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Alternative Energy Still Facing Headwinds

Despite Obama's Support, Projects Tripped Up by Financing, Logistics

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BOULEVARD, Calif. -- The late afternoon light is shining golden on the high chaparral as Donna Tisdale stands near a faded 1800s ranch house, scans the unblemished surrounding hills and sees trouble on the horizon.

"The ridge right there will have turbines on it," she says, squinting west into the setting sun. Turning north and east, where a pristine ridgeline meets the sky, she points out the route of a \$1.9 billion electricity transmission line whose 150-foot towers will march 123 miles from the Imperial Valley to energy-thirsty San Diego.

"No matter which way you look, you won't be able to get away from it," laments Tisdale, a rancher and political activist in McCain Valley who is trying to block the power line. "I hate when outsiders come in and take what they can and then leave."

The three-year fight over the Sunrise Powerlink, which is designed to carry solar, wind and geothermal energy, typifies the serious challenges facing President Obama and many of the nation's governors as they tout the power of renewable energy to put people to work and rescue the planet from the effects of climate change.

The nation's richest resources of renewable fuel -- primarily wind and solar -- lie in distant deserts, vast plains, and remote valleys and hilltops like this one, far from the populous cities where energy is most needed. Thousands of miles of new power lines will be required to bring renewable energy to cities and suburbs, a vast undertaking that will cost untold billions of dollars in public and private money and will require compromise by dueling interest groups and people such as Tisdale.

Obama, who made the country's energy future a central part of his campaign pitch, is now staking political capital on his vision. With the nation enduring its deepest economic crisis in decades, he told Energy Department employees earlier this month that energy provisions, including funding in the stimulus bill, would "begin to end the tyranny of oil in our time."

"After decades of dragging our feet," Obama said, the "plan will finally spark the creation of a clean energy industry that will create hundreds of thousands of jobs over the next few years, manufacturing wind turbines and solar cells, for example."

Obama said U.S. renewable fuel capacity will double in "the next few years." Noting that the electrical grid has changed little since the era of black-and-white TV, he promised a "better, smarter" network that will "ship wind and solar power from one end of this country to the other."

Yet the \$2 billion in the stimulus package devoted to transmission lines is a tiny part of what's needed. "I see it as seed money," said Jon Wellinghoff, acting chairman of the Federal Energy Regulatory Commission. "We need \$100 billion to \$200 billion worth of investment, and I believe we'll see that money coming from the private sector," he said, though current credit conditions make that difficult.

There are other hurdles besides financing, including multiple steps of permitting, as well as logistics and opposition to the transmission lines that would crisscross slabs of unspoiled landscape.

"From the time we first proposed it in 2005, we won't finish it until 2012," said Michael R. Niggli, San Diego Gas & Electric's chief operating officer, who helped steer the Sunrise Powerlink through layers of approval last year. Opponents have since sued, citing environmental shortcomings.

The same difficulties have come up elsewhere. In October 2007, Kansas Gov. Kathleen Sebelius (D) hailed a state board's approval of a 180-mile transmission line as "incredibly good news for our state." She continued, "These new transmission lines will help our state harness wind potential and provide short- and long-term investment in our communities."

But 15 months after winning approval from two Kansas regulatory boards and paying right-of-way fees to two rural electric cooperatives, the project proposed by ITC Holdings is bogged down. Another company, Prairie Winds, is now pushing a rival proposal.

"It's very frustrating," said Joseph L. Welch, chief executive of ITC Holdings, whose 15,000 miles of power lines make it the nation's sixth-largest transmission system. "We'll probably spend as much on attorneys as we will on that line. . . . We're mired down in a process and I, for the life of me, don't understand it."

Welch hopes federal intervention and the political oomph of the stimulus package will make a difference. The Energy Policy Act of 2005 gave FERC the power to cut through layers of bureaucracy, but the effects have been limited. On Monday, ITC asked FERC to approve revenue and incentive plans for a new Green Power Express network of lines that would link wind-abundant areas of the Dakotas, Minnesota and Iowa to the cities and factories of the Midwest.

"We can't just turn it on like a switch," Welch said. "If we can streamline the process and come up with a stimulus package that really helps, we can do things that will help get this country moving."

The national electricity grid is "the biggest, most complex machine on Earth," said Amory B. Lovins, chief executive of the Rocky Mountain Institute. It is also antiquated and largely unable to connect with places where renewable power supplies are plentiful.

The Electricity Advisory Committee last month called the grid "a hodgepodge of individual and regional systems, costing consumers billions

of dollars in congestion annually" and limiting the ability to transmit renewable energy.

For now, there is no alternative to the grid, which poses a problem for utilities as states across the country require them to add increasing amounts of renewable energy to their mix.

"That's a tremendous opportunity for us to develop our resources and send them to Arizona and California," said New Mexico Energy Secretary Joanna Prukop. "What we don't have is adequate transmission to move that around the state or export it."

Power lines are essential not only to deliver renewable fuel but also to guarantee a steady electricity supply because the sun does not shine on schedule, nor does the wind blow steadily.

Prukop described a proposed power line called the High Plains Express that would deliver half its energy from wind power by weaving together projects in New Mexico, Colorado and Wyoming. New Mexico is prepared to help make that happen by financing and building transmission lines that would carry at least 30 percent renewable power.

Wyoming is trying a different approach, acting as a broker for wind power firms that want to sell electricity to more populous Colorado. If enough companies sign up, the line will be built, but tight credit markets have made its fate unclear.

"There are transmission plans that are just plans on paper throughout the upper Midwest, upper and lower Great Plains and interior Midwest. They just don't move forward, mainly because of the cost allocation," said Robert Gramlich, policy adviser to the American Wind Energy Association.

In an attempt to speed the process, the House and Senate stimulus legislation would deliver \$6.5 billion in low-interest loans to two federal authorities created during the Depression: the Bonneville Power Administration and the Western Area Power Administration. The two firms, which cover wide areas and have vast federal authority, would be expected to use the money to build transmission lines.

WAPA spokesman Randy Wilkerson, however, said the power authority has no plans ready. "I wouldn't say that we do have a project sitting on the shelf," Wilkerson said. "We're still trying to get our hands around what this borrowing authority might mean and how it might work."

The BPA has told administration officials that what it needs most is storage for wind energy, which makes up about 20 percent of its power and could rise past 30 percent if the BPA had the right capacity.

One of the biggest wild cards is the environment. Despite the benefits to the overstressed climate, the production and delivery of green energy carry environmental costs, such as the need for vast fields of solar panels as well as the miles of land needed for strings of 400-foot wind turbines and 150-foot transmission towers.

"There's no technology for generating electricity and coupling it with transmission that doesn't have environmental impact," said Terry

O'Brien, the California Energy Commission's deputy director for siting, transmission and environmental protection. "The question is: How do you minimize those impacts to the extent feasible? One of the most important things you can do is select good sites from the get-go."

Operating in California, where investor-owned utilities must draw 20 percent of their electricity from renewable sources by 2010, San Diego Gas & Electric got tripped up when it first proposed a transmission route for the Sunrise Powerlink that knifed through Anza-Borrego Desert State Park.

A different route, which winds farther south, close to the Mexican border, was approved by a 4 to 1 vote of the California Public Utilities Commission. It is that route that is opposed by Tisdale, local planners and a group of environmental organizations. The Center for Biological Diversity sued in January to block the line.

"It goes through public land, and pretty precious public land," CBD attorney Steve Siegel said. "It goes through some fire-prone areas. It goes through endangered-species habitat."

Former CBD staff member David Hogan calls the 1,000-megawatt project a case of "industrial development masquerading as renewable energy," arguing that the power line is big and unnecessary and would carry too little green electricity.

San Diego Gas & Electric says it has contracts for 430 megawatts of renewable electricity for when the line opens in 2012 and 1,029 megawatts by 2015. Niggli said the line, which will provide power to 650,000 customers, will also carry energy from power plants run by fossil fuels.

"Not everybody likes transmission lines," he said, "but if it means cleaner air and a cleaner environment, at the end of the day, that's a trade-off. You have the inconvenience of some for the benefit of the whole."

Mufson reported from Washington.

