



washington state university Energy Program

January 4, 2024

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 <u>http://www.energy.wsu.edu/solarnewsbriefs.aspx</u>

Oregon News

Portland, Oregon Now Accepting Applications for Portland Clean Energy Community Benefits Fund (PCEF) Community Responsive Grants (RFP 3). Closes February 1, 2024.

Preparing to apply for a PCEF energy efficiency and renewable energy implementation grant? The following resources may help you develop your project and provide guidance in requesting appropriate funding for your proposal. For more information on applying for PCEF grants <u>click here</u>.

City of Ashland, OR. New Solar Trackers Installed for the City

New solar trackers were stood-up on Tuesday, December 5, 2023. The project has been ongoing for about a month. The trackers will go into service soon... The new system has a small battery incorporated, which will provide backup power to City fuel pumps in the event of a sustained power outage. The energy produced will go into the grid and reduce what City Utilities have to purchase from BPA (Bonneville Power Administration)—City of Ashland, Dec. 11, 2023: https://www.ashland.or.us/News.asp?NewsID=5685

Corvallis Sustainability Group Urges Switch to Solar with New Campaign

The Corvallis Sustainability Coalition has kicked off a series of events to educate residents about state and federal funding opportunities that support the adoption of renewable energy alternatives in their homes, businesses, schools and religious organizations. The first event, held this past Wednesday at the Corvallis Benton County Public Library, was focused on solar power adoption. It is part of the group's <u>Shift Together</u> campaign, which launched in March—Kosiso Ugwuede, *Corvallis Gazette-Times*, Dec 17, 2023: <u>Click here to read more</u>.

Pacific Northwest Could Experience 'Energy Droughts,' Study Finds

Drops in solar and wind energy production, also known as energy droughts, could potentially last for hours in the Pacific Northwest. New research is aimed at helping grid planners better understand these energy gaps and where solutions, like battery storage, could be best utilized... A study by Pacific Northwest National Laboratory found that Oregon and Washington could experience energy droughts, but noted that those hits to energy production could happen less frequently than other parts of the nation—Monica Samayoa, OPB, Jan. 1, 2024: <u>https://www.opb.org/article/2024/01/01/pacific-</u>

northwest-oregon-solar-wind-energy-outage-power-electricity/

Idaho Ends Net Metering, Shifts Instead to Net-Billing System for Solar Compensation

The Idaho Public Utilities Commission (PUC) approved on Dec. 29, 2023, a shift to a net-billing system instead of compensation based on a kilowatt-hour-for-kilowatt-hour basis for solar system owners. The vote came after years of public, expert and environmental community pushback and is an approval of Idaho Power's own internally determined rate calculation... Idaho Power is proposing the same solar rate changes for its Oregon customer base to the Oregon Public Utilities Commission. In an initial procedural decision, Oregon rejected the plan but Idaho Power will continue pushing—Kelly Pickerel, *Solar Power World*, Jan. 3, 2024: https://www.solarpowerworldonline.com/2024/01/idaho-ends-net-metering-shifts-instead-to-net-billing-system-for-solar-compensation/

Washington News

After Five Years, Polysilicon is Once Again Pumping Out of REC Silicon Factory in Washington After standing dormant since 2018, REC Silicon's factory in Moses Lake, Washington, is once again processing granular polysilicon. The company released an update to shareholders on the factory's restart last month... Initial startup began in late October, and the company's Silane III unit came online to produce the first granular polysilicon at the site in five years—Kelly Pickerel, *Solar Power World*, Dec. 1, 2023: <u>https://www.solarpowerworldonline.com/2023/12/after-five-years-polysilicon-is-once-againpumping-out-of-rec-silicon-factory-in-washington/</u>

Yakima County Commissioners Seek Legislative Changes Over Land and Water Impacts from Energy Projects

Yakima County Commissioners are continuing their push for more regulation on EFSEC by going to state lawmakers for help. During their Monday study session, commissioners worked on a letter to send to State Rep. Chris Corry to start the conversation. "I think really the legislature needs to address this," said Commissioner Amanda McKinney. "Truly the state needs to get involved and provide some guidelines"—Hunter Phipps, KIMA, Dec. 4, 2023: <u>https://kimatv.com/news/local/yakima-countycommissioners-seek-legislative-changes-over-land-and-water-impacts-from-energy-projects</u>

Discover the Power of Wind and Solar at Puget Sound Energy's Wild Horse Wind and Solar Facility

Descending into Ellensburg, it's impossible to miss the towering windmills over the horizon of Puget Sound Energy's Wild Horse Wind and Solar Facility high in the hills. With a peak capacity of 273 megawatts, the remarkable 11,000-acre facility demonstrates clean energy solutions designed to meet growing power demands—Krysta Carper, *Grays Harbor Talk*, Dec 12,

https://www.graysharbortalk.com/2023/12/11/discover-the-power-of-wind-and-solar-at-puget-soundenergys-wild-horse-wind-and-solar-facility/

Deadline Approaches for Decision on Controversial Wind Farm Project

A state advisory council will decide in January whether to green light a Tri-Cities-based wind farm project to the governor's office for approval... Scout Clean Energy's proposal could mean more than 200 turbines along the Horse Heaven ridges in Benton County directly south of Kennewick and to the south and west of the Columbia River... The \$1.7 billion wind farm would be about four miles from Kennewick

at its closest point, and in addition to the turbines, it would have solar panels and up to two battery storage facilities—Arielle Dreher, *Tri-Cities Area Journal of Business*, Dec. 14, 2023: https://www.tricitiesbusinessnews.com/articles/4847-deadline-approaches-for-decision-on-controversial-wind-farm-project?utm medium=email

Whitman County Considering First Solar Farm

A Texas energy supplier wants to build a 900-acre solar farm in northern Whitman County... Vesper Energy has leased 560 acres from a private landowner west of Thornton on Thorn Creek Road for a project known as Daystar Renewable Energy... Alan Thompson, county planner, said the solar farm would be the first in Whitman County... Alex Rohr, community affairs manager for Vesper Energy, said the farm would produce 100 megawatts of power at any given time, which would tie into Avista Utilities' power grid at the Thornton Substation—Emily Pearce, *Moscow-Pullman Daily News*, Dec. 19, 2023: <u>https://dnews.com/local/whitman-county-considering-first-solar-farm/article_c2c415e4-4207-5b51-92a0-923b16db8220.html</u>

Extension Granted for Sunnyside-Area Solar Facility Application

The developer of a 5,000-acre solar power development just east of Sunnyside has been granted another year to complete environmental studies and collect data on the proposal as state officials consider approving it... Florida-based BrightNight Power plans to build Hop Hill, a 500-megawatt solar energy and storage facility east of State Route 241 and north of Interstate 82, just east of the Yakima County line in Benton County—Joel Donofrio, *Yakima Herald-Republic*, Dec. 25, 2023: https://www.yakimaherald.com/news/local/business/extension-granted-for-sunnyside-area-solarfacility-application/article_8bff599e-9fa1-11ee-9051-67cbbb2c635a.html

National News

Is Solar the Future of Boating? This Engineer Turned Boat-Builder Says Yes

David Borton is on a mission to make solar-electric boats mainstream. The Solaris, the first-ever Coast Guard–approved solar boat, offers a window into his vision—Dan McCarthy, *Canary Media*, Dec 5, 2023: https://www.canarymedia.com/articles/sea-transport/is-solar-the-future-of-boating-this-engineer-turned-boat-builder-says-yes

Clean Energy Factories, Thermal Storage Get Boost from New Tax Credits

The IRS just released rules on incentives for clean energy manufacturers that make stuff in the U.S. Long-duration storage and thermal batteries could benefit the most... Each step of solar power manufacturing receives its own tax credit, from polysilicon production through wafer slicing, cell fabrication and module assembly. Related components like backsheets, trackers and inverters earn manufacturing credits too. Domestic solar cells will earn 4 cents per watt (measured in direct current), and modules generate 7 cents per watt—Julian Spector, *Canary Media*, Dec. 15, 2023: https://www.canarymedia.com/articles/clean-energy-manufacturing/clean-energy-factories-thermal-storage-get-boost-from-new-tax-credits

Solar Energy and its Cheaper Bills are Coming to More Disadvantaged Communities

The Solar for All component of the IRA will use \$7 billion of federal funds to pay for 60 solar energy

projects in disadvantaged communities nationwide. Nearly all states have applied for the infrastructure grants... The Kiowa Tribe in Oklahoma submitted a joint \$190 million application with more than 30 other tribes, included the Apache Tribe, Caddo Nation, Suquamish in Washington state, Seneca Cayuga and the Iowa Tribe of Kansas and Nebraska. Ephraim Kelley, natural resources director for the 12,000-member Kiowa Tribe, said the goal is to expand solar to as many Native American households as possible to cut their energy costs—David Montgomery, *Stateline*, Dec. 21, 2023 https://stateline.org/2023/12/14/solar-energy-and-its-cheaper-bills-are-coming-to-more-disadvantaged-communities/

- Click here for information on <u>Solar for All Oregon</u>
- Click here for information on <u>Solar for All Washington</u>

U.S. Departments of Agriculture and Energy Host Virtual Listening Sessions on Clean Energy Siting on American Farmland

The U.S. Department of Agriculture (USDA), in collaboration with the U.S. Department of Energy (DOE), is hosting a series of virtual listening sessions to hear perspectives on the benefits and challenges of the increased levels of clean energy projects being sited on agricultural lands and in rural communities. Register to participate in one of the stakeholder-specific listening sessions:

- Government Permitting and Policy Representatives January 12, 2024 9:30 AM PT
- <u>Agricultural Producers</u> January 16, 2024 7:00 AM PT
- All Stakeholders and Members Of The Public January 16, 2024 11:30 AM PT
- <u>Rural Electric Coops and Clean Energy Developers</u> January 17, 2024 12:00 PT

In addition to attending virtual listening sessions, visit our <u>events webpage</u>. Stakeholders are invited to submit written comments to <u>CleanEnergySiting@USDA.gov</u> by January 20, 2024—DOE, Solar Technologies Office, Dec. 11, 2023: To read the full announcement <u>click here</u>.

Homeowners Improve Solar Plus Battery Payback Period with Virtual Power Plants

Virtual power plants (VPP) coordinate home energy resources, dispatching power to the grid at key times of high electricity demand in exchange for compensation—Ryan Kennedy, *pv magazine*, Dec. 22, 2023: <u>https://pv-magazine-usa.com/2023/12/22/homeowners-improve-solar-plus-battery-payback-period-with-virtual-power-plants/</u>

AFT Releases Smart Solar Recommendations to Help State and Local Policymakers Advance Solar

Today, American Farmland Trust, one of the leading non-profits working to address rural community concerns while advancing renewable energy, released <u>policy recommendations</u> for state and local governments to keep land in farming and strengthen farm viability as the U.S. builds out solar... Addressing community concerns about the impact of solar on food security and rural economies will be essential to getting renewable projects built, and therefore achieving climate targets, as electricity generation accounts for a quarter of U.S. emissions—American Farmland Trust, *The Fence Post*, Dec. 22, 2023: <u>https://www.thefencepost.com/news/aft-releases-smart-solar-recommendations-to-help-state-and-local-policymakers-advance-solar/</u>

Agrivoltaics News

Agrivoltaics May Increase Forage Quality in Semi-Arid Regions

New research from the United States showed agrivoltaic plants on grassland may not only maintain grass productivity but also increase forage quality. The scientists took their measurements at the Jack's Solar Garden (JSG), an elevated, south-oriented agri71/88voltaic research facility using single-axis-tracking systems near Longmont, Colorado—Emiliano Bellini, *pv magazine*, Dec. 7, 2023: <u>https://pv-magazine-usa.com/2023/12/07/agrivoltaics-may-increase-forage-quality-in-semi-arid-regions/</u>

Case Study: Oregon Agrivoltaic Research Facility

Just south of Portland, Oregon, researchers with Oregon State University (OSU) are putting agrisolar principles to the test at the Oregon Agrivoltaic Research Facility. The site is located at the Noth Willamette Research and Extension Center (NWREC) and serves as host to OSU's ongoing agrivoltaic research under the leadership of Dr. Chad Higgins. The numerous studies conducted on the site will contribute to advancements in multiple fields, including plant physiology, water usage, and soil health, all while producing power for Oregon citizens through a community solar program—Anna Adair, *AgriSolar Clearing House*, Dec. 19, 2023: <u>https://www.agrisolarclearinghouse.org/case-9444study-oregon-agrivoltaic-research-facility/</u>

The US is Getting its First Vertical Agrivoltaics System

Agrivoltaics – when land is used for agriculture and solar power generation – isn't new to the US, but vertical agrivoltaics are. US solar developer iSun is working with German agrivoltaics company Next2Sun to install the US's first vertical agrivoltaics system. Next2Sun installs bifacial solar panels on its patented vertical mounting system. It says its system is ideal for agriculture-based installations because it generates power during off-peak hours and avoids overbuilding on agricultural land—Michelle Lewis, *electrek*, Dec. 23, 2023: <u>https://electrek.co/2023/12/23/us-first-vertical-agrivoltaics-system/</u>

Industry News

Ensuring Equitable Access to Influx of Clean Energy Jobs

Registered apprenticeship programs are one way to ensure that a large, diverse workforce can build the infrastructure necessary to hit 2030 targets for renewable electricity generation—Jerusha Kamoji, *pv magazine*, Dec. 5, 2023: <u>https://pv-magazine-usa.com/2023/12/05/ensuring-equitable-access-to-influx-of-clean-energy-jobs/</u>

Solar Installers, for Better or Worse, will Literally be Slapping More Glass on Roofs

Utility-scale solar installers are well-versed in handling glass-glass (or dual-glass) solar panels. These panels use a second glass layer on their backsides instead of traditional polymeric backsheets. Uncovering a solar panel's backside is obviously ideal for bifacial solar designs, where solar power can be generated from both sides of the solar cells. Bifacial solar panels are abundant on utility-scale projects, especially when the panels can be tilted and spaced optimally for bifacial gains... But these once "niche" solar panels are becoming commonplace in more areas than just deserts and on tracking systems—Kelly Pickerel, *Solar Power World*, Dec. 11, 2023:

https://www.solarpowerworldonline.com/2023/12/solar-installers-for-better-or-worse-will-literally-beslapping-more-glass-on-roofs/

NREL: Need More than Rain to Wash Away Pollen from Solar Panels

Researchers from the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) have examined the effects of pollen on the performance of five utility-scale solar plants in North Carolina. The research paper, "An Investigation on the Pollen-Induced Soiling Losses in Utility-Scale PV Plants," was published in the IEEE Journal of Photovoltaics and describes the problem with pollen. The scientists, headed by the NREL team, revealed that the proliferation of springtime pollen coating the solar panels reduced performance of the technology at every site. While rainfall could remove some of the pollen, it was not enough to return photovoltaic (PV) performance to optimal levels—Energy Tech Staff. *Energy Tech*, Dec. 20, 2023: <u>Click here to read more</u>.

Map a Career in Clean Energy

Start building our clean energy future with a career in the Office of Energy Efficiency and Renewable Energy (EERE). EERE offers opportunities across its technology offices and on its operations team... Below are various career maps to help you think about what your career can look like in clean energy, based on your education and experience... The <u>Solar Career Map</u> explores an expanding universe of solar-energy occupations, describing diverse jobs across the industry, charting possible progression between them, and identifying the sorts of credentials necessary to do them well. Use the Solar Career Map to explore 40 jobs across 4 industry sectors, and identify more than 60 routes to advancement—U.S., Department of Energy: <u>https://www.energy.gov/energysaver/map-career-clean-energy</u>

Recycling

US Company Claims a 99 Percent Recovery Rate with Old Solar Panels

We Recycle Solar, a startup based in Arizona, shows how old and out-of-service solar panels could be used in the future. The startup works directly with businesses, helping them dispose of solar waste responsibly and make some money—Ameya Paleja, *Interesting Engineering*, Dec. 26, 2023: https://interestingengineering.com/innovation/mining-old-solar-panels-metals

Comstock to Commission First Solar Panel Recycling Facility

Comstock Metals, based in Virginia City, Nevada, has secured sufficient supplier commitments to begin commissioning the company's first photovoltaic recycling facility once it receives the necessary permits. In a news release, the company says the world remains focused on the production of energy generation and storage technologies to reduce reliance on fossil fuels, and especially photovoltaics. It notes that the majority of solar panels have been deployed in the southwest region of the United States, primarily California, Nevada and Arizona, with an acceleration of the decommissioning of these end-of-life solar panels occurring now—Chris Voloschuk, *Recycling Today*, Dec. 22, 2023:

https://www.recyclingtoday.com/news/comstock-to-commission-first-solar-panel-recycling-facility/

How Low-Income Families Can Reap Rewards from Solar Energy

Rooftop solar has long been the preserve of the affluent. Solar adopters skew white and wealthy compared to the broader public, according to a <u>report</u> from Lawrence Berkeley National Laboratory. The number of households installing solar across the country could be much higher, but millions of low-income homeowners don't have enough capital to pay the upfront costs—Eduardo Garcia, *The Revelator*, Dec. 13, 2023: <u>https://therevelator.org/solar-energy-cooperatives/</u>

The Role of Peer Influence in Rooftop Solar Adoption Inequity in the United States

Individual demand for emerging technologies can be influenced by the demand of other individuals within defined peer groups. These so-called peer effects(link is external) have been demonstrated in emerging clean energy technologies(link is external) such as rooftop solar—Eric O' Shaughnessy, Alexandra Grayson, Galen L. Barbose, Lawrence Berkeley National Laboratory, Nov. 2023: https://www.osti.gov/biblio/2006689

The Geographies, Typologies, and Trends of Community-Based Organizations for Solar Energy in the United States

Community-based organizations (CBOs) play an important role in developing solar energy in low- and moderate-income (LMI) communities. This article shares the perspectives of CBO leaders in LMI communities, identifies and addresses solar information gaps, and provides recommendations State Energy Agencies and other government leaders can use to better involve CBOs in solar program initiatives—Janelle Knox-Hayes [et al.], *Energy Research & Social Science*, Vol. 106, Dec. 2023: <u>Click here to read abstract and to access full article</u>.

Working with Community-Based Organizations to Advance Solar for LMI and Disadvantaged Communities: Selected Resources for State Energy Agencies

Partnerships between states and community-based organizations (CBOs) are a key component of advancing energy justice. State governments will be most successful in implementing solar for low- and moderate-income (LMI) and disadvantaged communities if they work collaboratively with CBOs that understand—and are trusted in—those communities—Matt Ohloff, Clean Energy States Alliance, Dec. 12, 2023: <u>https://www.cesa.org/resource-library/resource/working-with-cbos-to-advance-solar-for-lmi-and-disadvantaged-communities/</u>

Community Solar Tracker

For decades, rooftop solar has allowed homeowners to generate their own renewable electricity — reducing their dependence on monopoly utilities and lowering their energy bills. Investing in solar, however, is not an option for homeowners without a sunny rooftop, renters, and low- and moderate-income households. Community solar picks up where traditional rooftop solar fails—Maria McCoy, ILSR, Dec. 13, 2023: <u>https://ilsr.org/community-solar-tracker/</u>

Upcoming Conferences and Events

Inter Solar North America & Energy Storage North America 2024 : San Diego, CA, Jan 17-19 Intersolar North America & Energy Storage North America Annual conference highlights the latest energy technologies, services, companies, and organizations striving to create positive impact on climate change and support our planet's transition into a more sustainable energy future. <u>Click here for</u> <u>more information and to register</u>.

2024 DOE Tribal Clean Energy Summit : Temecula, CA, Feb 27-28

Approximately every two years, the U.S. Department of Energy (DOE) Office of Indian Energy along with other DOE offices convenes tribal leaders and energy stakeholders to exchange ideas promoting energy infrastructure development for tribes and tribal communities. <u>Click here for more information and to register</u>.

ASES 53rd Annual National Solar Conference Solar 2024 : Washington D.C., May 20-23

This year's conference theme, "Connecting Technology & Policy," will promote the ASES mission to "accelerate equitable solar adoption and universal sustainable living by educating and building community." And will focus on models and tools for negotiating the challenges to advancing renewables by following justice, equity, diversity, and inclusion (JEDI) principles. For more information and to register click here.

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 <u>Anne Whitney</u> at While every URL in Solar Newsbriefs is checked for accuracy prior to distribution, URLs may change, and servers may temporarily fail to connect to working URLs.

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