

20-megawatt solar farm proposed for city landfill

Melanie Turner, Sacramento Business Journal, 11-12-10

Conergy Projects Inc. has entered into an exclusive agreement with the city of Sacramento to negotiate a long-term lease for a 20-megawatt solar farm at the city's 28th Street Landfill.

The lease would provide the city with an ongoing revenue stream, for a minimum of 20 years, while the photovoltaic system would generate enough power for about 5,000 homes. The project would cost \$80 million to \$100 million.

Conergy would sell the power directly to the Sacramento Municipal Utility District, which would use it to power homes, businesses, schools and streetlights in the region.

A city staff report indicates that at least some of the solar power would provide lighting for a future Sutter Landing Regional Park, being developed at the former landfill.

Conergy is a wholly owned subsidiary of Conergy AG, a global solar energy company based in Germany.

Powering up

The project's first phase, expected to begin being built by early 2012, would generate between 1 megawatt and 5 megawatts of solar energy, city spokeswoman Jessica Hess said. Once built, by late 2013, the project would produce 35 gigawatt-hours of power annually, or enough to power about 5,000 homes, said David Vincent, project development manager for Conergy.

"Right now in the state of California, I do not believe there's a photovoltaic plant that is in place that's this large," Vincent said. "There are several others that are planned for this similar sizing, but this will still be one of the biggest photovoltaic plants in the state."

Although several others are planned, solar power plants won't get built unless they have a commitment from a utility to buy power, he said.

A Spain-based company with its U.S. headquarters in West Sacramento has won approval for a 20-megawatt power plant on Port of West Sacramento property. OPDE U.S. Corp. plans to produce 48 gigawatt-hours of power on an annual basis using single-axis solar trackers.

But getting Pacific Gas & Electric Co. — or another investor-owned utility — to buy energy will be the biggest struggle for companies attempting to build in areas such as West Sacramento, Vincent said.

"To get that project to materialize is going to be extremely difficult," he said.

Meeting the mandate

Investor-owned utilities in California must meet the state's Renewable Portfolio Standard, which requires utilities such as PG&E to increase their retail sales of renewable energy to a minimum of 20 percent by 2010. As part of a larger five-year photovoltaic program for PG&E, the utility is authorized by the state Public

Utilities Commission to execute contracts with independent power producers for up to 250 megawatts of power, at a rate of 50 megawatts a year, through a competitive process. PG&E is expected to release a request for proposals for the first 50 megawatts in first-quarter 2011.

PG&E spokesman Denny Boyles said the utility anticipates a lot of interest in the program. He added even if a solar power plant is built in PG&E territory, there's no guarantee the power provider will sell its power to PG&E.

"They're connected to the grid, but that doesn't mean a project in PG&E territory is always going to go to PG&E," he said.

Even so, Vincent said later in an e-mail, utilities will charge companies extra for "loading the energy onto their grid and transferring the power through their lines."

"It adds a good chunk of cost to the deal and makes it hard to make it work," he wrote.

It's been estimated that when PG&E puts the call out to independent producers for the 50 megawatts, the utility will receive gigawatts worth of proposals, or way more than it can select, Vincent said.

SMUD, as a publicly owned utility, doesn't fall under the same rules as investor-owned utilities, he said.

Meanwhile, the city and Conergy will negotiate for 120 days, with an option to extend the term another 90 days. During the 120 days, Conergy will work to negotiate a long-term power purchase agreement with SMUD.

Under its agreement with the city, Conergy will deposit a nonrefundable fee of \$10,000 to the city. If a lease is negotiated, the fee would be credited against any payments Conergy would be required to make under its lease agreement.

The proposal is expected to go before the City Council for final approval in the first quarter of 2011, said Marty Strauss, an integrated waste planning superintendent with the city's department of utilities.

One of the project's goals would be to develop solar arrays along the Capital City Freeway to showcase the solar farm. The city is in discussions with SMUD to seek funds for that portion of the project.

Ultimately, a city-approved investor would own the solar farm, and Conergy would provide operations and maintenance for the solar arrays.

The 28th Street Landfill closed in 1997. Groundwater quality and methane gas from the landfill mound are being monitored, and will continue to be monitored, as required under state law, until at least 2027 at an annual cost of about \$1 million.

A compatible solar farm

Long-term plans call for a 162-acre regional park. An existing skate park, dog park and other park improvements under way now are considered to be interim measures, but they'll have a 20-year life while a 110-acre mound of garbage settles to grade level, said J.P. Tindell, park planning and development manager for the city.

Plans call for the city to develop a solar farm that would be compatible with the park. Solar panels would be mounted on the ground, possibly on rooftops of the existing skate park and incorporated into future shade structures for parking areas and sports fields.

The city issued a request for qualifications in September 2009, seeking a company to design, build and operate a solar farm at the former landfill. Of 10 statements received, four companies were selected to respond to a request for proposals.

Conergy ultimately was selected for its knowledge of landfills and its ability to develop a solar farm in conjunction with landfill closure maintenance and monitoring activities and the development of Sutter Landing Park. Conergy has developed projects on shuttered landfills in Colorado and Pennsylvania.