

DIRECTION

Policy • Advocacy • Business • Finance • Legal • Environment • International

SIEMENS ADDS TWO VESSELS TO OFFSHORE SERVICE FLEET

Ships to provide service support for North Sea offshore project



Siemens SOVs will be strategically positioned in close proximity to offshore wind turbines for safe access and streamlined operations (artist rendering). Siemens Press Picture

Siemens has signed a chartering agreement with ship owner Bernhard Schulte for two new service operations vessels (SOV) to be purpose-built for the long-term service and maintenance operations of the Gemini and Sandbank/Dan Tysk offshore wind power plants in the North Sea. Officials from Siemens and Bernhard Schulte together with its offshore wind affiliate WIND- EA Offshore met this past week in Brande, Denmark, to commemorate the project start and sign the chartering agreement.

The two new SOVs will be built by Ulstein Verft Norway and will become operational in 2016 and 2017 when both the Gemini and

Sandbank offshore wind projects are scheduled to begin operations. An added benefit of the vessel being built for the Sandbank project is that it can also be utilized for Siemens' service operations for the nearby Dan Tysk wind farm already in operation.

"Siemens is proud to be the first in the industry to introduce these new purpose-built SOVs as we continue to focus on advancing our offshore service operations for the benefit of our customers," said Mark Albenze, CEO, Siemens Wind Power and Renewables Services Business Unit. "By improving efficiencies in our service operations we can help our customers realize optimal perfor-

mance from their turbines, thereby contributing to advancing the competitiveness of offshore wind energy for the future. Our charter agreement with Bernhard Schulte offers us the opportunity to work with an experienced ship-owning company and we look forward to the start of offshore operations with these new SOVs in 2016."

This year, as part of its innovative new offshore logistics concept, Siemens is scheduled to begin utilizing its first two SOVs commissioned specifically for the Butendiek and Baltic II offshore wind projects in Germany.

An industry leader in offshore wind service, Siemens is at the



Officials from Siemens and ship owner Bernhard Schulte met in January 2015 to sign chartering agreements for two new service operations vessels (SOV). The SOVs will serve as floating offshore accommodations for service personnel working at the Gemini and Sandbank wind farms in the North Sea. Siemens Press Picture

forefront of introducing these new SOVs that are being constructed specifically for offshore wind service operations. Siemens is taking an active role in the vessel design with particular emphasis on safety and improving efficiency. By utilizing these purpose-built SOVs, customers will benefit from Siemens' emphasis on more effective use of resources and personnel, as well as better accessibility with less time lost waiting for suitable weather conditions. They also feature advanced

active gangway systems for safe access to the turbines in varying weather and wave conditions. In addition, the Gemini and Sandbank/Dan Tysk SOVs will feature a helideck. The SOV logistics can then combined with the steady ground readiness of a helicopter to provide customers with a customized logistics program designed to meet their specific needs. ↵

— Source: Siemens

Measure Where it Matters

The Vaisala Triton Sonic Wind Profiler offers:

- Accurate hub-height wind data
- Integrated solar power supply, allowing for autonomous operation in remote locations
- Reliability – over 500 Triton systems, more than 2,500 commercial installations, and over 11 million hours of data

Visit our website to learn why the vast majority of wind energy developers use Triton every day.



SECONDWIND
by Vaisala

www.vaisala.com/triton

VAISALA

SUNEDISON BUYS 1.6 GW SUPPLY DEALS TO QUALIFY FOR PTC

TerraForm Power to acquire projects upon commercial operation

SunEdison, Inc., a leading global solar technology manufacturer and provider of solar energy services, and TerraForm Power, Inc., a global owner and operator of clean energy power plants, today announced that SunEdison had purchased new turbines that will enable SunEdison to develop up to 1.6 GW of incremental wind energy projects which qualify for the U.S. federal production tax credit. TerraForm will purchase the projects from SunEdison once they achieve commercial operation.

On November 17, 2014, SunEdison and TerraForm announced that they had signed a definitive agreement to acquire First Wind for \$2.4 billion. The purchase included over 1.6 GW of pipeline and backlog projects of which 1.4 GW were already PTC and or ITC qualified projects and an additional 6.4 GW of project development opportunities.

“The purchase of these PTC qualified wind turbines will further enhance our renewable energy development engine and increase its already impressive growth trajectory,” said Ahmad Chatila, President and Chief Executive Officer of SunEdison. “The acquisition of First Wind accelerates our ability to capitalize on the attractive growth opportunities in the global wind power markets. We planned for the most conservative case — that the PTC was not extended. However, when a two week

extension of the PTC was created, we moved very quickly and secured the 2014 purchase of top-tier turbines. The ability to capitalize on this opportunity is a testament to our strategy and to the dynamic capabilities we have created by integrating First Wind’s development and operational capabilities with SunEdison’s global corporate infrastructure and renewable energy development and finance experience.”

“The addition of 1.6 GW of wind energy projects will cement TerraForm’s position as one of the leading renewable energy asset owners in the world,” said Carlos Domenech, President and Chief Executive Officer of TerraForm. “Our diversified growth strategy is delivering compelling results.”

“Following the closing of the First Wind acquisition we will have created an incredible platform for growth: a competitive source of development capital, the ability to convert development assets into operating assets rapidly and cost effectively, and a world class asset management company in TerraForm,” Chatila added.

The acquisition of First Wind is expected to close during the first quarter of 2015, subject to usual and customary conditions and regulatory approvals.

— Source: SunEdison, Inc.

APEX SELLS 300 MW BALKO WIND PROJECT TO D.E. SHAW

D. E. Shaw Renewable Investments, L.L.C. and Apex Clean Energy recently announced the sale of Balko Wind, a wind energy project in Beaver County, Oklahoma. Apex developed the 300 MW project and sold it to an affiliate of DESRI in late 2014. Financing for the acquisition and construction of the project was provided by Santander Bank, N.A., KeyBank, N.A., Citi, and Banco de Sabadell, S.A. Commitments for tax equity financing were provided by affiliates of Bank of America Merrill Lynch, General Electric Capital Corp., Google Inc., and Citi. CohnReznick Capital Markets Securities, LLC acted as advisor to DESRI for the tax equity financing. Financial terms were not disclosed.

Apex began developing Balko in 2009 and oversaw the start of the construction by Mortenson Construction the project’s engineering, procurement, and construction (EPC) contractor. DESRI is a member of the D. E. Shaw group, a global investment and technology development firm. DESRI will oversee the completion of construction and manage the project once operational, which is expected to be in the late summer of 2015.

Once completed, Balko Wind will comprise 162 GE 1.85-87 wind turbines and is expected to produce enough energy to power about 111,000 homes. The project benefits from one of the strongest wind resources in the state of Oklahoma and

has signed power purchase agreements with the Public Service Company of Oklahoma and Western Farmers Electric Cooperative. Over its lifetime, the project is expected to generate an estimated \$33.75 million in new tax revenue for Beaver County and local schools. It is also expected to support about \$196 million in local purchasing and \$68 million in new payroll regionally, while directly creating a dozen long-term, high-quality local jobs.

“Balko Wind will deliver clean, cheap power to Oklahoma utilities, while offering long-term predictable returns for infrastructure investors,” said Mark Goodwin, Apex Clean Energy President. “This transaction highlights Apex’s broad capabilities to

deliver attractive clean energy investment opportunities to our financial partners.”

Bryan Martin, a managing director and head of U.S. Private Equity for the D. E. Shaw group, said, “We are pleased to close on the acquisition of Balko, which we believe will be a valuable addition to DESRI’s renewable energy portfolio. We are confident that this project will benefit the community of Beaver County for years to come.”

“As the Executive Director of the Panhandle Regional Economic Development Coalition (PREDCI), I am excited to welcome the Balko Wind project into our region,” said Vicki Ayers-Portman, Executive Director of PREDCI. “Oklahoma is blessed with abundant wind energy resources that can create local jobs, catalyze new local business, and supply taxes to our counties and schools, while helping our farmers and ranchers diversify their income. High-quality facilities like Balko Wind will strengthen our local economies as we help power our nation’s way into the future.”

— Source: Apex Clean Energy

RES AMERICAS SECURES PPA FOR DEERFIELD WIND PROJECT IN MICH.

Renewable Energy Systems Americas Inc., a leader in the development, engineering, and construction of wind, solar, transmission, and energy storage projects in North America, announced that its subsidiary RES America Developments Inc. has entered into a 20-year power purchase agreement (PPA) with Wolverine Power Supply Cooperative, Inc. for 114 MW of wind energy and associated renewable energy credits in the Thumb of Michigan.

The wind power will be sourced from the Deerfield Wind Energy

project, which is located in Huron County, Michigan. The project, located on approximately 20,000 acres in the townships of Huron, Bloomfield, Dwight, and Lincoln, will provide up to 200 jobs during the peak of construction and up to six permanent jobs once construction is completed. Currently more than 215 local landowners are participating in Deerfield Wind Energy and will receive landowner royalty payments from the project.



Wind Turbine Services Company

Airway Services is a full-service provider of technical staffing, project management and operations and maintenance for utility-scale wind energy projects. Our technical and operations teams are experienced in providing solutions to a wide array of issues found only in wind energy projects.

- Complete Turbine Inspection Service
- Wind Turbine O&M
- Turbine Maintenance
- Safety and Quality
- On-demand Technical Staffing
- Site Prep and Construction
- Best Practice Approach

We are hiring for various positions. Please apply online

Airway Services Canada
Office: 519-627-0606

Airway Services USA
Office: 325.617.5813
Fax: 325.617.5818

www.airwayservicesinc.com

RES Americas developed and will construct the project and Wolverine, which is owned by and supplies wholesale electric power to seven members, will be the recipient of the 114 MW of electricity generated by the project. Deerfield Wind Energy is scheduled to reach commercial operation by December 31, 2016.

“We are delighted to help Wolverine deliver clean wind energy to

its member-owners at a very attractive cost,” said Glen Davis, Chief Executive Officer of RES Americas. “Wolverine’s commitment to purchase the Deerfield Wind Energy project’s electrical output will bring investment and jobs to the state and local community that have supported us through the development cycle.”

“Wolverine is very pleased to be adding competitively priced wind

energy to its power supply portfolio for its members,” said Eric Baker, President and CEO of Wolverine. “This PPA not only positions Wolverine and its members to meet Michigan’s Renewable Portfolio Standard requirement of 10 percent renewable power supply by 2015, it also further diversifies Wolverine’s overall energy portfolio.” ↵

— Source: RES Americas

SGURRENERGY LENDS EXPERTISE TO NOVA SCOTIA PROJECTS

SgurrEnergy is supporting two community wind portfolios through the financing and construction phases in the Canadian province of Nova Scotia.

The company’s North American arm is conducting lender’s independent engineer services on the Watts Wind II portfolio, which comprises three sites located in the Nova Scotia communities of New Glasgow (6.4MW), Barrington (3.2MW), and Wedgeport (1.8MW). The team supported National Bank of Canada, the lender, through a technical due diligence review, bank-grade energy yield and is now completing construction monitoring on all three sites.

The SgurrEnergy team has also been acting as lender’s engineer for the 22MW ScotianWEB Phase II wind portfolio, on behalf of the project’s financial advisor, Travelers Capital Corporation.

Having advised the lender through the financing of the portfolio, SgurrEnergy is now monitoring construction progress of the five sites and will provide completion services to the lender in early 2015, when the portfolio is expected to commence commercial operation.

Ian Mc Donald, project manager at SgurrEnergy, said: “These projects are excellent examples of community scale wind farms, which are geographically diverse, being grouped together as portfolios in order to enhance their financial viability.

“SgurrEnergy has been involved in many community renewables projects since the company began in 2002 and we’re delighted to be supporting these two community wind portfolios to fruition.”

Both projects are being developed under Nova Scotia’s community feed-in-tariff program (COMFIT), which pays above market rates for power produced from clean energy sources. It is part of Nova Scotia’s 2010 renewable electricity plan, which sets out a detailed path to move Nova Scotia away from carbon-based electricity toward sources that are greener and closer to home.

The province has committed to 25 percent renewable electricity by 2015 and 40 percent renewable electricity by 2020 and these projects, which are due to be completed in 2015, will contribute to those targets.

— Source: SgurrEnergy

NORTHERN POWER SYSTEMS PLANS INITIAL PUBLIC OFFERING

Northern Power Systems Corp., a next generation renewable energy technology company, announced that it has publicly filed a registration statement on Form S-1 with the U.S. Securities and Exchange Commission, relating to a proposed initial U.S. public offering of its common shares. In connection

with the proposed offering, Northern Power Systems Corp. has applied for the listing of its common shares on the NASDAQ Capital Market. The number of shares to be offered and the price range for the offering have not been determined.

Needham & Company, LLC will act as sole book-running manager

for the proposed offering, with Craig-Hallum Capital Group LLC and Northland Capital Markets, Inc. acting as co-managers.

The proposed offering will be made only by means of a prospectus. A copy of the preliminary prospectus relating to these securities may be obtained, when available,

from Needham & Company, LLC, 445 Park Avenue, New York, NY 10022, 800-903-3268, or by email to prospectus@needhamco.com.

A registration statement related to these securities has been filed with the U.S. Securities and Exchange Commission, but has not yet become effective. These

securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This press release shall not constitute an offer to sell or the solicitation of an offer to buy nor may there be any sale of these securities in any state or jurisdiction in which such

an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction. The transaction is subject to the approval of the Toronto Stock Exchange. ↵

— Source: Northern Power Systems

EDF RE AND VESTAS RE-INK SUPPLY DEAL AFTER 150 MW ORDER

Supply agreement could translate into up to 1 GW of U.S. wind capacity

EDF Renewable Energy has placed a firm order with Vestas Wind Systems A/S for 150 MW of wind turbine generators. The order closes the books on the Master Supply Agreement (MSA) announced in September 2013 with orders totaling 1,094 MW. Delivery of the 75 V100-2.0 MW is scheduled for third quarter 2016.

“Over 1 gigawatt of new wind energy projects have materialized to date under the frame agreement EDF Renewable Energy and Vestas entered into in late 2013, significantly strengthening the partnership between our two companies in the process,” said Ryan Pfaff, Executive Vice President of EDF Renewable Energy. “With the recent extension of the Production Tax Credit, we look forward to working with Vestas to bring additional, clean energy projects online in the U.S. over the next few years.”

In addition, the two companies have initiated a new master agreement defining terms for up to 1 GW of future capacity, which will be installed in coming years.

“In 2013, Vestas and EDF RE signed an ambitious master supply agreement laying out our partnership. Today’s announcement will be the last under that productive umbrella agreement,” says Chris Brown, President of Vestas’ sales and service division in the United States and Canada. “But we’re not done yet. EDF RE is one of the most successful renewable energy developers in the North American market, and this new agreement opens the door to our next gigawatt of continued collaboration in 2015 and beyond.”

— Source: EDF Renewable Energy

HEADLINES

Nordex secures 17 MW order in Poland

RWE Innogy has ordered seven N117/2400 wind turbines from Nordex for the 17-MW Opalenica project in Poland. The wind turbines are to be installed in summer 2015. The company has also signed a 15-year premium service contract for the turbines. “We are pleased to be able to build our seventh wind farm in Poland with Nordex and will be putting it into operation in 2015,” says Dr. Hans Bünting, managing director of RWE Innogy.

The Opalenica project is located in the Poznan region. RWE has opted for the N117/2400 as this turbine is specifically designed to match most of the conditions prevailing at the site. Consequently, the wind farm will have an above-average capacity factor of 34 percent despite the fact that the overall height of the systems has been capped at 150 metres by an administrative order. The high efficiency of the turbines will be decisive when the new rules for auction system will apply for tenders.

— Source: Nordex

Vestas strengthens its market leading position with 36 MW order in Poland

Vestas has secured a firm and unconditional order for 12 of its V112-3.0 MW turbines for a project located in the region of Lodzkie, Poland. The order has been placed by a private Polish investor.

The contract includes delivery, installation, and commissioning of the turbines, which is expected to occur during the third and fourth quarter of 2015. The project also includes a five-year Active Output Management (AOM) 4000 service contract.

— Source: Vestas

Gamesa to supply 92 MW for Chinese projects

Gamesa has signed two new contracts in China, one to supply 50 MW to Hebei Construction & Investment Group, and another to supply 42 MW to the Chinese wind farm developer UPC.

The scope of the agreement with HCIG encompasses the supply, installation and commissioning of 25 of Gamesa's G97-2.0 MW turbines, at the Nandianziliang wind complex located in the province of Shanxi, in northern China. The turbines are slated for delivery in May 2015, while the facility is expected to be commissioned by the third quarter of this year. Since 2008, Gamesa has supplied 180 MW to HCIG, one of the top 10 wind power operators in China.

Elsewhere, the contract with UPC includes the supply, installation and commissioning of 21 G97-2.0 MW turbines at the Huangyan wind farm in the province of Zhejiang, in eastern China. These turbines are to be delivered in April of this year and the project is expected to be fully commissioned by the third quarter of 2015. This is the first agreement reached between Gamesa and the wind farm developer UPC.

These two new contracts, signed during the last quarter of 2014, reinforce Gamesa's commercial strategy in China, where the company won contracts for the supply of 450 MW during the course of the year.

— Source: Gamesa

Enel Green Power selects Vestas to supply further U.S. wind projects

Enel Green Power, acting through its subsidiary Enel Green Power North America Inc., has extended the framework agreement signed at the end of 2013 with Vestas for the development of wind farms in the United States.

The 2013 agreement, which provided for the supply of Vestas wind turbines, supported and will continue to support EGP-NA's recent successful growth in the United States.

The extension of this agreement confirms and expands EGP's commitment to keep growing in the United States wind market. The capacity yet to be developed within the 2013 agreement, together with the current extension, will enable the Company to qualify up to approximately 1 GW of future wind capacity in the United States for Federal Production Tax Credits (PTCs).

EGP-NA's ability to qualify for these federal tax incentives comes as a result of its continued substantial investment in the United States and recent action by the US Congress to extend the PTC as part of the Tax Increase Prevention Act of 2014, signed into law last month.

Enel Green Power in USA - Enel Green Power (EGP) operates in North America through Enel Green Power North America, Inc. (EGP-NA), which owns and operates over 90 plants in 21 U.S. States and two Canadian provinces. As of today, the company has a total installed capacity of more than 2,000 MW. Such a capacity base is diversified across four generation technologies, namely wind, geothermal, solar and hydro.

— Source: Enel Green Power

CANADA INSTALLED 1.8 GW OF WIND CAPACITY IN 2014

Ontario led charge with 999 MW as nation's wind total tops 9.7 GW

For the second consecutive year, the Canadian Wind Energy Association (CanWEA) is pleased to announce that Canada has set a record for the installation of new wind energy capacity. A total of 1,871 MW of wind energy capacity was installed in five provinces in Canada in 2014, with most growth centred in Ontario (999 MW), Quebec (460 MW) and Alberta (350 MW). Canada ended 2014 with nearly 9,700 MW of in-

stalled wind energy capacity, producing enough electricity to meet the needs of over 3 million average Canadian homes every year.

"Canada's 37 new wind energy projects in 2014 represent over \$3.5 billion in investment," said CanWEA president Robert Hornung. "Wind energy has now brought economic growth and diversification to more than 100 rural communities across Canada through land lease income, tax

payments and community benefits agreements. Of the 37 new wind energy projects installed in 2014, 15 projects also include significant ownership stakes from First Nations, Municipal Corporations or local farmers."

2014 also produced more evidence of the cost-competitiveness of wind energy, as the year ended with Quebec awarding contracts for 446 MW of new wind energy projects that will provide power

at an average cost of 6.3 cents/ kWh. While every market is unique, it is clear that wind energy can compete on cost with virtually all forms of new electricity generation, including nuclear, hydro-electric, and coal-fired power.

“Wind energy has demonstrated that it is a proven, reliable and cost-competitive energy solution that drives economic diversification, environmental sustainability and rate-base value,” Hornung said. “These attributes will continue to drive wind energy growth in 2015, where we expect a minimum of another 1,500 MW of new wind energy capacity to come on line. This coming year will also see new wind energy contracts awarded in Ontario, a new Energy Strategy in Quebec, and a new climate change framework in Alberta that may open the door to accelerated wind energy development in that province.”

The Canadian market was split between seven wind turbine manufacturers in 2014, however, over 98 percent of new wind capacity came from five manufacturers. Installations were led by Siemens, followed by GE, Vestas, ENERCON and Senvion. Siemens and GE supplied over 50 percent of wind turbines in 2014. ↴

— Source: CanWEA

GOVERNORS URGE FURTHER WHITE HOUSE SUPPORT FOR WIND ENERGY INDUSTRY

Letter to President Obama underscores long-term PTC renewal, transmission infrastructure boost

In a letter to President Obama in late December, South Dakota Governor Dennis Daugaard and Washington Governor Jay Inslee, the chairman and vice chairman of the Governors’ Wind Energy Coalition, urged the President to take steps to expand the nation’s wind energy development. This is the third annual letter that the governors have sent to the President suggesting steps that his Administration can take to help the states harness the full potential of the nation’s wind energy resources.

The letter outlines “actions that your Administration can take to expand the nation’s wind energy production and improve the resilience of our energy system.” Those actions include the following:

- Support prompt Congressional passage of a multi-year extension of the renewable energy production and investment tax credits. These incentives made possible the growth of the American wind industry and clean energy jobs, with substantial economic return to the states and the nation. “Policy uncertainty continues to hamper...” further development of the nation’s wind resources, the governors wrote. Congressional action early in the next session is critically important to “spur...substantial economic development.”
- Support the governors’ efforts to expand national transmission development both off-shore and on-shore. The governors point out that “today’s transmission system is inadequate for the electrical demands of the states’ modern information-based economies. Revitalization of the electrical transmission system must be accomplished on a multi-state basis with leadership from both you and the governors... The call for transmission action today is as important to our states’ economic development as the nation’s interstate highway system was 58 years ago when President Eisenhower acted with the governors’ support...”
- Encourage Prompt Review of Transmission Applications Under Section 1222 (b) of the Energy Policy Act of 2005. The governors shared with the President a letter they sent to Secretary Moniz urging prompt review of transmission applications under Section 1222(b) of the Energy Policy Act of 2005. “By using Section 1222(b) authority to approve eligible projects, policy makers can also send an important signal to the marketplace that the United States can successfully site and build innovative and major new high-voltage direct current (HVDC) transmission projects,” the governors wrote.
- Publicize and support the U.S. Department of Energy’s (DOE) 2014 Wind Vision Report. The Department of Energy is expected to soon release an update to its earlier wind assessment report. Because the report will guide critical, ongoing discussions in the energy policy community, the governors ask the President to “broadly communicate its findings” to the nation.

— Source: Governors’ Wind Energy Coalition

REPORT: ATLANTIC OFFSHORE WIND ECONOMIC IMPACT WOULD OUTSHINE DRILLING

Researchers claim offshore drilling carries higher risks to ecosystem, jobs, and tourism

Oceana released a new report today that finds offshore wind would produce twice the number of jobs and twice the amount of energy as offshore drilling in the Atlantic Ocean. The report, titled “Offshore Energy by the Numbers, An Economic Analysis of Offshore Drilling and Wind Energy in the Atlantic,” challenges recent claims by the oil and gas industry that opening the East Coast to offshore drilling will lead the United States to energy independence, generate millions of dollars in revenue for states and create thousands of jobs in the process. Oceana’s analysis instead finds that the benefits projected by the industry appear to be exaggerated due to the inclusion of oil and gas resources that are not economically recoverable, thereby inflating the potential benefits. Industry estimates also rely upon an assumption of a state revenue-sharing system that does not exist.

“Our report compares economically recoverable oil and gas development to conservative estimates of offshore wind development to allow an ‘apples-to-apples’ comparison of the energy and jobs that would be created by each source,” said Andrew Menaquale, report author and energy analyst at Oceana. “The American public deserves to know the facts when it comes to expanding this dirty and dangerous practice to the East Coast, and what alternatives there are for clean energy generation.”

Oceana’s report also finds that offshore oil and gas development along the Atlantic could put at risk some of the nearly 1.4 million jobs and over \$95 billion in gross domestic product that rely on healthy ocean ecosystems, mainly through fishing,

tourism and recreation. In fact, Oceana says the threats of offshore drilling would begin far before a rig is ever put in the water. In July, the Obama administration announced its decision to consider proposals for the use of seismic airguns that make dynamite-like blasts to search for oil and gas deposits deep below the ocean floor in an area twice the size of California, stretching from Delaware to Florida.

“Based on the government’s own estimates, seismic blasting in the Atlantic could harm fish populations while injuring as many as 138,000 marine mammals like whales and dolphins, disturbing the vital activities of as many as 13.5 million more,” said Menaquale. “Instead of working to fully understand the implications of rushing to develop offshore oil and gas, our elected officials are being blinded by imaginary short-term profits and missing the real opportunity that wind provides.”

Some of the report’s other key findings include:

- In just 13 years, offshore wind could generate more energy than could be provided by all of the economically recoverable offshore oil and gas resources.
- In the next 20 years, offshore wind could create about 91,000 more jobs than offshore drilling (about double the job creation potential of offshore oil and gas).
- A modest and gradual development of offshore wind on the East Coast over the next 20 years could generate enough energy to power over 115 million households.
- Based on government estimates, if all of the economically recoverable offshore oil and gas in the Atlantic

Outer Continental Shelf were extracted and used, oil demand would only be met for less than five months and gas demand would only be met for less than 10 months, at current consumption rates.

- For comparison purposes, the energy created by 20 years of offshore wind in the Atlantic would produce nearly twice as much energy, (five billion barrels of oil equivalents) than what would be created by all of the economically recoverable oil and gas.
- The Atlantic Ocean contains less than 4 percent of the nation’s total oil reserves and less than 3 percent of its gas reserves.
- In all seven states where offshore drilling is being considered, offshore wind would produce more jobs.
- North Carolina has the highest wind resource and job creation potential of any state in the targeted offshore drilling zone.

“Unlike offshore drilling, offshore wind provides power directly to coastal communities where we need energy the most, without the risk of oil spills or carbon pollution,” said Menaquale. “It’s time for the U.S. to use the lessons learned from more than 20 years of offshore wind development internationally and apply them to generating clean, renewable energy off our coasts.”

Oceana is also holding informational events about this report today in Raleigh, NC, Beaufort, SC and Satellite Beach, FL.

To access Oceana’s full report and other materials, please visit oceana.org/atlanticensenergy.

— Source: Oceana

REPORT: SURVIVAL OF SMALL / MEDIUM WIND MARKET HINGES ON SUBSIDIES AND COST REDUCTION

A new report from Navigant Research analyzes the global market for small and medium wind turbines (SMWTs), including global market forecasts for capacity and revenue through 2023.

The market for modern SMWTs has existed for 30 years, though growth has been tied to state and federal incentives in the United Kingdom, Italy, and the United States. The sector has recently matured, with growing numbers of manufacturers located around the world and expanding dealer networks, and momentum is building around the lease model that has enabled the distributed solar PV market to expand rapidly in the United States.

“The overall outlook for the small and medium wind market in each country will be determined by whether the industry can reduce costs and survive outside of government subsidies,” says Dexter Gauntlett, senior research analyst with Navigant Research. “While agriculture remains the primary customer type for small and medium wind power, several providers have found success displacing diesel in remote locations, sometimes in conjunction with solar PV systems as part of microgrids.”

The leading market for small and medium wind power, according to the report, is the United Kingdom, where feed-in tariff policies have helped create a boom over the last three years. The U.S. market is still struggling due to reduced state incentives and competition from solar PV systems that have dramatically declined in price.

The report, “Small and Medium Wind Power,” analyzes the global market for SMWTs, defined as any turbine less than 500 kW in capacity. The study provides an analysis of the market issues, including growth drivers and implementation challenges, associated with SMWTs. Global market forecasts for capacity and revenue, broken out by region, extend through 2023. The report also examines the key technologies related to SMWTs, as well as the competitive landscape. An Executive Summary of the report is available for free download on the Navigant Research website.

— Source: Navigant Research

Fiberglass Recycling Alternative, LLC



Fiberglass Recycling Alternatives specializes in the recycling and repurposing of wind turbine blades, tower sections, nacelles, frames and hubs. Fiberglass Recycling Alternatives is a sister company to Rugged Rock Inc., we have worked in many places around the U.S. We have worked in a variety of conditions, from the cold and snow of North Dakota to the heat of Corpus Christie, TX. We pride ourselves in our reputation for cleaning up the worksite after the job is complete.

**Do you have a bad blade?
We can cut it up on site,
below the tower, saving
you time and money.**

Mobile: 507-829-5500 | Office: 507-872-5940 | Web: www.fra-llc.com
jn@fra-llc.com