JJN Windfarm Financials

Project Costs	
Micon Turbine	$ 1,090,000.00
Turbine Construction	$ 259,000.00
MISO Study	$ 41,000.00
Xcel Interconnect	$ 74,000.00
Legal Costs Incurred	$ 4,695.00
Permits County	$ 1,387.00
Accounting Consult	$ 419.00
Wind Easement	$ 3,600.00
Legal Costs Payable	$ 3,000.00
Loan Costs	$ 4,175.00
Freight Estimated	$ 50,000.00
Total Costs	**$ 1,531,276.00**

Cost estimate for coal-fired S.D. power plant escalates

« BIG STONE FROM A1

Higher costs would mean higher electric bills for customers, but the bigger question is whether the project itself may be delayed or even jeopardized.

Otter Tail senior vice president Ward Uggerud said that even with the higher estimate, the project would be less expensive than producing the same power from renewable energy or natural gas.

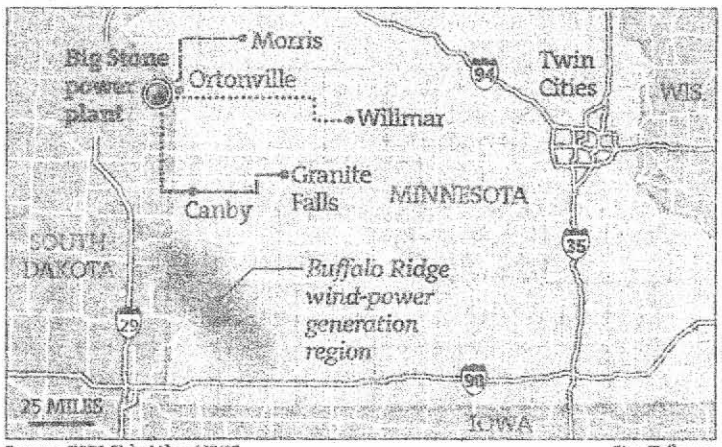
However, environmental leaders challenge those claims, and have said that the plant will emit too much mercury and other air pollutants, diminish stream flow and water quality in the Minnesota River, and consume land with its high-voltage transmission lines.

South Dakota officials approved two important permits for the power plant recently, one of them specifically against the wishes of the Minnesota Department of Natural Resources. The project still needs permits from Minnesota regulators because it includes about 85 to 125 miles of new or upgraded power lines in the state, depending upon which routes are chosen.

PROPOSED POWER LINES FOR MINNESOTA

If a large new coal-fired power plant is built in South Dakota, its major transmission lines will cross into Minnesota. One new line would go from Big Stone to Granite Falls. A second line would also be needed: Either a 41-mile line between Big Stone and Morris, or an 80-mile line between Ortonville and Willmar.

Existing lines that would be upgraded — New lines that would need to be built



Source: ESRI, TeleAtlas, USGS — Star Tribune

UTILITIES INVOLVED

Partners in the Big Stone II power plant project and their ownership percentage:

Western Minnesota Municipal Power Agency, Sioux Falls, S.D.: 25
Great River Energy, Elk River, Minn.: 19.3
Montana-Dakota Utilities Co., Bismarck, N.D.: 19.3
Otter Tail Power Co., Fergus Falls, Minn.: 19.3
Southern Minnesota Municipal Power Agency, Rochester: 7.8
Central Minnesota Municipal Power Agency, Blue Earth,: 5
Heartland Consumer Power District, Madison, S.D.: 4.2

Coal-fired S.D. power plant's price escalates

A large project proposed near Minnesota's border is stirring concerns about pollution.

By TOM MEERSMAN
mcersman@startribune.com

The largest power plant in South Dakota history, a proposal already under fire from environmental advocates for using coal instead of wind, would be 50 percent more expensive than previously estimated, according to utility executives.

Otter Tail Power Co. officials told Minnesota regulators last week that the price of building the coal-burning Big Stone II plant could reach $1.8 billion, up from $1.2 billion, because of higher costs for labor, steel, pollution control equipment and other factors.

At stake are the first major coal-fired power plant to be built in the region in more than two decades, and the interests of seven electric utilities — led by Otter Tail Power — that are partners in the project.

ARTICLE II

PURCHASE AND SALE

2.1 **Term.** This Agreement shall be effective upon execution by authorized representatives of both Parties, and shall continue unless otherwise terminated in accordance with its terms until the end of the 25th year after the Commercial Operation Date. NSP's obligation to purchase the Capacity and Net Energy of the Plant as set forth herein shall be effective on the Commercial Operation Date.

2.2 **Sale and Purchase.** NSP agrees to purchase the entire Capacity and Net Energy of the Plant during the Term and to accept delivery of the Capacity and Net Energy at the Point of Interconnection during the Term, subject to the terms of the Agreement. Seller agrees to deliver and sell the entire Capacity and Net Energy from the Plant to NSP at the Point of Interconnection for the Term. Seller shall not contract to sell any Energy or Capacity from the Plant to any Person other than NSP for the Term and Seller acknowledges that NSP is entitled to receive all Capacity and Energy from the Plant during the Term.

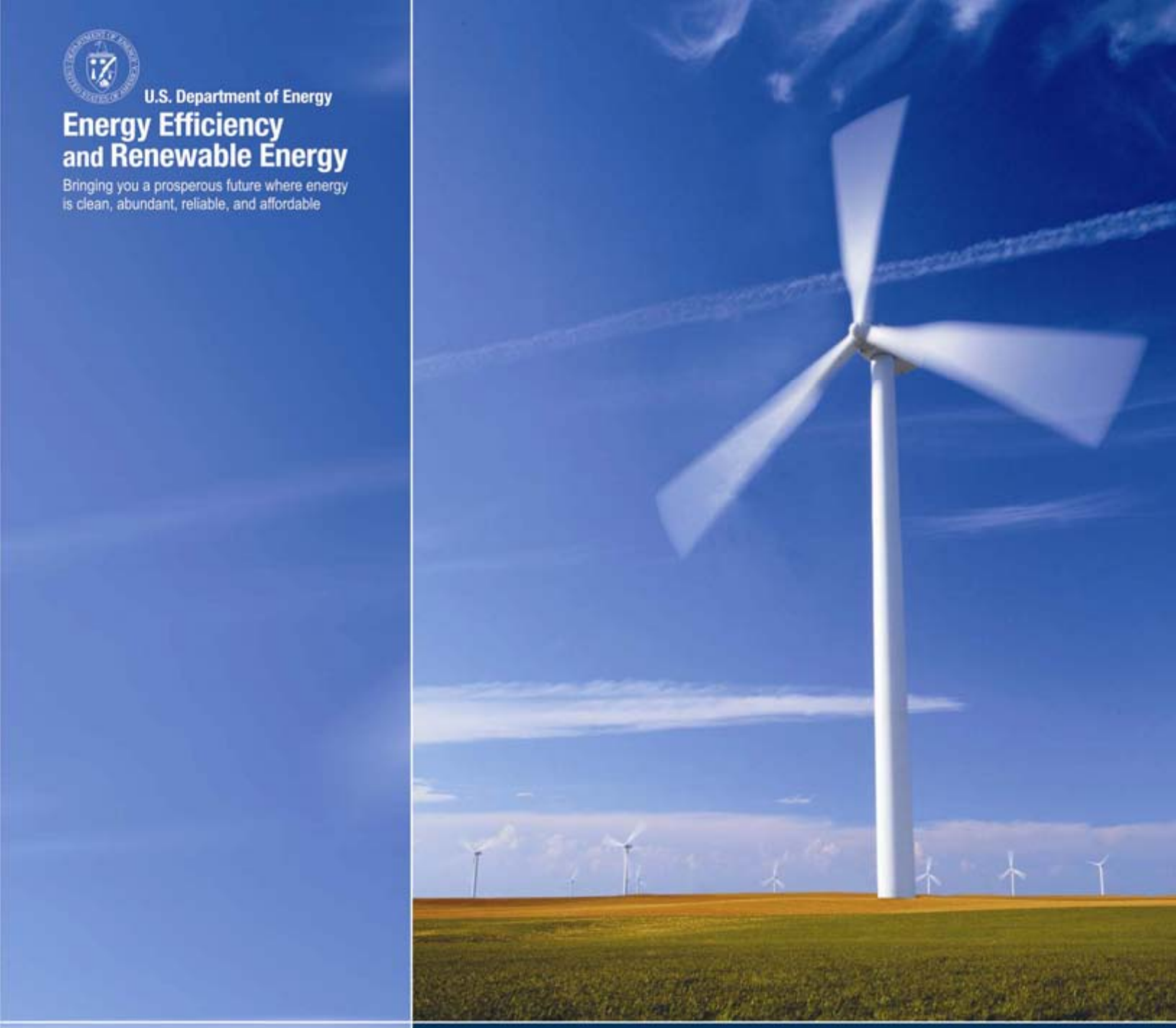
2.3 **Guaranteed Price.** NSP shall pay Seller for the Net Energy delivered to NSP based on the Guaranteed Prices set forth in Appendix A. NSP and Seller agree that the applicable Guaranteed Price is intended to compensate Seller for both the Net Energy and Capacity delivered to NSP, and that Seller is not entitled to a separate price or payment for the Capacity of the Plant to which NSP is entitled. NSP shall purchase all Trial Energy produced by the Plant during startup and testing at the price set forth in Appendix A.

PRICING

1. Guaranteed Price. The Guaranteed Price for Net Energy, Capacity and Green Tags purchased by NSP during the Term and delivered to the Point of Interchange shall be $33.50 per MWh. 3.35¢

   Net Energy shall be measured by the meter located at the Point of Interconnection and rounded to the nearest MWh. The adjusted reading shall be used as the basis for billing NSP.

2. Trial Energy. NSP shall purchase all Trial Energy generated by the Plant, measured and adjusted as described in paragraph 1, at a price of $25.00 per MWh.



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120 mpg may become a real possibility

Escape plug-in prototype shows huge potential

Automakers are moving fast to determine whether plug-in hybrid electric vehicles can be put onto the market affordably.

PHEVs can up to triple fuel mileage in short trips, and recharging costs less than gas to go the same distance. It appears that plug-ins cut tailpipe emissions more than enough to make up for any pollution caused by the plants that generate the electricity to charge them.

By James R. Healey

Win-win-win.

"I'll take two," you say. Hold on, sport. Plug-ins require costly additional battery capacity and plug-in rechargers. Regular gas-electric hybrids can't be plugged in and don't have capacity to run battery-only.

Automakers are uncertain how much costlier plug-in hybrids would be over normal hybrids, which, in turn, cost at least $2,000 more than gasoline vehicles.

Still, it's intriguing enough and possible enough to take plug-ins seriously and to drive 'em if you got 'em.

Test Drive examined a prototype Toyota Prius plug-in hybrid last Friday. This time we'll look at a prototype version of Ford Motor's Escape SUV plug-in hybrid.

The Escape plug-in hybrid, on display at the auto show in Washington, D.C., this week, is rolling into service at Southern California Edison, where some will go to individuals to measure results in ordinary driving.

Before delivering it to the show, Ford engineers gave USA TODAY wheel time in the front-drive prototype.

Short take: excellent mileage, extraordinarily smooth integration of gasoline and electric powerplants. Escape's aging design hobbles the package overall, but it's likely to be redesigned by the time a plug-in hybrid version would be available.

Ford, Toyota, General Motors and others developing plug-ins won't yet vouch for the reliability of the lithium-ion batteries probably needed for practical PHEVs. They hope furious development brings long-life, low-cost lithium batteries soon — 2010 or so.

The idea of PHEVs is to run on battery power as long as possible before hailing the gasoline engine for help, with no gas use or tailpipe emissions for that time.

Here's what you probably want to know first about the Escape PHEV: 55 miles per gallon, according to Ford engineers' on-board computer.

That was in 23 miles of snowy suburban driving that included rolling hills, hard acceleration and slick-street wheel spin just for the fun of it. And here's a nugget: Escape's traction control actually allows some wheel spin, which is good on many surfaces. Too often today's traction systems in nanny vehicles don't.

Ford's Greg Frenette, chief engineer for plug-in and fuel-cell vehicles, says up to 120 mpg in town is reasonable in flatter, moderate driving. He forecasts 70 to 80 mpg on the highway, where the gas engine works more, and 30 miles of light driving up to 40 mph on a charged battery alone.

The prototype Toyota Prius PHEV reviewed last Friday showed 71.3 mpg on its trip computer in a downtown Detroit loop and a freeway spurt. It has twice the battery of a normal Prius, but it uses some to boost power, so it goes about 7 battery-only miles.

Escape PHEV has five times the battery and uses it all for extended range, which is how it hits 30 miles.

In search of real-world results, no special restraint was exercised driving, so results were worse than the automakers' theoretical maximums. Ford, notably, seems to have nearly erased the shudder common in hybrids when the gasoline engine joins the party. "Our engineers worked very hard on that," Frenette says.

The transition among electric-only, electric-and-gas and gas-only modes was undetectable in the test — up there with the $105,000 Lexus LS 600h L hybrid.

The Escape PHEV's battery is bigger and weighs more than the current Escape hybrid battery. Thus, there's less cargo space and slower acceleration.

Frenette says the goal is a production PHEV with the same capacity and capability as the regular hybrid.

Otherwise, the Escape PHEV was pretty much an Escape hybrid. And the hybrid seems the smoothest and most pleasant of the entire Escape line.

The prototype's brakes didn't have the feel of an anchor tossed overboard that you get from most hybrids' regenerative braking systems, which recharge the batteries as the vehicle slows. Its signature on most hybrids is a sudden scrubbing of speed when you release the throttle and more when you press the brake.

The Escape interior's been redone for 2008, an upgrade only partly successful. Some controls operate more smoothly, and the '08 is quieter. But the rear

Ford Motor via

Results: A vigorous drive showed 55 mpg, but Ford says up to 120 mpg is reasonable in flatter, moderate drivin

Ford Escape SUV plug-in hybrid prototype

▸ **What is it?** Plug-in version of the Escape compact SUV gasoline-electric hybrid. Has five times as much battery capacity and hardware as the current Escape hybrid to recharge the battery from a standard household outlet.

▸ **What's the point?** Minimize fuel consumption by using battery-only power as long as possible before the gasoline engine kicks in.

▸ **How soon?** It's a prototype. If tests are positive, it could be on the market in five years.

▸ **How much?** It's unclear how much the bigger battery and charging hardware would boost the price. Today's normal Escape hybrid starts at $27,170.

▸ **What's the drivetrain?** Same as a non-plug-in Escape hybrid, but with a 10-kilowatt-hour battery vs. 2-kilowatt-hour battery. Has 2.3-liter gasoline engine rated 133 horsepower at 6,000 rpm, 124 pounds-feet of torque at 4,250 rpm, mated to an electric motor rated 94 hp, driving through continuously variable automatic transmission.

▸ **What's the rest?** Features, furnishings are similar to normal Escape hybrid, which can be found at www.forddirect.com.

▸ **How big?** Typical small SUV: 174.7 inches long, 71.1 inches wide (81.3 inches including mirrors), 67.7 inches tall on a 103.1-inch wheelbase. Weight is listed as 3,900 pounds, about 260 more than non-plug-in Escape hybrid. Ford expects to cut that by 45 pounds.

Prototype has slightly less cargo space than the production hybrid because the battery is bigger, but Ford says the production plug-in would have the same cargo and passenger space as a non-plug-in. Turning circle diameter is listed as 36.7 feet, curb-to-curb.

▸ **How thirsty?** Ford claims up to 120 miles per gallon in city driving, 70 to 80 mpg on the highway.

Ford says that careful drivers could stay on battery-only power up to 40 mph for the first 30 miles, using no gas oline. After that, the vehicle becomes a conventional gasoline-electric hybrid.

2008 Escape hybrid is rated 34 mpg in town, 30 mpg on the highway, 32 in combined driving (front-wheel drive) and 29/27/28 (all-wheel drive); 2009 models get a different engine, but Ford hasn't forecast mileage ratings.

The experimental trip computer wa faulty in the FWD prototype test vehicle. Ford says a separate computer in th vehicle showed 55 mpg for the test — 23 brisk, suburban miles on snow-slick wheel-spin-inviting streets.

▸ **Overall:** Smoothest hybrid drivetrain yet tested; excellent mileage. Can Ford bring it to market at the right price?

Big Oil is making big money, but critics say it's misspent

● Industry giants are putting more dollars into stock buybacks and dividends than the search for new reserves of petroleum.

By JOHN PORRETTO • Associated Press

HOUSTON – As giant oil companies like Exxon Mobil and ConocoPhillips get set to report what will probably be another round of eye-popping quarterly profits, just where is all that money going?

The companies insist they're trying to find new oil that might help bring down gas prices, but the money they spend on exploration is nothing compared with what they spend on stock buybacks and dividends.

It's good news for shareholders, including mutual funds and retirement plans for millions of Americans, but no help to drivers dealing with the high cost of fuel.

Oil profits continues: Critics say industry is too focused on stock. D2 ►

Big Oil investing big cash in stock buybacks

◄ OIL PROFITS FROM D1

The five biggest international oil companies plowed about 55 percent of the cash they made from their businesses into stock buybacks and dividends last year, up from 30 percent in 2000 and just 1 percent in 1993, according to Rice University's James A. Baker III Institute for Public Policy.

The percentage they spend to find new deposits of fossil fuels has remained flat for years, in the mid-single digits.

The issue has become more sensitive as lawmakers and Americans frustrated by high gas prices have balked at reports of oil industry profits. ConocoPhillips is to kick off the latest round of Big Oil earnings reports Wednesday.

Oil prices are set on the open market, not by the oil industry. But that hasn't stopped public protests, a series of congressional grillings for top oil executives, and a failed attempt by lawmakers to slap Big Oil with a windfall profits tax.

In the first three months of this year, Exxon Mobil Corp., the world's biggest publicly traded oil company, shelled out $8.8 billion on stock buybacks alone, compared with $5.5 billion on exploration and other capital projects.

ConocoPhillips has already told investors that its stock buybacks for April to June of this year will come to about $2.5 billion — nine times what it spent on exploration.

Stock buybacks are common in corporate America. They shrink the amount of stock on the open market, essentially increasing its value and giving individual shareholders a bigger stake in the company.

But some critics say Big Oil focuses too much on boosting stock prices, in an industry that sometimes ties executive pay to stock price. And in focusing on buybacks and dividends over exploring for new oil, some critics say, oil companies jeopardize their share of world supply.

"If you're not spending your money finding and developing new oil, then there's no new oil," said Amy Myers Jaffe, an energy expert at Rice University who has studied spending patterns of major oil companies.

Investor-owned companies like Exxon Mobil and Chevron hold less than 10 percent of global oil and gas reserves, way down from past decades. And finding new oil has become harder and more expensive.

State-run oil companies, like those in Saudi Arabia and Venezuela, control about 80 percent of oil reserves.

The cash the biggest oil companies bring in from running their businesses, or operating cash flow, is four times what it was in the early 1990s.

So what's Big Oil to do?

The companies say they are doing what they can to find more fossil fuels around the world, but the easy oil is gone. Exploring these days may mean expensive projects in thousands of feet of water in the Gulf of Mexico or costly ventures pulling petroleum from Canada's vast oil-sands deposits.

TransCanada Corp. and ConocoPhillips Co. just said they'd spend $7 billion to nearly double the amount of crude flowing through a pipeline from Canada's tar sands to the U.S. Gulf Coast.

Exxon Mobil often touts its $100 million contribution to Stanford University's Global Climate and Energy Project. By contrast, BP says it plans to spend $8 billion over the next decade developing alternative energy using wind, hydrogen and other means.

In Washington, one Democratic proposal would impose a 25 percent tax on "unreasonable" profits of the top five oil companies, which together made more than $120 billion in 2007, and put the money toward a trust fund for investment in alternative energy sources. Republicans say it's a gimmick that won't help at the pump and will discourage domestic oil production.

But Sen. Charles Schumer, D-N.Y., said the fervor for stock buybacks is a clear sign Big Oil isn't interested in new production or alternative energy.

"When you hear that," he said, "it screams out for a windfall profits tax."

LARA NEEL / ARGUS LEA

Turbine blades turn at MinnDakota wind farm east of Brookings. Wind power projects might depend on Congress renewing tax credit

Stalemate threatens S.D. wind industry

Deal on incentives stalled in Congress

BY FAITH BREMNER
Argus Leader Washington Bureau

WASHINGTON – South Dakota's wind energy industry is being held hostage in a high-stakes game of political chicken, delaying construction on new wind farms across the state and causing sleepless nights for at least one utility project manager.

An important tax subsidy for electricity generated from wind, solar and geothermal sources is set to expire at the end of the year, and House Democrats and Senate Republicans are squabbling over whether to extend it for one year and how to pay the $8.2 billion cost.

Projects scuttled when credit isn't renewed

Basin Electric already has ordered the project's turbines and is going forward with its plan to break ground in spring 2010, Rebenitsch said. If Congress fails to renew the tax credit, Basin Electric will pass on the cost to its customers through higher rates, he said.

"I'm the project manager. That's been my call," Rebenitsch said. "I'm very concerned about the production tax credit. I lie awake at night thinking about it quite often."

Congress has allowed the tax credit to expire three times since it was created 16 years ago – in 1999, 2002 and 2004. Each time, installation of new wind projects plummeted, according to the U.S. Department of Energy. Industry experts are betting Congress will renew the tax break late this year or early next year.

However, banks and investors are in no mood to gamble on that, said Wanda Davies, director of development for Navitas Energy, a Minneapolis-based company that builds and sells wind farms. Navitas is building a 200-megawatt plant, the White Wind Farm, near Brookings. The project now is owned by Babcock & Brown. Attempts to reach Babcock & Brown were unsuccessful.

"You're not going to get funding based on the assumption it will be there," Davies said about the overall dilemma facing wind developers. "The bankers are not going to take a risk. If you have a business plan that shows (the project) would work without the production tax credit, you would get the financing. If you say, 'trust Congress,' you're not going to get financing at any affordable rate."

How to pay for credits is at heart of dispute

Fights over how to finance it aside, extending the wind-energy subsidy is popular with members of Congress and President Bush.

The Senate voted 88-8 in April to add the extension to legislation that would rescue banks and homeowners from bad mortgages. The House subsequently stripped the provision out of the mortgage rescue bill because the Senate did not include a way to pay for it.

Senate Republicans refuse to go along with House Democrats' plan to offset the cost of extending the tax credit. That plan consists of raising taxes on deferred compensation for offshore businesses and delaying the effective date for a tax break on foreign interest payments paid by U.S. multinational companies.

Top S.D. Democrats insist on no borrowing

A handful of Senate Republicans tried but failed to reattach the tax credit measure to the housing bill July 10, once again with no offsets to its $8 billion cost. The tax credit extension remains in limbo with no resolution in sight.

House Democrats, led by the fiscally conservative Blue Dog Coalition, have a rule that all new spending, unless it's for an emergency, must be paid for by trimming costs somewhere else in the federal budget or by raising fees or taxes. The Senate does not have a similar requirement.

"This isn't emergency spending," said Herseth Sandlin, a member of the Blue Dog Coalition.