

Strengthening U.S. 'Electric Highway' will fast-track growth, report says

The United States urgently needs a 21st Century update of its aging power grid and the solution, well-planned transmission investment, will more than pay for itself according to a recent report by the American Wind Energy Association (AWEA). Grid Vision: The Electric Highway to a 21st Century Economy outlines why an interconnected, modern transmission grid is more important than ever as distributed solar, energy storage, and electric vehicles scale up, and maps out key policy reforms centered around the "Three Ps" of Planning, Paying, and Permitting that are needed to make the vision a reality.

Amy Farrell, AWEA senior vice president, Government and Public Affairs, released the report at Politico's Reinventing American Energy event. A full transcript of Farrell's remarks is available at www.aweablog.org.

"No matter your end goal — improving resiliency and reliability, driving down electricity costs, or reducing carbon emissions — modernizing the grid and expanding transmission is a common denominator," Farrell said. "Today's report presents overwhelming evidence that investing in transmission is a no-regrets down payment for future economic growth."

The American Society of Civil Engineers recently gave America's electricity infrastructure a mark of "D+," and grid congestion and power outages cost American businesses billions of dollars each year. Amid these problems, consumers are demanding clean electricity to power more of their lives. The nation's power grid is being asked to do more than ever before and failing to modernize this infrastructure drags the U.S. economy down in the global marketplace.

AWEA's new report charts dozens of independent studies from across the country that quantify how transmission investments support consumer savings, improved grid reliability and resilience, a cleaner environment, and a more competitive economy. Grid op-

erator analysis consistently finds that well-designed transmission projects provide consumer benefits two- to four-times greater than their costs by unlocking low-cost energy sources, such as wind and solar, and reducing electricity market congestion.

Technology-driven changes in the sources of electricity supply and demand are increasing the importance of transmission. A strong transmission system is essential for getting more of our electricity from solar power, whether located on a rooftop or in a large installation in the desert. Battery storage, demand response, and other new technologies are valuable complements to transmission, but cannot substitute for transmission's ability to move large amounts of power long distances. Electrification of transportation and building and water heating is also increasing the demand for a strong transmission system.

Substantial private investment is waiting to move on transmission, but projects struggle to be built under excessively long regulatory timelines and red tape. Centered around the "Three Ps" of Planning, Paying, and Permitting, the paper outlines the policy reforms needed to realize the benefits of an expanded, improved, and interconnected transmission system.

"We all seem to agree on the challenge. We have an obvious solution and billions in private investment ready to invest," Farrell said. "We don't have to wait — the bipartisan support exists to act now. Let's make a smart down payment on our future by updating and expanding America's electric grid."

MORE INFO awea.org

Connecticut bill will allow up to 2,000 MW of procured energy

Vineyard Wind LLC, a leading offshore wind developer based in New England, recently congratulated Gov. Ned Lamont for his signing of House Bill (HB)



Vineyard Wind is developing an 800-MW project in federal waters south of Martha's Vineyard. (Courtesu: Vineyard Wind)

7156, a bill that will allow for as much as 2,000 MW of offshore wind power to be procured by the state.

"With the stroke of a pen ... Governor Lamont made history," said Erich Stephens, chief development officer for Vineyard Wind. "This legislation has the potential to make Connecticut a major player in offshore wind power, an industry that's poised for tremendous growth in the coming years. Our plan, which will invest millions into the city of Bridgeport, would turn offshore wind into statewide industry and create good paying jobs with good benefits."

Vineyard Wind is looking to work with the city of Bridgeport and an existing Connecticut business along the city's harbor, Bridgeport Boatworks. If the company is accepted as a supplier of wind energy for the state, it will invest millions of dollars in the revitalization of Bridgeport Harbor, so that the harbor can be used as a staging area for the ongoing construction of a facility off the coast of Martha's Vineyard.

Vineyard Wind is a New England-based company and the leading U.S. offshore wind developer, currently developing and financing the nation's first commercial-scale offshore wind farm — an 800 MW project in federal waters south of Martha's Vineyard.

The project is set to begin construction later this year. Vineyard Wind is backed by two of the world's most successful and experienced offshore wind project developers and investors — Copenhagen Infrastructure Partners (CIP) and Avangrid Renewables. CIP manages more than \$8 billion in clean-energy investments worldwide, and its partners are some of the world's pioneers in the offshore wind industry. Avangrid Renewables is a subsidiary of AVANGRID, Inc. and one of the leading providers of wind energy in the U.S. It is part of the Iberdrola Group, one of the world's largest wind-project developers with more than 15 GW of wind power capacity installed.

MORE INFO www.vineyardwind.com

IRENA: Renewables are low-cost key to boost climate action

Renewable power is the cheapest source of electricity in many parts of the world already today, the latest report from the International Renewable Energy Agency (IRENA) shows. The report contributes to the international discussion on raising climate action worldwide, ahead of Abu Dhabi's global preparatory meeting for the United Nations Climate Action Summit in September.

With prices set to fall, the cost advantage of renewables will extend further, according to *Renewable Power Generation Costs in 2018*. This will strengthen the business case and solidify the role of renewables as the engine of the global energy transformation.

"Renewable power is the backbone of any development that aims to be sustainable," said IRENA's Director-General Francesco La Camera. "We must do everything we can to accelerate renewables if we are to meet the climate objectives of the Paris Agreement. Today's report sends a

clear signal to the international community: Renewable energy provides countries with a low-cost climate solution that allows for scaling up action. To fully harness the economic opportunity of renewables, IRENA will work closely with our members and partners to facilitate on-theground solutions and concerted action that will result in renewable energy projects."

The costs for renewable energy technologies decreased to a record low last year. The global weighted-average cost of electricity from concentrating solar power (CSP) declined by 26 percent, bioenergy by 14 percent, solar photovoltaics (PV) and onshore wind by 13 percent, hydropower by 12 percent and geothermal and offshore wind by 1 percent, respectively.

Cost reductions, particularly for solar and wind power technologies, are set to continue into the next decade, the new report finds.

According to IRENA's global database, over three-quarters of the onshore wind and four-fifths of the solar PV capacity that is due to be commissioned next year will produce power at lower prices than the cheapest new coal, oil, or natural gas



The costs for renewable energy technologies decreased to a record low last year. (Courtesy: Winchell Joshua, U.S. Fish and Wildlife Service)

options. Crucially, they are set to do so without financial assistance.

Onshore wind and solar PV costs between 3 and 4 cents per kilowatt hour are already possible in areas with good resources and enabling regulatory and institutional frameworks. For example, record-low auction prices for solar PV in Chile, Mexico, Peru, Saudi Arabia, and the United Arab Emirates have seen a levelized cost of electricity as low as 3 cents per kilowatt hour.

Electrification on the basis of cost-competitive renewables is the backbone of the energy transformation and a key low-cost decarbonization solution in support of the climate goals set out in the Paris Agreement.

MORE INFO www.irena.org/publications

Siemens Gamesa appoints Alfonso Faubel as Onshore CEO

The Board of Directors of Siemens Gamesa Renewable Energy recently appointed Alfonso Faubel as the company's new Onshore Business CEO, effective July 29.

"We are very pleased that Alfonso Faubel is joining the company and look forward to working with him," said Markus Tacke, Siemens Gamesa CEO. "His broad industry experience will support the onshore business unit in addressing the challenging environment and continuing to deliver value to our customers."

Faubel, who has 30 years' experience in the automotive and energy industries, joins Siemens Gamesa from Sentient Science, where he was chief revenue officer of Energy and president of Europe.

Sentient Science is a digital provider of materials-science-based life prediction and extension technology in the global wind energy market.

Previously, he worked for Alstom-General Electric as senior vice president, Global Sales & Marketing, based in Switzerland, and as senior



Alfonso Faubel. (Courtesy: Siemens Gamesa)

vice president of the Alstom Wind Business, responsible for all activities related to Alstom's onshore and offshore wind business.

Faubel began his career in international industrial sales in 1988 at Ferrex in New York City. He transferred to Accenture in 1990 and to Exen in Rome in 1993. In 1996, he joined Delphi, where he held a number of positions, until moving to Alstom in 2009.

He has a degree in business administration and economics from Richmond, The American International University in London. He has worked in France, Germany, Switzerland, Italy, Spain, the U.S., and Mexico and speaks five languages.

"I am honored to join a global company of the caliber of Siemens Gamesa, which has such a clear commitment to delivering clean energy," Faubel said. "Onshore wind will be a key element of that vision, and I am ready to take on the challenge and contribute to reinforcing our leading position, delivering projects that create lasting value for all our stakeholders."

Faubel will replace Mark Albenze, who assumed this position on a temporary basis in addition to his role as CEO of the Service Business Unit. Albenze will now continue in his role as Service CEO. ∠

MORE INFO www.siemensgamesa.com

