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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

Oregon News

R.E. Jewell Elementary Students to Learn about Solar Energy, Celebrate Completion of Solar Array On Friday, fifth-graders at R.E. Jewell Elementary School in southeast Bend will take a deep dive lesson into solar energy, learn about how it is generated and get to build their own solar-powered cars as part of a celebration of the school's new grant-funded solar array—KTBZ, Sept. 28, 2022: https://ktvz.com/news/bend/2022/09/28/r-e-jewell-elementary-students-to-learn-about-solar-energy-celebrate-completion-of-solar-array/

Oregon State University Breaks Ground on 326-kW Agrivoltaic Research Project

Oregon State University has started construction on a \$1.5 million <u>research project</u> to optimize dualuse, co-developed land hosting solar photovoltaic arrays and agriculture. The five-acre Solar Harvest project is located at Oregon State's North Willamette Research and Extension Center in Aurora, Oregon, 20 miles south of Portland. The 326-kW project is the result of a partnership between Oregon State and the Oregon Clean Power Cooperative, which developed the solar array and financed the construction of the solar array—SPW, *Solar Power World*, Oct. 4, 2022:

https://www.solarpowerworldonline.com/2022/10/oregon-state-university-breaks-ground-on-agrivoltaic-research-project/

Belle Fiore Becomes Southern Oregon's First Winery Powered 100 percent by Solar Panels

The local winery switched over to solar energy in early September. Purelight Power installed over 500 solar panels on the roof of the winery. "People don't always realize this but grapes and wines use solar energy to grow and thrive," said owner and founder of Belle Fiore Edwin Kerwin. The company is generating over 250 kilowatts of energy for its winemaking facilities and tasting room. Kerwin says this is also a great way to help the overall taste of the wine—Mariah Hill, KDRV News, Oct. 14, 2022: https://www.kdrv.com/community/belle-fiore-becomes-southern-oregons-first-winery-powered-100-

by-solar-panels/article 606003ba-4c1e-11ed-b036-8b5fb0c53a09.html

Christmas Valley Readies for Solar Farm Boom, May Bring Hundreds of Workers

Lake County is building a reputation as the Oregon's solar power capital. Major projects already approved and in the planning pipeline could bring big changes to the town of Christmas Valley as hundreds of workers flood the area to build those solar farms. That growth is welcomed by some and dreaded by others. The overall impact on infrastructure and daily life is hard to predict—Allen Schauffler, *Central Oregon Daily News*, Oct. 14, 2022: https://centraloregondaily.com/lake-county-oregon-solar-project-obsidian-archway-invenergy/

Oregon Department of Energy Grant Program Supports Renewable Energy Projects from Ashland to Ontario

The Oregon Department of Energy has selected 21 recipients for a total of \$12 million in Community Renewable Energy Grant Program funds. The program supports planning and construction of renewable energy or energy resilience projects for Tribes, public bodies, and consumer-owned utilities. ODOE received 68 applications that would support about \$27 million in projects for this first round of funding, and awards were chosen on a competitive basis with the help of a grant application evaluation committee—Oregon Department of Energy, [Press Release], Oct. 18, 2022:

https://energyinfo.oregon.gov/blog/2022/10/18/oregon-department-of-energy-grant-program-supports-renewable-energy-projects-from-ashland-to-ontario

SOU to Expand Solar Power, Move Toward Energy Independence

Southern Oregon University has been awarded a \$1 million grant from the Oregon Department of Energy to expand solar power production on campus, in the next step toward its ambitious goal of becoming the first college or university in the U.S. to generate 100 percent of the electricity used on campus. The award from ODE's Community Renewable Energy Grant Program will add solar arrays to The Hawk Dining Commons and the Lithia Motors Pavilion/Student Recreation Center complex, and will pay for the installation of battery storage at the Hawk to support students, first responders and the broader community, if needed—SOU Campus News, Oct. 17, 2022: https://news.sou.edu/2022/10/souto-expand-solar-power-move-toward-energy-independence/

Oregon DOE Grant Fully Funds Ashland Community Resilience Microgrid

The Oregon Department of Energy will fully fund a microgrid project to support critical infrastructure in the city of Ashland. The \$940,000 community resilience project will be implemented by Stracker Solar, an Ashland-based solar company. The microgrid, which is expected to generate 170,000 kWh of electricity each year, will include a 75 kW dual-axis solar tracking system and lithium battery storage—Kathy Hitchens, *Microgrid Knowledge*, Oct. 27, 2022: https://microgridknowledge.com/ashland-community-resilience-microgrid/

Solar Farm OK'd by Oregon City Council; Conditions Added to Protect Homeowners

Creation of a solar farm west of the Century Hill subdivision was OK'd by the Oregon City Council, but not without conditions aimed at protecting homeowners living nearby. The 4.8-megawatt community solar garden will generate enough electricity to support about 1,125 homes, or about 70 percent of the homes in Oregon, said Ryan Magnoni, US Solar Project Developer—Alexa Zoellner, *Shaw Local News*

Network, Oct. 25, 2022: https://www.shawlocal.com/ogle-county-news/2022/10/26/solar-farm-okd-by-oregon-city-council-conditions-added-to-protect-homeowners/

Southeast Salem set to get Oregon's First-Ever Community Microgrid to Power Homes, Services during Outages

The first-ever community microgrid in Oregon set to be created in southeast Salem could mean more residents will keep electricity during the next power outage. The small-scale electrical grid, which combines energy sources like a generator and solar panels, will provide emergency power to Salem's Public Works building, 96 units in six apartment buildings, 34 homes, four government buildings and one business in the event of a power outage like the 2021 ice storm—Whitney Woodworth, *Salem Statesman Journal*, Oct. 31, 2022:

https://www.statesmanjournal.com/story/news/local/2022/10/31/southeast-salem-set-to-get-oregon-first-community-microgrid-generator-solar-panel-for-power-outages/69597021007/

Washington News

Puget Sound Energy Partners with Nooksack Indian Tribe to Bring Solar to their Community

Puget Sound Energy, with the support of its Green Power and Solar Choice customers, has awarded a Green Power Solar Grant to the Nooksack Indian Tribe, providing resources to install a new solar project on the Nooksack PPE warehouse. The 47.12 kilowatt project will generate 49,554 kilowatt hours annually, which will help reduce more than 47,000 pounds of carbon dioxide emissions. The solar array sits atop the Nooksack PPE warehouse, which was constructed to house a variety of supplies the Tribe acquired to combat COVID-19—Puget Sound Energy, [Press Release], Sept. 26, 2022: PSE | Puget Sound Energy partners with Nooksack Indian Tribe to bring solar to their community

Sequim 'Net-Zero' Home Joins National Solar Tour on Saturday

Dave Large will once again open his 2,200-square-foot, "net-zero passive home" to the community for one day to help provide tips and inspire others to reduce energy consumption and save money. Built in 2016, his house generates more energy than it uses and is part of the National Solar Tour co-sponsored by the American Solar Energy Association and the Energy and Environmental Building Alliance—Matthew Nash, *Peninsula Daily News*, Sept. 30, 2022:

https://www.peninsuladailynews.com/life/sequim-net-zero-home-joins-national-solar-tour-on-saturday/

New Community Solar Site Brings Renewable Energy to Bonney Lake and Beyond

Customers enrolled in shares of our new Community Solar site on top of a Bonney Lake reservoir are not only receiving monthly bill credits for the solar energy generated by those shares, they are making possible new sources of renewable energy in our communities—Puget Sound Energy, Oct, 11, 2022: https://www.youtube.com/watch?v=ZjQuTNigczw

A Solar Dream for Foothills Food Bank

The Foothills Food Bank is located in a USDA-designated food desert, where over one-third of the community lives below the poverty line, and many are immigrants, including recent refugees from the war in Ukraine. Spark Northwest led the effort to make the dream of solar for the food bank a reality. Project Manager Mia Devine coordinated quotes from solar contractors, facilitated the bid evaluation

and selection process, and prepared the technical documentation for grant applications. This important clean energy project saves the food bank about \$4,000 a year in utility bills—Spark Northwest, *Newsletter*, Oct. 2022: https://sparknorthwest.org/about-us/press-room/

Puget Sound Energy Moves Forward to Deliver an Innovative Green Energy Solar-Plus-Storage Microgrid in Tenino

Puget Sound Energy staff are busy moving an innovative green energy project forward at the Tenino High School, thanks to grants from the Washington Department of Commerce (Commerce). The enterprise means that if a fire, earthquake, severe weather or other natural disaster cuts off power on the main power grid serving Tenino, the high school's role as an emergency management center will continue, providing important support to the community. The Tenino installation with solar-plus-storage will be the first utility-scale microgrid in the PSE service area—*Thurston Talk*, Oct. 5, 2022: https://www.thurstontalk.com/2022/10/05/puget-sound-energy-moves-forward-to-deliver-an-innovative-green-energy-solar-plus-storage-microgrid-in-tenino/

Washington is Ripe for Solar Energy Development. But Where Should it Go?

Central and Eastern Washington are the sunniest areas of the state, with several large solar farms already in place. But as the energy grid undergoes a transition to completely cut out fossil fuels, some areas want to pump the brakes on quick solar development—Libby Denkmann, Alec Cowan, Soundside, KUOW NPR, Oct. 18, 2022: https://www.kuow.org/stories/washington-is-ripe-for-solar-energy-development-but-where-should-it-go

Least-Conflict Solar Siting Project Website

The Washington State University Energy Program is leading a voluntary, collaborative, non-regulatory effort that engages relevant stakeholders, tribes, and key agencies in a conversation and process to identify least-conflict areas for utility-scale solar development. The project poses the question: Where can utility-scale solar be developed in the Columbia Plateau region while also ensuring that important natural habitat, productive farmlands and ranchlands, and tribal rights and cultural resources are protected. The intent is to reduce land use conflicts and minimize negative impacts to natural and working lands while increasing solar renewable energy production. Check out this new website to learn more about the project, upcoming meeting dates, and access the Least-Conflict Solar Siting Gateway—WSU Energy Program, Oct. 2022:

https://www.energy.wsu.edu/RenewableEnergy/LeastConflictSolar.aspx

Finding Clean Energy Solutions in Eastern Washington

This fall marked the launch of Washington State University's Least-Conflict Solar Siting project, which will identify areas in Eastern Washington with the least potential for conflict over the siting of large-scale solar energy projects. Audubon Washington led efforts to bring this process to the state's Columbia Plateau region, where increasing pressure to combat climate change through large-scale clean energy projects has been met with concerns about ecosystem impacts—Megan Moriarty, *Audubon*, Oct. 21, 2022: https://www.audubon.org/news/finding-clean-energy-solutions-eastern-washington

You Do Not Need Solar Panels for Solar Power. Community Solar Sites can Power your WA Home
Puget Sound Energy is now allowing some customers in Washington state to purchase clean energy for

their homes by adding shares of local solar energy to their bill. Puget Sound Energy will be launching a new Community Solar site near Ellensburg this November. Customers across the state will be able to subscribe to shares of the energy produced by the Manastash Ridge solar site, according to a news release from Puget Sound Energy—Alyse Messmer-Smith, *The Bellingham Herald*, Oct. 22, 2022: https://www.msn.com/en-us/money/news/you-dont-need-solar-panels-for-solar-power-community-solar-sites-can-power-your-wa-home/ar-AA13fGne

Pacific Northwest and National News

2022 State Leadership in Clean energy Awards: Case Studies of Six Exemplary State Programs that Advance Clean Energy Goals, Standards, and Equity

This <u>report</u> is a series of case studies highlighting the six winners of the <u>2022 State Leadership in Clean Energy Awards</u>. These biennial awards recognize outstanding programs that are providing the benefits of clean energy expansion to the people in their states, while demonstrating to others how they could establish similar programs. The six winners [includes Oregon and Washington] were chosen by an independent panel of judges, and were evaluated based on leadership, innovation, cost-effectiveness, and replicability. For more information and to access the report—Clean Energy States Alliance, [Sept. 2022]: https://www.cesa.org/resource-library/resource/2022-slice-awards-report/

Northwest States Need to Build New Power Lines, Fast: Otherwise, Oregon and Washington will Miss Critical Climate Targets

The Northwest seems finally poised to reap the fruits of years of hard work on climate change. Renewable energy is cheaper than fossil fuels, states and clean energy developers will soon enjoy a huge influx of federal climate dollars, and climate leaders sit at the helm of many state and local governments. But much like the proverbial kingdom that was lost for want of a nail, the Northwest states' climate ambitions may suffer defeat over something utterly mundane: not enough high-voltage power lines—Emily Moore, *Sightline Institute*, Oct. 13, 2022:

https://www.sightline.org/2022/10/13/northwest-states-need-to-build-new-power-lines-fast/

DOE Announces \$14M Investment to Maximize Environmental Benefits from Solar Energy Infrastructure

The U.S. Department of Energy (DOE) today announced \$14 million in funding to researchers to study how solar energy infrastructure interacts with wildlife and ecosystems. These projects are part of DOE's nearly \$100 million renewable power research portfolio that invests in innovative, cost-effective solutions to minimize wildlife impacts—and maximize the environmental benefits—of renewable energy technologies. As renewable energy deployment grows to combat the climate crisis and achieve President Biden's goal of net-zero carbon emissions by 2050, DOE is supporting research to ensure renewable energy deployment also benefits native wildlife and ecosystems—DOE, [Press Release], Oct. 17, 2022: https://www.energy.gov/articles/doe-invests-14-million-enhance-environmental-and-wildlife-benefits-solar-energy

DOE Looks to Make Microgrids 'Essential Building Blocks'

The U.S. Department of Energy (DOE) is working on six strategies to make microgrids "essential building blocks" of future electric delivery. The strategies are explained in a series of draft white papers being

floated by the Office of Electricity Microgrids R&D (MGRD) Program. With the intent to ultimately create a microgrid road map, the DOE is seeking comment from the public on the white papers by Nov. 24—Elisa Wood, *Microgrid Knowledge*, Oct. 28, 2022: https://microgridknowledge.com/us-doe-microgrids/ and see also: U.S. Department of Energy, Office of Electricity: https://www.energy.gov/oe/microgrid-strategy-call-public-comment

Agrivoltaics

Could Solar Panels be integrated into Farms Instead of Taking Acreage out of Commission?

Right by Connexus Energy's headquarters in Ramsey is a first of its kind: a commercial honey operation, fed by pollinator gardens under an acre of solar panels. It is an example of a new field called agrivoltaics — something clean-energy advocates say is essential for the country to increase the amount of energy coming from the sun from 3 to 20 percent by 2050—Nick Williams, *Star Tribune*, Oct. 15, 2022: https://wcroc.cfans.umn.edu/news/integrating-solar-farms

Solar Panels and Crops can coexist, but More Study Needed on how and where

A recent analysis reveals the daunting number of variables that need to be considered when attempting to pair agricultural production and solar generation. Federal researchers know that solar panels and crops can coexist and provide mutual benefits in certain scenarios. A <u>recent study</u> by the National Renewable Energy Laboratory (NREL) confirms this but also shows that such co-location can lead to crop or financial losses, including from complications like mold-causing dew accumulation and soil damage from construction equipment—Kari Lydersen, *Energy News Network*, Oct. 17, 2022: https://energynews.us/2022/10/17/solar-panels-and-crops-can-coexist-but-more-study-needed-on-how-and-where/

Solar Panel Recycling

Solar Panels Should Be Reused and Recycled. Here Is How

Picture this: Light energy from the sun zooms through the solar system to reach your sunny rooftop, gets absorbed into your solar panel, and charges the device or computer on which you are reading this post. It is a perfectly closed, sustainable system. Can the life cycle of a solar panel itself be just as circular? Today, unfortunately, the life cycle of a solar panel is not yet a "cycle"—Charlie Hoffs, Union of Concerned Scientists, Oct. 19, 2022: https://blog.ucsusa.org/charlie-hoffs/solar-panels-should-be-reused-and-recycled-heres-how/

Conferences and Events

End of Life Management for Photovoltaic Systems: Opportunities & Challenges (Nov. 11, Online)
IREC's Puerto Rico Program Manager Loraima Jaramillo-Nieves, MBA Ph.D. will speak in a discussion about management of photovoltaic equipment after its end-of-life period. Learn how to address this growing waste management issue. For more information and to register:

https://www.gyonthrite.com/g/ond.of.life.management for photovoltaic systems opportunities.

https://www.eventbrite.com/e/end-of-life-management-for-photovoltaic-systems-opportunities-challenges-tickets-391710846687

Innovative Avenues to Public Participation in Clean Energy Development, Featuring Connecticut and Washington: [Clean Energy States Alliance Webinar] Nov. 9, 2022 10:00 – 11:00 a.m. PST

This webinar will highlight two impressive and impactful state programs that are accelerating the development of clean energy while increasing public participation in the process. In this webinar, representatives from the CT Green Bank and the Washington Department of Commerce will present their programs and answer questions from the audience. For more information and to register see: https://www.cesa.org/event/innovative-avenues-to-public-participation-in-clean-energy-development-featuring-connecticut-and-washington/

Intersolar North America and Energy Storage North America Long Beach Convention Center, Long Beach, CA Feb. 14-16, 2023

Intersolar North America (ISNA) and Energy Storage North America (ESNA) announced the official theme for the 2023 conference program: "Climate Solutions Start Here: Solar + Storage Lead the Way. For more information: https://www.intersolar.us/

Want to Contribute? If you have information on events, publications or other solar topics that you would like mentioned in an upcoming issue of Solar Newsbriefs, please contact Anne Whitney at whitneya@energy.wsu.edu

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