less air pollutants, such as nitrogen oxides (NO_x) and sulfur oxides (SO_x), than a natural gas-fired power plant.
- **Low Water Use:** BrightSource's solar tower technology uses up to 95% less water than competing wet cooled solar thermal plants by employing a dry-cooling process, which uses air instead of water to condense steam. The steam production cycle is a closed-loop system, with all water recycled back into the system, while general conservation measures help to further reduce water usage. The water consumed on the project is for cleaning the mirrors, much like a PV plant of similar size.
- **Limited Impact on the Land:** Unlike competing technologies, which require the majority of a project site be fully graded, BrightSource solar tower plants retain the majority of the project site's natural landscape. Instead of extensive grading and concrete foundations, BrightSource's heliostat pylons are inserted directly in the ground allowing vegetation to co-exist within the solar field below the mirrors. The limited grading and concrete foundations allow the land to retain its natural land contours and features.



PROVEN LEADERSHIP IN SOLAR ENERGY

BrightSource Energy is a leader in the design and development of concentrating solar thermal technology used to produce high-value electricity and steam for power, petroleum and process markets worldwide.