Vestas Returns to No. 1 Spot in Global Wind Turbine Supplier Ranking in 2016

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FTI Intelligence Releases Preliminary Findings from Its Global Wind Market Update – Demand & Supply 2016

LONDON, Feb. 20, 2017 (GLOBE NEWSWIRE) -- FTI Consulting, Inc. (NYSE:FCN) today released FTI Intelligence's preliminary rankings for the world's top five wind turbine original equipment manufacturers ("OEMs"), which found Danish manufacturer Vestas reclaimed the title as the world's largest supplier of wind turbines in 2016.

These rankings will be published in the *Global Wind Market Update — Demand & Supply 2016*, which will be released in March 2017. Preliminary results are subject to change between now and the release date of the actual report. 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.

Vestas' return to the top spot was particularly driven by increased installations in the U.S. market, where it overtook U.S. manufacturer GE as the No. 1 supplier, according to preliminary findings from FTI Intelligence. GE and Enercon rose to second and fifth place, respectively, by taking advantage of strong domestic market growth in the United States and Germany.

Chinese supplier Goldwind fell two positions to third place, primarily due to a 24 percent drop in China's wind power installations, according to FTI Intelligence research. Spain's Gamesa moved up one position to No. 4, largely attributable to its strong presence in India and emerging markets.

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

2016 Ranking	Turbine OEM	Change	Commentary
1	Vestas *	**+1**	Up from 2nd position in 2015
2	GE *	**+1**	Up from 3rd position in 2015
3	Goldwind **	**-2**	Down from 1st position in 2015
4	Gamesa*	**+1**	Up from 5th position in 2015
5	Enercon*	**+1**	Up from 6th position in 2015

* Based on preliminary data analysis
** Based on installation data released by CWEA
Note: Gamesa and Siemens are ranked separately as the merger between Siemens Wind and Gamesa is not yet finalised.

Among other highlights, FTI Intelligence notes that Siemens dropped out of the top five for the first time since 2012, mainly due to its decreased annual installation in both the United States and offshore wind sector in 2016. In addition, Nordex returned to the top 10 after its recent acquisition of Acciona's turbine business.

The *Global Wind Market Update – Demand & Supply 2016* report examines the evolution of the global wind market in 2016 and addresses key market and technology trends and policy updates. It also forecasts global demand trends through 2026. This report will be available free of charge on FTI Intelligence's website in March 2017.

Preliminary Findings in the *Global Wind Market Update – Demand & Supply 2016*:

- **14 percent drop year-on-year in new wind installations in 2016 vs. 2015.** Following a record 2015 with 63 GW of installations, the best year ever for the wind industry, 2016 showed a 14 percent drop in installations. A slowdown of installations in China is the primary reason for the decrease. That said, there were a few notable achievements for the wind power sector in 2016. Wind overtook coal as the second-largest form of power generation in the EU in terms of total installed power capacity, just behind natural gas. In the United States, wind passed a historic milestone to overtake hydropower as the largest renewable energy source of energy. The UK generated more electricity from wind than from coal in the full calendar year of 2016.
- **Solar PV replaced wind as the No. 1 non-hydro renewable energy source in 2016.** Due to explosive growth in China, global solar PV installations in 2016 passed 70 GW. In addition, solar PV is emerging as a strong competitor to wind in regard to its cost, beating wind in the first and second power auctions in Mexico in 2016. Wind, however, eclipsed solar in the renewable tenders launched in Chile and Argentina in 2016. Interestingly, four out of the world's top 10 wind turbine vendors have already entered the solar industry.
- **Paris Agreement came into force.** On 5 October 2016, the Paris Agreement, the UN international agreement on climate change, entered into force. Out of 197 parties to the convention, 132 have ratified the agreement. Such international support reflects strong momentum behind the global transition to clean energy.
- **Near-term stable growth in the United States is secured, but medium-term outlook is uncertain.** The U.S. wind market outlook in the near term remains stable, as the new Treasury secretary has confirmed support for the existing smooth phase-out of the Production Tax Credit ("PTC"). However, U.S. market development in the medium term remains

uncertain as President Trump has repeatedly called for the repeal of the Clean Power Plan ("CPP") and the United States exiting the Paris Agreement.

- **Consolidation continues to occur across the value chain.** In the past 12 months, large turbine vendors not only snapped up rivals (Siemens/Gamesa, Gamesa/Adwen, Senvion/Kenersys and WEG/Northern Power Systems) to gain new strategic positioning, but also acquired assets upstream in the value chain (GE/LM Wind Power, Senvion/EUROS and most recently, Nordex/SSP). In addition, state-owned Chinese companies were very active in the overseas market and acquired renewable assets around the world (SPIC/PacificHydro and China Three Gorges/Meerwind).
- **Offshore wind cost reduction targets have been beaten.** Results of the awarded offshore wind tenders launched in Denmark (the lowest bid, €49.9/MWh at Kriegers Flak) and the Netherlands (the lowest bid, €54.5/MWh at Borssele III+IV) in 2016 (both excluding transmission costs of around €14/MWh) indicate that the LCOE (levelised cost of electricity) for offshore wind in Europe has reduced significantly in the past five years, and they also suggest that returns on investment are compressing here.
- **Corporate PPAs continue to grow.** The wind industry saw the increased use of power purchase agreements ("PPAs"), self-consumption and direct contracts with customers in the past three years. Cumulative corporate renewable PPA capacity contracted in the United States passed the 7 GW milestone at the end of 2016. With 1 GW contracted today, Europe lags behind the United States, but this is expected to change as the commercial and industrial ("C&I") segment wants secure green energy on a long-term basis due to rising electricity prices and the competitive prices offered by renewables.
- **Digitalization.** Increased data quality, data access and grid integration are enabling increasing data analytics across the value chain in siting and design, asset performance management, asset health management and trading and balancing in the wind sector. Major turbine OEMs continued to launch advanced analytics packages in 2016 that can be applied throughout value chain. Following GE's launch of an industrial data and analytics product, Predix Cloud, to the market in August 2015, Vestas and Envision launched Clearsight™ and Ensight™, respectively, in 2016, and the data analytics market is expected to grow significantly.

"The drop in wind power installations in 2016 has brought the wind industry back to reality, as 2015 was an unusual year due to strong demand in China ahead of a change in Feed in Tariffs ('FiTs')," said Feng Zhao, a Senior Director at FTI Consulting. "The relatively poor performance of Chinese turbine OEMs in 2016 has shown that relying heavily on the home market for growth is not a guarantee for sustainable success."

Aris Karcanias, a Senior Managing Director at FTI Consulting and Co-Lead of the Clean Energy practice, added: "Solar PV not only replaced wind as the most popular renewable energy source in 2016, but also beat wind power in the power auctions launched in Mexico. However, we view this as positive news because the competition is certain to create another wave of technology innovation in the wind industry in order to further bring down the LCOE and make renewable energy even more competitive and affordable."

The *Global Wind Market Update – Demand & Supply 2016* report is authored by members of the FTI-CL Energy practice, a cross-practice team of energy experts from FTI Consulting and its subsidiary, Compass Lexecon. The views expressed in this piece are those of the authors and are not necessarily the views of FTI Consulting, its other professionals, its management or its subsidiaries and affiliates.

To learn more about FTI Intelligence's *Global Wind Market Update – Demand & Supply 2016*, please visit the FTI Intelligence website at www.fti-intelligence.com or contact fti-intelligence@fticonsulting.com.

About FTI Intelligence
FTI Intelligence clean energy research concentrates on the global, rapidly evolving renewable energy market, with a focus on wind, solar, biomass, wave, tidal and small hydro technologies. The foundation of these publications is primary research that delivers a wealth of market intelligence supported by hard data, competitive analysis and strategic insight. Our team members include leading energy industry experts and an extensive network of professionals who deliver cutting-edge focus and insight.

FTI Intelligence research delivers:

- Market forecasts for installations
- Analysis on new policy initiatives, business models, technologies and financing initiatives
- Supply/demand balance across the value chain

About FTI Consulting
FTI Consulting, Inc. is a global business advisory firm dedicated to helping organisations manage change, mitigate risk and resolve disputes: financial, legal, operational, political & regulatory, reputational and transactional. With more than 4,600 employees located in 29 countries, FTI Consulting professionals work closely with clients to anticipate, illuminate and overcome complex business challenges and make the most of opportunities. The Company generated $1.78 billion in revenues during fiscal year 2015. For more information, visit www.fticonsulting.com and connect with us on Twitter (@FTIConsulting), Facebook and LinkedIn.

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