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Power line could affect climate change fight

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NORTH COUNTY ---- While thousands of San Diego County residents have decried the controversial wires atop 150-foot poles that would stamp a large set of footprints across the landscape, some students of energy policy say the \$1.3 billion project may help fight global warming.

But project opponents are skeptical that the proposed Sunrise Powerlink actually would deliver clean, renewable power, much less contribute to the state's emerging campaign to combat climate change.

David Hogan, a spokesman for the environmental group Center for Biological Diversity in San Diego, argues that there are so many doubts about a proposed massive solar project in the Southern California desert that it is doubtful the power line would make any dent in greenhouse gases at all.

"Global warming is real and the Powerlink is only going to make things worse," Hogan said. "San Diego Gas & Electric's claims that the

Powerlink will benefit renewables is a self-serving lie."

Like the other major California utilities that serve vast urban regions, the utility is obligated by state law to deliver 20 percent of its electricity from sources such as solar and wind power, which are much cleaner than burning coal and natural gas, by 2010. And the proposed power line is probably the best bet for reaching that goal, people who study energy policy say.

"If it brings in lots of renewables, then, of course, it helps advance the cause," said Scott Anders, director of the Energy Policy Initiatives Center at the University of San Diego.

In keeping with another new law, the California Public Utilities Commission last month passed a regulation that effectively bars utilities from signing long-term contracts for power generated by coal inside or outside of California.

Targeting the greenhouse gas emissions that many scientists believe are responsible for a warming planet, the commission set a ceiling of 1,000

pounds of carbon dioxide for each megawatt that power plants generate in an hour.

The rule is expected to force utilities to rely on more on natural gas generators, which generate 900 pounds per megawatt-hour, and clean sources such as solar power that generate essentially no carbon dioxide.

The rule, which took effect Feb. 1, could have a huge impact on energy prices statewide because 20 percent of California's power comes from coal, mostly from plants in Nevada, Wyoming and Utah, energy market experts say. But in SDG&E's case, just 3 percent of its power comes from coal.

"It's unlikely that the Sunrise Powerlink is going to be bringing in dirty coal," Anders said. "I guess it's possible, but the chances of that are lessening."

NOT ENOUGH ROOFTOP PANELS

Just last week, a panel of global scientists released a report concluding the evidence is more clear than ever that greenhouse gases are causing the climate to change.

Given the gravity of concerns about global warming, and the harm a power line could deliver to treasured wild places such as Anza-Borrego Desert State Park, power line opponents argue that it would be far better if no wires were strung across the backcountry.

Opponents have suggested instead that the clean energy goal be met by spreading solar panels widely on the roofs of homes and businesses throughout San Diego County. An August 2005 study by the San Diego Regional Renewable Energy Study Group, which Anders had a hand in writing, showed that the region could double its electricity supply if every roof was equipped with a panel.

"That is the right approach, theoretically," Anders said. "The question is, can we get to 20 percent (clean power) by 2010 using that approach? And I think the answer is unequivocally no."

While the study said rooftop solar has the potential to deliver 4,000 megawatts to the San Diego County market, Anders said just 25 megawatts of that potential had been developed as of Dec. 31 through 4,048 systems countywide. Those systems represented fewer than 1 percent of homes. An additional 534 systems, totaling 6.5 megawatts, are in the works, he said.

A megawatt is the standard measuring unit for electricity and most of the time is enough to keep the lights on in 750 homes.

In contrast, SDG&E has signed contracts to buy 900 megawatts from a

large-scale commercial solar plant that Stirling Energy Systems of Phoenix proposes to build in Imperial County, within reach of the proposed power line. The line, with a capacity of 1,000 megawatts, would run from El Centro in the desert near the Mexican border through Anza-Borrego, Santa Ysabel, Ramona and Rancho Penasquitos to Carmel Valley on the coast.

"While it's being built to keep the lights on, it has the added benefit of bringing so much clean energy to the San Diego region," said Stephanie Donovan, an SDG&E spokeswoman. "Any megawatt of fossil fuel power that you can offset with a megawatt of solar, wind or geothermal power is emissions avoided. And 900 megawatts of solar generation would be the equivalent of taking 800,000 cars off the road. That certainly strengthens the argument for the Sunrise Powerlink."

WHAT'S THE POINT?

However, serious questions remain about Stirling's ability to deliver those 900 megawatts because its proposed technology has not been tested commercially. Worldwide, there are only six experimental solar dishes in operation in New Mexico. Stirling estimates it will need 36,000 commercial-ready dishes in the Southern California desert.

Because of that, a key competitor of SDG&E's ---- New Jersey-based LS Power ---- also has doubts about the line's purported global warming benefits.

David Hicks, a spokesman for LS Power, which has proposed replac-

ing the aging South Bay power plant in Chula Vista with a modern 600-megawatt natural gas-fueled generator, said if the solar project fails, the line will have contributed virtually nothing.

"If that power line is going out to a new combined cycle (natural gas) plant out in the desert, then what's the point? We're building one righthere," Hicks said. "Our proposal to replace a 1960s-era power plant with one that's twice as efficient helps to achieve the goals that are inherent in the effort to reduce greenhouse gases. We will be able to produce twice as much energy for the same amount of emissions."

Hicks said wires that don't bring in green power would be a net loss for the region, because transmission lines lose up to 10 percent of the electricity they carry.

"That means you need to generate 10 percent more power somewhere outside the county to bring it here," he said, with 10 percent more greenhouse gas emissions.

A NET WINNER

Still, the Imperial Valley holds much promise for solar, wind and geothermal energy, the latter of which plugs into geysers, said Frank Wolak, a Stanford economics professor who has studied California's electricity market extensively. Wolak is chairman of an independent panel that oversees operation of the state's power grid.

The proposed power line could open a way to bring in green power not only from the California desert,

but from other parts of the country, Wolak said.

“I would argue that it’s going to be a net winner,” he said.

There is strong incentive for San Diego Gas & Electric to deliver on its promise of green power, said Anders, the Energy Policy Initiatives Center director.

If the utility doesn’t meet its 2010 deadline for using fuel sources other than fossil to fill 20 percent of its supply, it could be fined up to \$25 million a year, Anders said.

And despite talk among opponents that SDG&E’s real intention is to use Sunrise Powerlink to transport fossil fuel power from Mexico to San Di-

ego and, eventually, Los Angeles, the company steadfastly denies that.

“The fact is, we have signed nothing but contracts for renewable energy to be delivered through the Sunrise Powerlink from Imperial Valley,” utility spokesman Donovan said.

But there is yet another potential twist.

When it comes to delivering the electricity from solar and geothermal plants near the Salton Sea, Anders said it is unclear whether Sunrise Powerlink is the only option, as San Diego Gas & Electric has maintained.

Some students of energy suggest that, if more power plants such as

the new South Bay were built in the San Diego metropolitan area, room would open up in the existing Southwest Powerlink line along Interstate 8 to transport clean energy from Imperial Valley.

“If the Sunrise Powerlink is the only way to bring in the maximum amount of renewables, then ... it is probably a net positive,” Anders said. “But I think the jury is still out, and the evidence is still coming forth as to whether it’s true that you can only get the renewables from the Sunrise Powerlink.”