



# Oregon

Tina Kotek, Governor



550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

## MEMORANDUM

**To:** Energy Advisory Work Group Members

**From:** Janine Benner, Director

**Date:** May 1, 2023

**Re:** Materials for May 8, 2023 Meeting

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It's hard to believe summer – and the end of the Legislative Session – is just around the corner. It has been a busy year so far, and I'm looking forward to connecting with each of you next week to hear how 2023 is going for you and your organizations.

Since we last met, the Oregon Department of Energy has continued to make progress on important projects and programs. We submitted the third edition of our [Biennial Energy Report](#) to the legislature, along with several other [reports and studies](#) in the fall. We celebrated the [first electric school bus east of the Cascades](#), a Lion Electric model serving students in Bend and La Pine. The bus and charging infrastructure were purchased, in part, with Public Purpose Charge Funds. The Pacific Northwest Hydrogen Association, a public-private partnership that includes Washington and Oregon, [submitted a full application](#) to the U.S. Department of Energy in a bid to become one of the regional clean hydrogen hubs under the Infrastructure Investment & Jobs Act. U.S. DOE is expected to make initial decisions around the end of this year. We [announced](#) the first round of [Community Renewable Energy Grant Program](#) awardees in October, and opened up a second opportunity for applications earlier this year. Our team is now doing a competitive review of those second-round applications, and we expect to announce awardees later this month. We also began recruiting regional administrators for our new [Community Heat Pump Deployment Program](#), and will soon begin identifying eligible contractors for our [Rental Home Heat Pump Program](#). I'll share more on our incentive programs at our meeting.

We have a packed agenda, which we'll kick off with updates from each of you. **We'd love to hear about your legislative priorities and what bills you're following, in addition to other projects and activities happening this spring and summer.**

The ODOE team will provide updates on the Legislative Session, including [agency priority bills](#) and other bills that could affect our work. We'll also give a status update on what's happened with our [2023-2025 biennial budget](#) since we last met. Last summer we submitted our [Agency Request Budget](#), and in February the Governor released her [Governor's Recommended Budget](#). ODOE [presented our budget](#) to the Ways and Means Natural Resources Subcommittee on

February 21 with a public hearing on March 6. On May 3, the Subcommittee will have a work session on our budget (HB 5016). At the meeting, we will answer questions and highlight the differences between the legislative budget and our ARB.

We'll spend some time talking about the [federal funding](#) coming to Oregon from the Inflation Reduction Act and Infrastructure Investment and Jobs Act. Some of you have been engaging with us already on federal funding opportunities, such as grid resilience dollars, for which we [submitted an application](#) to U.S. DOE just last month. As ODOE continues working to bring federal dollars to Oregon from both formula and competitive programs, we'd like to hear from you. **What opportunities are you tracking? What are the most important federal programs in your mind? How can we best connect with you and other interested parties on these opportunities? What additional information would be helpful to you?**

Finally, we are about halfway through our [2021-2024 agency Strategic Plan](#), so Associate Director for Strategic Engagement Ruchi Sadhir will provide an update on the progress we've made on our focus areas and related initiatives.

Alongside this memo, please find the following materials either attached or linked, which I hope you'll be able to spend some time with before our meeting next week.

- Meeting Agenda (attached)
- [2022 Year in Review Newsletter](#)
- [2022 ODOE Programs by the Numbers](#)
- [April 2023 Newsletter](#)
- Federal funding comments and applications:
  - [Grid Resilience program narrative](#) (April 2023)
  - [Comments to U.S. DOE on HOMES/HEEHR program design](#) (March 2023)
- Some recent letters ODOE has sent (attached):
  - 11-3-22 Letter of support for Zero Emission Planning for Hydrogen and Recharging in the Pacific Northwest (ZEPHYR) proposal
  - 11-17-22 Letter of support for Tidewater Transportation and Terminal's application to U.S. Department of Agriculture Higher Blends Infrastructure Incentive Program
  - 1-25-23 Letter of support for University of Oregon's Application for USDA Renewable Energy Development Assistance Grant
  - 3-1-23 Letter of support for Bonneville Environmental Foundation's Forest Green Hydrogen project
  - 3-15-23 Letter of support for UMS Group Regional Application to U.S. Department of Energy to fund Advanced Solutions to Mitigate Wildfire Risk
  - 3-17-23 ODOE and Public Utility Commission comments in response to Bonneville Power Administration's Draft 2022-2027 Energy Efficiency Action Plan
  - 3-21-23 Letter of commitment for Earth Advantage's Advancing Building Performance Standards in Oregon proposal
  - 3-24-23 Letter of support for Pacific Northwest Hydrogen Association's application for the Regional Clean Hydrogen Hubs opportunity
  - 3-29-23 Letter of support for Obsidian Renewables' application for the Regional Clean Hydrogen Hubs opportunity

- 4-14-23 Letter of support for Ambient Trends – Earth Advantage team’s Home Energy Score Program modernizations
- 4-26-23 Letter of support for the Oregon Climate Change Research Institute’s work
- 4-26-23 Letter of support and commitment to partner on the State of Oregon’s Climate Pollution Reduction Grant Application to U.S. Environmental Protection Agency
- 4-27-23 Letter of support and gratitude for the Institute for Natural Resources



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## AGENDA

### Energy Advisory Work Group

DATE: May 8, 2023

TIME: 9 – 11 a.m.

Oregon Department of Energy – via WebEx

Meeting Link: <https://odoe.webex.com/odoe/j.php?MTID=mcbd08b6f1ea3eef617c09039f14a20d5>

Password: Spring

Call-in number: 1-408-418-9388 Access Code 2336 139 2505

Time	Topic	Lead
9:00 a.m.	Director's Welcome and Update	Janine Benner, Director
9:10 a.m.	EAWG Roundtable	EAWG Members
9:45 a.m.	Budget Update	Michael Williams, Asst Director Central Services
10:00 a.m.	Legislative Session	Christy Splitt, Government Relations Coordinator
10:15 a.m.	Federal Funding Update and Feedback Requested (see memo)	Janine Benner, Director
10:30 a.m.	Strategic Plan Update	Ruchi Sadhir, Assoc. Director Strategic Engagement
10:50 a.m.	Q&A and Closing Comments	All



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November 3, 2022

Carol Rhodes

Acting Co-Director, Office of Sponsored Programs University of Washington

4333 Brooklyn Ave NE Box 359472

Seattle, WA 98195-9472

Director Rhodes,

The Oregon Department of Energy is pleased to submit this letter of support for the Zero Emission Planning for HYdrogen and Recharging in the Pacific Northwest (ZEPHYR) Northwest proposal. Oregon is committed to addressing greenhouse gas emission in the transportation sector, and the adoption of more efficient vehicles and cleaner fuels are key strategies the state is pursuing. Decarbonization of the freight sector is a particularly challenging issue, and this modeling and data proposed through the ZEPHYR Northwest proposal would provide critical information to help states and decision makers as they assess options to achieve a cleaner transportation sector.

As a stakeholder in the proposed planning process, we commit to participating in eight quarterly meetings, three in-person and five virtual, with truck OEMs, alternative fuel suppliers, electric utilities, delivery companies, freight companies, state agencies, and community representatives. As a stakeholder, we will provide input and feedback to the core team to help estimate future demand and identify potential locations for charging and refueling stations to serve medium- and heavy-duty trucks in Oregon and Washington.

We look forward to working with the project team to help advance low-carbon freight movement in the Pacific Northwest.

Sincerely,

Janine Benner, Director

Oregon Department of Energy



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November 17, 2022

Honorable Thomas J. Vilsack  
Secretary of Agriculture  
U.S. Department of Agriculture  
1400 Independence Avenue SW  
Washington, D.C. 20250

Dear Secretary Vilsack,

On behalf of the Oregon Department of Energy, I am writing in support of Tidewater Transportation and Terminal's application to the U.S. Department of Agriculture's Higher Blends Infrastructure Incentive Program. Tidewater is requesting grant funding for its Clean Energy Transition Project, which would install equipment and infrastructure to increase the availability and use of higher blends of clean biodiesel throughout eastern regions of Oregon, Washington, and western Idaho.

Tidewater will use HBIIIP funding to meet this increased demand for clean fuels in the region by making higher blends of biodiesel available to consumers, municipalities, and rural communities throughout the Pacific Northwest. Specifically, Tidewater will install specialty equipment required for the blending, storage, and distribution of biodiesel fuels at its Snake River Terminal, and to upgrade piping and storage tank capacity so biodiesel can be received and offloaded directly from railcars. Grant funds will also be used to install new pumps, heating equipment, piping, and metering to route biodiesel from storage tanks to a truck rack for pickup and distribution to area fueling facilities. Once complete, this project will expand the availability of neat biodiesel by approximately 1.6 million gallons and expand the availability of higher blends of biodiesel by more than 12.0 million gallons annually.

Biodiesel plays a significant role in decarbonizing the transportation sector, especially in applications that are and will be difficult to electrify. Since 2016, the use of biodiesel has increased by approximately 60% and the percent of biodiesel blended with fossil diesel has increased from 5% to almost 15%. Supported by the Oregon Department of Environmental Quality's Clean Fuels Program, the demand for lower carbon intensity fuels is growing in Oregon, and the recent expansion of this program will increase that demand. Higher blends are often available in areas that have robust infrastructure for the transport and delivery of

transportation fuels, such as the Willamette Valley. In many parts of rural Oregon, access to lower carbon fuels is often very limited.

Tidewater's proposed project will bring critical infrastructure to eastern Oregon that can provide cleaner fuel options and help Oregon achieve its clean energy goals. I strongly support Tidewater's request for HBIP funding and respectfully ask for your full and fair consideration of the significant benefits this project would bring to the region.

Sincerely,

A handwritten signature in cursive script that reads "Janine Be".

Janine Benner, Director  
Oregon Department of Energy



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DEPARTMENT OF  
ENERGY

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January 25, 2023

Margaret Hoffmann, State Director  
USDA Rural Development  
1220 SW 3<sup>rd</sup> Ave, Suite 1801  
Portland, OR 97204

RE: Support for University of Oregon's Application for USDA Renewable Energy Development Assistance Grant (REDA)

Dear Director Hoffmann,

I am writing this letter to express support for the University of Oregon's application for a Renewable Energy Development Assistance Grant in response to the USDA's Notice of Solicitation of Applications for the Rural Energy for America Program for 2023. The Oregon Department of Energy, which was created by the Oregon State Legislature in 1975, helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

As you know, ODOE is administering a \$100,000 USDA Energy Efficiency and Renewable Energy Development Assistance Grant to fund energy audits for Oregon rural small businesses and agricultural producers. ODOE's grant was awarded through May 24, 2023, and we have requested an extension to May 24, 2024, to continue this work. Our agency has used the grant dollars to improve the coordination and coverage of energy efficiency programs in rural parts of the state, especially in the agricultural community. The Oregon REDA grant programs will continue to collaborate with each other and with the USDA, Energy Trust of Oregon, and various non-governmental organizations to help meet the energy needs of agricultural producers and rural small businesses.

The University of Oregon's proposal provides an excellent opportunity to continue to collaborate and leverage efforts by both of our organizations, and the proposed outreach and technical assistance activities in rural areas of Oregon will help support sustainable economies in our state. ODOE's on-the-ground experience has shown that agricultural producers and rural small business owners can benefit from more education, technical assistance, and support. We believe this grant will provide critical and necessary assistance. The goals and objectives of the proposal for renewable energy development assistance are in close alignment with our own efforts to support energy efficiency, renewable energy, and



energy conservation projects. We are pleased to offer our support and look forward to continuing our work with the University of Oregon on this important program. If you have questions about our work in this space, please reach out (contact information below).

Sincerely,

A handwritten signature in black ink that reads "Janine Be". The signature is written in a cursive style with a large, stylized "B" at the end.

Janine Benner, Director  
Oregon Department of Energy

cc: Tom Elliott, Energy Analyst/Program Lead – ODOE [Tom.Elliott@Energy.Oregon.gov](mailto:Tom.Elliott@Energy.Oregon.gov)  
Stephanie Kruse, Facilities Engineer/Technical Lead – ODOE [Stephanie.Kruse@Energy.Oregon.gov](mailto:Stephanie.Kruse@Energy.Oregon.gov)



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March 1, 2023

The Honorable Jeff Merkley  
United States Senator  
531 Hart Senate Office Building  
Washington, Dc 20510

The Honorable Ron Wyden  
United States Senator  
221 Dirksen Senate Office Building  
Washington, DC 20510

Dear Senators Merkley and Wyden:

On behalf of the Oregon Department of Energy, I am writing to express our support for the proposed Forest Green Hydrogen project developed by the Bonneville Environmental Foundation.

BEF has been deeply involved with renewable hydrogen for the past five years and has seen a dramatic increase in the support for renewable hydrogen and the awareness of the large role it will play in decarbonization. This is evidenced by the passage of major supportive policies for renewable hydrogen in the European Union, Asia, and in the US.

As a project-focused, independent 501c3 non-profit, BEF is uniquely positioned to drive market transformation for renewable hydrogen. BEF's mission focuses on expanding the amount of renewable energy generation in the Pacific Northwest. A zero-emission energy system is a monumental challenge with no easy solutions. We need to have every tool at our disposal to effectively utilize renewable energy and provide workable consumer choices. Renewable hydrogen is a major opportunity to realize greater incorporation of renewable electricity on the grid and provide a zero-emission fuel for other sectors.

Oregon has long been a leader on environmental and energy issues, including being the first state to establish a price on carbon with passage of the EFSC CO2 standard in 1997. In 2021, Oregon's state legislature directed ODOE to study the opportunities and barriers associated with producing and consuming renewable hydrogen in Oregon. During this year's session, bills have been introduced that would address defining renewable hydrogen, developing a policy roadmap, and creating new grant programs for hydrogen fuel cell vehicles and hydrogen-fueled back-up generators. And while there are a number of proposed renewable hydrogen projects in the state, the Forest Green H2 project would be Oregon's first. Development of this project would be a step forward for Oregon on its renewable hydrogen journey and will lay a good foundation to build on.

ODOE's vision is a safe, clean, equitable, and sustainable future. Our 2022 Renewable Hydrogen Study described how renewable hydrogen can play a valuable role in helping Oregon meeting its climate and energy goals and we believe that the Forest Green H2 project will help to grow this nascent industry in Oregon.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Janine Be". The signature is written in a cursive style with a large, stylized 'B' at the end.

Janine Benner, Director  
Oregon Department of Energy  
(503) 559-0307  
[janine.benner@energy.oregon.gov](mailto:janine.benner@energy.oregon.gov)



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March 15, 2023

U.S. Department of Energy, Grid Deployment Office  
1000 Independence Ave SW  
Washington, DC 20585

RE: Grid Resilience and Innovation Partnerships (GRIP) - FOA-0002740 – Topic Area 2 Submission,  
Smart Grid Grants

## **Letter of Support for UMS Group Regional Application - *Advanced Solutions to Mitigate Wildfire Risk***

The Oregon Department of Energy is submitting this letter of support to encourage the U.S. Department of Energy to fund the *Advanced Solutions to Mitigate Wildfire Risk* submission.

The mission of the Oregon Department of Energy is to help Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations. It is especially timely and important to provide resources that help to mitigate wildfire risk. Communities in our state have seen firsthand the devastating effects that wildland fires have on our landscape and residents.

While the lessons learned from each of the participating utilities and communities in this project will provide direct benefits, including for Eugene Water & Electric Board (EWEB) here in Oregon, the achievements from the partnership will also help other electric utilities and communities across Oregon and the wider region. This regional effort would assist in reducing the risk of wildland fires damaging energy infrastructure and will help to show how making data-driven decisions and leveraging available advanced technology can play an important role in addressing the impact of wildfires.

This partnership with UMS Group, Slalom Consulting, Fire Adapted Communities, Grid Forward, Eugene Water and Electric Board, and other industry and community partners is well designed. If funded, we look forward to tracking the developments with this project and participating in information sharing. We will lend support through our roles as a clearinghouse of energy data and information, in providing energy education and analysis to policy makers, and administering energy programs in the state.

Thank you for your consideration of this timely submission.

Janine Benner  
Director, Oregon Department of Energy

**Oregon Department of Energy  
Oregon Public Utility Commission**

March 17, 2023  
Via Electronic Mail

Ms. Elena Kazarov, Long Term Energy Efficiency Planner  
Bonneville Power Administration  
905 NE 11<sup>th</sup> Ave  
Portland, OR 97232

**Re: Bonneville Power Administration Draft Energy Efficiency Action Plan 2022-2027**

Dear Ms. Kazarov,

The Oregon Department of Energy (ODOE) and Oregon Public Utility Commission (OPUC) submit the following comments in response to Bonneville Power Administration's (BPA) Draft 2022-2027 Energy Efficiency Action Plan (Draft Action Plan). We appreciate the opportunity to comment and BPA's collaboration as a regional partner.

ODOE's mission is to help Oregonians make informed decisions and maintain a resilient and affordable energy system. It advances solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

The OPUC is responsible for regulation of Oregon's investor-owned electric utilities (Portland General Electric, Pacific Power, and Idaho Power) and natural gas utilities (Avista, Cascade Natural Gas, and NW Natural). The PUC mission is to ensure Oregonians have access to safe, reliable and fairly priced utility services that advance state policy and promote the public interest.

ODOE and OPUC encourage BPA to set more ambitious energy efficiency targets. Collectively, our two state agencies are working with the industry to help transition our energy system in line with state policies that prioritize energy efficiency and demand response as resources (ORS 469.010, Northwest Power Act, and [SB 1547, Sec. 19](#)) and require Oregon's investor-owned utilities (IOUs) to reduce their greenhouse gas emissions 80% by 2030 and 100% by 2040 (House Bill 2021). We recognize the short-term rate pressures BPA, distribution utilities, and their customers face due to supply chain issues and inflation. However, the long-term savings and associated benefits of energy efficiency make continued investment in energy efficiency essential to meeting the region's long-term energy needs.

Meeting Oregon's climate and energy requirements requires ambition and increased reliance on no-regrets resource acquisitions, principally energy efficiency and demand response. We therefore submit the following recommendations to BPA:

1. As possible, incorporate the many co-benefits of energy efficiency to improve cost-effectiveness and create future energy efficiency potential.

2. Set more ambitious energy efficiency targets that reflect increasing electrification efforts and IRA incentives.
3. Establish specific demand response goals and launch programs to meet those goals.
4. Consider how underperformance on acquiring additional energy efficiency and demand response may impact BPA's customers and the region as a whole.

As we will expand upon in our comments below, the Draft Action Plan does not sufficiently recognize the pivotal moment we find ourselves in as we transition into a new energy future. Setting higher energy efficiency targets and more specific demand response goals can improve the draft plan.

### 1. As possible, incorporate co-benefits of energy efficiency to improve cost-effectiveness and create future energy efficiency potential.

We are glad to see that BPA mentioned value beyond energy savings as a guiding principle in developing this Draft Action Plan. We agree that co-benefits are an important consideration in assessing the value of energy efficiency. ODOE's 2022 Biennial Energy Report includes a [policy brief](#) on the co-benefits of energy efficiency, many of which are often overlooked in standard cost-effectiveness tests. These include capacity, resiliency, flexibility, and decarbonization, each of which was determined to be in scope for energy efficiency cost-effectiveness by the Northwest Power and Conservation Council's (NWPCC or the Council) Regional Technical Forum ("RTF").<sup>1</sup> We believe these co-benefits, and others, should be accounted for when conducting cost-effectiveness tests, either directly through quantitative analysis, where possible, or indirectly through qualitative considerations. The California Public Utilities Commission has pioneered several strategies for incorporating co-benefits into cost-effectiveness analyses.<sup>2</sup> We recognize the Pacific Northwest has a fundamentally different energy landscape than California, but we believe this is a strong example of how co-benefits can be incorporated into cost effectiveness measures. The Draft Action Plan does not make clear the extent to which these benefits were considered, and the Plan concludes that low renewable energy prices eliminate the ability for energy efficiency to compete with these resources. The co-benefits of energy efficiency are likely to shift the calculus of cost-effectiveness and demonstrate the value of continuing to pursue energy efficiency resources aggressively despite the changing landscape.

The decreasing cost of renewables is but one of many significant changes taking place in the transition of the electric power sector. In part due to the significant value of these co-benefits, we see tremendous potential for future energy efficiency in the region. Energy efficiency can continue to be one of the key drivers of Oregon's energy policy goals. Below, we highlight energy efficiency contributions to tackling three of today's most important energy priorities:

- **Decarbonization** – Oregon is actively exploring decarbonization policies for existing buildings. These policies are supported by recent Oregon Global Warming Commission and ODOE analysis, which found commercial and residential energy efficiency and weatherization to be some of the most effective measures for achieving the state's greenhouse gas emissions reduction goals.<sup>3</sup>

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<sup>1</sup> Northwest Power and Conservation Council. (2022, March 30). Update on the NEI Discussion: Is the RTF scope broad enough? <https://nwcouncil.app.box.com/v/20220330RTFPACNEIs>

<sup>2</sup> State of California, P. U. C. (2021). Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Program, Evaluation, and Related Issues, Rulemaking 13-11-005. Pages 10-14. <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M385/K864/385864616.PDF>

<sup>3</sup> Oregon Global Warming Commission. See the [TIGHGER Project Report](#) and the Oregon Global Warming Commission December meeting (2022, December 16). <https://www.keeporegoncool.org/meeting-calendar/2022/12/16/oregon-global-warming-commission-meeting-virtual>

These findings are the result of analysis from Sustainable Solutions Group that considered co-benefits and equity impacts along with traditional cost-effectiveness analysis. The bulk of the cumulative \$120 billion in net financial and health benefits to Oregonians, as well as the thousands of additional jobs, comes from energy efficiency actions, in particular weatherization of residential and commercial buildings.

- **Resiliency** – High-impact events can be expensive and taxing on the electricity system. Reducing system demand through efficiency could mitigate the impacts of these events. At the household level, efficiency also provides benefits to customers who can better withstand severe weather events due to an efficient building’s ability to maintain comfortable temperatures during outages and an overall reduction in the amount of load that must be replaced with an alternative source during an outage.<sup>4</sup>
- **Capacity** – In addition to the traditional value of energy efficiency realized through kWh savings, there is tremendous value in the kW capacity reductions during peak and net peak demand that energy efficiency investments can help achieve. To ensure our grid can handle the increased loads expected under high electrification scenarios, we must deploy energy efficient resources as a means for lowering peak demand, even as peak need shifts through deployment of customer-sited resources. Energy efficiency can also help offset the need for transmission and distribution infrastructure, helping to avoid the expense and long-lead times associated with transmission projects.<sup>5</sup> Avoided costs of new transmission are likely to be higher than the Council’s current value, leading to an undervaluing of energy efficiency.<sup>6</sup> Finally, this valuable capacity translates to net revenues when it is available to markets at peak price intervals and represents an opportunity cost that could be considered in any cost effectiveness evaluation. BPA is well-aware of the revenue potential from selling additional electricity when it is in demand elsewhere. In 2022, BPA recorded \$964 million in net revenue and cited surplus power and transmission sales driven by higher electricity prices and favorable water conditions.<sup>7</sup>

We also agree with BPA that the Northwest Energy Efficiency Alliance (“NEEA”) plays an important role in creating market opportunities for cost-effective energy efficiency. This work has been crucial to the historical success of energy efficiency in the Pacific Northwest. NEEA has proven itself exceptional at transforming the market to constantly create new “low-hanging fruit” and develop opportunities for cost-effective energy efficiency. Oregon’s IOUs, with the help of Energy Trust of Oregon, exceeded

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<sup>4</sup> U.S Department of Energy. (n.d.). Resilience. Retrieved March 13, 2023, from HYPERLINK "https://betterbuildingssolutioncenter.energy.gov/resilience/about" https://betterbuildingssolutioncenter.energy.gov/resilience/about

<sup>5</sup> American Council on an Energy Efficient Economy (ACEEE). “Energy Efficiency as a Resource” Accessed 15 March, 2023. <https://www.aceee.org/topic/ee-as-a-utility-resource>

<sup>6</sup> PacifiCorp and Portland General Electric’s most-recent IRP Transmission Deferral Credits are \$6.34/kW-yr and \$55.93/kW-yr respectively. These are both increased from prior values and are significantly higher than the Council value. ProCost v5.07 uses \$3.61/kW-yr for the combined T&D credit, down from \$26.00/kW-yr in the 7<sup>th</sup> Power Plan. PacifiCorp and PGE avoided costs per UM 1893:

<https://edocs.puc.state.or.us/efdocs/HAU/um1893hau15168.pdf>. Council avoided costs:

<https://nwcouncil.app.box.com/v/ProCostv5-07>.

<sup>7</sup> Annual Report 2022. BPA. P. 24. Accessed online: <https://www.bpa.gov/-/media/Aep/finance/annual-reports/ar2022.pdf>.

energy efficiency targets in recent years, including 2020 and 2021.<sup>8</sup> Further, recently filed integrated resource plans are forecasting even higher levels of gas and electric savings in years ahead. For this reason, we are confident that there will continue to be significant cost-effective energy efficiency opportunities even in a changing environment.

## 2. Set more ambitious energy efficiency targets that reflect increasing electrification and IRA incentives.

The Council's 2021 Power Plan and BPA's 2022 Resource Program made it clear that under scenarios of higher electrification, energy efficiency and demand response targets increase significantly. The Council's least cost portfolio selects 300 MW of demand response, while a high-electrification scenario selects five times that amount at 1,500 MW.<sup>9</sup> With increasing electrification in both transportation and buildings, we recommend BPA set more ambitious targets to hedge risks against underperformance in achieving the targets, which has occurred relative to previous plans.

BPA's own market research for the residential HVAC (ResHVAC) market demonstrates an important example of accelerating regional electrification. Over the study's six-year window, the number of homes without cooling fell from 52% in 2016 to just 28% in 2021.<sup>10</sup> While there are many subtexts to this finding, the demand for cooling is driving a dramatic increase in air source heat pumps (ASHP) being installed in the region. Over the same period, the number of northwest homes with a heat pump as the primary heat source rose 60% from 990,000 households to 1.6 million households.<sup>11</sup> BPA states that much of that heat pump load is displacing electric resistance; it is likely that those heat pumps are also displacing some fossil fuel HVAC use. In BPA territory, this new load will be low cost and low carbon considering BPA's cost and emissions profiles.

BPA's decreasing programmatic efficiency targets, from 69 aMW in FY '22 and '23 to 63.8 aMW in FY '26 to '27 (an 8% decrease), are particularly concerning in light of these electrification scenarios. Reducing near-term energy efficiency targets while likely facing increasing electricity demand may create a scenario in which the region must later spend aggressively on relatively costly energy efficiency to manage high demand. Investing in energy efficiency in the near-term will help avoid this issue by maintaining effective program capacity and capturing opportunities created by the organic capital stock turnover cycle.

In addition to the aMW targets laid out in the Draft Action Plan, the performance metrics outlined in Section 3.7 are helpful for understanding how BPA evaluates the success of its programs. However, the Draft Action Plan does not provide any mechanism of accountability for failing to meet the goal for each of these metrics. We believe it is important for BPA to specify how it will do ongoing monitoring of progress and what type of corrective action it will take if it appears BPA is not going to meet its goals. BPA should not repeat the underperformance in meeting the last NWPC five-year conservation target during this upcoming period.

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<sup>8</sup> 2021 Annual Report. Energy Trust of Oregon. Accessed online: <https://www.energytrust.org/2021-annual-report/>

<sup>9</sup> BPA EE Action Plan 2022-2027. Accessed online: <https://www.bpa.gov/-/media/Aep/energy-efficiency/energy-efficiency-action-plan/2022-2027-bpa-draft-ee-action-plan.pdf>.

<sup>10</sup> BPA ResHVAC Model Report and Slideshow. Slide 7. Accessed online: <https://www.bpa.gov/-/media/Aep/energy-efficiency/momentum-savings/2016-2021-res-hvac-market-model-presentation.pdf>.

<sup>11</sup> Ibid, slide 13.



We are encouraged by the results of the ResHVAC model that provide one example of how much BPA programs have delivered efficiency in the residential market. Further, we appreciate BPA’s dedication to their ResHVAC programs, as discussed in the Draft Action Plan, despite short-term cost-effectiveness challenges. Heat pumps are both a specific and illustrative example of an area where we encourage BPA to consider the impacts of the Inflation Reduction Act (IRA) on the Draft Action Plan. Given ODOE’s leadership role for Oregon on implementing several heat pump and electrification elements of the IRA, we stand ready to assist BPA in this area. Federal and state incentive programs will reduce up-front costs, support contractor workforce training, and can help advance shared priorities for regional stakeholders. In particular, the most efficient heat pumps will not only reduce peak loads, but because of the enhanced up-front incentives and the reduced monthly energy costs, they can also help reduce the energy burden of low-income customers.

Overall, BPA should consider the impact of federal funding more closely in setting its efficiency targets. The Draft Action Plan accurately summarizes the key policy advances relevant to energy efficiency in the Northwest at both the federal and state level. However, it is unclear the extent to which these policy actions were taken into account in setting BPA’s target for energy conservation acquisition in the Action Plan, particularly the new federal rebate programs authorized by the IRA. We encourage BPA to consider the impacts of these recent policy changes more thoroughly.

As noted in the draft, the rebate programs and other funding in the IRA represent a historic investment in energy efficiency. We are excited about the potential of these funds and the benefits they will deliver to Oregon consumers. We are aware that further guidance from the U.S. Department of Energy is needed to fully understand the extent to which new federal rebates can “stack” with BPA-funded programs, however we feel confident that there will be pathways that enable consumers to benefit from a variety of funding sources and ensure efficiency funding is appropriately braided.

BPA’s COU customers have existing energy efficiency programs that are highly accessible to customers, and ODOE is actively working with these partners to deploy federal funding in a way that seamlessly layers these new federal funds with existing local programs.<sup>12</sup> With this approach, we hope to maximize the impact of federal funds for customers of these COUs. Further, IRA programs emphasize serving low- and moderate-income populations, which in Oregon includes many rural households that are served by COUs.<sup>13</sup> This means that a large amount of the federal investments in energy efficiency may be targeted toward households that receive power from BPA. We encourage BPA to take these additional investments into consideration.

### 3. Establish specific demand response goals and launch programs to meet goals.

We encourage BPA to commit to more ambitious and specific demand response activities. After reviewing both this Draft Action Plan and the prior Action Plan for the 2016-2021 period, we find evidence of BPA underperforming relative to prior goals, while lacking clear landmarks for progress in the new plan. For example, in the 2016-2021 Action Plan, BPA committed to five goals.<sup>14</sup> Of those goals, BPA succeeded in understanding demand response need and developing in-house experts. However,

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<sup>12</sup> Public testimony on HB3166 (February 22, 2023).

<https://olis.oregonlegislature.gov/liz/2023R1/Downloads/PublicTestimonyDocument/53631>

<sup>13</sup> Climate and Environmental Justice Screening Tool. The White House (November 2022).

<https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

<sup>14</sup> Page 108, accessed online: <https://www.bpa.gov/-/media/Aep/energy-efficiency/energy-efficiency-action-plan/2016-2021-bpa-ee-action-plan.pdf>

BPA also committed to facilitating development of a provider base (set of approved demand response providers) and committed to a commercialization plan. This Draft Action Plan makes no mention of those concrete goals and instead sets more general and exploratory objectives, including “exploration” and “monitoring of electrification load impacts.”<sup>15</sup> Modeling from both the Council and BPA’s Resource Program give clear guidance that demand response is an essential component of the least cost portfolio. The 2021 Power Plan selects 300 MW of frequently used demand response products by 2026.<sup>16</sup> BPA’s 2022 Resource Program model selects 436 MW of summer demand response and 283 MW of winter demand response by 2027.<sup>17</sup> These modeling results provide clear objectives, that if not acquired will result in a more expensive system to operate.

Today, Oregon already has valuable, cost-effective, and diverse applications of demand response programs implemented by several electric utilities. The programs and pilots come in all varieties of demand response including:

- Infrequent and “traditional” load shed type programs;
- Passive time-of-use tariffs; and
- Active, direct-load-control with little-to-no advanced warning.

These programs are cost-effective, incorporate equitable outreach and enrollment, and allow consumers to opt-out of events as necessary. By 2023, Oregon’s two largest electric utilities, Portland General Electric (PGE) and Pacific Power (PAC) project 104 MW and 53 MW respectively of summer demand response capacity, and these are forecasted to grow.<sup>18</sup> Combined, PGE and PAC serve 1.5 million customers in Oregon, about half the amount of BPA’s customer base.<sup>19</sup> This means that by 2023, PAC and PGE anticipate demand response resources equal to BPA’s per capita target for 2026 set forth by the 2021 Power Plan.

We recommend that BPA set clear demand response goals. We acknowledge some of the challenges that BPA cited in the Draft Action Plan but believe there is still opportunity for BPA to be more ambitious. BPA can establish the regional infrastructure necessary to support the customers who enter future, long-term contracts with BPA. Specifically, we recommend BPA take the following actions.

### 3.a. Stand up a joint Conservation Voltage Reduction (CVR) and Demand Voltage Reduction (DVR) program.

Via prior demand response activities, BPA has relevant experience implementing successful CVR and DVR programs and setting those up in relatively short periods of time. Plus, the Council’s 2021 Power Plan and the 2022 Resource Program both call for significant amounts of CVR and DVR in the least cost portfolio. CVR and DVR present a significant opportunity for a blended

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<sup>15</sup> Pages 77-80, accessed online: <https://www.bpa.gov/-/media/Aep/energy-efficiency/energy-efficiency-action-plan/2022-2027-bpa-draft-ee-action-plan.pdf>

<sup>16</sup> Ibid, P. 77.

<sup>17</sup> Ibid, P. 78.

<sup>18</sup> PGE Flexible Load Plan Forecasted MW Capacity. P. 6, accessed online: <https://edocs.puc.state.or.us/efdocs/HAD/um2141had163540.pdf>; ADV 1436, based on PAC 2021 IRP. Accessed online: <https://edocs.puc.state.or.us/efdocs/HAU/adv1436hau10313.pdf>

<sup>19</sup> PGE: 912,000 retail customers, <https://portlandgeneral.com/about/info/quick-facts>; PAC: 618,000 retail customers, [https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/about/Pacific\\_Power\\_Fact\\_Sheet.pdf](https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/about/Pacific_Power_Fact_Sheet.pdf); BPA: nearly 3 million people depend on BPA power. <https://www.bpa.gov/about>

product in which DVR is deployed daily during summer and winter seasons where intra-day material price variation exists. Such a DVR product could reduce voltage, within acceptable parameters, during morning and evening peaks, while reducing voltage during midday and overnight periods of low-price and higher concentrations of renewable energy on the grid. Establishing such a program and offering will help the region achieve the least cost, least risk energy system.

### 3.b. Solicit bids to establish demand response software and platforms that BPA's customer utilities can use to run their own programs.

A similar goal was identified in BPA's 2016-2021 Action Plan, and we believe this is essential for achieving a future, valuable demand response asset. Several large Oregon electric utilities have successfully completed requests for proposals (RFPs), in which they've solicited competitive bids on the software and services necessary to support distributed demand response across multiple sectors including irrigation, commercial and industrial, transportation, and residential. Many companies exist in this space that offer ability to connect and operate demand response programs with a range of connected technologies such as thermostats/HVAC, water heaters, battery energy storage, and electric vehicles.

We realize many of the smaller utilities that BPA serves may not have the resources to conduct and operate the competitive solicitations or the implementation directly with vendors. Therefore, similar to BPA's role with energy efficiency, BPA can act as the regional infrastructure by establishing trusted relationships and cost-effective services that enable successful implementation by any BPA utility customer.

### 3.c. Establish mechanisms for time-of-use pricing in 2028 contracts.

Time-based pricing can successfully shift demand into less constrained and less expensive hours by using a price signal. For example, Portland General Electric operates a Peak Time Rebates Program and a Time-of-Day Pilot in which they have enrolled by 2023, 19.9 MW and 2.6 MW of demand reduction respectively.<sup>20</sup> BPA should consider updates to rate structures which reflect the time-based impacts to costs and emissions of electricity consumption. BPA's current contracts effectively protect their consumer-owned utility (COU) partners from price volatility in electricity markets. We fully support efforts to keep ratepayer bills low and simultaneously recognize that there is a need for alignment on how to cost-effectively use regional resources. Time-of-use rates are one of several tools that help align energy use with market pricing and that reward consumers with even lower rates for prioritizing their energy use during less expensive hours. Without an incentive structure to shift consumption away from peaks, BPA runs the risk of acquiring expensive power to meet COU needs. In the short term, COU ratepayers may be insulated from this impact, but the dynamic adds long term risk to BPA and their utility customers.

BPA's history of success gives us confidence in BPA's ability to operationalize demand response based on their institutional success in standing up demand response programs of all scales. In the early 2000s, BPA operated a multi-year demand response program through BPA Power, which enrolled 850 MW of

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<sup>20</sup> Flexible Load Multi-Year Plan September 2022 Update. Portland General Electric. Accessed online: <https://edocs.puc.state.or.us/efdocs/HAD/um2141had163540.pdf>.

curtailable load, mostly large commercial and industrial loads.<sup>21</sup> The program delivered net savings of \$2.5 million from 2000 to 2002, during the energy crisis—a period of high uncertainty.<sup>22</sup>

Further, BPA’s demand response successes extend beyond the curtailing of large loads. BPA has successfully implemented demand response programs to resolve acute needs with their customer utilities. In a non-wires project to avoid new transmission to Orcas Island, BPA and Orcas Power & Light Cooperative successfully operated a demand response program mostly targeting residential water heating and HVAC loads that saved a net \$6 million to \$23 million over six winters.<sup>23</sup>

#### 4. Consider how underperformance on acquiring additional energy efficiency and demand response may impact BPA’s customers and the region as a whole.

The Federal Columbia River Power System, for which BPA markets the electricity, is the region’s most valuable decarbonization asset. Oregon’s largest electric utilities are required to decarbonize their electricity supply and meeting the requirements of HB 2021 requires regional coordination and relies on the services of BPA’s systems including electricity generation, capacity, and transmission. Additionally, electrification among BPA’s customers spurred by state and national public policy, climate change driven pressures on hydro availability and timing, and increased market price volatility all raise the risk of cost pressure for BPA customers. In the Draft Action Plan, BPA, “does not anticipate a need for peak load reduction through the mid 2030’s.” We believe this view is short-sighted, considering the regional needs and pressures in the next decade. We understand the modeling constraints leading to the conclusion, but we encourage BPA to think and act regionally, placing significant value on risk mitigation, when it comes to efficiency and demand response.

BPA’s system may not forecast transmission and capacity constraints by 2030, but many other regional utilities do. The beginning of this phenomenon is already being seen in general rate cases and during integrated resource plans (IRPs), in which the avoided costs of decarbonized energy, capacity, and deferred transmission and distribution investments are all increasing. Every aMW of energy efficiency adds value to BPA’s utility customer, protecting them from exposure to volatile market prices and creating the opportunity for regional sales to defray the cost of purchasing power when hydropower is not available. This also frees up valuable clean, firm power to support regional load growth and economic prosperity, particularly in rural counties served by BPA. Every MW of demand response not acquired by BPA during peak events limits capacity and transmission that all regional utilities must compete for and pay a scarcity price premium to access. In low water conditions, that could include BPA customers.

The region relies on BPA’s firm and flexible hydro resources, which is even more valuable to the region now in reducing the carbon intensity of its supply while adapting to new climate extremes. We encourage BPA to increase energy efficiency and demand response goals to embrace this regional role and to think long-term. In doing so, BPA will help its utility customers reduce energy costs by investing in

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<sup>21</sup> Demand Response Potential in Bonneville Power Administration’s Public Utility Service Area. BPA. March 19, 2018. P. 13, accessed online: <https://www.bpa.gov/-/media/Aep/energy-efficiency/technology-demand-response-resources/180319-bpa-dr-potential-assessment.pdf>

<sup>22</sup> Ibid, p. 13.

<sup>23</sup> Ibid, p. 12.

more efficiency and demand response. It will also reduce the risk of price volatility and regional scarcity that can be difficult to insulate native load from.

### Conclusion

We recommend BPA embrace the opportunity presented by the market momentum, the energy transition, and the IRA to set higher and more ambitious energy efficiency and demand response goals. As evidenced by the high electrification scenarios, there is little risk to over-acquiring efficiency and demand response in the near and long-term. BPA's effort in raising its goals and targets will also help them manage risk in a future with higher and more variable costs.

We appreciate the opportunity to comment on BPA's Draft Energy Efficiency Action Plan. Thank you for considering our comments.

Sincerely,



Janine Benner  
Director, Oregon Department of Energy  
550 Capitol St. NE, 1<sup>st</sup> Floor  
Salem, OR 97301



Megan Decker  
Chair, Oregon Public Utility Commission  
201 High St SE#100  
Salem, OR 97301



# Oregon

Tina Kotek, Governor



March 21, 2023

Mr. Alex Boetzel  
Head of Residential Innovations  
Earth Advantage  
151 SW 1<sup>st</sup> Ave Suite 300  
Portland, OR 97204

550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

**Subject: Letter of commitment for Earth Advantage's *Advancing Building Performance Standards in Oregon* proposal.**

Dear Mr. Boetzel,

The [Oregon Department of Energy \(ODOE\)](#) is pleased to commit to being a project partner and subrecipient on Earth Advantage's *Advancing Building Performance Standards in Oregon* proposal for [DE-FOA-0002813: Resilient and Efficient Codes Implementation](#).

Earth Advantage is a trusted partner with a long track record of leadership in the building industry. Earth Advantage's experience supporting local and state governments with policy analysis, policy development, and tools to support effective policy implementation, fits well with the goals of this proposal. Earth Advantage's support for equitable housing outcomes and protection for those most vulnerable from the effects of climate change also aligns with the intent of the *Advancing Building Performance Standards in Oregon* project.

For the *Advancing Building Performance Standards in Oregon* project, ODOE will provide state-level outreach, support, and technical guidance as a member of the project team. ODOE will facilitate community-led engagement and convene interested parties to inform the application and development of Building Performance Standards (BPS) policy. ODOE will work with local organizational and jurisdictional partners to support the technical analysis and stakeholder collaboration toward a statewide BPS framework.

We look forward to working with you and the project team you have assembled. The participants on the project team are an excellent mix of key state and local government professionals with extensive policy development expertise, nationally recognized policy consultants specializing in building decarbonization, and experienced and capable energy analysts with deep awareness of Oregon's building characteristics. This team is well positioned to ensure that Oregon take strides to decarbonize the state's existing building stock with effective and equitable building performance standards policies.

Sincerely,

Janine Benner, Director  
Oregon Department of Energy



# Oregon

Tina Kotek, Governor



550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

March 24, 2023

Jennifer Granholm  
Secretary, U.S. Department of Energy  
1000 Independence Ave. SW  
Washington DC 20585

**RE: Regional Hydrogen Hubs, FOA Number: DE-FOA-0002779**

Secretary Granholm:

On behalf of the Oregon Department of Energy, I am writing to express my strong support for the Pacific Northwest Hydrogen Association's (PNWH2) application to the Department for the Regional Clean Hydrogen Hubs opportunity. This transformational opportunity to accelerate development of the nation's clean energy economy is tailor-made for the Pacific Northwest, where a proud tradition of technological innovation and collaboration in taking on bold challenges is in our nature.

The PNWH2 is governed by a board of directors which includes public and private sector leaders, tribal nations, utilities, labor, and environmental representatives. As Vice Chair of the board, I have had an opportunity to witness and shape the growth of the hub from initial concept into fully formed proposal that integrates clean hydrogen production and consumption with meaningful stakeholder participation and a strong commitment to workforce development and jobs.

With federal support, PNWH2 will be able to build out a robust network of hydrogen suppliers and off-takers in both western and eastern parts of Washington and Oregon, as well as parts of Montana. Under this proposal, hydrogen will be produced by harnessing existing, abundant renewable resources in our region. This proposal also demonstrates how clean hydrogen can support decarbonization efforts already being made in the transportation, industrial, and agriculture sectors, as well as the rapidly expanding zero-carbon aviation sector being pioneered in the Pacific Northwest.

Investments in clean hydrogen deployment can, and must, help deliver on the promise of a just transition for energy communities, improve health and safety for frontline communities, and rectify environmental injustices. Oregon's Environmental Justice Council, of which the Oregon Department of Energy is a member, is leading development of an environmental justice mapping tool that will help address potential environmental justice impacts and support implementation of the Biden-Harris Administration's Justice 40 initiative. The PNWH2 Hydrogen Hub has incorporated the tenants of both the state and federal commitments to equity and has already begun outreach with potentially impacted communities.

ODOE's vision is a safe, clean, equitable, and sustainable future. Our 2022 Renewable Hydrogen Study described how renewable hydrogen can play a valuable role in helping Oregon meeting its climate and energy goals and I believe that the PNWH2 hub will help to grow this nascent industry in Oregon and beyond.

I ask that you give this proposal your strongest consideration.

Sincerely,

A handwritten signature in black ink that reads "Janine Be". The signature is written in a cursive style.

Janine Benner, Director  
Oregon Department of Energy  
(503) 559-0307  
[janine.benner@energy.oregon.gov](mailto:janine.benner@energy.oregon.gov)





# Oregon

Tina Kotek, Governor



550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

March 29, 2023

Jennifer Granholm  
Secretary, U.S. Department of Energy  
1000 Independence Ave. SW  
Washington DC 20585

**RE: Regional Hydrogen Hubs, FOA Number: DE-FOA-0002779**

Secretary Granholm:

On behalf of the Oregon Department of Energy, I am writing to express our support for Obsidian Renewables' application to the Department for the Regional Clean Hydrogen Hubs opportunity. The Obsidian PNW hydrogen hub concept is an ambitious, utility-scale effort to develop a regional green hydrogen production and distribution system.

Obsidian has developed many notable renewable projects in Oregon, including PacifiCorp's first in-front-of-the-meter solar project, Portland General Electric's first solar project, and the first utility-scale solar project interconnected into the Bonneville Power Administration's system. Obsidian has brought this project development experience to its concept for a regional hydrogen hub with two centers of large-scale production and consumption that would help jumpstart a clean hydrogen market in the Pacific Northwest.

Oregon has long been a leader on environmental and energy issues, including being the first state to establish a price on carbon with passage of the EFSC CO2 standard in 1997. In 2021, Oregon's state legislature directed ODOE to study the opportunities and barriers associated with producing and consuming renewable hydrogen in Oregon. During this year's session, bills have been introduced that would address defining renewable hydrogen, developing a policy roadmap, and creating new grant programs for hydrogen fuel cell vehicles and hydrogen-fueled back-up generators.

ODOE's vision is a safe, clean, equitable, and sustainable future. Our 2022 Renewable Hydrogen Study described how renewable hydrogen can play a valuable role in helping Oregon meeting its climate and energy goals and we believe that the Obsidian Renewables PNW hydrogen hub has the potential to help to grow this nascent industry in Oregon and beyond.

Thank you for your consideration.

Sincerely,

Janine Benner, Director  
Oregon Department of Energy



# Oregon

Tina Kotek, Governor



OREGON  
DEPARTMENT OF  
ENERGY

550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

April 14, 2023

Dear DOE SBIR/STTR Program Office,

The Oregon Department of Energy is pleased to provide this letter of support and express our interest in the Home Energy Score Program modernizations proposed by the Ambient Trends - Earth Advantage team. The addition of time-of-use rate structure support and increased accuracy of carbon emissions in home energy scoring will provide valuable information for Oregon residents and municipalities, and will support Oregon's energy and climate goals.

The State of Oregon is proud to be a leader in statewide home energy scoring, which serves to benefit efficiency efforts and increase energy savings across the state. Four Oregon communities have adopted mandatory energy score programs, and our team continues to meet with additional communities that are evaluating a mandatory program's potential. Home energy scores can help consumers better understand a home's energy efficiency and identify simple home improvements that can make a big difference in comfort and energy costs.

The Ambient Trends – Earth Advantage team's proposed modernizations will give consumers several additional data points on which to base important decisions. Accurate modeling of these cost and emission factors will help to ensure the ongoing success of the Home Energy Score Program.

I encourage investment from the SBIR/STTR programs for this modernization and enhancement work.

Sincerely,

Janine Benner  
Director



# Oregon

Tina Kotek, Governor



550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

April 26, 2023

The Honorable Senator Lew Frederick, Co-Chair  
The Honorable Representative Susan McLain, Co-Chair  
Ways and Means Subcommittee on Education  
900 Court Street NE  
Salem, OR 97301

RE: Letter of Support for the Oregon Climate Change Research Institute

Co-Chairs Frederick and McLain and Members of the Subcommittee,

A key element of the Oregon Department of Energy's mission is to help Oregonians make informed decisions. In delivering on this mission, we provide educational resources to support policy makers, local governments, industry, energy stakeholders, and the general public in solving energy challenges and meeting Oregon's energy, economic, and climate goals. We often do this work in partnership with Oregon's institutions of higher learning, which provide reliable, objective, and relevant science that we can use. Examples of recent areas of collaboration include speaking to students involved in the University of Oregon's Green Business Initiative; touring Oregon State University's Wave Research Laboratory; providing guest lectures at Portland State; and the Oregon Renewable Siting Assessment project we recently completed in partnership with Oregon State University's Institute for Natural Resources. These partnerships have been vital to ODOE as we both teach and learn about energy issues in Oregon.

One such important collaborator is the Oregon Climate Change Research Institute (OCCRI), a partnership among Oregon's higher education establishments housed at Oregon State University. We are submitting this letter today to share some of the reasons why we support OCCRI and appreciate the important work that takes place there.

Since its creation by the Oregon State Legislature in 2007, OCCRI has provided invaluable services to Oregon's state government, local jurisdictions, and tribes. Through its reports, workshops, and online tools, OCCRI has increased the capacity of the state to assess and plan for the local risks of climate change. The Oregon Department of Energy (ODOE) and the Oregon Global Warming Commission have relied on OCCRI's work and expertise to combat climate change.

OCCRI has conducted localized research, monitoring, and analysis to detect and accurately describe anticipated climate change impacts. Over its tenure, OCCRI's team of scientists have published hundreds of high-impact peer-reviewed papers, advancing the state of the science. OCCRI's biennial state-level climate assessments have provided unique state-specific information for ODOE's climate-related work, such as the 2018 inaugural Biennial Energy

Report and subsequent reports in 2020 and 2022.<sup>i, ii, iii</sup> OCCRI's assessments and tools have served as critical assets to inform ODOE's ongoing efforts to characterize the vulnerability of key energy infrastructure and systems to climate impacts.<sup>iv</sup> OCCRI's climate assessment reports and 2019 climate risk workshop have also provided vital information and training for Oregon's Interagency Climate Adaptation Framework.<sup>v</sup>

OCCRI's climate assessment reports have also been heavily used to inform the work of the Oregon Global Warming Commission.<sup>vi, vii, viii, ix, x, xi, xii, xiii</sup> By providing and presenting decision-relevant information on both the observed and expected changes of climate change and extreme events, OCCRI has supported the Commission's ability to provide informed recommendations to the Legislature and Governor on climate action.

OCCRI also plays a critical role in helping Oregon address climate change. In 2019 and 2020, OCCRI's scientists provided invited testimony to the Legislature on the science of climate change to inform climate policy.<sup>xiv, xv</sup> Beyond Oregon, OCCRI has contributed to national and international assessments of climate change, including the National Climate Assessments and Intergovernmental Panel on Climate Change assessment reports—two leading bodies of climate science.<sup>xvi</sup> By incorporating information on our state's and region's observed climate trends, OCCRI has served the important role of representing Oregon's climate experience while contributing to the larger scientific body of evidence at the national and international scale.



Janine Benner, Director  
Oregon Department of Energy

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<sup>i</sup> Cited in ODOE 2018 Biennial Energy Report (Ch. 2, p. 53; Ch. 5, p. 25) <https://energyinfo.oregon.gov/ber>

<sup>ii</sup> Cited in ODOE 2020 Biennial Energy Report (Policy Briefs, p. 2, p. 16, and p. 27-43).

<sup>iii</sup> Cited in ODOE 2022 Biennial Energy Report (Policy Briefs, p. 493). A brief summary of OCCRI's key activities as part of Oregon's ecosystem of state climate programs and actions is also included in the Oregon State Climate Programs and Actions Policy Brief, p. 359.

<sup>iv</sup> Data used to inform Policy Brief on Climate Vulnerability Assessment in ODOE 2020 Biennial Energy Report.

<sup>v</sup> Oregon Climate Change Research Institute (Dalton, M. and others). 2019. Oregon Climate Change Effects, Likelihood, and Consequences Workshop. Summary Report. Oregon State University, Corvallis, Oregon. [https://www.oregon.gov/lcd/NH/Documents/Apx\\_9.1.24\\_ORClmChgWkshpSumRpt\\_Fall2019.pdf](https://www.oregon.gov/lcd/NH/Documents/Apx_9.1.24_ORClmChgWkshpSumRpt_Fall2019.pdf)

<sup>vi</sup> 2023 OGWC Biennial Report (p. 4-8):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/64275b98de28d74ea4a96dc3/1680300956035/2023-Legislative-Report.pdf>

<sup>vii</sup> 2020 OGWC Biennial Report (p. 6-8):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5fe137fac70e3835b6e8f58e/1608595458463/2020-OGWC-Biennial-Report-Legislature.pdf>

<sup>viii</sup> 2018 OGWC Biennial Report (p. 16, p. 18, p. 28, p. 30):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5c2e415d0ebbe8aa6284fdef/1546535266189/2018-OGWC-Biennial-Report.pdf>

<sup>ix</sup> 2018 OGWC Forest Carbon Accounting Project Report: Appendix D: Summary of Oregon Forest Ecosystem Expected Effects of Climate Change, Oregon Climate Change Research Institute:

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<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5c094beaaa4a99fa6ad4dcde/1544113138067/2018-OGWC-Forest-Carbon-Accounting-Report.pdf>

<sup>x</sup> 2017 OGWC Biennial Report (p. 10, p. 14, p. 50):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/59dd4984a8b2b090a38f07a1/1507674513035/2017-OGWC-Legislative-Report.pdf>

<sup>xi</sup> 2011 OGWC Biennial Report (p. 6, p. 11, p. 15, p. 81):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5a04ee0453450aa7b95e9035/1510272577559/2013+Legislative+Report.pdf>

<sup>xii</sup> 2009 OGWC Roadmap to 2020 (p. 52):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5a0a0ec553450af07cfb364d/1510608618426/2011-Roadmap+to+2020+Report.pdf>

<sup>xiii</sup> 2009 OGWC Biennial Report (p. 4, p. 21):

<https://static1.squarespace.com/static/59c554e0f09ca40655ea6eb0/t/5a04f1fa24a694dfd620e5f0/1510273545054/2009+Legislative+Report.pdf>

<sup>xiv</sup> Invited testimony to the Oregon State Legislature. March 2020.

<https://olis.oregonlegislature.gov/liz/2020R1/Committees/HEE/2020-03-03-13-00/Agenda>

<sup>xv</sup> Invited testimony to the Oregon State Legislature. January 2019.

<https://olis.leg.state.or.us/liz/2019R1/Committees/JCCR/2019-01-25-13-00/Agenda>

<sup>xvi</sup> OCCRI scientists contributed to the 3<sup>rd</sup> and 4<sup>th</sup> National Climate Assessments, and the 5<sup>th</sup> Intergovernmental Panel on Climate Change Assessment Report, among others:

[https://nca2018.globalchange.gov/downloads/NCA4\\_Ch24\\_Northwest\\_Full.pdf](https://nca2018.globalchange.gov/downloads/NCA4_Ch24_Northwest_Full.pdf);

<https://nca2014.globalchange.gov/report/regions/northwest>;

[https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_Chapter04\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter04_FINAL.pdf)



# Oregon

Tina Kotek, Governor



OREGON  
DEPARTMENT OF  
ENERGY

550 Capitol St. NE

Salem, OR 97301

Phone: 503-378-4040

Toll Free: 1-800-221-8035

FAX: 503-373-7806

[www.oregon.gov/energy](http://www.oregon.gov/energy)

April 26, 2023

Dear EPA and the Climate Pollution Reduction Grant Program,

I am writing to express the Oregon Department of Energy's support and commitment to partner on the State of Oregon's Climate Pollution Reduction Planning Grant Application, led by the Oregon Department of Environmental Quality. ODOE's mission is to help Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.

This opportunity will help Oregon achieve its climate pollution reduction targets and enable Tribes, local governments, communities, and organizations to access funding to implement a Priority Climate Action Plan. Development of the PCAP will be informed by multiple sources, including the [Oregon Climate Action Roadmap to 2030](#) that was published by the [Oregon Global Warming Commission](#) in March 2023. ODOE staff support the work of the Commission, and ODOE and DEQ serve as *ex officio* members of the Commission along with other key state agencies. The Commission's Roadmap recommended accelerating Oregon's greenhouse gas emission reduction target of 45 percent below 1990 levels from the year 2035 to the year 2030. PCAP funds will provide essential support for implementing the Roadmap actions and meeting Oregon's accelerated GHG reduction goals.

Oregon is a leader in adopting policies that support long-term decarbonization across many sectors, as well as in pioneering carbon reduction programs, including state renewable fuels and low-carbon fuels standards, a renewable portfolio standard, strong building codes, and setting clean electricity targets. But there is more work to be done for the state to deliver on these ambitious policies.

Funding for a Comprehensive Climate Action Plan will support efforts to develop: a state energy strategy to facilitate Oregon's transition to an equitable clean energy future; a gap analysis to identify where additional programs and policies are needed to reduce emissions; and a state and natural working lands carbon sequestration inventory to identify opportunities for the state to capture carbon and move toward a net-zero emissions future. The CCAP will also be instrumental in understanding how future investments can better – and more equitably – benefit Oregonians, especially those communities who are underserved and living with the consequences of previous inequitable decisions and actions.

The Climate Pollution Reduction Grant is a significant opportunity to support progress towards our greenhouse gas reduction and clean energy goals. We are excited to get to work, collaborate with our partners, and share what we learn — and we are committed to doing our part to achieve the goals and deliverable of this project to support a safe, equitable, clean, and sustainable future for Oregon.

Sincerely,

Janine Benner, Director  
Oregon Department of Energy



# Oregon

Kate Brown, Governor



550 Capitol St. NE  
Salem, OR 97301  
Phone: 503-378-4040  
Toll Free: 1-800-221-8035  
FAX: 503-373-7806  
[www.oregon.gov/energy](http://www.oregon.gov/energy)

April 27, 2023

Dr. Lisa Gaines, Director  
Institute of Natural Resources  
Strand Agriculture Hall 231  
170 SW Waldo Place  
Corvallis, OR 97331

Dear Dr. Gaines,

Please accept this letter of gratitude and support for the Institute for Natural Resources (INR), a partnership among Oregon's higher education establishments and housed at Oregon State University.

Established by the Legislature in 2001, INR's mission is to provide reliable, objective, relevant, and science-based integrated natural resource knowledge to facilitate long-term stewardship of Oregon's environment and natural resources. The Oregon Department of Energy (ODOE) relies on reliable, objective, relevant science to fulfill our own mission:

*The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and future generations.*

We appreciate your service as a member of ODOE's [Energy Advisory Work Group](#), a statutorily required forum to share information and provide feedback on strategic priorities and long-term vision for ODOE. We also appreciate the recent collaboration between, ODOE, INR, and the Department of Land Conservation and Development (DLCD) on a federal grant from the Department of Defense for the first Oregon Renewable Energy Siting Assessment. This project helped us bring \$1 million in federal funding to the state. Working together, ODOE, DLCD, and INR created a data-driven tool to facilitate renewable energy development that considers potential benefits or impacts to natural resources, communities, military training, and more. This will highlight opportunities for renewable energy and transmission development that are ecologically, socially, and economically implementable. This information has been made available for renewable energy developers, reviewing agencies, and the general public with the goal of using shared information to identify and minimize conflicts.

INR staff bring deep expertise in data and information integration and management, developing interactive GIS mapping and reporting tools, and assessing built and natural resources. The team leveraged the Oregon Explorer (OE) platform, which provides access to integrated data and information organized by topic, location, and data formats. The Oregon Renewable Energy Siting Assessment tool is more robust and effective because of state agencies partnering with INR.

With gratitude for your work leading an asset to the state and state agencies,

A handwritten signature in cursive script that reads "Janine Be". The signature is written in black ink on a white background.

Janine Benner, Director  
Oregon Department of Energy