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GLOBAL POLICY WOES DAMPEN WIND SUPPLY CHAIN

Research shows more than 120 suppliers exiting the wind industry

FTI Consulting, Inc., a global business advisory firm recently released FTI Intelligence's latest renewable energy publication, "Global Wind Supply Chain Update 2015." This report is part of a series of data-driven publications evaluating competitive markets, policy, finance, technology and business models across the energy spectrum.

The report examines the supply chain situation for 12 key components (350-plus suppliers) and three key materials (150-plus suppliers), which account for more than 95 percent of a wind turbine's total cost. In addition to the specific components and materials, it also includes an assessment of offshore wind farm balance of plants, a summary of supply chain strategies for the world's top 15 turbine OEMs and FTI-CL Energy experts' demand forecast for global wind market growth through 2018. The 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.

The key findings of the report include:

- More than 120 suppliers have collapsed or stayed out of the wind business in the past two years, including 88 from Asia, 23 from Europe and 18 from North America.
- A prolonged market contraction has forced major turbine OEMs to divest in-house non-core produc-

tion assets and opt for extensive outsourcing in order to insulate from market fluctuations while remaining profitable.

- Most key components and materials are still facing overcapacity, but the regional distribution for key materials such as rare earth elements and forgings is extremely uneven and bottlenecks are expected on ultra-large tapered roller bearings ("TRB") as these have gained popularity in China with almost all direct drive designs.
- Competition is now taking place not only on product quality and price, but also requires suppliers to provide value-added products and services to assist turbine OEMs and the end users to bring down the LCOE in order to compete with conventional energy sources.
- The uncertainty around the PTC leads FTI-CL Energy's experts to conclude that the industry setback is most likely to retain in the U.S., and more Tier 2 and Tier 3 suppliers are likely to disappear in the next two to three years due to the expected collapse of Tier 3 turbine OEMs in China.
- There is a delicate balance in the offshore wind supply chain at present, but challenges remain in the medium-term. One third of the cost reduction of offshore wind energy partially relies on supply chain industrialization for disruptive technologies and key elements including the offshore wind balance of plant. This ambitious target is, however, unlikely

to be achieved without long-term market stability.

- The O&M market provides relatively clear market visibility going forward and many key components suppliers are entering into this segment, so heightened competition is expected. "The wind industry has been in the process of transformation since 2011 and the global wind supply chain is not matured yet," explained Feng Zhao, Director at FTI Consulting and Head of Wind Energy within the FTI-CL Energy practice. "The exit/non-participation of so many suppliers delivers a dangerous signal to governments. To bring wind towards a position where it can compete head-to-head with conventional energy sources, it is imperative to find a balance between maintaining attractive and certain policy and reducing the burden on governments and consumers caused by paying renewable energy subsidy."

"The challenging economic and political climate has forced large wind turbine vendors to shed low value assets and to opt for outsourcing" says Aris Karcianas, Managing Director at FTI Consulting and Co-Lead of the Company's FTI-CL Clean Tech practice in Europe. "Large turbine OEMs have adopted lean organization models from other industries to deal with market instability and increase flexibility and capacity utilization."

The report is authored by members of the FTI-CL Energy practice. The views expressed in this piece are those of the authors

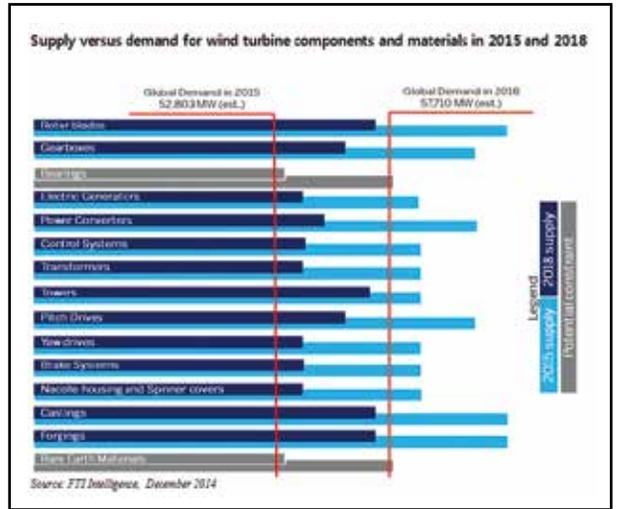
and are not necessarily the views of FTI Consulting, its other professionals, its management or its subsidiaries and affiliates. To purchase the Global Wind Supply Chain Update 2015 report in its entirety, visit the website at www.fti-intelligence.com or contact Feng Zhao at feng.zhao@fticonsulting.com or Aris Karcianas at aris.karcianas@fticonsulting.com.

ILLUSTRATIONS AND FURTHER INFORMATION

One graphic illustration is attached and may be used with full accreditation to FTI Consulting, Global Wind Supply Chain Update 2015, January 2015. Copies of the Table of Contents, Executive Summary and a list of bullet points noting the report’s chief findings are available upon request to accredited journalists, at our discretion.

ABOUT FTI CONSULTING

FTI Consulting, Inc. is a global business advisory firm dedicated to helping organizations protect and enhance enterprise value in an increasingly complex legal, regulatory and economic environment. With more than 4,200 employees located in 26 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 \$1.65 billion in revenues during fiscal year 2013. More information can be found at www.fticonsulting.com.

— Source: FTI Consulting

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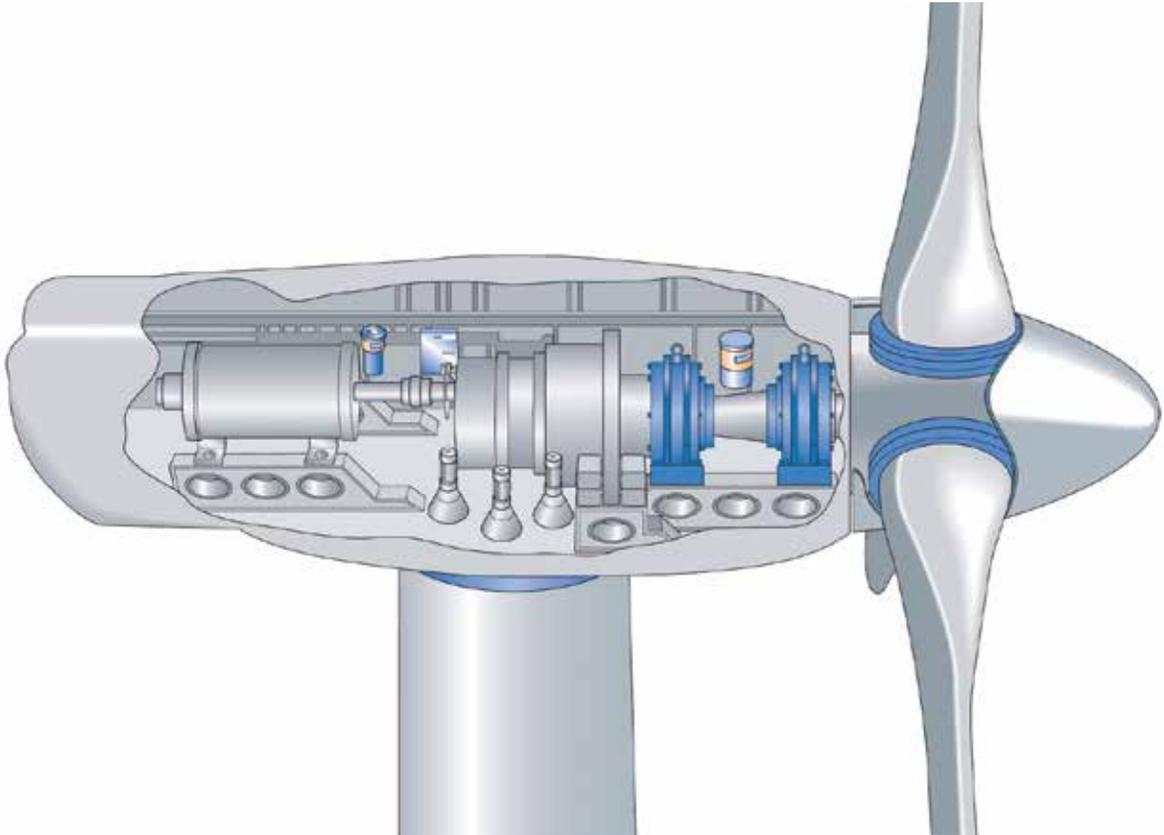
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- Together these 109 turbines generate approximately 200 megawatts which will power 59,000 homes.
- Oklahoma is a Right-To-Work state and is a profitable place to manufacture wind turbines and components

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