

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 **September 2017**. 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!

Individuals or agencies sending press releases quoted here are entirely responsible for the accuracy of their information.

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Green Power

Green Power Partnership Program Update for September

This Web page highlights recent news and press about the Green Power Partnership and its Partners. The following news, media coverage, and press releases can be accessed from this Web page.

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

Sign up for Program Updates.

Issue 52, September 27, 2017

In this issue:

- Renewable Energy Markets Conference – Register Now!
- New GPP Web Pages & Resources
- GPP Webinar Recap: Solar Carports: Turning University Parking Facilities into Renewable Electricity Plants
- Upcoming Deadline for Partner Data in Top Partner Rankings
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- New DOE Wind Reports Show Continued Growth Nationwide
- New NREL Report: “Charting the Emergence of Corporate Procurement of Utility-Scale PV”

Source: EPA Green Power Partnership, 9/27/17

Matchmaking: How the Solar Training Network’s New Solar Careers Web Platform Connects People with Solar Careers

Think of it as a solar connection hub. The new Solar Training Network connects solar job seekers, solar employers, training providers and workforce development boards, all in the name of growing the solar workforce to meet the needs of the booming industry.

Source: The Solar Training Network, 7/27/17

New Solar Learning Videos for Local Code Officials and Other Building Professionals

With the U.S. on pace for 4 million solar electric (PV) installations by 2020, building and electrical inspectors and other local code officials have their work cut out for them to keep up. It's their job to ensure proper, safe installations, in line with current codes and standards. New informational videos on solar codes and safety are the latest in a suite of training resources targeted to code officials, architects, builders and solar installers.

"With the rapid expansion of solar installations, training from the NEC® (National Electrical Code), as well as other codes and standards become a critical combination to ensure a safe installation," says David Clements, CEO of the International Association of Electrical Inspectors (IAEI). "These must-see videos are an excellent resource that will help educate code officials and inspectors when inspecting residential solar installations. We are excited to have partnered with IREC on developing training material that will benefit both code officials and installers. Knowledge and knowing how to apply it will ensure a code compliant installation."

Source: Interstate Renewable Energy Council, 9/13/17

Sterling's Resilient Energy Storage System: Providing Ratepayer Savings and Power Assurance for Emergency Response

A new video detailing the economic and emergency preparedness benefits of the battery storage system in the town of Sterling, Massachusetts has been released by the nonprofits Clean Energy Group and the Clean Energy States Alliance. The nine-minute documentary video explains how the energy storage system works, how it will save Sterling's ratepayers \$400,000 per year in electricity charges, and how it will provide backup power to the town's police station and emergency dispatch center in the event of a long-duration power outage.

This video is an excellent educational resource for policymakers, educators, people in the clean energy sector, and for ratepayers who want to better understand how the electric grid works, and how energy storage combined with solar PV could provide multiple benefits to their community.

Source: Resilient Power - a Project of Clean Energy Group, 9/20/17

EPA Green Power Partnership Issues Minor Updates to Partnership Requirements

The U.S. Environmental Protection Agency (EPA) established the Green Power Partnership as a voluntary program that encourages the use of renewable electricity to protect human health and the environment. The Green Power Partnership provides a framework that includes credible usage benchmarks, market information, technical assistance, and public recognition to organizations that use green power.

Since the Green Power Partnership was established, EPA has continually reviewed and updated the Partnership's program requirements. These new requirements are highlighted in the **Green Power Partnership Program Requirements** document and are reflected throughout the partnership website.

What's Next: EPA will be seeking feedback on a second set of proposed program requirement changes in October. Please keep an eye out for notifications of these additional proposed changes. For further questions, please contact the **EPA Green Power Partnership**.

Source: US Environmental Protection Agency, 9/22/17

How Billions of Internet-of-Things Devices Could Change the Grid Edge—and Boost Grid Resilience

The internet of things is a term made up of equal parts hype and reality -- hype about the possibilities of billions of devices communing to make work safer, more productive and more profitable, and the reality of slow and uncertain progress.

Gartner reports that the number of connected things in use worldwide has grown 31 percent to 8.4 billion from 2016 to 2017, with nearly \$2 trillion in total spending on endpoints and services. But of that figure, 5.2 billion devices are consumer items -- Fitbits, Alexas, and the like -- while the number of vertical-specific and cross-industry devices add up to just more than 2 billion.

Verizon's third annual State of the Market: IOT Report, released this week, provides some important data on how these industry-specific and cross-platform IOT networks are being deployed, including a breakout section on how energy and utility companies are using IOT.

Source: GreenTech Media, 9/14/17

Timely New Video Shows Cities and Towns How Energy Storage Can Protect Critical Facilities During Extreme Storms while Saving Money

A new video showcasing the Sterling Municipal Light Department's award-winning energy storage system premiered yesterday at the **Solar Power International/Energy Storage International conference** in Las Vegas and at the **Innovation Northeast's Energy Storage & Microgrid conference** in Boston. The video highlights the municipal utility's energy storage microgrid, which is bringing both economic and resiliency benefits to the town of Sterling, Massachusetts. The groundbreaking energy storage project is the result of a collaboration among municipal, state, federal, industry, philanthropy, and nonprofit partners.

The video, produced by Clean Energy Group and the Clean Energy States Alliance, details the economic case for the battery storage system and includes an animation sequence on how the energy storage system works, how it is saving the town of Sterling money, and how it will provide backup power to the town's police station and emergency dispatch center in the event of a long-duration power outage. The video is available at <http://bit.ly/CEG-Sterling> .

Source: PR Web, 9/12/17

HECO's Grid Modernization Strategy an Investment in Future

Through Order No. 34281, the Hawaii Public Utilities Commission (PUC) directed the Hawaiian Electric Companies to develop "a detailed Grid Modernization Strategy" that "will

provide the comprehensive and holistic vision and context to inform subsequent review of discrete grid modernization project applications submitted by the Companies."

The PUC directed the Hawaiian Electric Companies to make an initial draft of the Grid Modernization Strategy available for stakeholder review and comment no later than June 30, 2017, with the final Grid Modernization Strategy documents be filed with the commission no later than August 29, 2017.

This web page will be regularly updated throughout the Grid Modernization Strategy process, with strategy documents and filings, workshop information, presentations, and public comments that have been submitted.

Source: Hawaiian Electric Companies, 5/10/17

CEC drafts 11th edition of New Solar Homes Partnership guidelines

This guidebook from the California Energy Commission details the eligibility requirements, rules and process for reserving and claiming an incentive under the New Solar Homes Partnership Program.

The New Solar Homes Partnership Program is part of a statewide solar program known as the California Solar Initiative and provides financial incentives for installing solar energy systems on new residential homes.

The track change version is available online.

Source: California Energy Commission, 8/29/17

Find more [publications and webinars](#).

Reports and Studies

EESI 2016 annual report now available

EESI's annual reports describe some of our successes and highlight the donors, partners, and friends who made them possible. To find out how you can help make this work possible, please email **Susan Williams** or call her at (202) 662-1887.

Source: Environmental and Energy Study Institute, 9/27/17

Tracking the Sun 10: The Installed Price of Residential and Non-Residential Photovoltaic Systems in the United States

Berkeley Lab's Tracking the Sun report series is dedicated to summarizing trends in the installed price of grid-connected, residential and non-residential systems solar photovoltaic (PV) systems in the United States. The present report, the tenth edition in the series, focuses on systems installed through year-end 2016, with preliminary data for the first half of 2017. The report provides an overview of both long-term and more-recent trends, highlighting key drivers for installed price declines over different time horizons. The report also extensively characterizes the widespread variability in system pricing, comparing

installed prices across states, market segments, installers, and various system and technology characteristics.

A webinar about the report will be held on October 4th at 10:00 am Pacific / 1:00 pm Eastern. [Register for the webinar](#) .

Source: Lawrence Berkeley Laboratory, 9/25/17

Interconnections Seam Study seeks to improve grid

Through the Interconnections Seam Study, National Renewable Energy Laboratory joins national lab, university, and industry partners to identify cost-effective options for upgrading the U.S. electric grid to create a more integrated power system that can drive economic growth and increase efficient development and utilization of the nation's abundant energy resources, including solar, wind, and natural gas.

Source: National Renewable Energy Laboratory, 9/26/17

Berkeley Lab's "Utility-Scale Solar 2016" finds solar power increasingly competitive

Berkeley Lab is pleased to announce the release of *Utility-Scale Solar 2016*, which presents analysis of empirical project-level data from the U.S. fleet of ground-mounted solar projects with capacities exceeding 5 MW-AC. While focused on key developments in 2016, this report explores trends in deployment and project design, installed project prices, operating costs, capacity factors, and power purchase agreement prices among both utility-scale photovoltaic and concentrating solar thermal power projects.

Finally, if you find this report-and the data it provides-to be useful, or if you regularly work with or are in search of solar data to aid you in your work, please note that the U.S. Department of Energy has recently issued a [Request for Information](#) concerning solar energy analysis and data needs. Responses are due by October 6, 2017.

A webinar about the report will be held on October 11th at 10:00 am Pacific Time. [Register for the webinar](#) .

Source: Lawrence Berkeley Laboratory, 9/19/17

FEMP presentation examines energy legislation

At the Renewable Energy Working Group (REWG) meeting last month at Energy Exchange in Florida, the Federal Energy Management Program gave a presentation entitled: "Legislation: What's Cooking on the Hill?". Although not intended to be all inclusive, it had a good summary of many renewable related legislative actions.

Source: DOE Federal Energy Management Program, 8/4/17

New Solar Learning Videos for Local Code Officials and Other Building Professionals

With the U.S. on pace for 4 million solar electric (PV) installations by 2020, building and electrical inspectors and other local code officials have their work cut out for them to keep

up. It's their job to ensure proper, safe installations, in line with current codes and standards. New informational videos on solar codes and safety are the latest in a suite of training resources targeted to code officials, architects, builders and solar installers.

Regional chapters of the International Code Council and the International Association of Electrical Inspectors have begun hosting one-day trainings where code officials can learn the steps of accurate, consistent solar permit plan review, with the focus on the pre-inspection work of reviewing and approving the plan. To complement what they learn in the class, or as an introduction beforehand, participants can watch and learn about the details of residential solar inspection in the two new brief videos (4-5 minutes each).

Source: Interstate Renewable Energy Council, 9/13/17

Webinar presents results of 2017 US renewables portfolio standards status report

Lawrence Berkeley National Laboratory has just released its annual report reviewing key trends in state renewables portfolio standards (RPS). The report, ***U.S. Renewables Portfolio Standards: 2017 Annual Status Report***, is available for download. Berkeley Lab's announcement of the report notes: "This annual update, which is published in slide-deck form, builds on Berkeley Lab's ongoing efforts to track and analyze state RPS policies. Among other topics, it describes recent legislative revisions, key policy design features, past and projected impacts on renewables development, compliance trends, and costs. The 2017 edition of the report presents historical data through year-end 2016 and projections through 2030."

Galen Barbose, lead author for the report, presented the key findings in a webinar for the RPS Collaborative.

Source: Clean Energy States Alliance, 9/16/17

Beyond Electrons: How Utilities are Navigating the Evolving Energy Landscape

Traditionally, customers only expected their electric utility to keep the lights on. But technology advances and new customer demands are causing significant changes in the industry. People expect more than just power from their utility. At the same time, new technologies and distributed energy resources are enabling customers to consume less energy. What does this evolving energy landscape mean for utilities? How are utilities adapting, and how can they innovate to ensure both customer satisfaction and business value for years to come?

Download this webinar to learn:

- How utility business models are shifting to create new revenue streams
- How utilities are responding to ever changing customer demands
- How utilities can leverage partnerships to provide innovative products and services

Source: Zpryme, 9/8/17

NREL publication covers best practices in PV O&M

Efforts of the Photovoltaic Operation and Maintenance Working Group have resulted in important publications including *Best Practices in Photovoltaic System Operations and Maintenance – 2nd Edition*.

This publication has been deployed in other knowledge outlets including a **webinar** and **two on-line trainings**: “Operations and Maintenance for Optimal Photovoltaic System Performance,” and “O&M Best Practices for Small-Scale PV Systems.” The guide describes how to plan and deliver a cost-effective O&M program including dependencies on system type and condition and how to estimate cost and reserve account requirements. Scopes of work and model contract language are included in appendices. Another important publication is the **Cost Model User Guide** that details the methods, assumptions, and calculations behind the annual cost and reserve account calculations.”

Source: National Renewable Energy Laboratory, 9/8/17

NREL Analysis Identifies Where Commercial Customers Might Benefit from Battery Energy Storage

Commercial electricity customers who are subject to high demand charges may be able to reduce overall costs by using battery energy storage to manage demand, according to research by the U.S. Department of Energy’s National Renewable Energy Laboratory (NREL).

The white paper, ***Identifying Potential Markets for Behind-the-Meter Battery Energy Storage: A Survey of U.S. Demand Charges*** (PDF), details an analysis of more than 10,000 utility tariffs in 48 states. The findings indicate that approximately 5 million commercial customers across the country may be able to achieve electricity cost savings by deploying battery storage to manage peak demand.

Clean Energy Group, a collaborator on the project, will host a **free webinar** on Sept. 19, 2-3 p.m. EDT (noon-1 p.m. MDT) to discuss the findings of the report.

Source: National Renewable Energy Laboratory, 8/24/17

U.S. Renewables Portfolio Standards: 2017 Annual Status Report

**Sept. 6
11 a.m.-12 p.m. MT**

Lawrence Berkeley National Laboratory has just released its annual report reviewing key trends in state renewables portfolio standards (RPS). The report, ***U.S. Renewables Portfolio Standards: 2017 Annual Status Report***, is available for download. Berkeley Lab’s announcement of the report notes: “This annual update, which is published in slide-deck form, builds on Berkeley Lab’s ongoing efforts to track and analyze state RPS policies. Among other topics, it describes recent legislative revisions, key policy design features, past and projected impacts on renewables development, compliance trends, and costs. The 2017 edition of the report presents historical data through year-end 2016 and projections through 2030.”

Galen Barbose, lead author for the report, will present the key findings in a webinar for the RPS Collaborative.

Source: Clean energy States Alliance, 8/30/17

Find more [publications and webinars](#).

Funding

The California Energy Commission Electric Program Investment Charge Program -- \$22M Grant Funding Opportunity for Microgrids

Closing Date: Oct. 20, 2017

The California Energy Commission (CEC) Electric Program Investment Charge Program has released Grant Funding Opportunity (GFO) GFO-17-302 to Demonstrate Business Case for Advanced Microgrids in Support of California's Energy and GHG Policies. The GFO-17-302 expressly identifies California Military Bases as a focus area and has allocated \$22M towards the effort. Application submissions close on Oct. 20, 2017.

The U.S. Army has installations located in the service territories of the three eligible California Investor Owned Utilities, including Presidio of Monterey and Fort Irwin, which currently have distributed energy resources. The U.S. Army would cooperate to the extent permissible by law with any grant recipient whose project is considered to be in the best interest of the U. S. Army.

For additional information contact the Army's Office of Energy Initiatives via **email** or call 703-697-4000 and if after normal business hours, please leave a message and we will return your call the next business day.

Source: California Energy Commission, 8/4/17

Find more [funding sources](#).