

# GREEN POWER News

WAPA's Renewable Resources Program covering  
green power, reports, studies and funding

WESTERN AREA POWER ADMINISTRATION

Welcome to the *Green Power News Update*. This is a summary of the stories that ran during **October and November 2018**. New stories are added throughout the month to make sure you always know what is happening in our fast-changing industry. Check back often to see what's new!

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## Green Power

### Green Power Partnership Program Update Issue 61 • November 2018

Green Power Partnership (GPP) Program Updates are published monthly and provide the latest news and updates on the Partnership.

#### In This Issue

- 2018 Green Power Leadership Award Winners Announced
- Top Partner Rankings & Green Power Communities List Updated October 29
- GPP Kicks Off 2018–19 College & University Challenge
- Partner Spotlight – Bank of America
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- GPP Featured on Twitter
- NEW – Solar Project Portal Video for Local Governments
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- NREL Releases Status and Trends Report on Voluntary Green Power Market
- National Scorecard Reports How States Stack Up on Shared Renewable Energy Programs

*Source: EPA Green Power Partnership, 11/14/18*

#### BLM Soliciting Public Input On NextEra's Borderlands Wind

The Bureau of Land Management's (BLM) Socorro Field Office will hold a public meeting to accept written public comments, provide information and answer questions related to the 100 MW Borderlands Wind Project, a New Mexico facility proposed by NextEra Energy.

The meeting will be held at Quemado Elementary and High School, 3484 Highway 60, Quemado, NM, on Wednesday, Nov. 14, from 5-7:30 p.m.

Borderlands Wind LLC, a subsidiary of NextEra Energy, is proposing a wind generation facility in western Catron County. The Borderlands Wind Project would be built near Quemado and the Arizona-New Mexico border on 40,348 acres of land.

*Source: North American Windpower, 11/5/18*

#### Navajo Nation Eyes Utility-Scale Solar with Growing Interest

Momentum is growing around modernizing tribal renewable-energy policies on the Navajo Nation of Arizona, Colorado, New Mexico and Utah, according to a report published today by the Institute for Energy Economics and Financial Analysis.

The report — "Growing Interest in Developing Navajo Utility-Scale Solar Industry: Policy Momentum and Grassroots Support; Vast Tribal Natural Resource Remains Largely Untapped" — details movement on three fronts.

*Source: Renewable Energy World, 11/1/18*

## Can the price of rooftop solar keep falling?

Rooftop solar's growth has slowed nationally, but its price to customers continues to fall, leaving market watchers questioning its future.

In 2017, the installed price of residential photovoltaic (PV) solar continued its 20-year price decline, but at a slower pace than the 2009 to 2013 glory years. Tariffs on imported solar products and the rising cost of finding customers slowed the price decline and flattened growth, leaving installers, policymakers and utilities asking if the price will keep falling and, if it does, how low it will go. Changing solar incentives make this question especially important.

*Source: Utility Dive, 10/18/18*

## EPA Honors 2018 Green Power Leaders

Today, the U.S. Environmental Protection Agency (EPA) announces its 18th annual Green Power Leadership Awards, recognizing 10 Green Power Partners across the country, including Google, Microsoft, Procter & Gamble, Starbucks, T-Mobile, and University of California.

"The 2018 Green Power Leadership Award winners have proven real leadership, demonstrating to American businesses that through their investments they can together not only grow America's renewable energy market, but also reduce air emissions and protect the environment," said EPA Assistant Administrator for Air and Radiation Bill Wehrum.

The award winners are being recognized for their efforts in advancing the nation's voluntary green power market. From using enough green power to meet 100 percent of electricity needs to signing long-term contracts that enable new green power project development, these organizations are demonstrating leadership by furthering the case for accessible, affordable green power use.

*Source: EPA Green Power Partnership, 10/10/18*

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## Reports and Studies

### State of the US Renewables Market: Rapid Growth and a 'Lot of Risk'

The worlds of power markets and renewables are colliding, and nobody seems quite sure what to do about it.

Though still a miniscule fraction of grid power in many places, renewable energy resources have momentum on their side. As they grow, they alter the functioning of the markets in ways that look different from traditional generation.

Wood Mackenzie launched its Power & Renewables Summit last year to unpack these changes, and in the intervening time, the signs of change have grown clearer. Deployment queues in every U.S. region show a dramatic turn toward wind and solar, proving this is not just a groovy California thing anymore.

Once built, these resources, which are essentially free to dispatch but cannot be called on command, push down wholesale prices, initiate transmission congestion and create sharp ramping needs for dispatchable power plants.

*Source: Greentech Media 11/16/18*

## **Study says Minnesota can economically reach renewable energy goals by 2050**

Minnesota can economically get 70 percent of its electricity from renewable sources by 2050, as prices for wind, solar and battery storage continue to fall, a study has found.

The deployment of more solar and wind generation would be no more costly than new natural gas power, a cheap source of electricity, according to the study done for the state Department of Commerce. Enough solar generation could be added cost-effectively by 2030 to meet Minnesota's ambitious solar-power goals.

*Source: Minnesota Star Tribune, 11/15/18*

## **How Will Wind Industry Find the Answer? With WISDEM**

When doctoral student Katherine Dykes visited the National Wind Technology Center (NWTC) at the National Renewable Energy Laboratory (NREL) eight years ago for an inaugural workshop on combining wind energy with systems engineering, she saw a similar PowerPoint slide at each of the presentations: "What is systems engineering?"

"Thankfully, I haven't seen it in a while," said Dykes, who joined the U.S. Department of Energy's (DOE's) NREL in the summer of 2011 and now works as a senior engineer at the NWTC.

From there, Dykes has spread the word throughout the wind industry about systems engineering. This interdisciplinary approach takes everything into account so that customer needs and wind turbine design, performance, and cost are all equally important.

*Source: National Renewable Energy Laboratory, 11/7/18*

## **California regulators prod utilities to start drafting roadmap to 100% clean energy**

The sum of renewables procurements from California electricity providers is not enough to achieve the state's 2045 target, and regulators are struggling for solutions.

California's 44 electricity providers are updating their formal plans to meet the state's new 60% renewables by 2030 mandate and its 100% clean energy by 2045 goal.

Investor-owned utility (IOU) regulatory filings say they have adequate renewables to meet the 2030 requirement and will begin procuring again after that. Customer choice aggregator (CCA) filings say they will procure adequate renewables to meet the 2030 mandate, though they do not specify how or when. And electric service providers (ESPs) say they don't do long-term procurements.

*Source: Utility Dive via Wind Energy SmartBrief, 10/25/18*

## **Combined wind and solar made up at least 20% of electric generation in 10 states in 2017**

Wind and solar electric generation, including small-scale solar photovoltaics, reached or exceeded 20% of total generation in 10 states in 2017. During some months in 2017, wind accounted for more than 50% of in-state electricity generation in Iowa and Kansas, and solar accounted for more than 20% of in-state electricity generation in California. Total annual generation from wind and solar in the United States in 2017 reached 8% for the year and peaked at 11% in April of that year.

Wind and solar resources are unique among sources of electricity. Unlike most other generating technologies, grid operators generally do not dispatch wind and solar generation because these generators produce electricity only when the associated resources are available. Even so, some wind and solar plants may allow for limited dispatcher control on a minute-to-minute basis. For example, by setting operating levels to slightly lower than achievable levels for current conditions, operators have some flexibility to increase or decrease output in response to market signals.

*Source: US Energy Information Administration via Chron, 10/11/18*

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## **Funding**

### **NREL Awarded \$2.8M from ARPA-E to Develop Low-Cost Thermal Energy Storage**

The U.S. Department of Energy's (DOE's) National Renewable Energy Laboratory (NREL) has been awarded nearly \$2.8 million in funding from DOE's Advanced Research Projects Agency-Energy (ARPA-E) to develop a system for grid electricity storage and power generation. The system includes a high-temperature charging device, low-cost thermal energy storage modules, a high-performance heat exchanger, and a closed-loop Brayton cycle turbine.

As NREL Principal Investigator Zhiwen Ma explains, "When electric power is cheapest, electric heaters will 'charge' the storage modules by heating stable, inexpensive solid particles to more than 1,100 degrees Celsius. And when it's time to discharge this energy, the hot particles will move through a heat exchanger to heat a working fluid that drives a high-efficiency closed-Brayton combined cycle attached to an electric generator."

*Source: National Renewable Energy Laboratory, 11/26/18*

### **DOE Announces Funding for Advanced Wind Turbine Generator R&D**

The U.S. Department of Energy's (DOE's) Wind Energy Technologies Office has announced a Funding Opportunity Announcement (FOA) entitled "Advanced Next-Generation, High-Efficiency, Lightweight Wind Turbine Generator." The primary objective of this FOA is to develop a lightweight, more efficient wind turbine drivetrain system (gearbox and generator, or direct drive generator) that minimizes the use of rare earth magnets and contributes to the scaling of wind turbine power capacities beyond 10MW. Projects funded through this funding opportunity will result in the design, fabrication, and up-tower testing of advanced multi-megawatt-scale wind turbine prototype drivetrains. This work will further

DOE's goal to reduce the cost of energy from wind by decreasing nacelle and tower mass, reducing O&M and replacement costs, and improving performance.

*Source: DOE Wind Energy Technologies Office, 11/14/18*

## **Golden's NREL Federal Grant: \$7 Million For Solar Energy Research**

Golden-based National Renewable Energy Laboratory received \$7 million in federal grant funding for solar energy research, the U.S. Department of Energy announced Tuesday. The grant is part of a \$72 million package aimed at developing solar energy systems that can generate extreme heat for industry and thermal storage systems.

NREL's Pathway to SunShot team, led by Principal Investigator Craig Turchi, proposes a "molten salt power tower." According to the Dept. of Energy, the project will "design, develop, and test a two-megawatt thermal system consisting of the solar receiver, thermal energy storage tanks and associated pumps, heat exchangers, piping, valves, sensors, and heat tracing."

*Source: EnergyCentral.com, 11/5/18*

## **Learn about the DOE Tribal Energy Loan Guarantee Program**

**Nov. 7**

**Noon-1 p.m. MT**

In July, the U.S. Department of Energy (DOE) released its initial solicitation for the **Tribal Energy Loan Guarantee Program** (TELGP), which made up to \$2 billion in loan guarantees available for tribal energy development. As with all new programs, we think it is important to share information with potential beneficiaries and make sure they know how best to engage with the program.

As part of DOE's effort to create awareness about TELGP and learn more about tribal energy needs, the program has participated in a number of events over the past few months, including the Fall Finance & Tribal Economies Conference of the **Native American Finance Officers Association**. As a follow-up to that conference, DOE is partnering with NAFOA to host a webinar about TELGP on Wednesday, Nov. 7, from 12–1 p.m. Mountain Standard Time.

The topics to be covered in this conversation include:

- Goals of TELGP
- Project eligibility
- How the TELGP application process works
- Case studies of DOE's experience with its similarly structured Financial Institution Partnership Program
- How DOE engages with borrowers as a collaborative partner

**Register** for the webinar.

*Source: DOE Office of Indian Energy, 11/5/18*

**Find more [funding sources](#).**