



**Latin America special report coming out in December**

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## Sequoia looks for short cut

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# Denali chasing a world champion in North Dakota

Developer Denali Energy has hiked output estimates for its North Dakota megafarm to as much as 2GW and has plans to build the necessary transmission link itself.

The Hartland wind farm in Ward, Burke and Mountrail counties in the northwest of the state could have up to 1333 GE 1.5MW turbines.

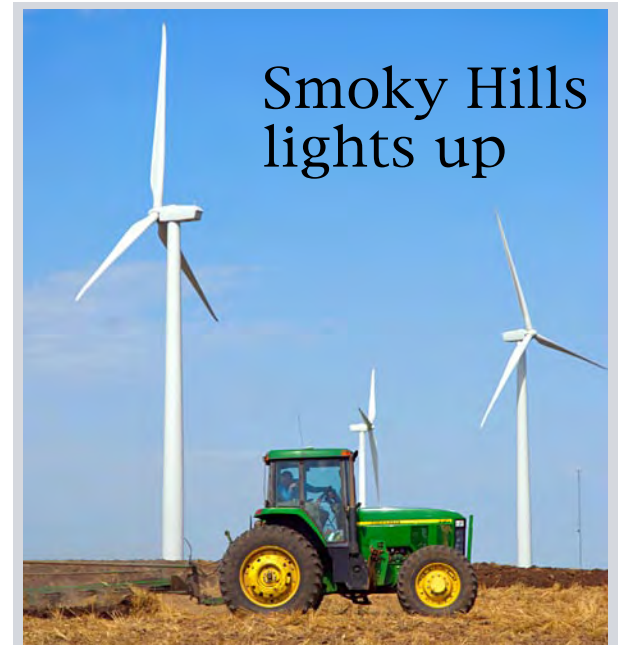
Denali earlier said it expected to generate about 1GW.

"We have a ridge in an area of North Dakota that is probably some of most premier wind resource that is developable on the face of the earth," claimed Denali principal Curt Johnson.

Testing has revealed an output capacity factor in the mid to low-40th percentile. "And we're not hamstrung" by transmission gaps, Johnson added.

Baxter, Minnesota-based Denali is partnering with Montgomery of Magnolia, Texas on the project.

Michels Wind Energy of Brownsville, Wisconsin



## Smoky Hills lights up

TradeWind Energy last week commissioned the 250MW Smoky Hills wind farm between Ellsworth and Lincoln, Kansas. The project is owned by Italian utility Enel, a TradeWind minority shareholder, and is powered by 56 Vestas 1.8MW turbines and 99 GE 1.5MW machines.

Photo: Tim Nauman

is an equity investor and engineering contractor.

The partners intend to build transmission facilities from Hartland themselves.

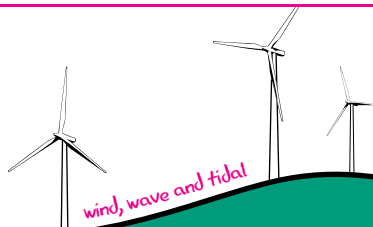
Johnson said he could not disclose much

about the wire because negotiations are ongoing but he did reveal the lines would go east and the Hartland venture would have exclusive rights to the transmission.

The development

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Megawatts mount up at Horizon farm in Cloud County, Kansas features 67 Vestas V90 3MW machines. Output from its 105MW phase one will supply Empire District Electric while the 96MW second phase has been claimed by Westar Energy.

Horizon has one other farm in Oregon, its 100MW Elkhorn Valley project in Union County. Meridian Way is its first in Kansas.

Rattlesnake Road wind farm in Gilliam County, Oregon runs on 49 Suzlon S88 2.1MW turbines, and all should be operating by the year-end. Meridian Way wind

# Sequoia looks for permitting short cut in North Dakota

Canadian developer Sequoia Energy is in a hurry to get the ball rolling on its debut US wind farm in northeastern North Dakota.

The 150MW Border Winds project, covering about 122 square miles in Rolette and Towner counties, would run on 66 Siemens SWT 2.3MW turbines.

Project costs are estimated at \$300 million and power would feed into the Xcel Energy transmission system running through the area.

Sequoia has asked North Dakota regulators to put Border Winds on a fast track.

Normally developers must notify the Public Service Commission a year before they formally apply for siting approval but Sequoia last month requested that the PSC

reduce the wait to one day. It is aiming to start construction next summer or fall, with operations beginning in the fall of 2010.

Sequoia, which relies on backing from the venture capital firm Good Energies, is based in Winnipeg, Manitoba.

It has built one wind farm to date, a 99MW community-based project near St Leon, Manitoba, which came online in June 2006. It has four other community projects under development, all of them in Manitoba and each with capacity of 99MW.

The Pembina Hills farm, where Sequoia is partnering Acciona Energy, is southwest of Winnipeg. Killarney is also southwest of Winnipeg, Dacotah is near the town of Elie and Meridian is near the town of Rosenfeld.

## Denali chasing a world champion

team last month secured all the necessary land rights for Hartland's 500MW first phase with 46,000 acres under contract.

Leasing efforts for the rest continue and so far the response from landowners has been very positive, Johnson said.

Landowners will get 2% of gross operating revenue. The easements last 40 years.

The developer has begun environmental and topographical studies, although it does not expect to receive a state permit until April 2010.

Construction would follow in the fall. The total project cost is put at \$4 billion. Engineering companies Kadrmas Lee & Jackson of Bismarck, North Dakota and Westwood Engineering of Minneapolis are also on contract.

Denali officials plan to open an office near the project sight in Kenmare next month.

Neither Denali nor Montgomery has built wind farms before, but Denali is working on plans for a 200MW to 300MW project in Campbell County, South Dakota.

## Maine developer offers residents free electricity

Independence Wind is promising free electricity to win over residents of the rural town where it is planning a 50MW wind farm. Voters in Roxbury would need to amend town zoning rules in a December referendum for the farm to go forward.

Independence of Maine sent letters to the town's 200 households last week offering each of them 500kWh per month if the project were to get built.

The developer would pay utility Central Maine Power directly to cover the discount at a cost of \$50 per household per month, or about \$120,000 a year.

- FPL and Minnesota-based developers Just Wind and Denali Energy are competing for the right to develop 200MW to 300MW in north-central South Dakota. About 20 landowners controlling roughly 20,000 acres near Pollock, Campbell County, will vote on community-based project proposals from the three developers.

- A wind farm planned for Colorado State University may generate up to 230MW from as many as 100 turbines. The university has hired Wind Holding of Bend, Oregon to build the project near Fort Collins, close to the Wyoming border.

It will supply all the power needed for the Fort Collins campus, 16MW, and sell off the rest.

- Telecom contractor MasTec of Coral Gables, Florida has reached terms to buy wind farm and natural gas plant builder Wanzek Construction of Fargo, North Dakota for \$200 million.

## WIND FARM RADAR SEMINAR

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## Briefs

Noble Environmental Power is planning a 201MW wind farm in western Minnesota. Noble Flat Hill Windpark, in Clay County, would use 134 turbines and link to the Otter Tail Power system via a new 10-mile, 230kV spur line that Noble would build. Minnesota's Public Utilities Commission accepted the transmission bid last month and now will convene public hearings.

Horizon Wind Energy has started construction of its 100MW Rail Splitter wind farm in Tazewell County, Illinois following the issuance of county permits last month. Road work and substation construction in Tazewell are underway. Work in adjacent Logan County, where Horizon has yet to file for permits, probably will not commence until early next month.

Iberdrola Renewables has signed a five-year deal with Philadelphia-area utility Peco for 240,000MWh of wind energy credits from its Providence Heights farm in Bureau County, Illinois. The credits will help Peco satisfy Pennsylvania's alternative energy portfolio standard, which requires 3.5% of energy sold to Peco customers by 2011 to be derived from renewable sources.

Massachusetts-based Aeronautica Windpower intends to refurbish turbines decommissioned in California and then sell them on, primarily to farmers. The company estimates that more than 10,000 turbines installed in the 1980s and 1990s, from 65kW to 100kW, will be replaced soon.

# 300MW Utah farm on starting grid

First Wind is set to start construction this month on a 300MW wind farm near Milford, Utah.

The Milford Wind Corridor Project is on 40 square miles of private, state and federal land in Beaver and Millard counties, along the state's western border.

The farm is close to clearing its last regulatory hurdle and should be completed after 12 to 15 months of construction.

The federal Bureau of Land Management waived the need for an environmental impact statement, and a 30-day public comment period expired last week.

The BLM will determine the proposal after it has reviewed the comments.

Massachusetts-based First Wind would build the farm in two phases, the first in Beaver County and the second in Millard.

It would use either GE 1.5MW XLE or Clipper 2.5MW Liberty C99 turbines, or a combination of both, deploying between 137 and 159 machines.

The wind farm would also entail stringing

## Lehman wind assets go to equity players

Lehman Brothers reached terms last month to sell off its asset management and private equity business, which is thought to house most of its holdings in the wind industry.

Private equity firms Hellman & Friedman and Bain Capital are the buyers.

The now-bankrupt investment bank had invested in at least four developers: Canada's SkyPower, First Wind and Cape Wind Associates of Massachusetts and New York-based BQ Energy.

88 miles of 345kV transmission lines, tying to the Intermountain Power Project substation north of Delta, Utah.

Intermountain Power serves ratepayers in Utah

and southern California. Utah's only utility-scale wind project, Edison Mission's 18.9MW Spanish Fork farm in Utah County, was commissioned on Monday. It runs on nine

2.1MW Suzlon S-88 turbines.

Edison Mission is believed to have taken over a 70MW Utah wind project under development for at least two years.

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# Chile renewables policy 'is failing to deliver the goods for country'

Chile urgently requires a national renewable energy policy, according to local wind developer Ecopower.

General manager Julio Albarrán has called for political leaders to take action as legislation drawn up in 2005 to encourage alternative projects has "failed to deliver".

Under existing laws, 'non-conventional' power generators such as wind and solar farms smaller

than 20MW are offered beneficial transmission charges, and those below 9MW pay nothing.

But Albarrán said that with a tally of just two wind farms totalling 20MW, a tax credit-style mechanism is "urgently needed to give producers investment incentives in Chile".

In 2010, a 5% renewables obligation system comes into play and the concern is that production will fail

to meet projected demand. Ecopower, in partnership with Spanish-owned Enhol-Chile, is pushing ahead with what will be the country's third and largest wind farm to date, a 140MW scheme on the island of Chiloé.

Following a positive wind resource analysis of the area, Ecopower hopes to submit its environmental impact assessment this week with a view to

breaking ground in a year's time. Enhol will use a mix of 2MW Vestas and 3MW Gamesa turbines because of the variation in wind resource across the project's two distinct zones.

Ecopower has three further schemes between 80MW and 100MW in the pipeline along Chile's coast, and is "in the process of signing merchant contracts with 3000 companies for micro installations between 10 and 200kW", according to Albarrán.

Enhol-Chile is planning a \$1 billion housing and power generation project at Talinay in Chile's Region IV.

If approved by Chilean authorities it would be Latin America's largest wind farm at 500MW.

## Nicaragua joins wind farm club

Nicaragua's debut wind farm is nearing completion with 40MW expected online this November.

A second phase, which will see a further 40MW installed next year, is in advanced planning.

Arctas Capital leads the development consortium behind the Amayo project in the south of the country.

It said that site and equipment options are secured, the phase one substation has sufficient capacity, and discussions with "off-taker, regulator and lender" are underway.

The cost of the farm is put at \$95 million.

Elsewhere, Arctas has signed a letter of intent with a "lead sponsor" to establish Lodestone Energy, which will develop, own and operate wind farms in emerging markets.

## European team to kick off at Monte Redondo

GDF Suez subsidiary Suez Energy Andino is teaming up with Spain's Enhol to build the 38MW Monte Redondo farm in Chile.

The project will employ 19 Vestas V90 turbines. Its environmental impact assessment has

already been approved. Construction is expected to begin in November with completion scheduled for July 2009, when Suez becomes owner-operator.

The developers also aim to register the project under the clean

development mechanism of the Kyoto Protocol.

The wind farm was originally developed by the Chilean subsidiary of UK renewables outfit Seawind. The company sold the project to Enhol earlier this year.

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Northeastern Colorado landowners have signed up with National Wind to build a 400MW community-based project in Sedgwick, Phillips and Logan counties. Operations should kick off in three to five years.

AES has begun building its 186MW Armenia Mountain wind project in Pennsylvania. Most of the output will be split between Delaware's Delmarva Power and Old Dominion Electric Cooperative. The farm is scheduled to come online in November 2009.

Edison Mission expects to start raising 2.4MW Mitsubishi turbines shortly at its 70MW Goat Mountain Wind Ranch II in west Texas.

FPL is said to have ditched plans for a 210MW wind farm in north Texas. It has land rights on 35,000 acres in Wilbarger County but decided to pull out for unknown reasons. FPL may eventually revive the project, which had a \$400 million price tag.

GreenHunter Wind Energy is planning to build two wind farms generating at least 100MW combined in Texas' ERCOT market by fourth-quarter 2009. The developer also has leases in Montana, Wyoming, New Mexico, California and China, representing more than 1000MW.

DeWind and Higher Perpetual Energy have formed a joint venture called DeWind SWI Wind Farms to build four Texas Panhandle projects generating up to 620MW. Talks are under way with potential investors.

# Twin 350MW projects put the meat back into developer CPV's portfolio

CPV Renewable Energy has replenished its wind portfolio following last year's sell off to Iberdrola Renewables.

A pair of 350MW projects in Texas and Oklahoma is nearest the pipeline's mouth.

The Rattlesnake Den wind farm in Glasscock County, Texas would hook into the \$5 billion transmission network that state regulators are planning for west Texas and the Panhandle.

Work on the new transmission system is not likely to start until well

into 2010, pushing back Rattlesnake's construction, but the entire farm could be built in a single phase.

E.ON's year-old 124.2MW Forest Creek wind farm is also in Glasscock County.

The CPV Keenan project in Woodward County, Oklahoma could also generate up to 350MW when all three phases are developed.

CPV just sold the first phase, with output of 101.2MW, to Oklahoma Gas & Electric. It has renamed the project OU Spirit and allotted the

power to the University of Oklahoma.

Forty-four Siemens 2.3MW turbines are due to arrive in August and commercial operation is expected toward the end of 2009.

CPV still controls phase two, which will probably generate as much power as the first phase if not more. It is on schedule to begin operations in 2010.

The third phase, which is not yet a sure thing, would follow in 2011. Both phases could be sold off or CPV may sell on their output.

The company has been

rapidly rebuilding its wind business after selling the CPV Wind unit, and its 3.5GW portfolio in 15 states, to Iberdrola in April 2007.

Since then, CPV has acquired rights to property with the potential to generate 5GW in wind power and is working on two dozen projects, it said.

The property footprint spreads from eastern Colorado to the western rim of the PJM Interconnection network in Illinois and Kentucky, as well as reaching into California and the Pacific Northwest.



**Iberdrola mines Klondike gold**  
Iberdrola Renewables turned on the power at its 300MW Klondike III and IIIa wind farms (pictured) near Wasco, Oregon this week. Phase IIIa runs on 51 GE 1.5MW turbines while III has 80 of the GE machines plus 44 Siemens 2.3MW models. A single Mitsubishi 2.4MW turbine is being tested at the site. All four Klondike phases generate a total of 400MW.

Photo: Iberdrola Renewables

## Invenergy sets out on US road trip as the power keeps building

Invenergy will commission two wind farms this month and expects to bring three more online by year-end, adding 602MW to the grid.

The company is also plotting out projects in at least seven new states.

Its 150MW McAdoo Wind project in Dickens County, Texas began operations earlier this month while the 99MW Grand Ridge I farm in La Salle County, Illinois should be generating by the end of the month.

McAdoo, which will supply the ERCOT wholesale market, has 100 GE 1.5MW turbines and Grand Ridge has 66.

Grand Ridge's power will be sold in the PJM wholesale market.

The 72MW Willow Creek project in Oregon and the 169MW Turkey Track farm in Nolan County, Texas are scheduled for completion in December. Invenergy has signed a 15-year power

purchase agreement with the Los Angeles Department of Water and Power for all of Willow's output.

The 112.5MW Sheldon project in Sheldon, New York will be finished by year-end or early 2009.

Next month, Invenergy will start construction work on the 90MW Vantage project near Ellisburg, Washington.

The developer's next moves are likely to come in the West and Midwest.

The company has applied to put up met towers in Nevada's White Pine County and Ellis County, Kansas.

It is thought to have secured rights to more than 17,000 acres in Iowa's Fayette County and has been negotiating with landowners in Kansas and Oklahoma. Invenergy recently dispatched agents to scout out sites in Ohio and Indiana as well.

## Briefs

Oregon State University has deployed its 10kW wave buoy for five days off the coast of Newport. Partner Columbia Power said the device “generated peaks in the 10kW to 15kW range in a relatively mild summer wave climate”. Data will be used for lab testing and to develop a utility-scale device.

Researchers in Scotland are developing a kite-and-cable tidal turbine that is not tethered to the ocean floor. University of Strathclyde has built a prototype of the contra-rotating turbine, which is propelled along its wire by tidal currents.

Australia could meet 35% of its power demand by harnessing wave power, according to a report commissioned by wave developer Carnegie Corporation. It found that 10% of the total near-shore wave resource is viable to extract, representing 17GW.

The UK government has set out its application and consent timetable for wave and tidal energy projects in the Pentland Firth off Scotland with the aim of installing more than 700MW by 2020. Initial devices could be deployed as early as 2010/2011.

Work is underway to install Pulse Tidal's 100kW shallow-water hydrofoil demonstrator in the Humber estuary off eastern England.

Australian wave company Oceanlinx has secured A\$16 million from an investor syndicate comprising the New Energy Fund, Espírito Santo Ventures and Emerald Technology Ventures.

# Atlantis hunts world's toughest tides for its 4MW Solon turbine

Tidal developer Atlantis Resources Corporation is looking at sites in the Bay of Fundy and Alaska for deployment of its Solon deep-water tidal turbine.

The Singapore-based company is in talks with potential project partners in the US, Canada and other parts of the world with a view to manufacturing and installing a 4MW version of the turbine as early as 2010.

Atlantis recently completed tow-tests of a Solon prototype off the coast of Singapore using a flattop barge pulled by two ocean-going tugs.

“Solon produced in excess of 500kW in eight knots of water flow during testing, representing over 50% throat efficiency, making it the most efficient tidal turbine ever ocean



Drag race: the twin-tug towing rig and (inset) the Solon turbine being loaded for the tests off Singapore

Photos: Atlantis

tested,” the developer said. The tests will be verified by UK environmental consultancy Black & Veatch.

John Keir, head of research and development at Atlantis, said: “We believe that efficiencies

in excess of 60% will be achievable for turbines capable of producing more than 4MW each within the next two years.”

Initial fabrication of a 2MW Solon will take place in Singapore with some component outsourcing

to other parts of Asia and Australia. First deployment is scheduled for mid-2009 in Western Australia.

Canada, the US, Scotland and Asia all have potential locations for the 4MW device in 2010, pending the conclusion of negotiations.

## PowerBuoy tour of duty with Navy

Ocean Power Technologies will deploy a custom-built PowerBuoy off the coast of New Jersey this week.

The machine, due to go in Friday, is designed for use by the US Navy and will provide power for oceanographic sensor systems to gather and transmit information collected at sea.

The technology could power vessel tracking equipment for homeland security, tsunami warning systems, ocean observing systems and offshore aquaculture.

Last week, OPT received a \$2 million award from the Department of Energy in support of its wave power project in Reedsport, Oregon.

OPT said the grant will be used to help fund the

construction and testing of its first 150kW PB150 to be installed at the site, “major portions of which will be fabricated and integrated in Oregon”.

Elsewhere in Oregon, OPT has expressed further interest in developing a wave project in Coos Bay.

Speaking at the Oregon Renewable Energy

Conference, VP for business development and marketing Herbert Nock said the bay already has good grid connections, harbor facilities and energy resource.

“The basic ingredients from an engineering perspective are all right here. And you’ve got great waves.”

## Big bet on Norway technology in UK

ScottishPower Renewables will invest more than \$175 million in the next three years to build up to 60MW of tidal power at three UK sites using Norwegian technology.

The utility plans to install a commercial array of between five and 20 Hammerfest Strom 1MW tidal devices off north and west Scotland, and off the

north coast of Northern Ireland, by 2011. SPR will first design and construct a 1MW demonstrator of the units, to be known as Lånstrøm, for testing in Scottish waters.

The device will be an upgraded version of a 300kW tidal turbine, which has undergone tests in the Barents Sea for the last four years.

## MCT calls in money men

Tidal technology leader Marine Current Turbines has appointed a corporate finance advisor to assess its strategic options, including an outright sale of the company.

The developer of the pioneering Seagen device has hired Cavendish Corporate Finance to secure significant investment from new or existing shareholders, possibly in return for increased equity.

Meetings between MCT and Cavendish took place last week and more are scheduled for the coming days. An initial public offering is thought to have been ruled out.

A spokesperson for MCT confirmed that a “trade sale” is a possibility.

## Floating farm surfaces off Pacific coast

Principle Power has signed a preliminary deal that could see a 150MW floating wind farm built off the coast of the Pacific Northwest.

The Oregon company agreed terms with the Tillamook Intergovernmental Development Agency, created to oversee permitting off the coast of Tillamook County, for the phased development.

Principle has a licensing agreement with Marine Innovation & Technology for exclusive use of its WindFloat concept.

The exact location of the turbines, which would sit on top of triangular floating foundations, has yet to be determined.

## Patriot switch

Patriot Renewables is narrowing the potential for its South Coast offshore wind project in Buzzards Bay, Massachusetts.

The developer is understood to be dropping a site off Dartmouth as a result of environmental, social and economic factors following initial studies.

Waters off the Elizabeth Islands, farther offshore, are now the most likely location for the 60-turbine scheme.

# New Jersey win for Deepwater makes a double

Deepwater Wind has picked up its second offshore wind project in as many weeks after New Jersey selected the developer to build a 350MW scheme off Atlantic City.

Garden State Offshore Energy partners Deepwater and PSEG Renewable Generation were chosen by the NJ Board of Public Utilities to progress the 96-turbine scheme.

The BPU will pay \$4 million towards costs, with up to 10% of that upfront to aid development work.

Further funding of \$15 million has also been promised by the state.

BPU president Jeanne Fox said the farm would "help NJ protect its environment, combat global warming and respond to rising energy costs".

GSOE is planning to use 3.6MW turbines in a rectangular grid from 16 to 20 miles offshore.

Foundations, turbines and towers will be assembled on land and transported to the site using large barges.

Similar technologies

have been tested in Europe at the Beatrice demonstrator off Scotland.

Deepwater has licensed some of the technology used at that project, specifically the jacket-style foundations developed by Norwegian company OWEC.

GSOE said: "Assuming a suitable site can be found, turbine assembly and port facilities are expected to be located in New Jersey and create local green jobs."

As first reported in reNews Americas, Deepwater, backed by FirstWind, DE Shaw and Ospraie, has also been chosen to build an around 385MW project off the southern coast of Rhode Island.

That wind farm will be based on the same technology as the NJ scheme. Again, local manufacturing has been promised, this time for Quonset where up to 800 people are expected to be employed at tower fabrication facilities.

Full operation at both wind farms is expected by 2013.

## Michigan finds 'massive potential in Great Lakes'

The Great Lakes around Michigan have the potential to host 102GW of offshore wind in waters up to 195 feet deep, dropping to 55GW in waters up to 100 feet.

Unrestricted potential is 321GW, according to 'Michigan's Offshore Wind Potential', a report from the state's Land Policy Institute.

The findings are based on the power curve of a 3.6MW turbine adjusted for wind resource, bathymetry and shoreline restrictions.

Assuming more normal

restrictions, including a distance from shore of six miles, the numbers at 195 feet drop to 9GW and at 100 feet to 926MW.

The study looked at lakes Superior, Huron, Erie and Michigan, and did not account for shipping, historic sites, fishing, birds and tribal matters.

"This result has the potential to elevate Michigan's wind energy profile nationally and internationally because the resource is available and significant," said report co-author Soji Adelaja.

## No showstoppers turn up in trio of Lake Erie studies

Initial studies into a potential Lake Erie pilot wind farm off Cleveland have thrown up no major obstacles. Reports by Juwi International will supplement feasibility work being produced for the Great Lakes Energy Development Task Force.

The agency will decide on its next move in 2009 for what could be the country's first inland offshore scheme.

Juwi's work concluded that wind speeds off Cleveland averaged up to 16.4 mph, well within the

parameters for economic development of offshore projects.

A second study into environmental impacts found that while some disruption to habitats and species is possible during construction, long-term impacts were likely to be minimal. Finally, a study into geology identified some areas of the lakebed that were more suitable for turbines than others.

Existing technologies such as monopile foundations would be the most likely way forward.

## Briefs



German developers EWE, Eon and Vattenfall have successfully installed the substation for the

Alpha Ventus project off Germany (left), where six Multibrad and six Repower 5MW machines are due to be installed in 2009.

A consortium including Bilfinger Berger, Hochtief and Weserwind were responsible for installation of the transformer platform, while IMS of Hamburg performed engineering of the jacket and topsides and Mostostal of Poland performed

topside prefabrication. The 110/30kV transformer was built by Areva.

Photo: Alpha Ventus

The US Coast Guard has reportedly hired Technology Service Corporation to carry out a study into potential radar impacts from the 130-turbine Cape Wind project off Massachusetts. The study could potentially delay a decision on the

scheme by the Minerals Management Service.

Eon has signed a \$375 million contract for 90 Siemens 2.3MW turbines for the Rodsand 2 offshore wind farm in Denmark.

Dutch company Essent is seeking bids for a support vessel and maintenance jack-up at its 480MW Nordsee Ost project off Germany.

A2Sea has acquired the JB109 jack-up barge and related assets from Dutch company Jack-Up Barge BV for an undisclosed sum. The vessel will be renamed Sea Worker.

Siemens and consortium partner Prysmian have won an \$120 million contract to connect the 300MW Thanet wind farm to the UK transmission grid.



Backlog booster: AAER's nacelle assembly and blade manufacturing plant in Bromont, Quebec

Photo: AAER

## Turbine deal puts AAER into the major leagues

Canadian wind turbine builder AAER has landed its biggest ever deal for 61 of its 1.65MW machines.

The order, valued at around C\$142 million, will supply the 100MW Saint-Maxime-du-Mont-Louis wind farm in Quebec.

Developer Mont LouisWind has reserved delivery of the A-1650 units for the third quarter of 2010.

AAER boss Dave Gagnon

said: "This agreement is a milestone as it represents the lead order for our new 1.65MW A-1650 wind turbine and provides important validation of our turbine technology and production capacity."

The A-1650 is an optimized version of AAER's 1.5MW A-1500 model.

The 1.65MW unit is licensed from AMSC WindtecTM, a subsidiary of

American Superconductor Corporation.

Gagnon said the reservation strengthens the company's order backlog and "provides excellent visibility on our long-term supply chain as we start ramping up production in the fourth quarter toward our production goals for 2009 and 2010".

The deal enables Mont Louis, represented by NPI Wind Power and Northland Power, to nail down the delivery schedule while a warranty, maintenance and service agreement are being finalized.

A 'cost-plus' contract structure has been agreed. Final pricing and other terms will be set at the signature of the full turbine supply agreement.

Company president Gagnon added: "We are pleased to be working with a proven developer like Northland Power and look forward to delivering wind turbines in our home market in the near future."

### Briefs

The Ontario Energy Board has approved Hydro One's application to build the Bruce-to-Milton transmission reinforcement project, with conditions.

The 180-kilometre, double-circuit 500kV wire will be built on a widened existing corridor between the Bruce Power Facility in Kincardine and Hydro One's switching station in Milton.

The line will transfer more than 3GW of

renewable electricity from the Bruce area to southern Ontario.

Researchers at the University of Calgary claim to be close to commercializing technology that captures carbon dioxide directly from the air.

Climate change scientist David Keith and his team reckon they can capture the greenhouse gas using less than 100kWh of electricity per tonne.

## Diversion ahead for Montana-Alberta tie

US and Canadian government regulators have released a summary of a final environmental impact statement for the Montana-Alberta tie line, writes Charles Mandel.

The route, described as "a compromise", could be slightly longer than proponent Montana Alberta Tie Ltd (MATL) may like but it may mollify the hundreds of farmers who expressed concerns over the transmission line.

The cross-border wire is slated to cover 345 kilometres between Lethbridge, Alberta and Great Falls, Montana, connecting the grids and carrying 300MW each way.

The estimated cost of the

project is put at between \$150 million and \$175 million.

The line is supposed to carry wind energy but currently only one company is known to have a contract with MATL.

Spain's Grupo Naturener is building a 106.5MW wind farm with 71 turbines outside of Etheridge, Montana.

The line's wires will be supported on monopoles where they cross farmers' lands and H-frames over uncultivated properties.

The Montana state Department of Environmental Quality and US Department of Energy share jurisdiction over the project.

## Newfoundland first from Enel

Newfoundland and Labrador's first wind farm is set to come online this month.

Enel North America will sell electricity into the grid from nine Vestas V90 turbines producing 27MW on Burin Peninsula in Newfoundland.

The farm also represents Italian energy giant Enel's first foray into the Canadian wind market. The developer's parent company boasts more

than 19GW of renewable capacity in 10 countries.

The wind farm originally springs from a request for proposals from Newfoundland and Labrador Hydro in 2002.

The program was subsequently shelved until 2006 and then revived. Enel beat seven other companies for the rights to build the project.

It is also moving ahead with a 115MW farm in Alberta.

## Fast track for Nova Scotia projects

The Nova Scotia Utility and Review Board has granted seven wind projects the ability to jump a queue for engineering studies.

Nova Scotia Power said the projects need "help to clear a logjam that challenges the company's ability to meet the province's 2010 renewable energy standard".

In its report, the regulator chastised NS Power, noting the utility

was aware of the potential problem when it submitted its request for proposals in 2007.

The review board also asked the utility to clear up its relationship with the Nova Scotia Power System Operator.

It asked for a report by 15 December, outlining concerns expressed by other stakeholders about the operation of the two entities.

## Editorial

# Seeds of hope in Wall Street rubble

It was sheer coincidence that the Production Tax Credit found salvation in the credit crisis. Washington finally granted a year's reprieve only because doing so served as a convenient means of wresting a few crucial votes for the administration's \$700 billion bailout package.

But the industry may find something far more valuable than a tenuous tax credit in the ashes of the modern financial system, and now is the time to start digging for it.

The convulsions rippling through the credit markets will no doubt bring real hardship to developers in the short term, and probably are already.

Longer term, however, there are ripe opportunities to reclaim some of the precious capital long tied up in sterile, speculative financial acrobatics and deploy it instead for the challenge of converting the nation's energy supply.

Quite the opposite could happen. "The temptation at times like this is to hunker down, to take no risks, to delay investments," said Ralph LaRossa, president of New Jersey utility PSEG, in testimony before the state's legislature this week. "That, in my view, would be exactly the wrong path."

Investing in wind, solar and transmission bolsters the economy, LaRossa rightly argued. "We will emerge from this with an electric system that's cleaner and more efficient, and an economy that is stronger than ever," he said.

This is no pipe dream. The passage of the bailout package clearly demonstrates the federal government can take the economy by the reins. It has to lead it somewhere.

## Graduation day

The nation's newest, and strictest, renewable portfolio standards do not belong to Florida or Michigan but to two districts out west: the University of Oklahoma and Colorado State University's Fort Collins campus.

Both colleges have committed themselves to using nothing but wind power and are well on their way to building the infrastructure to meet their targets. Each wind farm will generate overflow power to be sold off as well.

How positive it would be for the industry — for purposes of recruiting supporters, not to mention future workers and research dollars — if more universities were to follow this example.

# PTC renewal looks like the last free drink in Congress

The Production Tax Credit's surprise renewal last week gave the industry a long-sought victory but the writing may already be on the wall for next year's extension efforts.

Congress passed the necessary legislation by tucking it into the \$700 billion financial bailout plan, which President Bush signed into law Friday.

Developers and industry lobbyists had begun to brace for the PTC's lapsing at year-end but the financial markets crisis created an opportunity to break the longstanding impasse over how to fund the tax break.

The Senate worked a package of tax break 'extenders' into its version of the bailout bill, crafted following the House of Representatives' stunning defeat of an earlier version. The extenders were added as sweeteners to pick off House Republicans who had helped vote down the first version.

The PTC, worth two cents per kilowatt-hour of electricity produced, will now stay in place until year-end 2009.

The fact that it took a national crisis to galvanize support does not bode well for the tax credit's renewal chances next time around, according to lobbyists. House and Senate leaders both seemed prepared, before the financial turmoil enveloped Congress, to let the measure wither away.

Congress's much stronger support for solar energy credits similarly signals growing impatience for wind industry subsidies. The 30% tax break for commercial and residential solar installations was extended for eight years. That is the kind of long-term commitment the wind lobby has sought for years.

"I think Congress thinks it's just too expensive to do wind any longer," one industry lobbyist claimed. "It's a lot cheaper for solar."

The law also establishes an eight-year investment tax credit for small wind turbines, another sign that lawmakers feel utility-scale developers are ready to be weaned from federal supports.

## New Jersey governor gets the offshore bug

New Jersey Governor Jon Corzine (*pictured*) has pledged to triple the state's offshore wind power consumption by 2020 to 3GW. The state had earlier released an Energy Master Plan recommending the development of 1GW by 2020 but Corzine now wants to reach that milestone by 2012.

"We listened closely to our stakeholders, considered current economic conditions and

the dynamic state of offshore wind technology, and we knew we had to go a lot further," he said. The 3GW target would represent 13% of New Jersey's total electricity demand.

The state Board of Public Utilities last week picked

Garden State Offshore Energy to build its first offshore project, a 350MW farm off the coast of Cape May and Atlantic counties. Corzine encouraged other developers to approach New Jersey with similar proposals.



Photo: New Jersey state

## Senate committee mulls siting rules for Texas

Texas lawmakers held a hearing this week to consider the benefits or otherwise of enacting state siting regulations for wind farms.

Projects outside city limits currently face no requirements other than having to meet Federal Aviation Administration guidelines.

Officials from Texas Public Utility Commission testified at the forum, along with Babcock & Brown chief development officer John Calaway, FPL regulatory affairs VP Bert Garvin, and Wind Coalition executive director Paul Sadler.

The hearing was called by the state Senate's Committee on Business and Commerce chairman Troy Fraser on Monday. The full legislature will not reconvene until January so no changes can be made until then.

## Briefs

The Fish and Wildlife Service and Western Area Power Administration are working on an environmental impact statement that will also assess the social and economic effects of wind development in Iowa, Minnesota, Montana, Nebraska and the Dakotas.

WAPA cites eight pending interconnection requests for about 1.5GW of wind in its Upper Great Plains region encompassing the area in the study, which is expected to take just under two years.

The Environmental Protection Agency has identified thousands of potential US sites for utility-scale wind farms and other renewable energy projects on contaminated lands and mining sites. These typically feature good transmission and road access as well as community support for development, the agency said. The information is posted on its website.

[www.epa.gov/renewableenergyland](http://www.epa.gov/renewableenergyland)

## Briefs

BP Alternative has opened an office in Jefferson County, New York to coordinate efforts to gain public support for its 231MW Cape Vincent wind farm. The federal Fish and Wildlife Service has urged BP to reconsider the site for fear the farm might threaten the endangered Indiana bat.

Nevada utility NV Energy has issued a request for proposals for renewable power, including wind and solar. Responses are due by 11 November.

Penn Wind is thought to have abandoned an 18-turbine project in Pennsylvania's Lebanon County because the site was found to intersect with bird migratory paths and attract bats. Penn is looking at other sites in the state.

Vestas Towers has chosen Konecranes America to supply 56 cranes for its new turbine tower manufacturing facility in Pueblo, Colorado. Vestas intends to open the facility by October 2009.

RTL Windtowers of McGregor, Texas has started work on a 180,000 square-foot wind tower fabrication and coating facility. The plant is expected to be in full production come January.

# Michigan renewables standard sparks land grab by developers

Developers are swarming around Michigan after the state enacted a renewable portfolio standard.

As expected, Michigan Governor Jennifer Granholm signed the legislation into law this week, requiring utilities to derive 10% of their power from renewables by 2015.

The state's two big utilities, Consumers Energy and DTE Energy, are as busy as anyone.

Consumers, along with John Deere Energy, is known to be soliciting landowners for prospective wind projects along Lake Michigan near Fillmore Township. DTE is also known to have land under lease for wind turbines.

The RPS law requires Consumers to build or buy 200MW of new renewable energy by 2013 and 500MW by 2015, while DTE must build or

buy 300MW by 2013 and 600MW by 2015.

Deere developed Michigan's only utility-scale project, the 53MW Harvest wind farm in Huron County. It has also proposed building a 60MW farm in Oceana County.

Developer RES, meanwhile, has been talking with landowners in Huron County about erecting met towers and turbines in several

towns. Michigan-based Heritage Sustainable Energy has secured more than 40,000 acres for projects in Tuscola and Huron counties. Another Michigan developer, Midland Energy, has leased 12,000 acres in Huron County and plans to raise 120 turbines of unknown make.

Meanwhile, the Holland Board of Public Works, a Michigan public utility, has

bought an option on 1500 acres in Chippewa County and now plans to study the wind resource in hopes of building a 50MW farm.

The board will hire engineering contractors but not wind developers to build the farm, which would take about three years.

No turbines have been bought, though the board is planning on using 2.5MW machines.

## John Deere Wind 'buying Thumb I'

**John Deere Wind Energy appears to be buying a 69MW project in Michigan that Noble Environmental Power started building this summer.**

**Landowners who leased property to Noble reported receiving letters last month on Deere letterhead inviting**

**them to a meeting to discuss a change in ownership.**

**The meeting took place last week but landowners would not comment on the discussions.**

**Deere officials did not return calls for comment, and Noble officials said they cannot discuss issues**

**due to 'quiet period' restrictions ahead of the company's initial public offering.**

**The Noble Thumb I Windpark, in Ubyly, began construction in July. It will be powered by 46 GE 1.5MW turbines and supply power to Michigan utility Consumers Energy.**

## Santa Barbara plain sailing for Acciona

An Acciona unit has won preliminary approval for a 120MW wind farm in California's Santa Barbara County.

County planning officials endorsed the Lompoc Wind Energy Facility last week, and now the project hinges on the county's Board of Supervisors.

Acciona's Pacific Renewable Energy Generation division would develop the farm with 80 Acciona 1.5MW turbines.

California utility Pacific Gas & Electric has signed a long-term purchase agreement for 82.5MW of the output. The rest has yet to be allotted.

## French command Ridgeline

Seattle-based developer Ridgeline Energy has been sold to France's Veolia Environment for \$72 million.

Ridgeline has a wind pipeline of 4GW under development in Idaho, Washington, Nevada, Wyoming, Oregon, California and Utah.

Its most advanced project is a 450MW farm in Idaho's Bingham County

set for construction in 2010.

The sale will probably lead to a boost in payroll numbers and speed up projects, said VP Rich Rayhill.

Veolia currently has no wind projects in the US. In Europe, it has a portfolio of 3GW under development and expects to have 160MW in installed capacity by the year-end.