Xcel seeks bids on world's biggest solar project

By Gargi Chakrabarty, Rocky Mountain News

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Xcel Energy plans to transform Colorado into one of the biggest solar-power states in the world.

On Friday, the utility sought competitive bids for up to 600 megawatts of solar power projects with capacity for storage - power that would serve roughly 150,000 customers in the Front Range.

The price tag: about $3 billion.

If Xcel selects a single plant generating the entire power, it would be the world's biggest solar project.

"We can do it," said John Czingula, one of the biggest shareholders and founder of Solargenix Energy.

Headquartered in Sanford, N.C., Solargenix has acquired land in southeast Colorado near the San Luis Valley and hopes to win the bid. Spanish company Abengoa Solar, with U.S. headquarters in Lakewood, BrightSourceEnergy and Ausra are among the solar companies that have established a presence in Colorado to tap into its growing market.

Xcel also sought bids for 700 megawatts of wind power projects and 900 megawatts of other types of projects such as coal- or natural gas-fired plants. The deadline for submitting the bids is April 10.

Xcel spokesman Mark Stutz said the utility will employ an independent evaluator, and hopes to complete the evaluation process by fall. New projects could be online as early as 2010.

"If we can achieve the distinction of having the world's biggest solar plant at some point in the future, Xcel would certainly welcome it," Stutz said.

Mark Mehos, a scientist at the National Renewable Energy Laboratory in Golden who specializes in solar power with storage, doubts anyone can build a single, 600-megawatt solar project today.

The single biggest project in the world currently is Abengoa Solar's 280-megawatt plant under construction in Arizona.

Even if Xcel decides to select two adjacent plants, each generating 300 megawatts, that still would make them the biggest solar park in the world, Mehos said. One megawatt of solar serves about 250 customers.

"I doubt you will see a single 600- megawatt solar plant," Mehos said. "If the size of the plant gets too large, it will create issues."

Solar power with storage, also called concentrating solar power, is not a new technology, according to Chuck Kutscher, manager of thermal systems group at NREL. For example, California's Mojave Desert has nine such plants that have been producing 354 megawatts for nearly two decades.

Today, electricity generated by CSP plants could cost, on average, 14 cents per kilowatt/hour, compared with 10 to 12 cents per Kwh by natural gas plants. Electricity from solar photovoltaic panels would be slightly higher at 18 to 20 cents per Kwh.

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Seeking bids

Xcel sought competitive bids on Friday that could add up to 2,200 megawatts of projects that would go online by 2015. The bids, which must be submitted by April 10, include:

* Up to 600 megawatts of solar power projects with storage capability
* 700 megawatts of wind power
* 900 megawatts of other resource- based power, like coal or natural gas