

China investing heavily in two types of solar power

September 30 2016, by Bob Yirka



An aerial view of the Ivanpah Solar Electric Generating System with Tower 3 in the foreground, Tower 2 in the middle and Tower 1 in the background. Located in the Mojave Desert 40 miles southwest of Las Vegas, The Ivanpah Solar Electric Generating System is a solar thermal power project, currently under construction, with a planned capacity of 392 megawatts gross, enough to power approximately 140,000 houses. It will deploy 173,500 heliostat mirrors spread over approximately 3,500 acres, focusing solar energy on boilers located atop three solar power towers, generating steam to turn a conventional steam turbine.

The project – owned by NRG Solar, Google and BrightSource Energy – is currently the largest solar thermal plant under construction in the world. The project is being constructed by Bechtel. Credit: Gilles Mingasson/Getty Images for Bechtel

(Tech Xplore)—China has made it known to the world that it plans to move from coal-fired powered plants to those based on renewable resources as quickly as possible—the smog from coal plants and the huge amount of greenhouse gas emissions the country produces have generated bad press for the country over the past several years. Now, there is new evidence that the country's leaders plan to make good on those pledges.

The country's state-run utility announced recently that it had awarded a contract to U.S.-based [BrightSource Energy](#) to build a massive solar mirror farm in Qinghai province. Solar mirror farms differ markedly from their paneled cousins—they consist of thousands of mirrors that follow the sun and reflect the light toward a central boiler that powers a turbine. The new plant will be a copy of the plant BrightSource built at its Ivanpah plant near Las Vegas, Nevada, which produces 392 megawatts of electricity. BrightSource will also provide the Chinese utility with molten salt tanks that can store the heat generated during the day, allowing for production of power at night or during overcast days.

China is also investing heavily in traditional solar power—Bloomberg recently announced that a Chinese-based company has been building a mammoth solar farm in the country's Ningxia region. It is located on a barren parcel covering 4,607 hectares, will have 6 million panels and be capable of producing 2 gigawatts of power, making it the largest in the world—a single plant capable of producing more power than the total solar power production for some countries such as Thailand. The

announcement also highlighted another of China's ambitions—to become a big player in building the plants that make the power.

The company building the new power plant in Ningxia, China Minsheng Investment Corp is just two years old and already has plans to invest 100 billion yuan over the next five years. They expect to increase [solar power generation](#) to 12 gigawatts in that time frame. Notably, total solar power produced in the U.S. by the end of the current year is expected to be just 41 gigawatts. The new solar plant is reportedly at near the halfway point in its construction but is already producing electricity and sending it to the grid.

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