

DIRECTION

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

DOE: American Wind Jobs Crack 100,000

Wind power employs just more than 100,000 Americans according to recent data released by the U.S. Department of Energy (DOE). That's more than work at nuclear, natural gas, coal, or hydroelectric power plants.

"Wind means opportunity and job security for over 100,000 Americans," said Tom Kiernan, CEO of the American Wind Energy Association. "The Department of Energy's new jobs data underscore the incredible impact of wind power in creating American jobs. Wind workers directly contribute to our nation's energy independence and economic success story. We're especially proud of helping America's veterans find well-paying jobs after their service, employing them at a rate that is 50 percent higher than the national average."

These wind jobs can be found across the nation. According to DOE, Texas is home to nearly 25 percent of American wind workers. Substantially more growth is possible. According to DOE's earlier Wind Vision report, 380,000 American wind jobs could be created by 2030.

DOE's new data validates the jobs growth reported in AWEA's own annual report. At the end of 2015, AWEA estimated 88,000 Americans were employed in the U.S. wind industry, a 20 percent increase from 2014 levels. Given near-record amounts of wind power under construction and recent wind manufacturing facility expansions in states such as Colorado, Florida, Texas, and Wisconsin, AWEA expects wind industry employment grew significantly in 2016.

AWEA's detailed jobs analysis, including state-by-state breakdowns, will be released this spring as part of the U.S. Wind Industry's Annual Market Report 2016. ↵



At the end of 2015, AWEA estimated 88,000 Americans were employed in the U.S. wind industry. (Courtesy: AWEA)

Source: American Wind
Energy Association

For more information,
go to www.awea.org

New York State Plans 2,400 MW of Offshore Wind by 2030

New York Gov. Andrew M. Cuomo called on the Long Island Power Authority to approve a 90 MW offshore wind project 30 miles southeast of Montauk. The project will be the nation's largest offshore wind farm and will not be visible from Long Island's beaches.

He also proposed an unprecedented commitment to develop up to 2.4 GW of offshore wind power by 2030, enough power generation for 1.25 million homes and the largest commitment in U.S. history. The projects will be developed out of view from the coast and in close collaboration with local communities and stakeholders. The Offshore Wind Master Plan will outline the path forward for

this commitment to offshore wind and will be completed by the end of 2017.

"New York's unparalleled commitment to offshore wind power will create new, high-paying jobs, reduce our carbon footprint, establish a new, reliable source of energy for millions of New Yorkers, and solidify New York's status as a national clean energy leader," Cuomo said. "The Offshore Wind Master Plan will establish a bold strategy to harness this untapped resource in New York and provide a new source of energy to power a brighter, greener future for all."

Offshore wind is critical to meeting the goal outlined

in the governor's Clean Energy Standard to meet 50 percent of New York's electricity needs with renewable sources by 2030. As part of this proposal, the governor also calls on state agencies to ensure a 79,000-acre lease area capable of siting about 800 MW of offshore wind off of the Rockaway Peninsula is developed cost-effectively and responsibly to customers.

In addition, Cuomo directed the Department of Environmental Conservation and the New York State Energy Research and Development Authority to undertake a comprehensive study to determine the most rapid, cost-effective, and responsible pathway to reach 100 percent renewable energy statewide. New York will engage academic partners to draw upon existing clean-energy research and seek input from other key stakeholders.

LONG ISLAND PROJECTS

The Long Island project is the first step toward developing an area that can host up to 1,000 MW of offshore wind power.

In an indication of offshore wind's growing attractiveness as a power source, the proposed project is the most innovative and least cost way to meet the growing power needs of the South Fork and to provide cleaner energy for Long Island.

In December, the international energy company Statoil Wind US LLC won an auction from the federal government to lease the area for the second project south of the Rockaway Peninsula for wind-energy development.

Cuomo is calling on the New York State Energy Research and Development Authority (NYSERDA) to work with Statoil to ensure the project delivers power cost-effectively and responsibly to customers. NYSERDA



At his recent State of the State address, New York Gov. Andrew M. Cuomo announced several offshore wind projects. (Courtesy: New York Governor's office)

also will help ensure needs are met for affected stakeholders such as fishermen, maritime industries, coastal communities, and labor. The compa-

ny won the lease for \$42.5 million, demonstrating the commercial interest in developing offshore wind for New York state.



FIVE STAR

FILTER

LARGEST STOCK & READY TO SHIP

We provide a wide selection of high-quality filters for many wind turbines and compressors

| | |
|--|--|
|  FILTER PADS |  BREATHING AIR FILTERS |
|  HIGH-PRESSURE HYDRAULIC CRANKCASE |  COMPRESSORS AND ENGINES |
|  OFF LINE LUBE FILTERS |  TOWER DOOR FILTERS |

Call us today to experience our Can-Do Guarantee!

Phone 713.290.1972
Email service@5starfilter.com
Website 5starfilter.com

OFFSHORE WIND MASTER PLAN

With some of the most favorable conditions for offshore wind in the United States, the coast of Long Island has the potential to bring an enormous amount of renewable energy and substantial job creation and economic development benefits to all New Yorkers.

The state's Offshore Wind Master Plan will establish a commitment for the responsible development of New York's offshore wind resources in ways that benefit electricity customers and protect the environment. Offshore wind will protect the environment by reducing emissions and spur new investments in infrastruc-

ture and manufacturing, creating high-quality jobs across the state.

New York will ensure that the visual impact of offshore wind turbines will be minimized through appropriate siting. New offshore wind-turbine foundation technologies will allow construction in deeper water, farther offshore and out of sightlines from the coast.

REFORMING THE ENERGY VISION

Reforming the Energy Vision is Cuomo's strategy to lead on climate change and grow New York's economy. Reforming the Energy Vision is building a cleaner, more resilient and affordable energy system for all New

Yorkers by stimulating investment in clean technologies such as solar, wind, and energy efficiency and generating 50 percent of the state's electricity needs from renewable energy by 2030. Already, Reforming the Energy Vision has created thousands of jobs in manufacturing, engineering, and other clean-tech sectors. Reforming the Energy Vision is ensuring New York State reduces statewide greenhouse gas emissions 40 percent by 2030 and achieves the internationally recognized target of reducing emissions 80 percent by 2050. *✍*

Source: New York Governor's office
For more information, go to www.governor.ny.gov

Mita-Teknik Chooses Windsourcing.com as Sales Partner for IP-Box

In 2015, Windsourcing.com welcomed Mita-Teknik on board and became an official distribution partner for the Danish company's wind-energy products. Mita-Teknik is an international company specializing in complete control concepts for wind turbines including control systems, Retrofit Control systems, SCADA systems, grid connection systems, condition monitoring, load and control optimizing, and sensors.

Starting in 2018, the German operator Telekom will switch all their networks to All-IP, and many operators in European countries will follow. This means the disappearance for ISDN-telephony and traditional telecommunications system.

As a consequence, many older wind turbines will not be able to be controlled or monitored by analog or ISDN-modems any longer. To solve this, Mita-Teknik developed a cost effective and easy-to-install solution to replace the obsolete communication equipment in any turbine and reconnect it with existing SCADA solutions running Windows 32 or 64bit.

"We are already working successfully together with Windsourcing.com as our distribution partner for the after-sales wind-energy market," said Thomas Liratsch, sales director at Mita-Teknik. "Therefore, it was a logical step to also promote and supply our new product development, the MiComm IP-Box via Stefan Weber and his team."

With the new MiComm IP-Box, Mita-Teknik offers a complete remote communication solution designed to replace obsolete PSTN/ISDN modems and enable modern, reliable and secure remote IP communication to existing wind turbines with existing SCADA systems.

"We are very pleased to further strengthen our cooperation with Mita-Teknik and be selected as their official distribution partner to supply the new MiComm IP-Box," said Weber, founder and managing director of Windsourcing.com GmbH.



The MiComm IP-Box is designed to replace obsolete PSTN/ISDN modems. (Courtesy: Windsourcing.com)

STRATEGIC SUPPLY PARTNERSHIP

"That is a great endorsement for us," said Seher Kaygusuz, responsible for Business Development and Marketing at Windsourcing.com. "We consider ourselves not only as distribution partners, but also as business partners helping to promote new product developments within the wind market."

Kaygusuz invites manufacturers and suppliers to come to her and the

entire team directly to join Windsourcing.com's team of suppliers.

"Windsourcing.com calls upon hundreds of suppliers to obtain the materials and services our customers need in fulfilling their everyday maintenance and repair works," she said. "If you are interested in joining us, simply contact us." ✍

Source: Windsourcing.com

For more information,
go to windsourcing.com



Windsourcing.com is partnering with Mita-Teknik. (Courtesy: Windsourcing.com)

Report: New Transmission Can Help Wind Supply a Third of U.S. Power

The Energy Department released a report that confirms that adding even limited electricity transmission can significantly reduce the costs of expanding wind energy to supply 35 percent of U.S. electricity by 2050.

The report, Reducing Wind Curtailment through Transmission Expansion in a Wind Vision Future authored by the National Renewable Energy Laboratory (NREL), affirms the findings of the Energy Department's 2015 Wind Vision, which showed that a future in which wind provides 20 percent of U.S. electricity in 2030 and 35 percent in 2050 is achievable and would provide significant economic, energy security, and health benefits to the nation.

MODELING TOOL

For the study, NREL simulated operation of the electric power grid under a scenario where 35 percent of electricity comes from wind in the year 2050 using PLEXOS, an integrated modeling tool commonly used by utilities and transmission organizations.

The study focuses on the Western Interconnection grid, which includes 11 states, two Canadian provinces, and parts of northern Mexico where the U.S. grid crosses the border.

The study includes a baseline scenario assuming no significant transmission expansion across the western grid, as well as three scenarios with varying levels of transmission build out.

In the baseline scenario with no transmission expansion, substantial renewable energy curtailment — times in which wind farm operators are told not to produce energy due to limited capacity on the grid — could become a major issue.

In this scenario, about 15.5 percent of wind-energy capacity goes unused with consequent increases in system costs as a result of idled wind generation.

The study also finds that if just four currently pro-

posed transmission projects are built, wind curtailment can be reduced by about half, cutting lost generating potential to 7.8 percent.

If the nation deploys additional transmission beyond those four proposed projects, wind curtailment can be reduced even further — allowing full use of wind energy, reducing generation costs, and unleashing additional economic and societal benefits.

LOOKING AT TEXAS

This report quantifies on a regional scale what's been seen in Texas in recent years: Wind curtailment on Texas's grid ranged from 8 percent to 17 percent between 2009 and 2011, but fell to only 1 percent after new transmission lines and other upgrades were completed under Texas's Competitive Renewable Energy Zone initiative.

Wind power is one of the fastest growing sources of new electricity generation in the United States and already is providing substantial economic, energy security, and health benefits.

This study affirms that even limited additions to transmission capacity would allow more wind energy from the Mountain States to power load centers on the West Coast. On the other hand, a lack of new transmission capacity could limit the growth of wind energy and its potential benefits.

Overall, the results of the study underline that utility grids can reliably operate with more than 35 percent wind energy and 12 percent solar energy, and they emphasize even limited transmission expansion can significantly ease the path to a renewable energy future. ✍

Source: Energy Department's Office of Energy Efficiency and Renewable Energy

For more information,
go to energy.gov

IEA: France's Energy Transition Is Vital for Energy Security

In its latest country review of energy policies, the International Energy Agency (IEA) praised France for setting in motion significant reforms toward more secure, affordable and sustainable energy supplies, and the green growth of its economy.

Over the past 10 years, the French economy has reduced its carbon intensity and benefited from greater energy efficiency, notably in the residential sector, according to the IEA report, *Energy Policies of IEA Countries: France 2016 Review*. The IEA praised France's leadership role in climate-change mitigation and green finance around the world and at home, particularly thanks to the adoption of the ambitious set of measures under the Energy Transition for Green Growth Act in 2015.

SIGNIFICANT INVESTMENTS

But the IEA found the government's plan to cut the share of nuclear power from 78 percent of electricity produced today to 50 percent by 2025, while also reducing greenhouse gas emissions by 40 percent in 2030, will require significant investments in energy efficiency and new low-carbon generation.

"France has to implement nothing less than a transformation of its energy system and power market," said Paul Simons, the IEA deputy executive director, speaking at the launch of the report in Paris.

France's ambitious goal of reducing its share of nuclear power over the next decade amid an aging fleet is going to transform its energy sector. Reaching the target will require careful policy guidance, effective markets, and strong measures for renewables and energy efficiency, according to the IEA's latest review of France's energy policies.

NUCLEAR SECTOR

The report outlines the outlook for France's nuclear sector in the next 10 years will be decisive for the country's capacity to meet its climate and energy goals, and — at the same time — maintain electricity security. France's nuclear fleet is the world's second-largest, and it has reached a 30-year average lifetime. For now, no decision has been taken in favor of long-term operation pending safety reviews.

The IEA report highlights five avenues to accelerate the energy transition and guide energy investment: It encourages the government to track progress along ro-



France's ambitious goal of reducing its share of nuclear power over the next decade amid an aging fleet is going to transform its energy sector. (Courtesy: IEA)

bust scenarios, to continue with clear and long-term carbon pricing instruments, to take timely decisions on the safe and long-term operation of the nuclear reactors, to further reduce barriers to renewable deployment and to strengthen efforts toward market opening, competition, and consumer choice.

RENEWABLE ENERGY

The IEA shows that deployment of renewable energy in France is still below the IEA average. While solar and biomass are developing well, further government action

could help improve siting, permitting, acceptance, and grid connection of wind power. Despite recent reforms, price signals from the electricity and carbon markets are weak, and technical and market barriers

remain for further renewable deployment.

The IEA acknowledges France's progress in gas market reforms, with higher trade and regional integration. But despite reforms of the electricity market, including dropping regulated tariffs for large and mid-sized consumers, and ensuring competitive regulated access to the nuclear fleet, France's electricity sector has only a few large players.

Commendably, the government has decided to encourage demand response, to launch capacity mechanism, and set investment targets under the multi-annual energy planning (PPE). ↴

Source: International Energy Agency

For more information, go to www.iea.org



Bachmann's SCT202 M1 automation module. (Courtesy: Bachmann electronic GmbH)

New PLC-Integrated Module Helps with Safety Speed Measurement

Bachmann electronic has extended its portfolio of safety modules with the SCT202 M1 automation module, a highly versatile speed and position measurement module for safety-related applications, particularly in the wind sector. Bachmann consistently embeds its fully compatible safety solutions directly in the plant controls. Tasks such as operational control and safety technology are fully integrated.

SAFETY SPEED MONITORING

The SCT202 module eliminates the need for external solutions for safety speed monitoring. The shared use of the acquired measured values for safety-related and non-safety-related automation tasks reduces system costs for procurement as well as for integration, mounting, and operation. The SCT202 also comes with two inputs for incremental encoders (HTL, TTL), together with encoder

power supply for both voltage signals, two counter inputs as well as two safety-related inputs and outputs each.

The provision of measured values for non-safety-related applications is not bound to the safety cycle. Instead, the Bachmann concept allows the integrated use of the SCT202 in the operational control of a wind turbine.

The safety-related digital outputs provided in the module enable a safety-related response in less than 1 ms. This guarantees safety even in highly dynamic applications.


VERSATILE HOMING METHODS

The module also stands out on account of the wide range of homing methods it offers for incremental encoders. This not only includes homing with the zero track, but also via digital input, counter input, and the linking in the application of input

signals not acquired by the SCT202.

As homing on the SCT202 is implemented with safety signals, it is also possible to measure positions and rotation angles reliably.

CERTIFIED ALL-ROUNDER

The safe, application-related processing of the acquired values in Bachmann's SLC284 safety controller makes it possible to implement complex scenarios. Possible applications include the detection of overspeed situations, gearbox failure as well as cable twist. With these features, the SCT202 module is ideally equipped to implement the complex task of safety speed monitoring in wind turbines. 

Source: Bachmann
Electronic GmbH

For more information,
go to bachmann.info