Vestas Holds the Top Spot in Global Wind Turbine Supplier Ranking in 2017

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FTI Intelligence Releases Preliminary Findings from Its Global Wind Market Update – Demand & Supply 2017

LONDON, Feb. 26, 2018 (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 that Danish manufacturer Vestas held the title as the world's largest supplier of wind turbines in 2017, due to the Danish supplier's wide geographic diversification strategy and strong performance in the U.S. market.

These rankings will be published in the *Global Wind Market Update — Demand & Supply 2017*, which will be released in March 2018. 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.

Siemens Gamesa ranked second in 2017, primarily due to the recent merger between Siemens Wind Power and Gamesa, its strong position in the offshore sector and India and improved position in the United States, according to preliminary findings from FTI Intelligence.

Chinese supplier Goldwind remains in third position in 2017, despite the share in its home market decreasing another 15 percent in 2017, according to FTI Intelligence research.

GE fell two positions to fourth place, particularly due to the loss in its home market, where Vestas overtook it as the No. 1 supplier for the second year in a row.

Enercon retains fifth place by taking advantage of strong domestic market growth in Germany, where nearly 6.5 GW were installed in 2017, making it a record year.

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

2017 Ranking	Turbine OEM	Change	Commentary
1	Vestas *	-	Remains in lead for second year running
2	Siemens Gamesa *	**+2**	Gamesa and Siemens were placed 4th and 6th position separately in 2016
3	Goldwind **	-	Remains in 3rd position for second year running
4	GE *	**-2**	Down from 2nd position in 2016
5	Enercon*	-	Remains in 5th position for second year running

* Based on preliminary data analysis
** Based on installation data released by CWEA

Among other highlights, FTI Intelligence notes that Nordex Acciona moved up one spot due to strong position in Germany and better performance in the United States. In addition, Senvion returned to the top 10 turbine supplier ranking in 2017 by taking advantage of strong home market growth in Germany. The rest of OEMs in the top 10 are all Chinese-based manufacturers.

The *Global Wind Market Update – Demand & Supply 2017* report examines the evolution of the global wind market in 2017 and addresses key market and technology trends and policy updates. It also forecasts global demand trends through 2027. This report will be available free of charge on FTI Intelligence's website in March 2018.

Preliminary Findings in the *Global Wind Market Update – Demand & Supply 2017*:

- **Negative growth in global new wind installations continued in 2017**. The 5 percent drop year-on-year ("YoY") in new wind installations in 2017 vs. 2016 is primarily due to a slowdown in installations in China. However, Europe installed more than 16 GW last year, representing 16 percent YoY growth, making it a record year.
- **Solar photovoltaic ("PV") beats wind as the No. 1 non-hydro renewable energy source for the second year in a row.** Global solar PV installations in 2017 reached nearly 100 GW, which is almost double the installations that wind achieved in 2017. Solar PV installations in China alone in 2017 are greater than total global new wind power installations in 2017.
- **Revoking the Clean Power Plan and withdrawal from the Paris Climate Agreement by President Donald Trump** is a step away from the global transition to clean energy, but other large economies such as the EU, China and India will continue to take steps to tackle climate change and fully honour climate obligations. Members of the European Parliament have recently approved a renewable energy target of 35 percent for 2030 – rather than the 27 percent which the European Commission proposed in 2016.
- **Offshore wind bounced back in 2017 with a record year achieved in both Europe and China.** Offshore wind installations in Europe more than doubled in 2017 primarily due to the contribution from the United Kingdom and Germany. China surpassed the 1 GW installation milestone in 2017 with more than 5 GW under construction at present. Crossing the strait, the Taiwanese government plans to contract a record 5.5 GW of offshore wind by Q3 2018.

- **Auctions are becoming the norm.** 2017 saw auctions occur in more than 15 markets, with more than 20 GW of onshore wind and nearly 5 GW of offshore wind awarded contracts in the past 12 months. However, such transition has caused near-term market volatility, as seen in India and Germany.
- **The levelised cost of wind energy continues to drop putting, it in a better position to compete against fossil-fuel sources.** Mexico's latest auction set a new world record for onshore wind with the average awarded price of USD$18.68/MWh. Major progress was also made in the offshore wind sector in the past 12 months. In Germany, 1.38 GW of offshore wind out of its first competitive auction totaling 1.49 GW won the tender with a zero-subsidy. In the United Kingdom, 3.2 GW of offshore wind capacity won the second Contracts for Difference ("CfD") auction, with strike prices going as low as GBP£57.50/MWh, half the price awarded at the first CfD in 2015.
- **7 out of the world's top 10 turbine OEMs have joined the 4 MW onshore turbine class race.** Following Enercon, which is the first turbine supplier to launch its 4 MW turbine platform, another six large turbine manufacturers last year introduced their 4 MW platforms in the onshore wind market. These companies are Vestas, Nordex Acciona, GE, Siemens Gamesa, Goldwind and Envsion.
- **Conventional high-speed geared wind turbines dominate the onshore wind sector.** Following Siemens Gamesa's "One Segment/One Technology" strategy announced in November, the company decided to drop its direct drive ("DD") solution for its onshore turbine. The decision to replace the DD onshore turbine with a three-stage geared system is likely to increase the market share of conventional high-speed geared system, as Siemens' onshore wind DD turbine accounted for 28 percent of its total installation in 2016.
- **Market consolidation remained strong.** 2017 saw a number of small- and medium-size turbine vendors either being acquired (China Creative Wind Power) or being forced to file insolvency (FWT Energy and Seawind), enter into receivership (Vergnet) or withdraw from wind industry (Daewoo and JSW), primarily due to fierce competition in this increasingly mature industry. In addition, to gain a new strategic positioning, Siemens Gamesa Renewable Energy (SGRE) decided to discontinue Adwen turbines, Enercon took over Lagerwey (technology and emerging market opportunity) and most recently Vestas brought Utopus Insights (data analytics).
- **Digitalization continues to gain its popularity**. Aiming to have digital solutions to develop into new revenue streams, turbine vendors and industrial conglomerates continued to build their digital offerings in 2017. Envision announced an open-platform alliance with Microsoft, Accenture and ARM, and Goldwind signed a memorandum of understanding with DNV GL to develop a new asset-management platform to support international wind projects. In addition, ABB showcased its digital solutions at both Wind Power 2017 and WindEurope 2017.
- **Increased interest in hybrid project and storage.** With an increasing focus on how to integrate more renewable energy into the grid while maintaining stability, hybrid projects (wind + solar) and fully integrated energy solutions (wind + solar + storage) accelerated deployment during 2017. The world's leading turbine OEMs, such as Vestas, Siemens Gamesa, GE and Goldwind, are launching utility-scale global hybrid and fully integrated projects in 2018.
- **Corporate power purchase agreements ("PPAs") remain a driving force for renewable offtake agreements.** The commercial and industrial ("C&I") segment comprises 40 percent of total wind power capacity contacted for the year in the United States. Cumulative corporate renewable PPA capacity contracted in the United States also passed the 10 GW milestone at the end of 2017.
- **Partial repowering activity is accelerating in the United States.** Driven by the PTC requalification rule covered by the 2016 Internal Revenue Service's PTC clarification, the wind industry saw a combined 2,136 MW of partial repowerings in the United States in 2017. This trend is likely to continue in the near term.

"Our preliminary findings show that the top five turbine OEMs accounted for 62 percent of the new installations in 2017, almost 10 percent greater than the previous year. The uplift is a clear indication that the recent M&A activity has helped western turbine suppliers enhance their strategic positioning and consolidate their market share," said Feng Zhao, a Senior Director at FTI Consulting and Head of FTI Intelligence. "The further drop in the Chinese market is in general bad news for Chinese turbine vendors, as they primarily rely on their home market to secure a position in the top-10 turbine supplier ranking."

Aris Karcanias, a Senior Managing Director at FTI Consulting and Co-Lead of the Global Clean Energy practice, added: "In a more measured future period of growth, innovation beyond the turbine itself is required to maintain competitiveness and drive market share. Future winners need an agile commercial tool kit that addresses system needs, market-based risks, an evolving customer set, and advanced digital tools to deliver cost-competitive commercial power agreements alongside complete service solutions. The systems integration perspective holds the key to success, as scale alone will not drive value."

"After months of concern, the U.S. tax bill eventually keeps the PTC phase-out schedule, PTC value and IRS' safe harbour rules unscathed. This provides much-needed certainty for the U.S. wind industry through 2020," said Chris LeWand, a Senior Managing Director at FTI Consulting and Co-Lead of the Global Clean Energy practice. "It is also absolutely crucial for Vestas and GE, as the two suppliers currently own nearly a 90 percent market share for projects under construction or in advanced development in the U.S."

The *Global Wind Market Update – Demand & Supply 2017* report is authored by members of the 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 2017*, 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 28 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 $1.81 billion in revenues during fiscal year 2017. For more information, visit www.fticonsulting.com and connect with us on Twitter (@FTIConsulting), Facebook and LinkedIn.

FTI Consulting, Inc.
200 Aldersgate
Aldersgate Street
London EC1A 4HD

Investor Contact:
Mollie Hawkes
+1.617.747.1791
mollie.hawkes@fticonsulting.com

Media Contact:
Michael Rosen
+44.20.3727.1751
michael.rosen@fticonsulting.com

FTI Consulting, Inc.