
## June 3, 2021

Welcome to this month's issue of ***Solar Newsbriefs***, brought to you by the Washington State University Energy Program. Please feel free to forward this issue to those of your colleagues interested in solar energy. For archives of past *Solar Newsbriefs*, visit http://www.energy.wsu.edu/solarnewsbriefs.aspx

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## Oregon News

**Oregon Public Workshop for Oregon Community Solar Stakeholders on June 4, 2021**
On June 4, 2021, from 9:30 a.m. – 12:00 p.m., the Oregon Community Solar Program Administrator and OPUC staff are conducting a public workshop to receive stakeholder input on the next phase of the Community Solar Program. The Community Solar Program is initiating review of Program implementation, and planning for future Program phases. Staff will seek stakeholder input on key policy issues. Staff will send questions to stakeholders in advance of the workshop in order to focus thinking on a set of key policy issues to promote productive workshop dialogue. Staff encourages stakeholders unable to attend the workshop to submit written responses to the workshop questions. Workshop information, including instructions for joining, is available at: https://edocs.puc.state.or.us/efdocs/HAH/um1930hah134334.pdf

**SB 338: News from the Oregon Solar + Storage Industries Association**
Breaking news - SB 338, the bill to update the Limited Renewable Technician license, passed the Oregon House of Representatives on a vote of 56 – 1. As of June 1, the temporary rules were passed unanimously by the Electrical and Elevator board, so the bill is currently in effect—Submitted by Angela Crowley-Koch, Executive Director, Oregon Solar + Storage Industries Association, June 1, 2021.

**Facebook and Pacific Power Team Up for Renewable Energy Credits**
Facebook's Prineville Data Center is being fueled by a partnership with Pacific Power support, which fits the mission of building and operating sustainable centers in the United States. Of the 55 new solar and wind projects Facebook supports across 18 states, 1,033 megawatts are from projects located in Oregon, Montana and Utah, including two solar projects generating 100 megawatts in Crook County,

according to a Facebook economic impact report released Tuesday. In March, the social media giant announced it would add two new buildings to its campus in Prineville that will make it the largest in its fleet of data centers in the United States. The two new buildings will add 900,000 square feet to the campus, expanding the 11-building campus to 4.6 million square feet or the equivalent to nearly 80 football fields—Suzanne Roig, *The Bulletin*, May 19, 2021: https://www.bendbulletin.com/business/facebook-and-pacifc-power-team-up-for-renewable-energy-credits/article_dda357b8-b814-11eb-9790-ef70c449379e.html?utm_medium=social&utm_source=email&utm_campaign=user-share

**NW Solar, Wind Developments Could Impact Vast Swaths of Ag Land**

Up to 146,000 acres of the Northwest — much of it farmland — could be converted to solar production by 2050, according to a recent study. In addition, wind power production could directly impact nearly 8,800 acres. The American Farmland Trust used National Renewable Energy Lab data to study several scenarios, said Addie Candib, Pacific Northwest regional director for the trust. AFT is a nonprofit that works to protect and conserve farmland. The cost of solar developments will impact the number and size of them, Candib said. The lower the cost, the bigger the developments. The AFT projects solar developments will be built on a maximum of 42,000 acres in Idaho; 75,000 acres in Oregon and 29,000 acres in Washington—Matthew Weaver, *Capital Press*, May 5, 2021: https://www.capitalpress.com/state/idaho/nw-solar-wind-developments-could-impact-vast-swaths-of-ag-land/article_b82274bc-a836-11eb-99c3-af4dfd07f4eb.html

## Washington News

**A Proposed $1.7 Billion Wind and Solar Project Generates Hopes and Fears in South Central Washington State**

Back in March, Chris Wiley passed a long day in his tractor sowing wheat. He had the controls set to automatic steering and scanned social media. He did not like what he found. In post after post, people raged about a renewable energy project that would put wind turbines and solar development in the Horse Heaven Hills where he farms. Critics from Pasco, Kennewick and Richland attacked the plan as an outrage that would blemish cherished vistas to the profit of an out-of-state developer looking to export power to Western Washington, Oregon or California. The project unleashing such passions would be one of the region's largest renewable energy installations of the past decade with an estimated cost of $1.7 billion. Wiley is a big supporter—Hal Bernton, *Seattle Times*, May 4, 2021, republished in the *National Wind Watch*, May 5, 2021: https://www.wind-watch.org/news/2021/05/05/a-proposed-1-7-billion-wind-and-solar-project-generates-hopes-and-fears-in-south-central-washington-state/

**Solar Power Becomes 'Nightmare' for Some Klickitat County Residents**

You can see Mount Adams rising from the horizon on a grassy hilltop on Amy Hanson's land. Farms reach out in most directions. Homes dot the landscape. Hanson and her husband invested more than a decade and thousands of dollars into this property, driving nearly 200 miles from Chehalis on weekends to build fences and whatever else they could afford as the years went on. She might not be walking distance from everyone, but recently Hanson and her neighbors in rural Klickitat County have become closer than ever. They have banded together to fight a new giant knocking at their doors: big solar. "We were horrified [when we found out about the project]," Hanson says. "[Turns out] because of the nice, new, shiny substation there, this is prime area for them to develop solar"—Courtney Flatt, *Crosscut*,

May 12, 2021: https://crosscut.com/environment/2021/05/solar-power-becomes-nightmare-some-klickitat-county-residents

**Solar Washington Webinar Presentation – 2021 Legislative Session Review**
Solar Washington hosted a presentation Tuesday, May 11, 2021 to provide a review of the climate and energy bills from the 2021 legislative session. The session was hosted by Solar Washington Board Member Sarah Vorpahl who works as a Senior Energy Policy Specialist specializing in distributed energy resources at the Washington State Department of Commerce based in Olympia. Also joining Sarah in the conversation were Austin Scharff, Legislative and Rulemaking Coordinator with the Energy Office at the Department of Commerce, and Michael Breish, the Department of Commerce's Senior Transportation Policy Specialist. Click here to access the webinar recording. (Free to view, but registration required.)

**Department of Energy Grant Aims for More Efficient Solar Technology**
A team of Washington State University and National Renewable Energy Laboratory researchers has received a U.S. Department of Energy award to advance solar energy research and development. Led by John McCloy, professor in the School of Mechanical and Materials Engineering and director of the Institute of Materials Research, the team aims to improve cadmium telluride (CdTe) solar technology to make it more competitive with silicon solar cells, which currently makes up 90 percent of the solar cell market. "This project aims to combine the low-cost manufacturing advantage of cadmium telluride technology with strategies to increase efficiency and reliability," McCloy said—*WSU Insider*, May 21, 2021: https://news.wsu.edu/2021/05/21/department-energy-grant-aims-efficient-solar/?utm_source=WSUNews-enewsletter&utm_campaign=wsunewsenewsletter&utm_medium=email

**Olympia Farmers Market Announces Partnership with Olympia Community Solar and South Sound Solar for the Sunflower Community Solar Project**
The Olympia Farmers Market, Olympia Community Solar and South Sound Solar are excited to announce a partnership to complete the Sunflower Community Solar Project. Community solar projects such as Sunflower expand solar access to those without access to traditional residential solar – people who do not own their home, have an unsuitable roof or property for solar or face financial barriers to incorporating solar. A group of community members participate in a single solar project and share its benefits. As a central place to gather and support local business and agriculture, the Market is ideal for providing a beautiful community solar array. The Sunflower Project will include 200 Washington-made solar panels above the entrance of the Market. South Sound Solar will design and install a 75-kilowatt system to produce enough energy to power the entire Market by September 2021—Submitted by Olympia Farmers Market, *Thurston Talk,* May 24, 2021: https://www.thurstontalk.com/2021/05/24/olympia-farmers-market-announces-partnership-with-olympia-community-solar-and-south-sound-solar-for-the-sunflower-community-solar-project/

## Dual Land Use: Co-Location of Solar and Farm Land

**Growth Industry: Agrivoltaics Gives New Life to Solar Energy Values Such as Harvest, Yield and Connection**
Boston based BlueWave Solar has always aimed high. The certified B Corp. (a business designation that

sets higher standards for balancing profit with purpose) started out in 2010 with a focus on community solar and has since become a big proponent of agrivoltaics or “dual-use” solar. It has a few dual-use designs in the pipeline right now, one of which, the Rockport project in Rockport, Maine, was just sold to Navisun. BlueWave Solar is just one of a handful of developers seeking to grow this nascent solar segment that will set the standard for the future of ground-mount solar. What is different about this ag-focused, dual-use solar design, exactly? It starts by asking: “How do we preserve that farmland and put a solar array over it?” and answering with basic solar developer problem solving. Intensively research the best use of the land, consider the racking system itself, how it impacts the earth below it and optimize spacing and tilt angle accordingly—Chris Crowell, *Solar Builder*, May 12, 2021: https://solarbuildermag.com/news/growth-industry-agrivoltaics-gives-new-life-to-solar-energy-values-such-as-harvest-yield-and-connection/

**Solar Panels, Farming Combine at New OSU Research Initiative**

The concept of integrating farming practices and energy production, on the same ground, is what Agrivoltaics is all about. A new research initiative coming to NWREC in 2021 will likely be one of the only places in the world to scientifically study how agriculture and energy production can work together for the benefit of all. "We all need food and we all need energy to power the work we do – not to mention personal or home needs," said Chad Higgins, associate professor in the Biological and Ecological Engineering Department at Oregon State University—John Baker, *Portland Tribune*, May 16, 2021: https://pamplinmedia.com/pt/9-news/508871-407039-solar-panels-farming-combine-at-new-osu-research-initiative

**Integrating Solar Energy with Agriculture: Industry Perspectives on the Market, Community, and Socio-Political Dimensions of Agrivoltaics**

Large-scale development of solar-generated electricity is hindered in some regions of the U.S. by land use competition and localized social resistance. One approach to alleviate these coupled challenges is agrivoltaics: the strategic co-location of solar photovoltaics and agriculture. To explore the opportunities and barriers for agrivoltaics, in-depth interviews with solar industry professionals were conducted and findings suggest that the potential for an agrivoltaic project to retain agricultural interests and consequently increase local support for development is the most significant opportunity of dual use solar—Alexis S. Pascaris, et al., *Energy Research & Social Science*, May 2021: https://www.sciencedirect.com/science/article/pii/S221462962100116X?via%3Dihub

**Siting Renewable Energy Responsibly on Public Lands**

Representative Mike Levin (D-CA) has reintroduced the Public Land Renewable Energy Development Act of 2021 (PLREDA) at a critical moment for energy development on federal public lands. Following the creation of a renewable energy permitting office within the Department of the Interior at the end of 2020 and the enactment of a renewable energy siting goal, the need for careful guidance of permitting decisions on federal public lands has never been greater—Joshua Axelrod, *NRDC*, May 25, 2021: https://www.nrdc.org/experts/josh-axelrod/siting-renewable-energy-responsibly-public-lands

## Solar Industry News and Innovations

**The Power Struggle Over Tomorrow's Solar Workers**

If the Biden administration ends up creating solar jobs for hundreds of thousands of Americans, who

will train the workers? What might at first seem an inconsequential question has become a Washington power struggle with consequences for President Biden's energy agenda and job creation across rural America. On one side are most of the companies that build rooftop solar and big solar farms. They are poised to create hundreds of thousands of jobs but have for the most part shunned union labor—David Ferris, *E&E News*, May 25, 2021: https://www.eenews.net/stories/1063732427

**NREL to Hand off Management of SolarAPP+ to UL to Expedite Rollout**

The U.S. Department of Energy's National Renewable Energy Laboratory (NREL) announced a new initial memorandum of understanding with the global company UL to work toward further developing and commercializing the Solar Automated Permit Processing Plus (SolarAPP+) software that will automate the permitting process for residential solar systems. The use of SolarAPP+ so far has enabled local governments to cut down on the time required to grant a permit from a national average of five business days to zero—Kelsey Misbrener, *Solar Power World*, May 4, 2021: https://www.solarpowerworldonline.com/2021/05/nrel-solarapp-commercialization-handoff-to-ul/

**How Does the Federal Solar Tax Credit Work?**

The tax credit is a reduction in an individual's or business's tax liability based on the cost of the solar property. It is a "nonrefundable" tax credit, meaning you will not get more back than the amount you owe in taxes. Projects that begin construction in 2021 and 2022 are eligible for the 26% federal tax credit, while projects that begin construction in 2023 are eligible for a 22% tax credit. Residential tax credits drop to 0% after 2023, but commercial projects will drop to (and remain at) 10%—Zachary Shahan*, Consumer Affairs*, May 5, 2021: https://www.consumeraffairs.com/solar-energy/how-the-federal-solar-tax-credit-works.html

**DOE Announces $10 Million in SolSmart Program Funding to Increase Solar Energy Equity**

The U.S. Department of Energy (DOE) announced a slate of new efforts, including $15.5 million in new funding, to support solar energy deployment in underserved communities and build a diverse, skilled workforce. These initiatives will help families and businesses that have been left behind in the clean energy transition to reap the benefits of cheaper power and access to highly-skilled jobs—Kelsey Misbrener, *Solar Power World*, May 4, 2021: https://www.solarpowerworldonline.com/2021/05/doe-announces-10-million-solsmart-program-funding-solar-equity/

## Reports

**Best Practices Handbook for the Collection and Use of Solar Resource Data for Solar Energy Applications: Third Edition**

As the world looks for low-carbon sources of energy, solar power stands out as the single most abundant energy resource on Earth. Harnessing this energy is the challenge for this century. Photovoltaics, solar heating and cooling, and concentrating solar power (CSP) are primary forms of energy applications using sunlight. These solar energy systems use different technologies, collect different fractions of the solar resource, and have different siting requirements and production capabilities. Reliable information about the solar resource is required for every solar energy application—Manajit Sengupta et al., *NREL*, April 14, 2021: https://www.osti.gov/biblio/1778700

## Upcoming Conferences, Webinars

**An Introduction to Community Resilience Hubs: Wed. June 16, 10:00 a.m. to 11:00 a.m. PDT**

As communities confront the increasingly frequent threat of climate-induced disasters and the resulting power outages, there is a growing movement to develop community-based Resilience Hubs that provide essential services before, during, and after major disruptions. Resilience Hubs are existing trusted community facilities, such as community centers, already serving as spaces for community gathering, shared learning, and collaboration that can be enhanced to mobilize and support communities during times of crisis. This Clean Energy Group webinar will introduce the Resilience Hub concept, explain how the development of Hubs can strengthen local resilience in the face of climate impacts, and discuss the process of conceptualizing and implementing a community Resilience Hub, with a focus on energy resilience measures. For more information and to register: Clean Energy States Alliance: https://www.cesa.org/event/community-resilience-hubs/

**Grid-Scale U.S. Storage Capacity Could Grow Five-Fold by 2050 – report and upcoming webinar June 22, 2021 8:00 a.m. PDT**

With declining technology costs and increasing renewable deployment, energy storage is poised to be a valuable resource on future power grids – but what is the total market potential for storage technologies, and what are the key drivers of cost-optimal deployment? In the latest report from the Storage Futures Study (SFS), Economic Potential of Diurnal Storage in the U.S. Power Sector, NREL analysts Will Frazier, Wesley Cole, Paul Denholm, Scott Machen, and Nate Blair, describe significant market potential for utility-scale diurnal storage (up to 12 hours) in the U.S. power system through 2050. They found storage adds the most value to the grid and deployment increases when the power system allows storage to simultaneously provide multiple grid services and when there is greater solar photovoltaic (PV) penetration—*NREL*, June 1, 2021: https://www.nrel.gov/news/program/2021/grid-scale-storage-us-storage-capacity-could-grow-five-fold-by-2050.html

**ASES SOLAR 2021: August 3-6, 2021 Boulder, CO**

Welcome to Boulder, Colorado, and the American Solar Energy Society's 50th Annual National Solar Conference, SOLAR 2021: Empowering a Sustainable Future. The American Solar Energy Society is dedicated to helping America work towards the goal of a 100 percent renewable energy society. Attendees of this conference also support this "greening" of America regarding the decreased use of fossil fuels and increased use of renewable energy sources, and the potential positive impact renewable energy use can have on the larger issues of climate change. The much talked about "browning" of America coincides in time with this trend toward "green" energy. And it coincides in place because predominantly brown and black and economically disadvantaged communities have often borne the weight of pollution and other environmental effects related to energy production and use—For more information and to register: https://ases.org/conference/

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**This material is based upon work supported by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) under the Solar Plus Strategies for Oregon and Washington award number DE-EE0007665.**