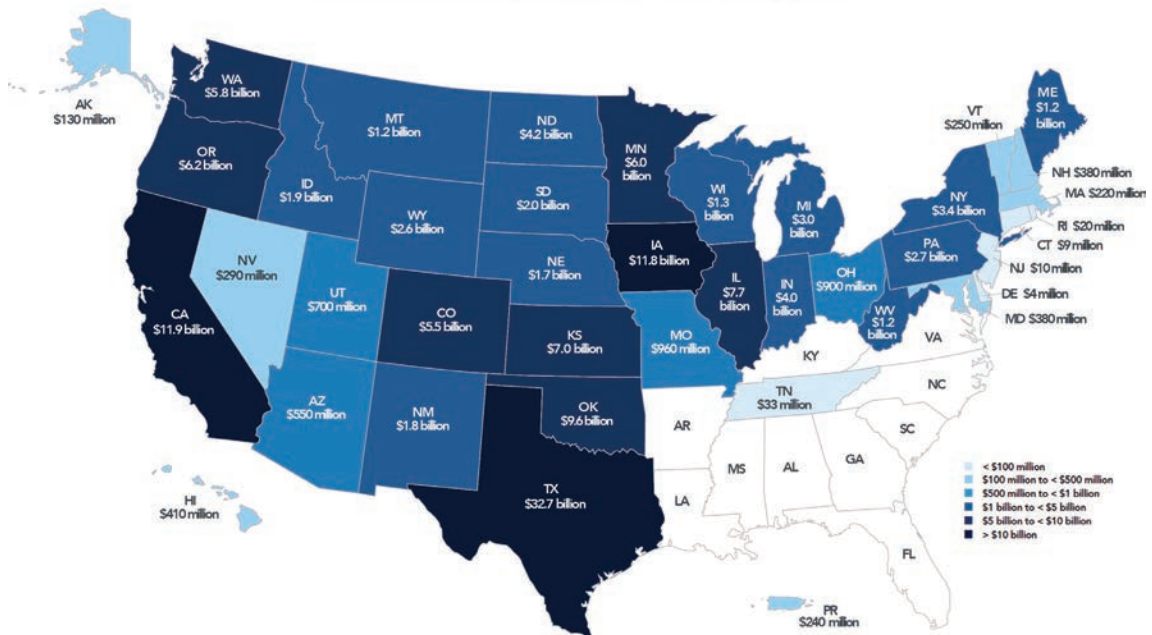


DIRECTION

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

MORE THAN \$128 BILLION DOLLARS INVESTED IN U.S. ECONOMY BY NEW WIND POWER PROJECTS

Cumulative Investment in Wind Energy Projects, by State



AWEA

Building new wind farms in the U.S. added \$13 billion per year on average to the American economy over the past five years, according to information recently released by the American Wind Energy Association (AWEA).

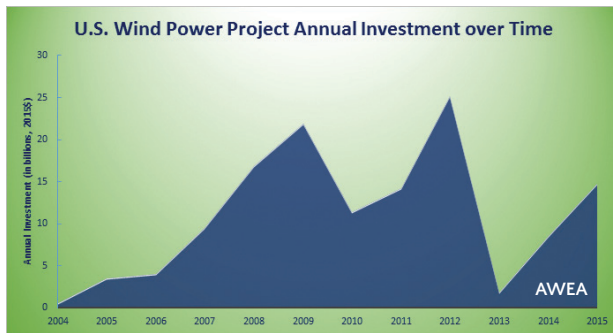
“By building new wind farms across the country throughout the past decade, wind companies have invested \$128 billion into the U.S. economy,” said Tom Kieran, CEO of AWEA. “Over this time, wind has rapidly

ALSO IN THIS SECTION

10 Iron Mountain Agrees To Exchange 30 Percent of U.S. Electricity Use with Renewable Energy

12 EDF Renewable Energy and BlackRock Close on the Sale of Two Wind Projects in New Mexico

12 Approximately 140 Wind Projects Awarded Turbine Contracts in the Second Half of 2015



The recent boom-bust cycle of investment that was caused by repeated expirations of the Production Tax Credit (PTC) and alternative Investment Tax Credit will now be smoothed out by the tax credits' long-term extension through the end of the decade, as Congress approved in the budget package last December.

scaled-up. Now, there is enough wind power installed to reliably produce electricity for more than 19 million American homes. Continuing to invest in world-class wind resources here at home will help keep our lights on, grow state economies, and keep more money in the pockets of homeowners and businesses.”

Wind energy was the number-one source for new electric capacity additions in 2015 with 8,598 MW installed. That number translates to \$14.7 billion dollars in wind project investments in one year — a 73-percent increase over the \$8.5 billion invested in new projects in 2014 and a more than seven-fold increase over investments by wind in 2013.

“The rapid rise of wind energy in the U.S. is clearly benefiting state economies,” said John Hensley, manager of industry data and analysis for AWEA. “This American success story will continue in 2016 and beyond as there’s an additional 9.4 GW of wind currently under construction on top of 4.9 GW that are in the advanced stages of development.”

New analysis on wind project investments are featured in AWEA’s 2015 U.S. Wind Industry Annual Market Report. The annual report provides a comprehensive up-

date on the state of the U.S. wind market, including the latest wind industry job numbers, investment figures, state-by-state comparisons, market rankings, and more.

Across the country, wind power’s rapid growth continues to attract new investment into state economies. Texas currently leads all states in terms of cumulative project investment with more than \$32 billion being injected into its economy. Rounding out the top five states are California at \$11.9 billion, Iowa at \$11.8 billion, Oklahoma at \$9.6 billion, and Illinois at \$7.7 billion.

The new investment figures made by wind come shortly after a new accord that was announced by a bipartisan group of 17 governors who made the pledge to accelerate clean energy growth, including wind power, as a way to build “a new energy future.” The accord said that creating this new energy path will result in a “more durable and resilient infrastructure and [will] enable economic growth while protecting the health of our communities and natural resources.”

Wind power costs two-thirds less than it did six years ago because of American innovation and improved domestic manufacturing, with more than 500 factories across 43 states building wind turbine parts and materials, and those savings are being passed on to U.S. consumers. Wind power saved consumers \$1 billion over just two days across the Great Lakes and Mid-Atlantic states during the 2014 Polar Vortex event.

Wind energy in the U.S. produces enough electricity for more than 19 million American homes, and American wind power supports 73,000 well-paying jobs across every state, including nearly 20,000 manufacturing jobs.

By staying on track to supply 20 percent of U.S. electricity by 2030, wind energy could support 380,000 well-paying jobs, according to the U.S. Department of Energy. That number could grow to 600,000 by supplying 35 percent by 2050. ↵

— Source: AWEA

For more information, go to www.awea.org.

IRON MOUNTAIN AGREES TO EXCHANGE 30 PERCENT OF U.S. ELECTRICITY USE WITH RENEWABLE ENERGY

Iron Mountain Incorporated, a storage and information management company, recently announced that it has signed a 15-year wind power purchase agreement (PPA) that will exchange 30 percent of its North American electricity footprint with renewable energy. Additionally, the

purchase of two-thirds of the power produced by a new wind farm currently under construction in Ring-er Hill, Pennsylvania, will provide Iron Mountain with long-term rate stability and an expected annual savings of up to \$500,000 in utility costs.

The power generated by the Ring-er Hill turbines will directly provide for the energy needs of Iron Mountain’s entire Mid-Atlantic operations comprising all or part of 13 states and Washington, D.C. that currently use more than 80,000 MWh of electricity annually. This wind pow-

er purchase will support the energy requirements for Iron Mountain's emergent data center business, projected to account for as much as 20 percent of the company's electricity use in North America as the business grows.

"As the largest operational cost and environmental concern, power has an incredible impact on our data center business," said Mark Kidd, senior vice president and general manager of Iron Mountain Data Centers. "Locking in a long-term, reliable and renewable energy supply ensures price stability, predictability, and superior cost control. The wind power agreement, along with our recent Better Buildings Initiative pledge to reduce energy intensity of 8.75 MW, demonstrates a serious commitment to environmental responsibility. This new agreement better positions Iron Mountain and our customers to meet the growing demand for clean, sustainable power."

The agreement was signed in December 2015 with New Jersey Resources, a company that provides natural gas and clean energy services that include transportation, distribution, and asset management. When the wind farm goes online at the end of 2016, Iron Mountain will become one of the top 25 buyers of renewable energy among the Fortune 1000 and a top-70 energy buyer in the Environmental Protection Agency (EPA) Green Power Partnership, a voluntary program that encourages the organizational procurement of sustainable power.

"This agreement represents an exciting opportunity for us as we continue to advance our sustainability efforts," said Ty Ondatje, the chief diversity officer and senior vice president of corporate responsibility at Iron Mountain. "Our corporate responsibility journey has seen us evolve from our initial focus on corporate citizenship to a deeper, more

strategic agenda that uses environmental and social metrics to help us identify blind spots in our business where we can innovate. In doing so, we are finding new ways of doing things that drive significant business value and deliver better results for our customers, our communities, and the environment. This agreement will deliver bottom-line impacts for our business through both

operational efficiencies and significant cost savings. In turn, we can help our customers to do the same when they choose us for their storage and information management needs." ↵

— Source: Iron Mountain Incorporated

For more information, go to www.ironmountain.com.

Single-Source Solution for O&M Services

- Civil & SWPPP Maintenance
- Substation & Collection System Inspection and Repair
- Large-Scale Corrective Work
- Preventative Maintenance using Thermal Image Testing

View Full Capabilities at wanzek.com

Kilowatt Sponsor at AWEA WindPower 2016

O&M SERVICES **WANZEK**
a MasTec company

APPROXIMATELY 140 WIND PROJECTS AWARDED TURBINE CONTRACTS IN THE SECOND HALF OF 2015

A new report from Navigant Research titled “Wind Turbine Order Tracker 1Q16” tracks all publicly announced wind turbine orders with data segmented by region, country, and vendor between July and December 2015.

In the second half of 2015, more than 12 GW of capacity was awarded to wind turbine contracts for global wind projects. Europe led all regions with just more than 5 GW of capacity in orders, while North America had just under 2.8 GW and the Asia-Pacific region had just over 2 GW.

“Wind turbine orders tracked in the second half of 2015 show substantial business activity across all top- and mid-tier turbine vendors,” said Adam Wilson, a research associate with Navigant Research. “The top countries for order volume are in the key markets such as the United States, the United Kingdom, and Germany, but activity is also strong in Brazil and India where turbine vendors are competing for geographic diversification. Notably, one vendor that was barely on the radar a couple years ago in India is now showing significant activity in that market.”

Siemens and Vestas led turbine order vendors in total capacity awarded in the second half of 2015, according to the report. Meanwhile, General Electric (GE), Gamesa, and MHI Vestas, the offshore wind joint venture between Vestas and Mitsubishi Heavy Industries, rounded out the top five.

The study provides an analysis of orders placed by region, country, and vendor in addition to a breakdown of the vendor markets of the top countries by capacity. A detailed examination of turbine components including rotor diameter, turbine rating, and specific power is also provided. The report also offers a comparison of the onshore and offshore wind markets. Note that this tracker excludes orders for the Chinese market due to the opaque state of order reporting in that market. An executive summary of the report is available to be downloaded for free on Navigant Research’s website. ↗

— Source: Navigant Research

For more information, go to www.navigantresearch.com.

EDF RENEWABLE ENERGY AND BLACKROCK CLOSE ON THE SALE OF TWO WIND PROJECTS IN NEW MEXICO

EDF Renewable Energy recently closed on a transaction to sell a 50-percent interest in the 250-MW Roosevelt Wind Project and the 49.65-MW Milo Wind Project to a fund managed by BlackRock Infrastructure. The closing of this transaction seals the partnership on the final two of five projects for which BlackRock and EDF Renewable Energy have signed agreements for over the past year.

The two wind projects are adjacently located in Roosevelt County, New Mexico. The combined 150 Vestas wind turbines produce enough clean, renewable energy to power approximately 170,000 New Mexico households. Both projects are operational with Roosevelt delivering electricity to Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy. Milo

electricity is committed into the real-time market in the Southwest Power Pool (SPP) Regional Transmission Organization (RTO).

“In total, EDF Renewable Energy has committed 50-percent stakes in 894 MW of U.S. wind energy projects to BlackRock since the start of 2015 along with a 40-percent stake in an earlier transaction,” said Raphael Declercq, vice president of portfolio strategy at EDF Renewable Energy. “Those partial sell-downs are an integral part of our business, and this particular portfolio transaction is a testament to our strong partnership with BlackRock Infrastructure. It illustrates our philosophy of building long-term relationships with leading industry counterparties.”

BlackRock Infrastructure has invested in the following EDF Renewable Energy projects:

- 2016: 50 percent in Roosevelt Wind at 250 MW and Milo Wind at 49.65 MW, both in New Mexico
- 2015: 50 percent in Spinning Spur 3 Wind at 194 MW, Texas Longhorn Wind at 200 MW, and Texas Hereford Wind at 200 MW, all in Texas
- 2013: 40 percent in Spearville 3 Wind at 100.8 MW in Kansas

“The North American renewable infrastructure market presents tremendous opportunity for our clients, and we are pleased to grow our successful relationship with EDF Renewable Energy,” said David Giordano, head of the North American Renewable Infrastructure team at BlackRock Infrastructure. “Repeat business with a trusted partner creates reciprocal efficiencies in our transactions.”

EDF Renewable Energy remains closely involved in the Roosevelt and Milo wind projects maintaining a 50-percent ownership stake. EDF Renewable Services, a leading provider of renewable operations and maintenance services in North America, will provide balance-of-plant operations and maintenance for the facility, including 24/7 remote monitoring from its NERC-compliant operations control center.

BlackRock operates one of the largest renewable power investment platforms in the world with over \$1.5 billion of equity assets under management. To date, BlackRock Infrastructure has a total invested portfolio of approximately 1.9 GW of wind and solar projects and \$2 billion AUM located across the U.S., Canada, Ireland, Sweden, France, and the U.K.

EDF Renewable Energy is one of the largest renewable energy de-

velopers in North America with 7.8 GW of wind, solar, biomass, and biogas projects developed throughout the U.S., Canada, and Mexico. ↵

For more information, go to www.edf-re.com.

— Source: EDF Renewable Energy

The 250-MW Roosevelt Wind Project in Roosevelt County, New Mexico



BlackRock Infrastructure

got blades?
bad

Fiberglass Recycling Alternative, LLC

We cut and haul your bad blades!

Do you have a bad blade? We can cut it up on site, below the tower, saving you time and money.

Fiberglass Recycling Alternatives specializes in the recycling and repurposing of wind turbine blades, tower sections, nacelles, frames and hubs. We pride ourselves in our reputation for cleaning up the worksite after the job is complete.

MOBILE: 507-829-5500 • OFFICE: 507-872-5940
WEB: www.fra-llc.com • EMAIL: jn@fra-llc.com

JANICKI INDUSTRIES

AWEA WIND POWER 2016
BOOTH # 2655

- ▶ High Quality
- ▶ Price Competitive
- ▶ On-time Delivery

Delivering Value with
Wind Energy Tooling

- ▶ Patterns • Molds • Blades
- ▶ Precision 5-Axis Machining
- ▶ Composite Fabrication
- ▶ Engineering Services

www.janicki.com
360.856.5143