

# Sonoma County Is Building the Largest Floating Solar Project in the US

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*Photo Credit: SPG Solar*

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California wine country is going solar. Specifically, floating solar.

[Sonoma Clean Power](#) recently announced it has contracted to build the largest floating solar project in the United States, which will produce enough electricity to power 3,000 homes when it comes on-line in 2016.

The 12.5-megawatt installation is one of the largest projects of its kind in the world, second only to a [13.4-megawatt solar farm](#) under construction in Japan.

Kyocera Corporation and Century Tokyo Leasing Corporation announced the Japan project in December. Japan is an appealing place to put "floatovoltaics" because real estate there is limited, the country has been eagerly seeking alternatives to nuclear energy following the Fukushima disaster, and it has very a generous feed-in tariff ([although that's poised to change](#)).

But Japan isn't the only place where floating solar makes sense. In the U.S., projects that are 10 megawatts or larger have similar pricing to projects on land, said Geof Syphers, CEO of Sonoma Clean Power. That's due in large part to the low lease costs for building solar on underutilized bodies of water.

"The advantage to us is we're in a community that values open space and farmland," said Syphers. "We have solar on land, but this helps deploy more renewable energy and cut emissions without using farmland for our systems."

There are 1,400 irrigation storage ponds in Sonoma County alone, and plenty more around California. Many of them are located at vineyards. The Far Niente winery in Napa Valley pioneered the [world's first large-scale floatovoltaic system](#) with SPG Solar in 2011.

The new Sonoma County project will be mounted on docks across six wastewater ponds operated by the Sonoma County Water Agency. The developer, San Francisco-based Pristine Sun, is leasing the ponds for about \$30,000 per year.

"We hope that in general, after we further develop the concept, annual lease payments for bodies of water could be lower than land lease payments, which lowers operating costs slightly," Pristine Sun CEO Troy Helming wrote in an e-mail. "We consider these bodies of water an 'underutilized asset' or 'un-utilized asset' [from which] their owners can now enjoy a modest revenue stream by leasing the water surface rights to Pristine Sun, in order for us to sell clean energy to the local utilities."

According to Helming, another element that helps to contain costs for floating solar is that storage ponds are often located near distribution lines that are needed to power large pumps. The proximity to existing infrastructure helps to lower interconnection costs.

There is also a modest cooling effect from the water, said Helming, which Pristine Sun anticipates will slightly improve electricity production over a comparable ground-mounted project.

Syphers did not reveal the power purchase price for the installation, but told [The Press Democrat](#) it was comparable to a contract for [70 megawatts](#) of solar power the agency recently signed with Recurrent Energy.

Sonoma Clean Power claims its default product -- the 33 percent renewable CleanStart program -- is cheaper and cleaner than a residential plan from the investor-owned utility Pacific Gas & Electric. That's because the regional utility has much lower overhead costs and is not beholden to shareholders, said Syphers.

Customers in the Sonoma County area are automatically enrolled Sonoma Clean Power's default plan starting at 7.1 cents per kilowatt hour, but can switch back to PG&E upon request.

Sonoma Clean Power also offers a 100 percent renewable electricity product for its customers at an additional 3.5 cents per kilowatt-hour. New capacity from the 12.5-megawatt floating solar project is expected to help reduce that premium.

That's assuming the project works, of course. While the panels themselves do not touch the water, exposure to moisture could cause degradation issues.

But Syphers insists there's no risk to ratepayers. The contract with Pristine Sun is set up so that the developer assumes all responsibility if the project fails.

Sonoma Clean Power is excited to be able to prove out a new technology, Syphers added. And the utility is already scoping out other potential locations for floating solar projects in anticipation of the project's success.

"If this project works well, there are opportunities we know about to install five times this amount," he said.

Floatovoltaics could prove to be a new frontier for the solar industry as a whole. There are thousands of acres of surface area available on wastewater ponds, reservoirs and sewage treatment pools across America.

Pristine Sun's Helming said his company believes there is potential for several gigawatts' worth of floatovoltaics to be deployed in North America between now and 2020.

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