Solar Electric Generating Systems

The electricity generated at the Solar Electric Generating Systems (SEGS) can power more than 230,000 homes at peak production during the day.

How SEGS Works

Solar collectors capture and concentrate sunlight to heat a synthetic oil called therminol, which then heats water to create steam.The steam is piped to an onsite turbine–generator to produce electricity, which is then transmitted over power lines.

On cloudy days, the plant has a supple–mentary natural gas boiler. The plant can burn natural gas to heat the water, creating steam to generate electricity.

Letting the Sun Shine In

There's probably no better place to catch some rays than California's Mojave Desert, and the seven Solar Electric Generating Systems (SEGS) facilities accomplish that task, using state-of-the-art technology to collect solar power and convert it into useful energy.

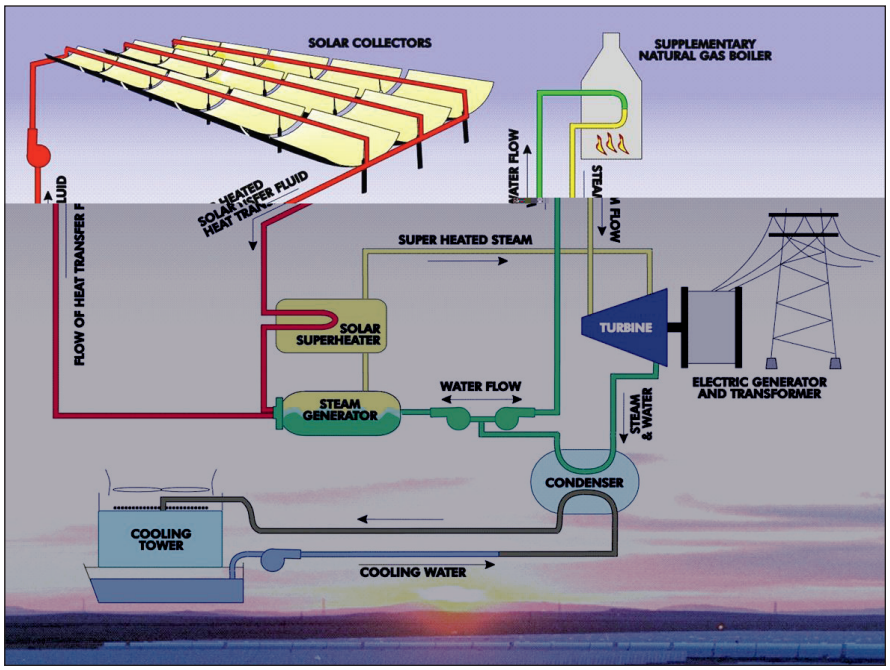
The SEGS facilities—located at Kramer Junction (SEGS III-VII) and Harper Lake (SEGS VIII, IX) in California—are collectively known as the world's largest solar site with a generating capability of 310 megawatts.

Clean, Renewable Energy for California

NextEra Energy Resources co-owns and operates the SEGS facility, which represents a valuable part of the company's clean and renewable energy mix and provides a national showcase for solar technology.

The facilities cover more than 1,500 acres in the desert, and more than 900,000 mirrors capture and concentrate sunlight.

All the power produced at SEGS is purchased by Southern California Edison.



Solar energy is a clean, renewable resource that is continuously supplied to the earth by the sun.

Helping Meet Peak Power Demands

The SEGS plants are designed as peaking power plants, supplying power during peak demand periods, particularly hot summer afternoons with high electrical use loads. This schedule is an ideal match for the SEGS plants, which operate at full power during these periods.

Generally, peak demand periods are also when pollution is at its worst. The SEGS plants help reduce pollution because they do not emit nitrogen oxide and carbon dioxide that contribute to smog and global warming.

SEGS Facts

» Seven solar facilities
» Located at Kramer Junction (SEGS III-VII) and Harper Lake (SEGS VIII, IX) in California
» 310 megawatts with NextEra™ Energy Resources ownership equivalent to approximately 150 megawatts
» Covers more than 1,500 acres in the desert
» More than 900,000 mirrors that capture and concentrate sunlight
» Offsets approximately 3,800 tons of pollutants annually that would have been produced if the electricity had been provided by fossil fuels, such as oil

For more information, visit:

www.NextEraEnergyResources.com