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China's Goldwind Displaces Vestas to Claim First Place in Global Wind Market

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FTI Intelligence Releases Preliminary Findings From Its Global Wind Market Update – Demand & Supply 2015 Report

LONDON, Feb. 23, 2016 (GLOBE NEWSWIRE) -- FTI Consulting, Inc. (NYSE:FCN), the global business advisory firm dedicated to helping organisations protect and enhance their enterprise value, today released FTI Intelligence's preliminary rankings of the world's top five wind turbine original equipment manufacturers ("OEMs"). These rankings are to be published in the *Global Wind Market Update – Demand & Supply 2015* report, which will be officially released in March 2016. Preliminary results are subject to change between now and the release date of the actual report. The *Global Wind Market Update – Demand & Supply 2015* report examines the evolution of the global wind market in 2015, and addresses key market and technology trends as well as policy updates. It also forecasts global demand trends through to 2025.

The report is part of a series of data-driven market intelligence publications evaluating competitive markets, policy, finance, technology and business models across the energy spectrum. The *Global Wind Market Update – Demand & Supply 2015* report is authored by members of the FTI-CL Energy practice, a cross-practice team of energy experts from both FTI Consulting and its subsidiary, Compass Lexecon.

Chinese manufacturer, Goldwind, became the world's largest supplier of wind turbines in 2015 for the first time, displacing long-term number one supplier Vestas, according to preliminary findings from FTI Intelligence. According to the findings, Vestas is placed second, while U.S. supplier GE raises one position to third place, partly driven by its acquisition of Alstom. Germany's Siemens falls two positions to fourth place, and Spain's Gamesa raises three positions to secure fifth place.

Goldwind's rise to the top of the rankings of wind turbine OEMs reflects the extraordinary growth seen in the Chinese wind market in 2015, with over 30GW of installations. Total global installations in 2015 were over 63GW, according to FTI Intelligence.

At this time, FTI Intelligence assigns the following OEM market rankings:

2015 Ranking	Turbine OEM	Change	Commentary
1	Goldwind**	**+2**	Up from 3rd position in 2014
2	Vestas*	**-1**	Down from 1st position in 2014
3	GE*	**+1**	Up from 4th position in 2014
4	Siemens*	**-2**	Down from 2nd position in 2014
5	Gamesa*	**+3**	Up from 8th position in 2014

*Based on preliminary data analysis **Based on preliminary data released by CWEA
Note: GE included Alstom's capacity in 2015

Among other highlights, FTI Intelligence notes that five Chinese companies are in the top 10, with rising star CSIC Haizhuang moving into the top 10 for the first time. Long standing top 10 supplier, Suzlon, dropped out of the top ten due to the sale of its subsidiary Senvion to Centerbridge Partners in January 2015.

Preliminary Findings in the *Global Wind Market Update – Demand & Supply 2015* Report:

- **A record year:** 2015 was another record year for the wind industry. The 63+GW of wind energy installation represents over 20 percent year-over-year growth. Wind accounted for 44 percent of all new generation capacity added in the EU last year, more than any other energy source. In the U.S., wind also surpassed natural gas as the largest power generation source installed in 2015.
- **Record breaking offshore wind year:** 2015 was the best year ever for offshore wind despite Chinese offshore wind development being slower than expected. Annual installations in 2015 passed the 3GW milestone, three times greater than the previous year. This was mainly driven by record breaking growth in Germany where more than 2.3GW was connected in the past 12 months.
- **Positive commitment at COP21:** On 12 December 2015, delegates from 195 different countries gathered at the COP21 climate change summit in Paris, and adopted an agreement by which all countries vow to cut their carbon emissions in order to fight climate change. The Paris Agreement sends a strong signal to the business and political world that the global transition to clean energy is unstoppable, but key issues including supply-side flexibility, demand-side management and energy storage still need to be addressed.
- **Positive U.S. regulatory developments:** In the middle of December 2015, the U.S. Congress reached agreement on a five-year phase out plan for production tax credit ("PTC") and the alternative investment tax credit ("ITC") extension. This better-than-expected policy outcome creates policy certainty, which is key for stable market growth, and a path for the industry to make further R&D investments to reduce the cost of wind energy. In addition, the revised Clean Power Plan, aiming to cut carbon emissions from power sector by 32 percent by 2030 compared with the 2005 level, placed significant emphasis on renewable energy sources albeit opponents are still fighting the plan and the U.S. Supreme Court's decision has put this plan on hold.

- **Moving into competitive auctions:** Moving away from feed-in tariffs and/or green power certificates into competitive power auctions (tenders) driven by EU State Aid Guidelines has brought some uncertainty to major European onshore wind markets, such as Germany and Poland. In addition, the UK government's plan to close the Renewable Obligation scheme a year ahead of schedule has also added uncertainty to onshore market, and installation is expected to fall after the "grace period."
- **Increased consolidation:** There has been an expected acceleration in M&A activity in the last 12 months, with deals both on the original equipment manufacturing side (GE/Alstom power business and Blade Dynamics, Nordex/Acciona, ZF/Bosh Rexroth wind turbine gearbox segment) and on the service market side (Vestas/Upwind and Availon). This trend is expected to continue in what has become a growing and increasingly competitive sector as OEMs like Siemens look to snap up rivals in order to quickly gain scale and market share.
- **Low electricity prices challenging utility model:** Low wholesale electricity prices, prompted by overcapacity in generation and sluggish demand, and transformation of energy landscape across the European continent have forced major European-based utilities including E.On and RWE to restructure their businesses by separating renewable businesses from conventional power generation and with renewables taking the majority of their growth investments in the coming years.
- **The Yieldco model:** Yieldcos have represented an efficient vehicle to access capital for clean energy projects on both sides of the Atlantic. However, the U.S. Yieldco model – premised on dividend growth – faces challenges in its current guise, but the more modestly-levered UK yieldco model has proven more resilient.
- **Growth in the Corporate PPA market:** In 2015, U.S. corporations lead by technology giants Google, Microsoft and Apple contracted 2GW of renewable energy capacity through Power Purchase Agreements ("PPAs"). Capacity contracted though such agreements doubled from 500MW in 2013 to over 1GW in 2014. Growth momentum is expected to stay as renewable PPA prices have become increasingly competitive, with solar and wind PPAs falling inline or below wholesale electricity prices in 2015, and more than 150 companies have signed the American Business Act on Climate Pledge.
- **Continued platform based OEM development:** Wind turbine OEMs including Vestas, GE, Siemens, Gamesa, Senvion and Nordex continued to invest on platform-based turbine development (platformization/modularization) in 2015 and upgraded the 3MW+ machines upon tested, reliable and well-proven technology in order to boost production and in turn drive down the cost of wind energy. Those new turbine models with higher power outputs, longer blades and taller towers have unlocked wind power as a potential energy resource in the sort of ultra-low-wind and complex-terrain sites.

"For the wind industry, 2015 is the year of China," says Feng Zhao, Senior Director in the FTI-CL Energy practice. "China not only helped make 2015 another record year for the wind industry, but was home to five of the top ten turbine manufacturers in the world."

"Wind power has become the leading new energy source in both Europe and the U.S., which demonstrates that wind technology in particular onshore wind has become mature and reliable. Continued innovation and cost reductions will make it even more popular as the world continues to transition to clean energy," explains Aris Karcanias, Managing Director at FTI Consulting and Co-Lead of the Company's Clean Energy practice.

To learn more about FTI Intelligence's *Global Wind Market Update – Demand & Supply 2015* report, please visit the FTI Intelligence website at www.fti-intelligence.com or contact us at fti-intelligence@fticonsulting.com.

FTI Intelligence – Data Driven Market Intelligence
FTI Intelligence provides a clean energy subscriptions service. This service is a series of data-driven market intelligence publications evaluating competitive markets, policy, finance, technology and business models across the energy spectrum. Derived from our comprehensive databases, local knowledge, and the opinions of leading industry experts and an extensive network of professionals, these publications deliver a powerful combination of strategic insight and reliable market forecasts for both established and emerging markets.

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FTI Consulting, Inc. is a global business advisory firm dedicated to helping organisations protect and enhance enterprise value in an increasingly complex legal, regulatory and economic environment. With more than 4,400 employees located in 27 countries, FTI Consulting professionals work closely with clients to anticipate, illuminate and overcome complex business challenges in areas such as investigations, litigation, mergers and acquisitions, regulatory issues, reputation management, strategic communications and restructuring. The Company generated $1.76 billion in revenues during fiscal year 2014. For more information, visit www.fticonsulting.com and connect with us on Twitter (@FTIConsulting), Facebook and LinkedIn.

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