

Valley solar plant would be among world's largest

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By Tim Sheehan / The Fresno Bee

About 30,000 fallow acres in western Kings and Fresno counties could return to productivity as home to a massive installation of solar power panels.

Westlands Water District has a lease contract with Westside Holdings, a private investment group with plans for a 5,000-megawatt solar power plant.

If built, it would be one of the largest installations of solar photovoltaic panels in the world.

And it could help spur a "green energy" surge, diversifying the west-side economy from its historic reliance on agriculture.

Westlands Solar Park is one of a growing number of solar projects being pitched for sunny stretches of land in the western and southern San Joaquin Valley.

There are at least a dozen utility-scale projects, ranging from 5 to 250 megawatts, planned in Fresno, Kings and Tulare counties. Their development, however, can get bogged down by regulatory and environmental review and fundraising. Only one plant has been built — the 40-acre, 5-megawatt CalRenew-1 plant in Mendota. It awaits testing and connection to the power grid.

But the Westlands project stands out for several reasons: It dwarfs anything else on the drawing board in the region; it's planned for farmland retired because of salt buildup and lack of water; and it's making unlikely allies of farmers and environmentalists.

Westlands farmers have long been at odds with environmental groups over concerns including salt-tainted irrigation runoff and water allocations from the Sacramento/San Joaquin Delta. But the Sierra Club and others support the Westlands solar proposal.

"Nowhere else in the state will you see environmentalists of all stripes, as well as local government, developers and public interests all aligned to support a development of this size," said Daniel Kim of Sacramento, a principal partner in Westside Holdings.

California's utilities are striving to meet Gov. Arnold Schwarzenegger's goal for one-third of the state's electricity to come from renewable or alternative sources by 2020.

The area of Westlands district where Westside Holdings wants to plant its solar park has been identified by the California Energy Commission as one of more than 30 Commercial Renewable Energy Zones — areas where utility-scale alternative-energy projects such as solar, wind, geothermal and biomass can be developed for a combined capacity of more than 80,000 megawatts.

The designation comes as state energy officials downsize similar zones in the Mojave Desert. The sunshine in the desert is more intense, but there's also a greater potential for conflict with habitat for endangered desert species of plants and animals.

That's what attracted support from environmentalists, said Carl Zichella, the Sierra Club's director of western renewable-energy programs. Zichella called Westlands "one of the finest places" for a large, utility-scale solar installation.

"We're very interested in finding the least environmentally sensitive places to develop," he said. "And early on, we felt Westlands had a lot of potential in this regard."

Because it's been farmed for years, the Westlands acreage has little environmental significance. Putting solar panels out there "takes pressure off of other lands that are more ecologically sensitive," Zichella added.

"We can have arguments on the other stuff," Zichella said of water and other issues. "But obviously when we have a site like Westlands, we're obligated to pursue it. ... This is a beautiful match of their interests and our interests."

Zichella and Kim both said the project has geographic advantages: Westlands is relatively close to cities needing electricity, to Central California's main north-south power transmission lines along Interstate 5, and to substations to distribute the electricity.

There are advantages for the Westlands district as well, by putting back to work some of the 100,000 acres of west-side farmland retired over the past decade because of a combination of water shortages and salt buildup that makes the soil toxic to crops.

Sarah Woolf, a spokeswoman for Westlands, said the district's board has fielded many proposals for solar installations on the fallow acreage, but this is the first one the district has joined.

"Our board is made up of farmers, and this is a learning process for us because it's not our natural business," Woolf said. "This is a new industry and a new use for this land, and it takes a little time because we're learning as we go."

Solar also appeals to Westlands because it doesn't rule out future reclamation of the farmland.

"We're not ruining the land by putting solar on top of it," Woolf said. There's no plan to return the acreage to farming, but it could happen "if there was a water supply and a need for the food supply."

It also opens the door for Westlands to consider other alternative-energy options. The district has a letter of intent with the Fresno Nuclear Energy Group to identify property in Westlands that might be suitable for a proposed 3,200-megawatt nuclear power plant.

"There are a lot of energy opportunities, whether it's solar, nuclear or something else," Woolf said. "We're open to discussing all of those." Looking for the fast track

Kim won't predict how long it might take for his proposal to get from the drawing board to production. There are plenty of hoops to jump through, including finding a developer to build and operate the solar farm; negotiating a power-purchase agreement with a utility, and myriad approvals from state and local officials.

But Kim hopes things can move forward quickly because of the environmental support and avoiding the cost of new transmission lines. "There are few places where one can actually site, permit and get transmission to bring this much power out," Kim said. "This area is unique for that."

One huge question mark is the price tag, which is unknown because no solar photovoltaic project of this size has ever been built. But developers of a 2,000 MW plant proposed in China have estimated it would cost between \$5 billion and \$6 billion to build it in the United States.

That suggests a 5,000-megawatt Westlands plant would be a considerable investment, one likely to be recouped over years from the sale of the electricity to utility companies such as Pacific Gas & Electric Co. It's not clear whether federal stimulus funding, created last year to help underwrite major solar plants, or tax-credit financing will be available for the Westlands project.

If regulatory and cost obstacles can be overcome, Westlands Solar could potentially generate enough electricity during daylight hours to meet the demands of between 2.5 million and 4 million homes.

Beyond power production, however, there are hopes that such a large installation of solar panels could broaden the economic base of the west side beyond farming and farm labor.

"Not just the west side, but the entire Central Valley," Kim said. "There's always talk in the Valley about being a clean-tech corridor. This is a project that creates the opportunity for that to be realized."

The Westlands project, and other proposed solar plants in and around the Valley with a combined capacity of more than 2,000 megawatts, could attract related industries.

"There could be the manufacture of the panels themselves, the inverters, the steel frames, or any number of widgets that go into a panel," Kim said. "We're talking about an economic base that is built off of the construction and operation of a project of this size."

The Sierra Club's Zichella said west-side communities hard-hit by labor reductions in farming can benefit greatly from solar and other green-energy efforts.

"Why should we ship solar panels from Indonesia or China or Japan when we can build them right here?" Zichella said. "How about in Mendota, where unemployment is 40%? I'd like to see some of that come to the Central Valley and employ people who have lost jobs."

"We're never going to have the same water resources for agriculture," he added. "But we have a work force of great value to incoming industry. To the extent this can be of benefit to our communities, the support for green energy will be greater."