



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

MEMORANDUM

To: Energy Advisory Work Group Members

From: Janine Benner, Director

Date: June 16, 2022

Re: Materials for June 28, 2022 Meeting

With summer around the corner, ODOE is in the throes of the state budget process, drafting the Biennial Energy Report, launching new incentive programs, helping the fuels sector prepare for wildfire season, reviewing an increasing number of potential solar projects, and more. We're excited to share more information with you and hear about what's happening in your world this summer at our upcoming EAWG meeting.

As you'll see from the agenda, we plan to spend the bulk of our time talking about ODOE's 2023-2025 agency request budget and our proposed Policy Option Packages, which we'll be submitting to the Department of Administrative Services at the end of the month. In addition to sharing information about our budget with you, we're really looking to hearing feedback on these POPs, which our staff have identified as vital to the agency in being able to support our work on behalf of Oregonians.

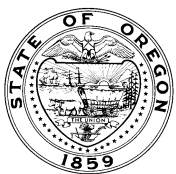
In the previous two EAWG meetings we have talked extensively about federal funding coming to the state from the Infrastructure Investment and Jobs Act. This is something the agency is still tracking very closely, and we are planning two webinars on the topic with the public and stakeholders for July (stay tuned for dates). But these federal funds will not show up in our budget request until the funds are made available by U.S. DOE. We will need to make adjustments to add federal funds as the budget moves through the state process during this summer and fall.

Attached to this memo, please find the following materials, which we hope you'll be able to spend some time with before our meeting on the 28th.

- Meeting Agenda
- Budget backgrounders: We have included two fact sheets to remind you about ODOE's existing (2021-2023) budget and how we're funded.
- Proposed Policy Option (POP) Packages: we are asking for your review and recommendations on these proposed additions to our base budget for the next biennium (2023-2025). We are requesting most of these POPs to be funded through the General Fund, but we note where Energy Supplier Assessment funds are being

requested. Please see fact sheets on the following POPs. Note that the first two are associated with the legislative concepts we are proposing.

- Extension of the Oregon Solar and Storage Rebate Program
- Navigator for Community Capacity Building
- Resources for Equitable External Engagement
- Addition of a GIS Research Analyst
- Creation of an Energy Research Fund
- Adjustments to Wildfire Rebuilding and Community Renewable Grants Programs
- Funding to pay interns
- Additional Siting Staff
- Increasing use of General Fund for Radioactive Waste Disposal Oversight
- Biennial Energy Report
 - Draft Table of Contents
 - List of studies used to inform the Energy Transition policy brief. Please let us know if there are any glaring emissions or red flags in this list.
 - Survey on energy workforce and supply chain issues
- Do you know anyone who might be interested in serving on an external review committee for the Community Renewable Energy Grant Program? Interest forms ([found here](#)) are due July 3.
- ODOE has submitted two Legislative Concepts for consideration in the 2022 Legislative Session:
 - Oregon Solar and Storage Rebate Program
 - Navigator for Community Capacity Building
- Strategic Plan: At the meeting we will provide an update on progress on meeting some of the objectives in our strategic plan. You can review the strategic plan focus areas and objectives [here](#).
- ODOE staff presented 6 times during recent Legislative Days. In case you missed it, you can find the presentations below:
 - [Regional Transmission Organization Study](#)
 - [OGWC Roadmap to 2035](#)
 - [Update on Incentive Programs](#)
 - [ORESAs Briefing](#)
 - [Update on HB 2021 \(Clean Electricity Standard and More\) Implementation](#)
 - [Update on SB 1536 \(Heat Pumps\) Implementation](#)
- Finally, here are some recent letters that ODOE has sent that we wanted to make you aware of:
 - Letter to the National Academy of Sciences on options for supplemental treatment of Low Activity Waste at Hanford
 - Response to U.S. DOE Request for Information on IJA Grid Resilience Funding
 - Letter of Support for the Burns Paiute Tribal Community Wellness Retrofit
 - Letter of Support for ODOT Alt Fuels Corridor
 - Letter of Support for Coos Bay Hydrogen Twin Cities Proposal



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AGENDA

Energy Advisory Work Group

DATE: June 28, 2022

TIME: 1:00-3:00pm

Oregon Department of Energy – via WebEx

Link: <https://odoe.webex.com/odoe/j.php?MTID=mee57c09f65d72644321ae155b164ed33>

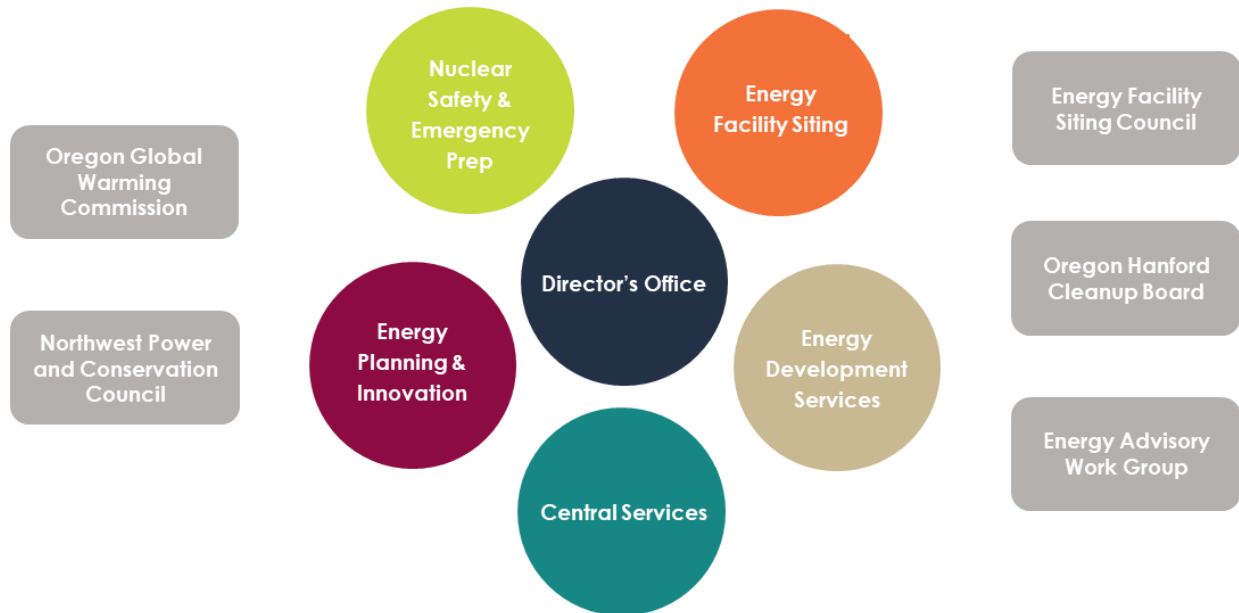
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Call-in number: 1-408-418-9388 Meeting ID: 2330 980 1703

| Time | Topic | Lead |
|--------|--|-----------------------------------|
| 1:00pm | Director's Update | Janine Benner |
| 1:05pm | EAWG Roundtable | EAWG Members |
| 1:30pm | Budget | Janine Benner Michael Williams |
| 2:30pm | Biennial Energy Report | Jessica Reichers |
| 2:40pm | Preparing Fuel Sectors for Wildfire Season | Max Woods |
| 2:45pm | Strategic Plan Objectives Update | Ruchi Sadhir Kaci Radcliffe |
| 2:50pm | Q&A/Closing Comments | Janine Benner All |

Introduction

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. Our agency meets this mission through five divisions and about 99 employees (94.44 FTE).



ODOE’s responsibilities are diverse, but the thread connecting them is found in our vision for the future – where Oregon is an energy leader, and where our statewide energy landscape is safe, clean, affordable, resilient, and sustainable.

Our priorities include overseeing the comprehensive review of proposed and amended energy facilities; contributing to the state’s efforts to address the challenges of climate change; leading statewide efforts related to energy efficiency, renewable energy, clean transportation, and resilience; and representing the state in regional programs related to energy safety and environmental protection.

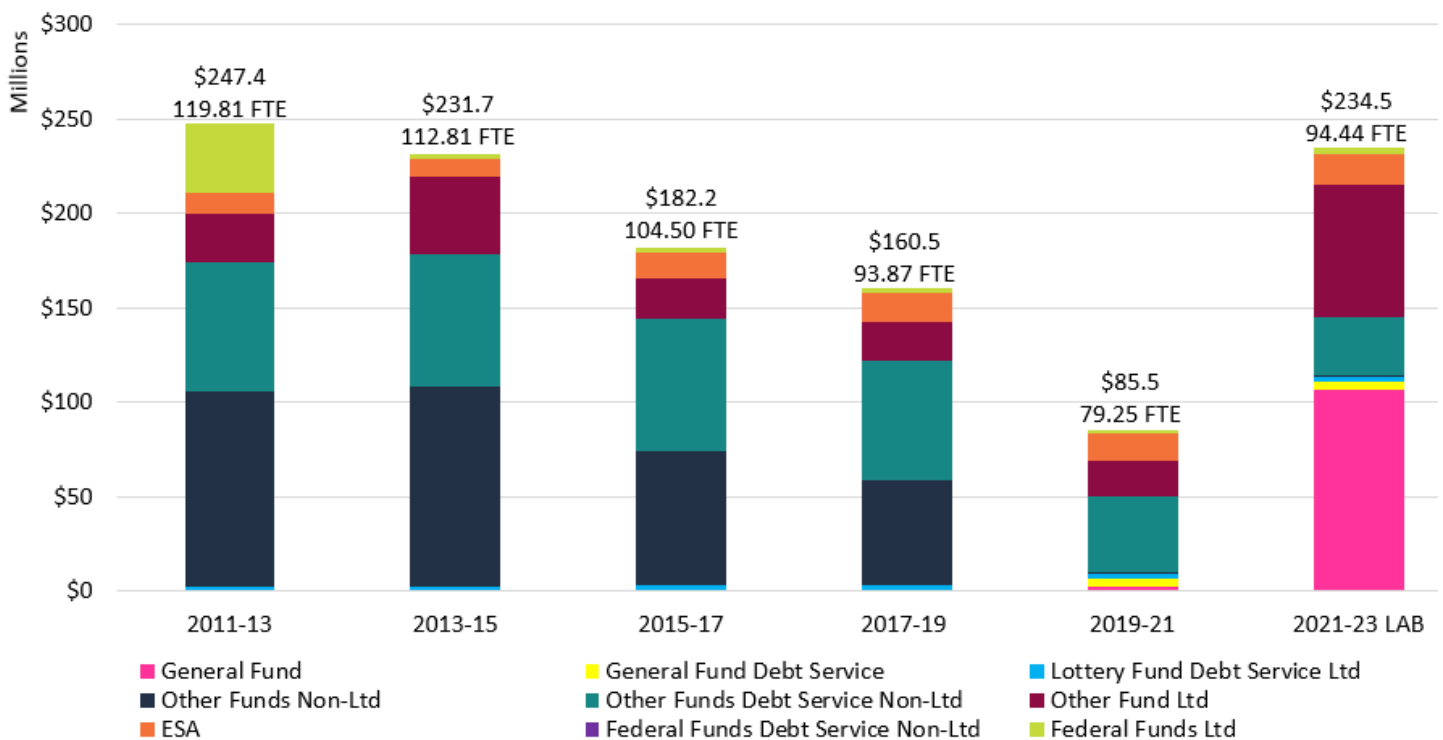
ODOE Budget History

Following a multi-biennia trend of ODOE making significant cuts to our budget – eliminating positions, closing offices, and ending programs – the 2021-23 biennial budget marks a significant increase. The Oregon Legislature allocated General Fund dollars for five financial incentive programs housed at ODOE: a continuation of the Oregon Solar + Storage Rebate Program (\$15 million), a new Energy Efficient Wildfire Rebuilding Program (\$10.8 million), a new Community Renewable Energy Grant Program (\$50 million), a new Heat Pump Deployment Program (\$10 million), and a new Residential Heat Pump Program (\$15 million).

Like all state agencies, ODOE has faced increased costs associated with personnel, Department of Administrative Services charges, and inflation. All have put pressure on our underlying funding streams, including the Energy Supplier Assessment, which is assessed on entities that supply energy in Oregon.

- In 2015-2017, ODOE management made cuts, closing satellite offices and reducing positions.
- In 2019-21, the 47 percent decrease from 2017-2019 is largely attributable to the removal of \$55 million in expenditure limitation as a result of SELP not being given new bonding authority.
- In 2019-21, for the first time, ODOE requested funding for general fund debt services for the Small-Scale Energy Loan Program. Due to actions the agency took to reduce the SELP deficit, this \$4.3 million was returned to the General Fund during the 2019-21 biennium. While the agency has reduced the cumulative forecasted deficit in the SELP program by over \$10 million, additional general fund debt service will continue to be needed.
- As noted above, the 2021-23 budget received a significant increase in General Fund dollars for new financial incentive programs.

History of ODOE’s Biennial Budgets and 2021-2023 Legislatively Adopted Budget



ODOE Funding Sources






- Fees and charges for services, such as Energy Facility Siting, emergency preparedness planning, codes training, etc.
- Energy Supplier Assessment
- General Fund
- SELP borrowers paying their principal plus interest
- Federal funds/grants: U.S. Department of Energy’s State Energy Program, U.S. Department of Energy funding for ODOE’s work on Hanford, U.S. Department of Defense funding for the Oregon Renewable Energy Siting Assessment, U.S. Department of Agriculture Energy Audit and Renewable Energy Development Assistance Grant.
- Other revenues

Strategic Plan

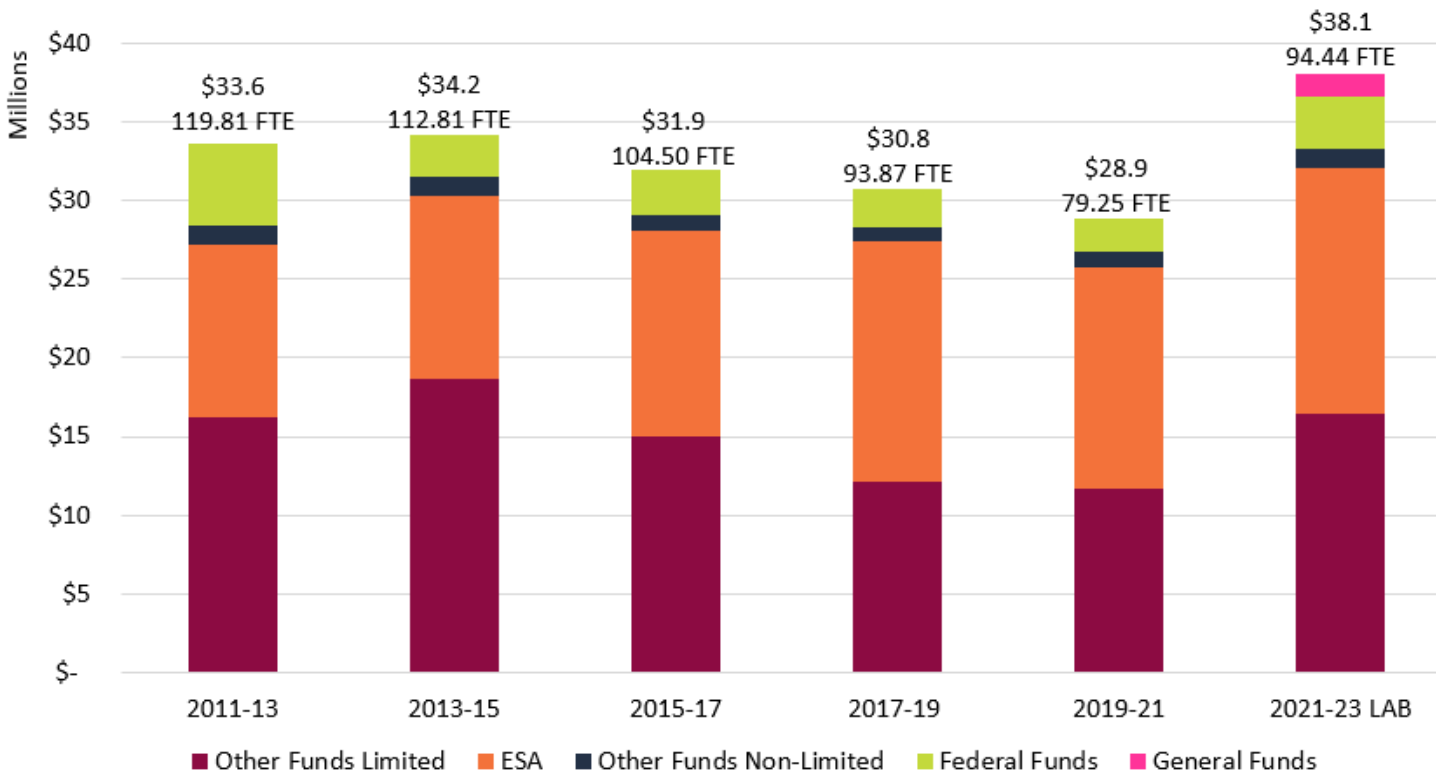
In 2021, the Oregon Department of Energy published a new Strategic Plan, developed over the last two years with robust stakeholder engagement. The plan articulates an updated mission, vision, values, and position statement. It also includes five areas of focus — including stakeholder engagement, equity, data, modernizing programs, optimizing organizational efficiency — that the agency will prioritize over the next four years to strengthen the alignment between agency goals, programs, budget, and performance evaluation.

About ODOE’s 2021-23 Budget

On behalf of Oregonians across the state, the Oregon Department of Energy achieves its mission by providing:

-  A Central Repository of Energy Data, Information, and Analysis
-  A Venue for Problem-Solving Oregon's Energy Challenges
-  Energy Education and Technical Assistance
-  Regulation and Oversight
-  Energy Programs and Activities

History of ODOE’s Biennial Operating Budgets and 2021-2023 Legislatively Adopted Budget



Budget by Division

Energy Planning & Innovation: 26.13 FTE, \$9,340,366

Energy Efficiency | Renewable Energy | Sustainable Transportation | Climate Change and Resilience | Northwest Power & Conservation Council

Nuclear Safety & Emergency Preparedness: 6 FTE, \$2,959,948

Hanford Cleanup | Emergency Preparedness | Radioactive Materials | Oregon Fuel Action Plan

Energy Facility Siting: 13 FTE, \$6,195,221

Energy Facility Review | Rulemaking | Compliance | Energy Facility Siting Council Support

Energy Development Services: 16.5 FTE, \$202,885,107

Community Renewable Energy Grant Program | Oregon Solar + Storage Rebate Program | Energy Efficient Wildfire Rebuilding Program | Heat Pump Deployment Programs | Small-Scale Energy Loan Program | Legacy Renewable Energy Development Grant and Tax Credit Programs

Administrative Services: 32.81 FTE, \$13,128,837

Director's Office: Internal Audit | Communications | Engagement | Government Relations

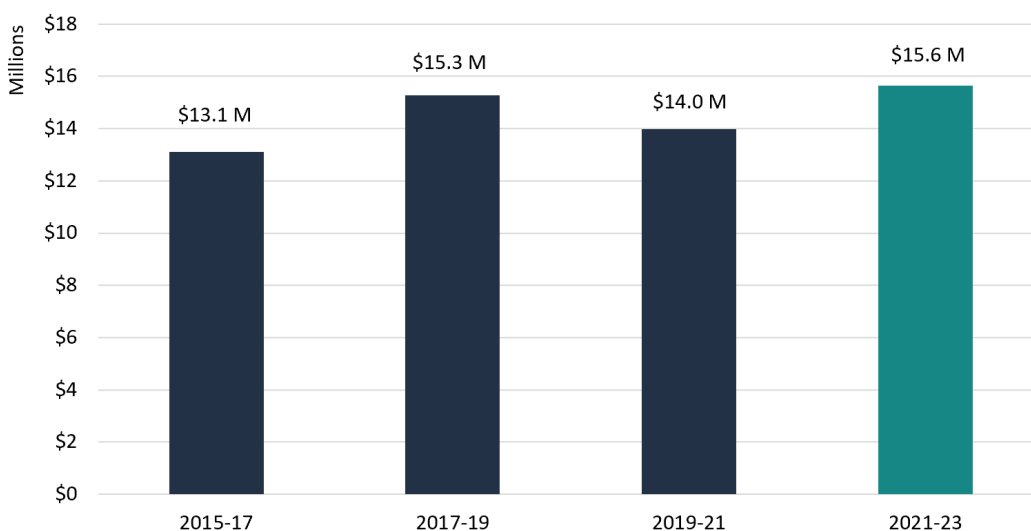
Central Services: Business Support Functions | Budget | Information Technology | Human Resources

Energy Supplier Assessment

The ESA is charged to fuel providers and utilities supplying energy in Oregon to fund statutorily-required programs that benefit Oregon energy users.

The amount of the assessment is determined by the Legislature, and is assessed annually on energy providers' gross operating revenues.

History of Energy Supplier Assessment and 2021-2023 Legislatively Adopted Budget



All Oregonians pay for the ESA when they pay for energy — about \$1.84 per year for each Oregonian.

In 2022, ODOE assessed \$7.82 million for the ESA on \$6.6 billion of Gross Operating Revenues reported by ESA ratepayers.



\$234.5 million | Overall Budget

Includes new General Fund dollars for incentive programs



\$38.1 million | Operating Budget

How we pay for our agency's day-to-day work



The operating budget is funded by

Seven Main Funding Sources

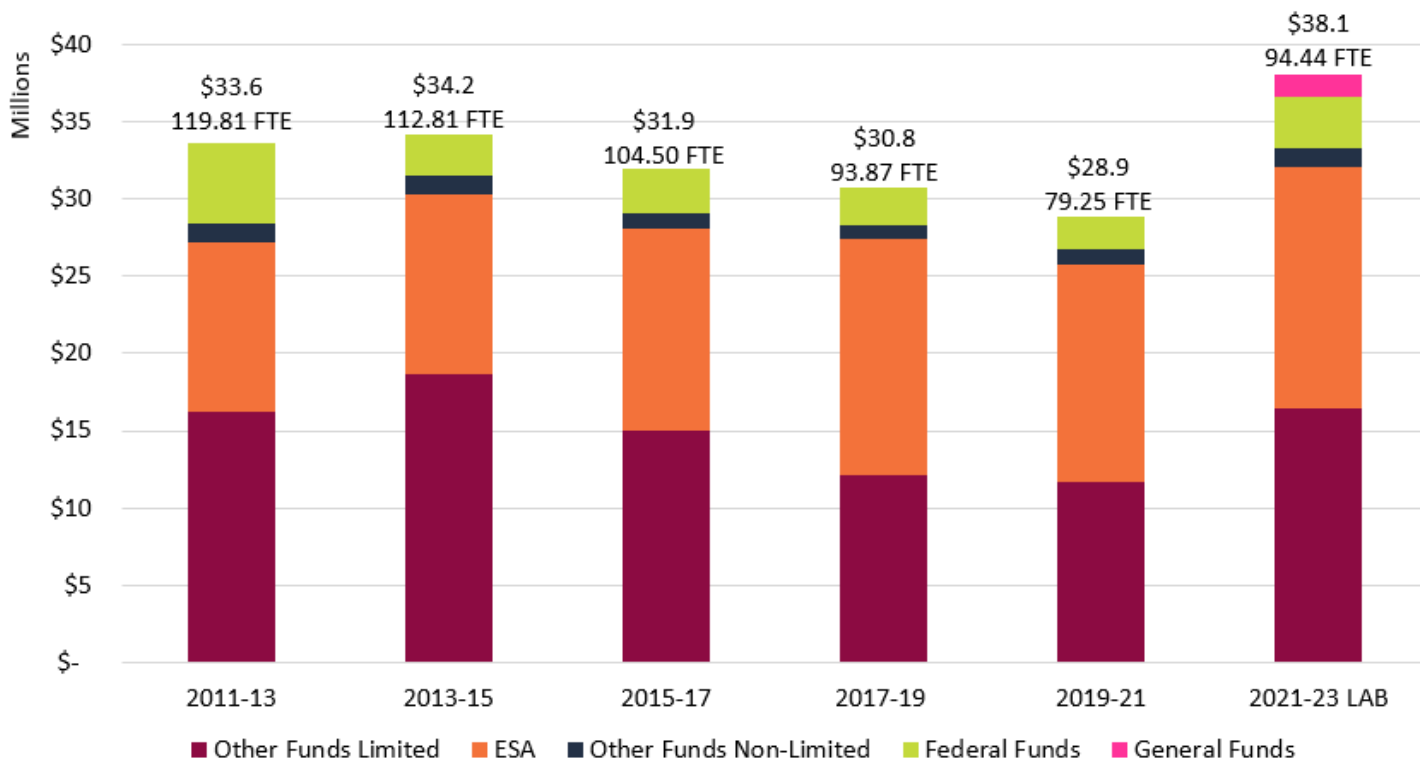
- 8.9% Federal Funds
- 3.8% General Funds
- 20.4% Other Revenues
- 12.4% Siting & EIP Fees
- 8.4% Charges for Services
- 5% Small-Scale Energy Loan Program
- 41.1% Energy Supplier Assessment

Funding supports

Five Agency Program Divisions

- 34.5% Administrative Services
- 24.5% Planning & Innovation
- 18.6% Energy Development
- 15.1% Energy Facility Siting
- 7.3% Nuclear Safety/Emergency Prep

Biennial Operating Budgets with Funding Sources



The Energy Supplier Assessment is a key funding source for ODOE.

The Energy Supplier Assessment is charged to fuel providers and utilities producing energy in Oregon and helps to fund the Oregon Department of Energy. All Oregonians pay for ESA when they pay for energy — about \$1.84 for each Oregonian in 2022.

ESA funds statutorily-required programs that benefit Oregon energy users. Our agency works to keep energy supply and costs stable while supporting more renewable energy, reducing carbon, protecting the environment and public health, supporting energy jobs and our economy, and building a more resilient system.

ESA is assessed on ratepayers' Gross Operating Revenues.

ESA is apportioned out to ratepayers based on their reported revenues. Because the ESA is based on reported revenues, ratepayers that see their revenues decline in proportion to other ratepayers could see their share of the ESA decline. The ESA is capped at 0.375% of revenues.

The Oregon Legislature determines the ESA amount assessed.

The Legislature approves the agency's budget, and in doing so determines the amount of ESA that can be assessed. For 2022, ODOE assessed **\$7.82 million** on **\$6.6 billion** of Gross Operating Revenues reported by ESA ratepayers.

Following a multi-biennia trend of ODOE making significant cuts to our budget – eliminating positions, closing offices, and ending programs – the 2021-23 biennial budget marks a significant increase. The Oregon Legislature allocated General Fund dollars for five financial incentive programs housed at ODOE: a continuation of the Oregon Solar + Storage Rebate Program (\$15 million), a new Energy Efficient Wildfire Rebuilding Program (\$10.8 million), a new Community Renewable Energy Grant Program (\$50 million), a new Heat Pump Deployment Program (\$10 million), and a new Residential Heat Pump Program (\$15 million).

While the influx of General Fund offsets some ESA dollars, ODOE's 2021-23 biennial budget included an increase in ESA dollars, from \$14 million in 2019-21 to \$15.64 million for 2021-23. This is due, in part, to increasing costs related to personal services, PERS, and other employee benefits. The ESA amount represents an assessment rate of 0.129% of Gross Operating Revenues reported by ratepayers, well below the cap of 0.375%.



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2023-25 Budget: Policy Option Package

Oregon Solar + Storage Rebate Program

ODOE Division and Program

Energy Development Services Division; Oregon Solar + Storage Rebate Program.

Background and Need

The Oregon Solar + Storage Rebate Program was established by the Oregon Department of Energy at the direction of HB 2618, which was passed by the Oregon State Legislature in 2019. The legislation called for the department to adopt a program to provide rebates for the purchase, construction, or installation of solar electric systems and paired solar and storage systems.

Program rebates are issued to participating contractors and are passed on to customers as a reduction in the price of the installed system. The legislature directed the department to make at least 25 percent of the rebate budget available for projects installed for low- and moderate-income residential customers and low-income service providers. Low-income service providers are a specific group of non-residential customers that provide services to individuals and households with low or moderate incomes.

The Oregon Solar + Storage Rebate Program advances Oregon's energy policy goals by helping reduce the upfront costs associated with the purchase and installation of solar energy production and solar energy storage systems, as well as supporting the Oregon solar installer industry. Since the program was established, the Legislature has directed \$17 million to this program, including \$10 million in June 2021 (HB 5606) and \$5 million in March 2022 (SB 5202). As of June 15, 2022, 2,089 projects have either received or reserved rebates in 29 Oregon counties, a state investment of over \$6.9 million supporting over \$78 million in total project costs.

The legislature typically includes a sunset date for incentive programs in statute as a best practice to periodically revise or revisit those programs. HB 2618 included a sunset date of January 2, 2024. This means that the sunset must be lifted for the program to continue through the 2023-2025 budget period. Also, the current staffing for the program will no longer be funded as of July 1, 2023, leaving no dedicated staff to monitor the program or process applications for the remaining funding that is already approved though the program sunset in 2024. At the very least, the program needs to be funded for staff positions through the sunset; another policy option package is being submitted in case the sunset is not extended.

Proposed Solution

The Oregon Department of Energy is pursuing a 2023 legislative concept that that would extend the sunset an additional five years and make the program's 2.5 full time positions permanent instead of limited duration. This would continue the program's success in meeting the legislature's goals of reducing the upfront costs of installing solar and storage systems and supporting the Oregon solar installer industry while enabling recruitment and retention of agency staff.

Expected Fiscal Impact

The Oregon Solar + Storage Rebate Program is funded by the general fund, and administrative costs are currently 8 percent of the program total budget. To extend the program at its current level, ODOE recommends an additional \$10 million in General Fund for the next biennium.



2023-25 Budget: Policy Option Package

Navigator for Community Capacity Building

ODOE Division and Program

Director's Office; program to provide support in navigating funding opportunities for communities. The new program could be established by a legislative concept.

Background and Need

Since 2021, the state legislature has created new energy programs and Congress has passed the Infrastructure Investment and Jobs Act — investments that will bring state and federal dollars for energy projects to Oregon communities. In many cases, these communities, especially rural and Tribal communities, do not have the resources, time, or capacity to apply for these funds. Language in those new federal and state laws has made it clear that energy dollars should flow to the communities that need them most.

For instance, the federal Infrastructure Investment and Jobs Act is being implemented with the Justice 40 Initiative in mind. Justice 40 is a goal calling for 40 percent of federal investments to benefit disadvantaged communities. The initiative defines disadvantaged based “on a combination of variables that may include, but are not limited to, the following:

- Low income, high and/or persistent poverty
- High unemployment and underemployment
- Racial and ethnic residential segregation, particularly where the segregation stems from discrimination by government entities
- Linguistic isolation
- High housing cost burden and substandard housing
- Distressed neighborhoods
- High transportation cost burden and/or low transportation access
- Disproportionate environmental stressor burden and high cumulative impacts
- Limited water and sanitation access and affordability
- Disproportionate impacts from climate change
- High energy cost burden and low energy access
- Jobs lost through the energy transition
- Access to healthcare”

In Oregon, the Community Renewable Energy Grant Program calls for prioritizing projects in environmental justice communities. The definition for these communities is in HB 2021 (2021). Environmental justice communities: “includes communities of color, communities experiencing lower incomes, tribal communities, rural communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth, and persons with disabilities.”

These same concerns arise when trying to bring more people from more communities, particularly those that have been traditionally underrepresented, to energy decision-making tables. Whether it's capacity to serve on a rulemaking advisory committee or study work group, or capacity to apply for grant funding, there are obvious barriers to participation for communities. The Oregon Department of Energy's [strategic plan](#) calls for increasing the diversity of the agency stakeholder groups, increasing agency engagement with organizations representing historically and currently underserved populations and communities, and

increasing the percentage of these same populations and communities participating in ODOE programs and services.

Proposed Solution

The agency is proposing a legislative concept that would establish a program to provide information about potential funding resources and other technical assistance to rural, Tribal, and other environmental justice communities as they work to develop energy projects or build energy-related capacity. To serve this need, ODOE recommends adding an additional full-time employee whose job it is to help communities navigate funding opportunities for projects and capacity-building.

Expected Fiscal Impact

\$396,229 in General Fund



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June 2022

2023-25 Budget: Policy Option Package

Equity and External Engagement

ODOE Division and Program

Agency-wide; support for equity and external engagement across all programs.

Background and Need

In recent years, the State of Oregon and the Oregon Department of Energy have prioritized equity and social justice. This includes centering the needs of communities of color, Oregonians with lower incomes, tribal communities, rural and coastal communities, and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards. To date, the agency has absorbed this important and valuable work as much as possible, but there is a need for increased capacity and expertise to meet requirements and expectations. Further, our work is better when we are able to meaningfully incorporate thoughtful input and feedback from environmental justice communities and other underrepresented communities and individuals. This POP builds on existing work, and also reflects the need for new capacity.

One factor driving this need is the passage of HB 4077, which adds ODOE to the list of natural resources agencies required to support the Environmental Justice Council and its work. This includes building a new equity mapping tool for the state, increased reporting requirements, and more. For example, the agency is to appoint a public advocate tasked with “encouraging public participation, ensuring that the agency considers environmental justice issues, and informing the agency of the effect of its decisions on environmental justice communities.”

Another factor creating an increased need involves the adoption of state and agency plans and policies around equity. For example, the Racial Justice Council has created tools and an expectation that equity be woven into state budgets. HB 2353 requires racial equity impact statements for rulemaking, and HB 2167 requires that each agency request budget include a racial equity impact statement. The ODOE strategic plan includes several initiatives and objectives related to equity and justice. In order to address equity and environmental justice issues, ODOE will need to improve engagement with communities historically left out of decision-making on energy issues, which will require new approaches. Many of these new approaches are called for by the [state’s DEI Action Plan](#).

Proposed Solution

First, this POP includes a new position for the agency: a Public Advocate with a focus on meeting the requirements laid out in HB 4077, as well as supporting agency work to meet other related requirements and expectations.

Second, this POP includes funding to more effectively engage environmental justice communities¹ in our work.

This funding would support a suite of engagement options identified as best practices and currently in use by other agencies, peer organizations, and other states. As the Governor’s Community Engagement

¹ HB 4077 defines environmental justice communities as “communities of color, communities experiencing lower incomes, communities experiencing health inequities, tribal communities, rural communities, remote communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth and persons with disabilities.”

Guide puts it, “if our goal is to engage with historically and currently underserved and under-resourced communities, we must counteract societal challenges with equitable tools and resources.” This could include:

- Compensating individual members of a community-based organization (through small hourly contract) to support participation in agency processes like rulemaking, workgroups for a study/report, or grant application evaluation/scoring
- An organizational contract for a CBO to co-host and collaborate on outreach events or project workshops
- Hiring DEI-expert consultants to support overall agency strategy or program/project design to help staff working on new or amended programs as well as implementing new funding sources (e.g. Infrastructure Investment and Jobs Act)

Expected Fiscal Impact

\$406,080, including approximately \$123,000 of ESA funds.



2023-25 Budget: Policy Option Package

GIS Research Analyst

ODOE Division and Program

Agency-wide, with most work likely coming from the Planning & Innovation Division.

Background and Need

The Oregon Department of Energy has heard from decision-makers, energy providers, community organizations, and other stakeholders that energy-related analyses that can be presented as data dashboards and maps are insightful information for understanding Oregon's energy system. ODOE's current data dashboards and map tools — such as the [Electric Vehicle Dashboard](#), [Electricity Resource Mix](#), and [Solar Dashboard](#), as well as interactive maps to [Find Your Utility](#) and view [Energy Facility Siting Council-jurisdiction energy facilities](#) — are among the agency's most-visited web pages. We've heard that additional data analysis that can serve as the basis for agency products like dashboards and energy-related maps would be useful, but the agency lacks geospatial data analysis expertise to collect, interpret, and develop geospatial data for agency programs and projects.

Data visualizations and maps provide easily digestible information for decisionmakers, energy providers, energy technology developers, local governments, Tribes, local communities, community organizations, non-governmental organizations, and members of the public. Geospatial data analysis can synthesize existing numerical and geographic information that can provide new perspectives on the energy landscape. The resulting products play an important role in enabling Oregonians to better understand the potential barriers, opportunities, and effects of energy-related policy choices — particularly in communities that continue to suffer negative environmental, economic, and public health consequences due to past policy choices. Maps informed by robust Oregon-specific data — such as demographic and economic data — make energy-related information more accessible and can support organizations and communities that may lack the resources to conduct their own in-depth analysis of energy-related data.

ODOE's [2021-2024 Strategic Plan](#) also outlines a focus area to assess and enhance the organization's data capabilities, including bolstering staff data analysis and visualization work to make more interactive, value-add products like dashboards available for decision-makers, policymakers, and other community partners and stakeholders. The Plan also has an initiative around identifying key energy indicators — like statutory energy targets and goals, executive orders, and other data like energy jobs — and developing dashboards to monitor and track the status of those indicators.

There is a vast amount of existing geospatial data that can be leveraged to inform policy development in Oregon, but this requires knowledgeable staff that can identify credible data resources and present information in a way that is informative to energy policy discussions and programmatic goals. Data science trends indicate geospatial data, data sets, and statistical analyses will be increasingly commonplace, and engagement with other data providers and resources will be dependent on GIS expertise at the agency.

Proposed Solution

ODOE proposes creating a new, permanent full-time GIS Research Analyst position to add expertise and capacity to examine energy systems, resources, assets, and usage patterns to develop valuable analysis of, and relationships between, energy systems.

The analyst will bring specialized skills related to analyzing geospatial data and using GIS tools such as conducting statistical analysis from existing information, developing new geographical information and maps, creating useful interactive maps and other visualizations, and managing GIS-based databases. With this position agency products will be more sophisticated, credible, and robust, which will better serve stakeholders and decisionmakers. It will also enable existing data visualization staff to focus on creating and maintaining dashboards and other visualization tools. A staff GIS analyst will also enable program and policy staff to focus more on their core work while also providing a skilled practitioner to guide staff in learning rudimentary GIS techniques where appropriate.

Expected Fiscal Impact

\$240,123 from a combination of sources, including \$69,300 of ESA funds



2023-25 Budget: Policy Option Package

Energy Research Fund

ODOE Division and Program

Agency-wide, with the Planning and Innovation Division directing most of the work.

Background and Need

The energy landscape is evolving quickly as the state works toward achieving its clean energy and climate goals. ODOE has a small staff of energy analysts who maintain expertise on fundamental and underlying energy issues, and these staff conduct nearly all analyses and studies without the benefit of the models and licenses frequently used in the energy sector. It would be inefficient and cost-prohibitive to maintain internal staff capacity and knowledge on everything in this fast-moving field with new technology that develops so quickly. In recent years, the agency has identified areas where our work would be enhanced and more useful by working with external expertise. The agency has limited ability to supplement staff analyses with external expertise, and when grant funding has been identified and secured to supplement staff analyses (for example for the [Transformative Integrated Greenhouse Gas Emissions Reduction Study](#) and [Oregon Renewable Energy Siting Assessment](#)), the products have added significant value for communities and policymakers. Other requested studies have not moved forward because funding was unavailable, for example, updates to the Renewable Natural Gas Inventory, an electric vehicle charging gap analysis, an evaluation of jobs in the renewable energy industry, and a study to assess the amount of biomass in Oregon forests in comparison to wildfire risk.

Timely information about new technology and data analysis using up-to-date modeling is foundational to helping Oregonians make informed decisions and maintaining a resilient and affordable energy system. Without a deeper dive on some subjects, particularly cross-sectoral analysis, there is a risk that decisionmakers will not have important information to inform choices. This is particularly important as the state weighs the relative benefits and challenges of decarbonization and co-benefits such as effects on jobs, public health, and the environment. Insight into the relative effects of energy-related policy choices on underserved communities is also crucial to creating a more equitable energy landscape as the state transitions to a lower carbon future. ODOE regularly identifies specific areas of study or analysis that would enable us to more effectively and efficiently inform policies and programs that help the state deliver on its goals.

Proposed Solution

This POP would establish an Energy Research Fund at the agency that will be used to contract with outside firms for studies, research, and analysis services when necessary to supplement existing department resources. The amount of \$250,000 is anticipated to cover the cost of one to four studies per biennium.

As described in the [Energy Advisory Workgroup Charter](#), the department will seek review and recommendations from the EAWG on draft ideas for studies, research, and analysis based on the following criteria:

- i. Does the idea for studies, research, or analysis address a research need or does it further existing or outdated studies, research, or analysis?
- ii. Does the idea for studies, research, or analysis address a topic of strong relevance in Oregon or in the broader energy policy landscape?



- iii. Is the idea for studies, research, or analysis likely to result in an impartial, data-driven contribution to the body of existing research on this topic?

As ODOE continues to build on its role in data and policy analysis to inform and support stakeholders and support policymakers, an available funding source to contract with third-party experts will make the agency more flexible and responsive to requests.

Expected Fiscal Impact

\$250,000 in Energy Supplier Assessment funds.



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June 2022

2023-25 Budget: Policy Option Package

Incentive Programs

ODOE Division and Programs

Energy Development Services Division; Community Renewable Energy Grant Program and Energy Efficient Wildfire Rebuilding Incentive.

COMMUNITY RENEWABLE ENERGY GRANT PROGRAM

Background and Need

In the 2021 legislative session, HB 2021 allocated \$50 million to the Oregon Department of Energy to fund grants for renewable energy and energy resilience projects in Oregon over two biennia. The program is open to Oregon Tribes, public bodies, and consumer-owned utilities. Public bodies include counties, municipalities, and special government bodies such as ports and irrigation districts. Grants are awarded on a competitive basis and priority will be given to projects that support program equity goals, demonstrate community energy resilience, and include energy efficiency and demand response.

At least half of the grant funds will be awarded for projects that serve environmental justice communities, including communities of color, lower-income communities, rural communities, and others. Similarly, at least half of the grant funds will be awarded to projects that support community energy resilience.

About half of the initial \$50 million allocated to the program is to be spent in the 2021-23 biennium. After developing and launching the program in May 2022, ODOE made \$12 million available for an initial round of funding, with applications due July 8, 2022. ODOE will make additional rounds of funding available in 2022 and 2023.

The eligible projects selected in the 2021-23 biennium will not all be completed by the end of the biennium. This POP is needed to “roll over” unused funds from 2021-2023 biennium to be completed in the 2023-2025 biennium. This POP is also needed to request limitation for the remaining funds from the initial program allocation to spend in 2023-2025.

Proposed Solution

Section 35 of HB 2021 provided limitation to spend \$26,960,291 in the 2021-2023 biennium. This POP will request limitation for the funds that go unused in 2021-2023 biennium to be rolled over for use in the 2023-2025 biennium.

This POP will also request limitation for the remaining \$23,039,709 of the original \$50 million to spend in the 2023-2025 biennium.

Expected Fiscal Impact

The Community Renewable Energy Grant Program is supported by General Fund dollars through the existing appropriation.



ENERGY EFFICIENT WILDFIRE REBUILDING INCENTIVE

Background and Need

In the 2021 legislative session, HB 5006 allocated about \$10.8 million to the Oregon Department of Energy to incentivize energy-efficient rebuilding efforts following the 2020 Labor Day wildfires. Oregonians who lost structures in the wildfires can receive incentives to rebuild to current building code or above code – incorporating these energy efficiency improvements helps make buildings more comfortable and supports long-term affordability through lower energy bills. Incentives are available for rebuilding site-built homes, replacing manufactured homes, and rebuilding commercial buildings. Higher incentives are available for Oregonians with lower incomes and for rebuilding affordable multifamily housing structures.

ODOE developed and implemented the program and began accepting applications in April 2022.

ODOE has heard from experts and stakeholders that the estimated timeline for wildfire rebuilding efforts will take longer than the current 2021-2023 biennium timeline for the program. Legislators and the Governor’s office are expecting ODOE to extend the program to better meet survivors’ timelines, so this POP is requesting to continue this program through the 2023-2025 biennium.

Proposed Solution

This POP will request to take any unused Energy Efficient Wildfire Incentive Program funds at the end of the 2021-2023 biennium and appropriate it back to ODOE for the 2023-2025 biennium.

It will also extend the staffing needed to continue the program.

Expected Fiscal Impact

No new funds are being requested. Up to 15 percent of limitation on general funds for administrative costs. Estimated costs are \$575,000, covered by the existing appropriation.

The POP also requests the program’s Limited Duration positions for the 2023-2025 biennium:

- 1 Account Tech 3
- 1 Program Analyst 3
- 1 Program Analyst 2

2023-25 Budget: Policy Option Package

Heat Pump Incentive Programs

ODOE Division and Program

Energy Development Services Division; Heat Pump Programs

Background and Need

In response to the heat dome event of 2021, during which at least 100 Oregonians died of heat-related illness, the legislature passed [SB 1536](#) in 2022 to bring much-needed heat relief. Two programs were established at the Oregon Department of Energy under the bill. \$10 million will support a heat pump deployment program to award grants to regional entities in each part of the state and each federally recognized Tribe in Oregon. Those regional entities will use the funding to deploy heat pumps in the communities they serve. \$15 million will allow ODOE to provide grants/rebates for installation of heat pumps by landlords in rental homes. At least 25 percent of program funds will be reserved for affordable housing providers and at least 25 percent for units that are occupied by households with incomes less than 80 percent of the area median income.

The heat pump programs advance Oregon energy policy by helping reduce the upfront costs associated with the purchase and installation of energy efficient heating and cooling devices, as well as supporting the health and safety of Oregonians.

ODOE is working to get the programs up and running, but the agency expects the program will need to extend into the 2023-2025 biennium to allocate the funding.

Proposed Solution

SB 1536 provided limitation to spend \$25,000,000 for the heat pump programs in the 2021-2023 biennium. This POP will request limitation for the funds that go unused in the 2021-2023 biennium to be rolled over for use in the 2023-2025 biennium.

Expected Fiscal Impact

No new funds are being requested. The POP also requests the program's Limited Duration positions to also be extended for the 2023-2025 biennium:

- 1 Operations and Policy Analyst 3
- 1 Program Analyst 3
- 2 Program Analyst 2
- 0.5 Procurement and Contract Specialist
- 0.5 Accounting Tech 3



2023-25 Budget: Policy Option Package

Paid Internships

ODOE Division and Program

Agency-wide; paid internships.

Background and Need

ODOE currently has a very successful unpaid internship program. We have hosted seven interns so far this biennium. Our interns have been involved in producing web-based interactive maps depicting energy use in state-owned facilities, creating maps of Oregon energy facilities, providing data analysis and visualization to update the agency's Electric Vehicle Dashboard, developing a guidebook for school districts interested in electric school buses, compiling and analyzing data and study results related to sediment samples from the Columbia River, supporting efforts to expand the outreach efforts and diversity of our internship program, and conducting research to update and improve the Oregon Fuel Action Plan.

Students who have little work experience in their industry should not have to choose between a valuable experience and pay. There is an entire student population that does not have the financial means and support to accept unpaid internships. Studies by and funded through the [National Association of Colleges and Employers](#) found that unpaid internships further inequities among students of color and other underrepresented groups. A 2019 student survey found that women, Black, and multi-racial student interns were more likely to be unpaid or never able to intern at all. Hispanic/Latinx students were more likely to have never interned at all, and one in four first-generation students also never interned. The studies also showed that students who were able to participate in internships were more likely to have success upon entering the workforce with that internship experience.

ODOE committed in its [strategic plan](#) to enhance our internship program to provide paid opportunities to interns in an effort to help build a more diverse network of ODOE and energy-industry employees. This POP is critical in meeting that initiative.

Proposed Solution

Paying interns can help solve the social inequality of unpaid internships. Paid internships allow all students, regardless of financial status, the ability to gain experience that is relevant to their career path, while being able to have a degree of financial stability.

By establishing two full-time equivalent paid internship positions, we will strengthen our ability to recruit and develop students and introduce them to the professional work environment, and to the energy industry. These two positions will provide us with the funding to hire 12 part-time paid interns. It will remove barriers to equal opportunity, and it will provide resources and opportunities to strengthen and advance diversity, equity, inclusion, and accessibility.

Expected Fiscal Impact

\$401,696 in General Fund



2023-25 Budget: Policy Option Package

Energy Facility Siting Division

ODOE Division and Program

Energy Facility Siting Division; compliance and facility application/amendment processing.

Background and Need

Oregon Revised Statute 469 establishes the authority and framework of the Energy Facility Siting Council and the Oregon Department of Energy to ensure that the siting, construction, and operation of energy facilities in Oregon are accomplished in a manner consistent with protection of the public health and safety and in compliance with energy policy and with air, water, solid waste, land use, and other environmental protection policies of this state.

Siting Division staff members who primarily work on energy facility applications, amendments or compliance have a monthly target of 80 percent of their hours being accounted for by billable work. While this ensures the use of Energy Supplier Assessment funds is minimized within the Siting Division, it also means that the number of staff members is largely equivalent to the amount of work — and there is limited capacity to take on sustained increases in workload associated with applications, amendments, and compliance. The three positions proposed in the Siting Division allow for the flexibility to increase staff if they can be justified based on the forecasted workload, without the additional time and resources needed to make a request to the Emergency Board during the biennium.

The two Utility and Energy Analyst 2 (UEA 2) positions were approved during the last two biennia as limited duration positions, but the new UEA (UEA 3) position has not been previously requested.

Proposed Solution

UEA 2 Compliance Position. Based on the current increase in compliance activities, this position has recently been filled for the remainder of this biennium. This increase, largely related to renewable projects commencing construction, is forecasted to continue through the next biennium, particularly in light of President Biden's executive action allowing solar panels from four southeast Asian countries to be imported for the next two years. Additionally, if the Boardman to Hemingway Transmission line (B2H) is approved, there will be a significant increase in compliance activities through next biennium. This position is therefore being proposed as a permanent position rather than a limited duration position.

UEA 3 Application and Amendment Position. There are currently several solar projects at the Notice of Intent stage and Siting staff are having frequent conversations with new solar developers as well as bio-fuels developers and hydrogen/fuel cell developers. If some or all of these come in generally in the same time frames, the agency does not have the staff capacity to review them all in a timely manner. Additionally, if B2H is approved, Idaho Power will be submitting amendments and amendment determination requests during the next biennium, adding to the volume of work. This position is also being proposed as a permanent position, as the agency has been challenged to recruit for UEA 3 positions in the past, and a limited duration designation would likely make it even more difficult.

UEA 2 Application and Amendment Position. The purpose of this position is to provide assistance to the UEA 3s on applications and amendments, but also on compliance duties where needed. The described need for the two positions above therefore overlaps with the need for this position. Similar to the other two, this is proposed as a permanent position.

Expected Fiscal Impact

The total costs of the three positions would be \$701,632, of which \$140,326 would be ESA funds. Since the Siting Division has statutory authority to charge for work on applications, amendments and compliance, the majority of these costs would be covered by fees. As these positions are designed to work on billable projects 80 percent of the time, they will only be filled if enough forecasted billable is identified. If the positions are not filled for all or part of next biennium, any remaining ESA funds collected to cover the 20 percent would be rolled over at the next biennium.



2023-25 Budget: Policy Option Package

Radioactive Waste Disposal Program Expansion

ODOE Division and Program

Nuclear Safety and Emergency Preparedness Division; radioactive waste disposal program.

Background and Need

Per ORS 469.525, it is illegal to dispose of radioactive waste in Oregon. Radioactive waste is defined in ORS 469.300 and administrative rule 345, division 50, authorized by the Energy Facility Siting Council and implemented by the ODOE Nuclear Safety and Emergency Preparedness Division staff. The rule includes an analysis process for assessing specific wastes streams for compliance with the definition of radioactive waste.

Historically, the program has utilized minimal NSEP division staff-time. However, increased staff time was required to manage the program starting in 2019 with the discovery of illegal radioactive waste disposal at a landfill in Gilliam County. In 2019-21 biennium, ESA funding supported the program. In the 2021-2023 biennium, the agency requested and received general funds to support the program. Legislation passed in 2021 allowed for expanded program responsibilities via rulemaking as well as expanded the list of parties responsible for compliance with radioactive waste disposal laws. The legislation also allowed the department to seek cost-recovery from parties found in violation of the radioactive waste disposal rules. The 2021 legislation directed ODOE and the Energy Facility Siting Council to revise its ruleset concerning radioactive waste, a project which is currently ongoing.

The legislature approved a similar but smaller POP and authorized \$80,092 of general fund money in the current FY2021-2023 biennium to ODOE's NSEP division to support work related to the state's in-state radioactive waste disposal program implementation. During this biennium, ODOE's experience is that properly managing Oregon's radioactive waste disposal program requires long-term management and funding that is beyond the limited funding authorized for the 2021-23 biennium.

The POP supports the ODOE mission and strategic plan by protecting the environment and public health.

Proposed Solution

The proposed POP would continue supporting the agency's radioactive waste disposal program with general funds and expand the agency resources dedicated to the program. Division will use existing staff, and reprioritize workload, in order to accomplish the goals of the POP. No new staff are necessary at this time. The additional general funds would support a program that is more pro-active, comprehensive, and able to engage with the regulated community and stakeholders. This would involve technical reviews of waste streams to assess compliance with radioactive waste disposal regulations, working with Oregon waste generators, transporters, and landfills to support compliance, building and maintaining relationships with the regulated community, investigating potential non-compliance incidents, and coordinating activities with other state agencies (DEQ and OHA, particularly).

Expected Fiscal Impact

\$179,442 in General Fund



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550 Capitol St. NE | Salem, OR 97301 | AskEnergy@oregon.gov
Direct: 503-378-4040 | Toll-free in Oregon: 1-800-221-8035
www.oregon.gov/energy

June 2022

2022 Biennial Energy Report

Draft Table of Contents

The Oregon Department of Energy is in the drafting phase for the [2022 Biennial Energy Report](#), finalizing pieces on foundational topics and developing more in-depth content. A draft table of contents showcasing the report topics is provided below. Topics were developed in consultation with stakeholders through individual meetings, an online survey, and over the course of ODOE's normal work with stakeholders during the last two years. While the topics listed are firm, there is the potential that these may change based on agency resources and priorities over the next few months.

Draft Table of Contents

Executive Summary and Introductory Pieces

Energy by the Numbers

- Energy Overview
- Energy Use in Oregon
- Energy Production in Oregon
- Energy Costs, Economy, and Equity
- Energy Efficiency
- Energy End Use Sectors and Sector Profiles

Energy History Timeline

Energy Resource & Technology Reviews

- Electricity Generation
- Electricity Storage
- Hydrogen
- Transportation Fuels
- Clean & Efficient Vehicles
- Energy Efficient Building Energy Technologies

Energy 101s

- Utility Resource Planning and Acquisition
- Public Utility Regulatory Policies Act (PURPA)
- Long Duration Electricity Storage
- Backup Power
- Oregon Fuel Action Plan
- Radioactive Waste Management
- Clean Energy Opportunities in Agriculture
- Overview of State Climate Programs and Actions
- Infrastructure Investments & Jobs Act (IIJA) Energy Funding

Policy Briefs

- Accelerating the Energy Transition: Identifying Pathways to Achieve Oregon's Clean Energy and Climate Goals
- What Drives Energy Costs for Consumers?
- Local Energy Perspectives: Workforce and Supply Chain Challenges



- Oregon Clean Energy Opportunity Campaign: A Case Study in Equitable Engagement
- Beyond Energy Savings: Co-benefits of Energy Efficiency
- Expanding Energy Efficiency in Existing Buildings
- Integrating Resilience Across Energy Sectors

Conclusion, Recommendations, and Other Closing Pieces.

Next Steps

Topics in the report are being finalized, including external review from sister agency experts. It is anticipated that all topics will be finalized by the end of July 2022. The agency will be working on the final production of the report through the end of summer, including production elements, online resources, and development of report recommendations. The report will be submitted to the Legislature and available to the public by November 1, 2022.

Project Timeline

January –March 2022: Public Survey and Stakeholder Input Sessions

January–April 2022: Updating Energy by the Numbers and Technology & Resource Reviews sections from the 2020 Report with current data

February–July 2022: Updating and expansion of timeline for Oregon Energy History

April–June 2022: Drafting for remaining sections of the Report – Energy 101 and Policy Briefs.

July–August 2022: Draft Peer Reviews and Report Recommendations Development

August–September 2022: Final reviews and revisions

September –November 2022: Formatting and Publication



2022 Biennial Energy Report

Studies Used for Energy Transition Policy Brief

The Oregon Department of Energy is developing a policy brief series for the [2022 Biennial Energy Report](#) that identifies pathways to achieve Oregon’s clean energy and climate goals. While Oregon has adopted aggressive clean energy and climate change goals, there are myriad pathways to achieving those policies. Staff at the Department reviewed recent technical studies and modeling efforts to assess the range of solutions available to decarbonize the transportation, natural gas, and electric sectors. In the policy brief series, ODOE also considers the economic, environmental, and social trade-offs associated with different pathways.

Because there are a multitude of studies published in recent years that modeled the decarbonization of the energy sector, ODOE focused its review and prioritized studies based on their relevance to Oregon’s decarbonization goals. For this policy brief, staff reviewed studies from Oregon that have been published within the last several years and that model some variation of aggressive decarbonization policy goals by mid-century. In addition, staff reviewed other technical analyses from the Pacific Northwest and a few select studies from outside the region that evaluate similar policies.

Accelerating the Energy Transition: Identifying Pathways to Achieve Oregon’s Clean Energy and Climate Goals

Oregon Studies: Statewide and Local

[Oregon Energy Policy Simulator Insights: Recent Development, Policies to Meet Emissions Goals](#)
Energy Innovation | March 2022

[Electrification Impact Analysis: Phase 2](#)
Eugene Water & Electric Board | November 2021

[Vision 2050: Destination Zero – NW Natural Carbon Neutrality Scenario Analysis](#)
NW Natural | November 2021

[Oregon Clean Energy Pathways Analysis](#)
Evolved Energy Research, GridLab, and the Clean Energy Transition Institute | July 2021

[Electrification Impact Analysis: Phase 1](#)
Eugene Water & Electric Board | October 2020

[Exploring Pathways to Deep Decarbonization for the Portland General Electric Service Territory](#)
Evolved Energy Research | April 2018

Other Pacific Northwest Studies

[Seattle City Light Electrification Assessment](#)
Electric Power Research Institute (EPRI) | January 2022

[Affordable and Reliable Decarbonization Pathways for Montana](#)
Vibrant Clean Energy and Grid Lab | February 2021

[Washington 2021 State Energy Strategy: Transitioning to an Equitable Clean Energy Future](#)
Evolved Energy Research | December 2020



[Pacific Northwest Zero-Emitting Resources Study](#)

Energy and Environmental Economics (E3) | January 2020

[Meeting the Challenge of Our Time: Pathways to a Clean Energy Future for the Northwest – An Economy-wide Deep Decarbonization Pathways Study](#)

Clean Energy Transition Institute | June 2019

[Pacific Northwest Pathways to 2050: Achieving an 80% reduction in economy-wide GHGs by 2050](#)

Evolved Energy Research | November 2018

National and Other State and Local Studies

[The Role of Clean Fuels and Gas Infrastructure in Achieving California’s Net Zero Climate Goal](#)

SoCalGas | October 2021

[The Role of Electricity in Decarbonizing California’s Energy System](#)

Energy and Environmental Economics (E3) | September 2021

[Getting to Net Zero – Pathways Toward Carbon Neutrality: A Review of Recent Mid-Century Deep Decarbonization Studies for the United States](#)

Energy and Environmental Economics (E3) | July 2021

[LA100: The Los Angeles 100% Renewable Energy Study](#)

National Renewable Energy Laboratory (NREL) | March 2021

[Unlocking Deep Decarbonization: An Innovation Impact Assessment](#)

Evolved Energy Research | March 2021

[Princeton Net-Zero America Project](#)

Evolved Energy Research | June 2020

[The Challenge of Retail Gas in California’s Low-Carbon Future: Technology options, Customer Costs, and Public Health Benefits of Reducing Natural Gas Use](#)

Energy and Environmental Economics (E3) | April 2020

[Analysis of Selective 2010-2018 Economy-Wide Decarbonization Studies](#)

Clean Energy Transition Institute | April 2018



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550 Capitol St. NE | Salem, OR 97301 | AskEnergy@oregon.gov
Direct: 503-378-4040 | Toll-free in Oregon: 1-800-221-8035
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June 2022

2022 Biennial Energy Report

Energy Workforce and Supply Chain Issues

The Oregon Department of Energy has heard that many in the energy industry are experiencing new or increased workforce and supply chain challenges in the wake of the COVID-19 pandemic.

ODOE is planning to highlight stakeholder workforce and supply chain challenges and opportunities in our [2022 Biennial Energy Report](#), due later this year. So far, we have heard from stakeholders about this topic during our January 2022 [Energy Advisory Work Group meeting](#) and during a stakeholder roundtable held on March 16 (See [meeting summary and other materials on our website](#)).

Please let us know if your organization has data or examples of challenges and/or opportunities that you would like to share. We may not be able to include every example in our report, but your individual stories and concerns are important to help us convey a full and accurate picture of workforce and supply chain issues facing the Oregon energy sector. We know that this can be a sensitive topic with some stakeholders and are willing to share information without attribution if there are concerns.

Options for sharing information with ODOE:

- Use this [LINK](#) for an online form to respond to questions,
- Email AskEnergy@energy.oregon.gov with your answers to the questions below, or
- Email [Linda Ross](#) to schedule some time to talk through your experiences with an ODOE staff member.

Our Questions:

- Your Name and Organization
- Your Email and Phone Number
- What are your organization's workforce development and/or retention challenges? What energy workforce opportunities do you see? Do you have any specific data or information that you could share that would help illustrate these challenges and/or opportunities?
- What has your organization done to address your workforce-related challenges? Are you aware of workforce development efforts that are working well that we could highlight for readers of the Biennial Energy Report?
- Is your organization experiencing challenges related to supply chain disruptions, either starting before the COVID-19 pandemic or tied to the pandemic? How are these supply chain disruptions affecting your operations? Please indicate if you consider this sensitive information and would like us to share it anonymously or without attribution.
- We are aware of a few Oregon-specific studies on workforce needs, such as the [Transportation Electrification Workforce Study \(Executive Summary\)](#), the [Metro Construction Career Pathways study \(link to download study\)](#) and University of Oregon Report "[Constructing a Diverse Workforce: Examining Union and Non-Union Construction Apprenticeship Programs and their Outcomes for Women and Workers of Color](#)." Are there other recent Oregon-specific studies or analyses that you are aware of? Do you have workforce or supply chain related questions to recommend for future study to help fill in gaps in this important topic?



Background and Need for Legislation

The Oregon Solar + Storage Rebate Program was established by the Oregon Department of Energy at the direction of HB 2618, which was passed by the Oregon State Legislature in 2019. The legislation called for the department to adopt a program to provide rebates for the purchase, construction, or installation of solar electric systems and paired solar and storage systems.

Program rebates are issued to participating contractors and are passed on to customers as a reduction in the price of the installed system. The legislature directed the department to make at least 25 percent of the rebate budget available for projects installed for low- and moderate-income residential customers and low-income service providers. Low-income service providers are a specific group of non-residential customers that provide services to individuals and households with low or moderate incomes.

The Oregon Solar + Storage Rebate Program advances Oregon energy policy by helping reduce the upfront costs associated with the purchase and installation of solar energy production and solar energy storage systems, as well as supporting the Oregon solar installer industry. The Legislature has directed \$17 million to this program, including \$10 million in June 2021 (HB 5006) and \$5 million in March 2022 (SB 5202). As of June 15, 2022, 2089 projects have either received or reserved rebates in 29 Oregon counties, a state investment of over \$6.9 million supporting over \$78 million in total project costs.

The legislature typically includes a sunset date for incentive programs in statute as a best practice to periodically revise or revisit those programs. HB 2618 included a sunset date of January 2, 2024. This means that the sunset must be lifted for the program to continue through the 2023-2025 budget period. Also, the current staffing for the program will no longer be funded as of July 1, 2023. In order for the current program budget for rebates to be expended and for the state to ensure monitoring and verification of project completion, at the very least, the program needs to be funded for staff positions through the sunset.

While the program has been successful, supply chain issues have led to a long wait time for battery storage. The current statute requires that both the PV system and battery storage must be in place for a rebate to be processed for a solar + storage project. This has left contractors and homeowners waiting for the rebate, sometimes for months, after already installing the PV system.

Proposed Solution

The Oregon Department of Energy is pursuing a 2023 legislative concept that would extend the sunset an additional five years and make the program's 2.5 full time positions permanent instead of limited duration. This would continue the program's success in meeting the legislature's goals of reducing the upfront costs of installing solar and storage systems and supporting the Oregon solar installer industry while supporting recruitment and retention of agency staff. The draft legislative concept also includes a technical fix related to supply chain issues that will allow the agency to process rebates for solar PV first and then for storage later when those systems are purchased together.

Expected Fiscal Impact

The Oregon Solar + Storage Rebate Program is funded by the general fund, and administrative costs are currently 8 percent of the program total budget. To extend the program at its current level, ODOE recommends an additional \$10 million in General Fund for the next biennium.

Contact

Christy Splitt

Government Relations Coordinator

christy.splitt@oregon.gov

503-510-4473

Background and Need for Legislation

Since 2021, the state legislature has created new energy programs and Congress has passed the Infrastructure Investment and Jobs Act — investments that will bring state and federal dollars for energy projects to Oregon communities. In many cases, these communities, especially rural and Tribal communities, do not have the resources, time, or capacity to apply for these funds. Language in those new federal and state laws has made it clear that energy dollars should flow to the communities that need them most.

For instance, the federal Infrastructure Investment and Jobs Act is being implemented with the Justice 40 Initiative in mind. Justice 40 is a goal calling for 40 percent of federal investments to benefit disadvantaged communities. The initiative defines disadvantaged based “on a combination of variables that may include, but are not limited to, the following:

- Low income, high and/or persistent poverty
- High unemployment and underemployment
- Racial and ethnic residential segregation, particularly where the segregation stems from discrimination by government entities
- Linguistic isolation
- High housing cost burden and substandard housing
- Distressed neighborhoods
- High transportation cost burden and/or low transportation access
- Disproportionate environmental stressor burden and high cumulative impacts
- Limited water and sanitation access and affordability
- Disproportionate impacts from climate change
- High energy cost burden and low energy access
- Jobs lost through the energy transition
- Access to healthcare”

In Oregon, the Community Renewable Energy Grant Program calls for prioritizing projects in environmental justice communities. The definition for these communities is in HB 2021 (2021). Environmental justice communities: “includes communities of color, communities experiencing lower incomes, tribal communities, rural communities, coastal communities, communities with limited infrastructure and other communities traditionally underrepresented in public processes and adversely harmed by environmental and health hazards, including seniors, youth, and persons with disabilities.”

These same concerns arise when trying to bring more people from more communities, particularly those that have been traditionally underrepresented, to energy decision-making tables. Whether it’s capacity to serve on a rulemaking advisory committee or study work group or capacity to apply for grant funding, there are obvious barriers to participation for communities. The Oregon Department of Energy’s [strategic plan](#) calls for increasing the diversity of the agency stakeholder groups, increasing agency engagement with organizations representing historically and currently underserved populations and communities, and increasing the percentage of these same populations and communities participating in ODOE programs and services.

Proposed Solution

The agency is proposing a legislative concept that would establish a program to provide information about potential funding resources and other technical assistance to rural, Tribal, and other environmental justice communities as they work to develop energy projects or build energy-related capacity. To serve this need, ODOE recommends adding an additional full-time employee whose job it is to help communities navigate funding opportunities for projects and capacity-building.

Expected Fiscal Impact

\$396,229 General Fund

Contact

Christy Splitt

Government Relations Coordinator

christy.splitt@oregon.gov

503-510-4473



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

Committee on Supplemental Treatment of Low-Activity Waste
at the Hanford Nuclear Reservation
Nuclear and Radiation Studies Board
Division on Earth and Life Studies
The National Academies of Sciences, Engineering, and Medicine
500 Fifth Street, NW
Washington, DC 20001

June 10, 2022

To the Committee,

Oregon appreciates this opportunity to comment once again on the National Academies of Sciences, Engineering, and Medicine (NAS) ongoing study of options for Supplemental Treatment of Low-Activity Waste (LAW) at the Hanford Nuclear Reservation. The State of Oregon retains a long-term interest in the safety and value of the Columbia River, which stands to be directly affected by the final end-state of Hanford wastes disposed on-site. Oregon is also invested in the safe transportation of radioactive materials through our state.

Oregon has been involved in the NAS study of Supplemental LAW options since its beginning¹, and the question of greatest concern to us continues to be whether Hanford LAW may be safely disposed as a grouted waste form on-site. Our technical reviews have highlighted the uncertainties that still must be resolved before we perceive the state of the science to support an onsite grout alternative. Our comments during the first study focused predominantly on the potential risk from long-lived key radionuclides that would be present in a grouted Supplemental LAW waste form.²

In this second study, Oregon has again kept its focus trained on those potential risks that would remain on-site under each alternative. We have been active participants during the three public NAS Committee meetings to date, providing both technical observations and Oregon's policy perspective as the study developed.^{3,4,5,6,7} Please consider these prior presentations as part of Oregon's formal comment on the Federally Funded Research and Development Center (FFRDC) report, to inform the Committee's review.

¹ <https://energyinfo.oregon.gov/blog/2018/03/07/odoes-ken-niles-weighs-in-on-hanford-waste-treatment-we-must-remain-vigilant-informed-and-involved>

² <https://www.oregon.gov/energy/safety-resiliency/Documents/NAS-Supplemental-LAW-study-Aug-2019.pdf>

³ <https://www.oregon.gov/energy/safety-resiliency/Documents/2021-07-15-NAS-ODOE-Remarks.pdf>

⁴ <https://www.oregon.gov/energy/safety-resiliency/Documents/2021-07-15-NAS-PPT.pdf>

⁵ <https://www.nationalacademies.org/event/10-20-2021/review-of-the-continued-analysis-of-supplemental-treatment-of-low-activity-waste-at-the-hanford-nuclear-reservation-meeting-3-open-session>

⁶ <https://www.nationalacademies.org/event/04-26-2022/docs/D1D5485813E0F259131C047AF33BD475AAE5A4C8CB3D>

⁷ <https://www.nuclearenergytv.com/Events/NAS-220426/Videoid/1952/840am-oregon-department-of-energy>

We continue to stand behind the technical observations we made during the prior study, and we did not find that this latest FFRDC report adds compelling new evidence to support the claims of long-term grout performance beyond what was presented during the first study. In addition, we have grown increasingly focused on the potential hazards associated with non-radiological constituents in the LAW – nitrate and nitrite in particular – which have presented technical challenges to an onsite grout alternative since the early days of the tank waste treatment mission and which ultimately caused DOE to turn away from grouted waste forms in the early 1990s.⁸

However, the most recent FFRDC report that is the subject of this letter has put forward a potentially acceptable alternative strategy to manage the effects of these uncertainties and reduce the final risk inventory of the Central Plateau while the science of grout performance continues. We do not arrive at this conclusion lightly, nor without reservation as described in our technical comments below.

As was stated in the remarks from Department staff at the April 28, 2022 NAS meeting, we are nearly convinced by the FFRDC's latest report that the Hanford tank waste mission would be overall best served by incorporating an offsite grout pathway for a portion of the low activity tank waste. We see value in reducing the overall risk budget burden for the Hanford Central Plateau – most notably from the key radionuclides Tc-99 and I-129 and the hazardous chemicals nitrate and nitrite – while continuing to improve and verify the recent advancements in grout performance. Further, any reduction in the total inventory of risk-significant constituents disposed on the Hanford Central Plateau serves to reduce the consequences of those onsite grout performance uncertainties that remain. We also appreciate the operational efficiencies gained by early creation of double-shell tank space, which will allow more rapid single-shell tank (SST) retrievals and faster completion of both the LAW and HLW vitrification activities.

From a precautionary standpoint, Oregon would prefer that if offsite grout disposal is pursued via the Grout 4B option, that offsite disposal would continue throughout the mission, rather than eventually transform into the hybrid Grout 6 alternative that conceives of large grout volumes disposed onsite. This preference is supported by a desire to reduce the cumulative risk burden of the Hanford Central Plateau to the maximum extent possible, given that the results of site-wide cumulative risk assessments are still pending at this time. This risks making a decision for onsite grouted waste for investment purposes before the necessary grout performance studies have reached a satisfactory conclusion. We also acknowledge the long-held expectation of the Yakama Nation, as reiterated at the April 2022 NAS meeting, that the Hanford tank waste would be vitrified if disposed on site.

Despite this preference, Oregon is not beyond convincing that a hybrid grout alternative presents an overall lower risk when considering the lesser offsite transportation miles and the increased operational certitude provided by a third disposal option in addition to the two offsite facilities. The FFRDC has the opportunity to refine their comparison of risk and other intangible factors between these two alternatives in their final report.

In the cost- and time-constrained environment we face at Hanford, the two grout alternatives presented in the FFRDC analysis may actually achieve the management trifecta of making the tank waste mission

⁸ Hanford Challenge, 2021. "Why Grout Failed at Hanford: Chronology of the Failed Grout Program". Page 16 discusses nitrate and nitrite technical challenges from a 1998 options analysis that recommended calcination to destroy nitrate. <https://static1.squarespace.com/static/568adf4125981deb769d96b2/t/60f9b2bdb9480b7aeb6cbe15/1626976958173/2021+06.15+Why+Grout+Failed+at+Hanford.pdf>

faster, cheaper, and better for the region. Once the long-term remedy for low activity waste treatment and disposal has been selected, USDOE can re-focus on finalizing and communicating how the treatment and disposal of high-level waste (HLW) will proceed. Oregon would like to see renewed urgency in addressing Hanford's HLW, including the highly radioactive radionuclides extracted from the LAW using the TSCR system. To the extent that a grouted SLAW alternative can improve our capabilities to address these larger needs and prevent the release of more tank waste to the environment, Oregon is willing to support the effort.

Sincerely,

A handwritten signature in purple ink that reads "Maxwell Woods". The signature is written in a cursive style and is positioned below the word "Sincerely,".

Maxwell Woods
Assistant Director for Nuclear Safety and Emergency Preparedness
Oregon Department of Energy
maxwell.woods@energy.oregon.gov
503-551-8209

Specific Technical Comments on the FFRDC Report

(Supplementing or reiterating comments made during the April 28, 2022 NAS public meeting)

Completing the Decision Strategy

Prior to making a decision to pursue a Hybrid Grout 6 alternative, it is imperative to conduct additional long-term performance assessment for all constituents and waste forms disposed on-site. Without such information, a final accounting of the risk budget cannot be made. We note that the FFRDC report does not attempt to conduct this analysis, instead deferring it to future efforts.

The Grout 6 alternative description includes an assumption that the onsite grout alternative will have matured to a point sufficient to invest in the onsite grout treatment capability sometime prior to 2040. The report does not seem to include an assumed deadline when a “go/no go” decision must be made to pursue Alternative Grout 6 instead of continue with Grout 4B to the end of the mission. Additional information regarding this future decision should be provided in the final analysis, including key maturation steps, critical analytical and regulatory documentation schedules, and a stakeholder concerns satisfaction strategy.

Additionally, the analysis should identify and consider fallback options at future points in the mission if a decision is made in the near-term to pursue an offsite grout path. For example, the report assumes that if offsite grout is pursued, it could be online as early as 2027. What is the fallback option if we reach 2027 and the offsite path cannot proceed as expected, or if it is delayed? The report should evaluate how a decision made today might affect or narrow the available options later in the mission.

Refining the Risk Budget Tradeoffs

We request additional information regarding the total number of Curies of Tc-99 and I-129 disposed onsite vs. offsite under each alternative, as well as the form in which those Curies are disposed. Table 3.3-3 in Volume I compares Alternative 4B (offsite grout) against a “Delayed Vitrification” alternative to make the case that an offsite grout alternative would result in more Curies of Tc-99 removed permanently from the Central Plateau. While this may be true, we view this analysis to be incomplete.

Table 3.3-3 and Table 3.3-4 should be expanded to include the following comparative information:

- Include the Grout 6 Hybrid alternative in the Table 3.3-3 comparison of Curies disposed onsite vs. offsite, given that this is the FFRDC’s preferred alternative.
- Specify the associated waste form for any Curies disposed onsite. For example, while the “Delayed Vitrification” may result in a greater number of Curies disposed onsite than the 4B alternative (16,300 vs. 6,800), they would be predominantly retained in a superior glass matrix (actual ratio dependent on the capture efficiency for Tc-99 and I-129 in glass). By contrast, a larger proportion of the Curies disposed onsite under a Hybrid Grout 6 alternative (unquantified) would be in a grouted form and subject to greater long-term performance uncertainty.
 - Note: Table 3.3-4 contains cumulative Curie treatment quantities by alternative. Based on information in that table, we estimate the Grout 6 alternative would result in

approximately 5,500 Curies disposed onsite in a primary grout waste form (from 2040 to mission end), in addition to the 6,800 Curies disposed in a mix of glass and grouted secondary waste from the primary LAW vitrification facility.

- Include other key constituents in the quantitative risk budget analysis (discussed below)
- In Table 3.3-4, please clarify whether the “Vitrification 1” alternative presented is the same as the “Delayed Vitrification” alternative discussed in this section.

Key Constituents Used for Comparative Analysis

All of the comparative long-term performance analyses base themselves on Technetium-99 as the conservative tracer. As was shown in the Phase 1 study, however, the Iodine-129 grout performance uncertainty was actually the more sensitive parameter for future drinking water standard compliance. Further, our analysis and comments to the Committee in the July 2021 meeting highlighted the importance of the nitrate and nitrite inventories and performance. While this uncertainty is acknowledged in Volume II of the report, the relative inventories of these hazardous constituents are not accounted for in the semi-quantitative comparative analyses of alternatives. Additional discussion of the relative inventories of nitrate, nitrite, and chromium should be included in the “risk budget” analysis presented in Sections 3 and 4.

Retention of Tc-99 and I-129 in LAW glass

As discussed in our presentation during the October 2021 public meeting and by the FFRDC in April 2022, the retention efficiency of the key radionuclides Tc-99 and I-129 in the vitrified waste form is still uncertain. Estimates range from <20% to 96% for I-129, and the FFRDC presentation from April 2022 stated that as a result of the offgas “flywheel” recycling process, 75% of the Tc-99 will partition to the Supplemental LAW feed. We request a clearer discussion in the revised FFRDC report regarding the total quantities of Tc-99 and I-129 expected to be in a grouted primary or secondary waste form under each alternative.

Examining the Resilience of the Preferred Alternative

As noted in Oregon’s remarks at the April 2022 public meeting, the FFRDC report describes cost and schedule savings from the Grout 4B and Grout 6 alternatives as deriving from the near-term double-shell tank space created by offsite grouting. This in turn reduces the total number of HLW canisters produced in the mission due to the ability to use the extra DST space for HLW caustic leaching to reduce the volume of aluminum headed for high-level vitrification. Further discussion of this anticipated mission savings is warranted – particularly the resilience of the grout alternatives to mission disruptions such as additional DST failures. The analysis might also consider the potential risk mitigation benefits associated with adding new operational tank space to each of the alternatives, including the grout alternatives.

Acknowledging and Integrating the Remaining Onsite Grout Uncertainties

We appreciate and want to emphasize the effort this FFRDC report has taken to characterize the current state of uncertainty regarding long-term performance of a grouted LAW waste form. However, we

perceive a confusing lack of agreement in the report regarding the expected performance and remaining uncertainties associated with an onsite grout alternative. On one hand, Volume I makes assertions that the FFRDC believes all alternatives can meet the groundwater protection criteria for onsite disposal with “higher confidence”, yet Volume II acknowledges significant remaining uncertainties. For example, in the case of non-pertechnetate, the report states: “*Because it is not known how much non-pertechnetate is present in tanks and whether it would be sequestered in a grout waste form, at this time, there is significant risk in selecting on-site disposal of this a grouted waste form without additional analysis.*”

The FFRDC characterization of remaining uncertainty, and the basis for confidence that the Grout 6 alternative could meet onsite disposal safety criteria, requires further integration and support in the revised report. This integrated assessment could form the basis for a grout maturation study plan, which in turn would improve the decision strategy schedule and key considerations in a revised analysis.

Nitrate/Nitrite Considerations

FFRDC Volume II, Page E-16 states that nitrate and nitrite are not regulated under RCRA, and no release limits for NO₃ or NO₂ are available. This statement fails to acknowledge the potential regulation of nitrite as an “extremely hazardous waste” under RCW 71A.300.070 and 173-303-100. The Land Disposal Restrictions in WAC 173-303-140 prohibit the land disposal of extremely hazardous waste within the state unless certain provisions are met.

Related to the point above regarding remaining grout long-term performance uncertainty, we note that the FFRDC’s discussion of nitrate and nitrite risk under an onsite disposal alternative is incomplete. We accept this to be by design due to the scope of the alternatives carried forward in the analysis (i.e., no alternatives propose disposing of nitrate/nitrite-laden grout in the near-term); however, the FFRDC expresses a confidence in future grout performance that does not appear to be adequately supported.

The FFRDC references a recent PNNL report (PNNL-28992⁹) to support an assertion that some grout formulations, “can retain nitrate/nitrite more effectively and estimate peak concentrations below the compliance standard,” but we would caution the FFRDC and the Committee that the named report is not based on a compliance standard but instead proposes the use of a performance metric for purposes of rapid assessment during grout testing. We note also that while the FFRDC characterizes the results in Figure 4-3 as showing “leach testing results are close to meeting maximum contaminant levels in groundwater for nitrate,” our review of that figure shows many recent results that are one to two orders of magnitude above the screening diffusivity measure. The PNNL report also offers no discussion of the potential mechanism for the few results that were below the derived metric, and it explicitly did not include a metric for nitrite. Finally, this report contains the following disclaimer:

It should be noted that these simulations only consider the contribution from the SLAW inventory and not any contribution to the overall release rate from the primary LAW inventory. As a result, the R values that achieve the target concentrations would be an underestimation of the full LAW inventory release. The performance metric is not intended for use in regulatory decision-making.

⁹ <https://www.osti.gov/servlets/purl/1569475>

Oregon supports the ongoing research of grout performance specific to nitrate and nitrite retention if DOE wishes to pursue the Grout 6 alternative, provided that the costs of additional research do not outstrip the benefits compared to continued offsite disposal. Such research could be beneficial if incorporated in a long-term performance assessment intended to support regulatory decision-making.

Considering the Vitrification 2 Alternative

We look forward to the Committee's review of the Vitrification 2 alternative contained in Volume II of the FFRDC report. Our read of this section suggests that completing the tank waste treatment mission with no or minimal supplemental LAW treatment is possible, even feasible, provided that certain system upgrades are able to be realized and combined. Unfortunately, the FFRDC report did not carry this alternative forward into a cost or throughput analysis as was done with the standard Vitrification 1 alternative.

We request that the Committee and the FFRDC consider whether a Hanford decision-maker has been provided enough information to know why they should select the Vitrification 1 alternative over the Vitrification 2 alternative, or on what basis the billions of dollars required for the grout alternatives are a better investment than an upgraded primary LAW vitrification facility with some amount of offgas grouted for offsite disposal, which may prove to be a significantly lower-cost option. We ask the Committee to provide their thoughts regarding whether additional engineering study, process optimization, and cost estimation is worthwhile to fully evaluate this alternative.

Managing the Sludge

Please refer to our remarks during the April 2022 meeting for additional discussion of this topic. The FFRDC report does not contain a detailed discussion of the sludge management considerations that accompany each of the supplemental LAW alternatives. We are concerned that the increased pace of SST liquid and saltcake retrieval envisioned in the grout alternatives – particularly in the 200W area – may lead to sludge capacity issues in the double-shell tanks. Consequently, we are concerned that acceptance of an accelerated grout treatment alternative for Supplemental LAW could lead to the unexpected consequence that tanks may be closed in place without retrieving the sludge waste. We consider this to be an unacceptable tradeoff based on the analysis provided.

The FFRDC report should include an expanded discussion of sludge management logistics and challenges under each alternative, including the results of TOPSIM modeling and an assessment of the risk to retrieval efforts if the process must be halted at multiple tank farms due to sludge capacity limits. This discussion should also include an assessment of the status and outlook regarding the cross-site slurry transfer line.

Qualifying Extraordinary Claims

In multiple locations in the report, the FFRDC makes claims about the Hanford climate creating a situation in which waste buried at the IDF would have no driving force from infiltrating water, and that,

“. . . lack of driving force due to minimal flow of water in the unsaturated vadose zone, preventing it from actually contacting subsurface aquifers.” (Vol I, C-51, emphasis added)

Given the timeframes involved and changing weather patterns associated with global climate change, as well as uncertainty regarding long-term landfill cap performance, the volume of water driving flow in the vadose zone at Hanford is not well constrained. The presence of multiple groundwater contamination plumes resulting from past practices, and the results of several site performance assessment models of future contaminant migration from burial grounds and closed tanks, would suggest that there is adequate driving force to move contaminants to groundwater over both short and long timescales. Extraordinary claims require extraordinary evidence.

We request that the FFRDC support or qualify its statements regarding long-term migration potential in the IDF and Central Plateau. Similarly, the FFRDC should qualify its statements regarding a lack of a pathway in an offsite disposal context, clarifying that no currently known or expected future pathway exists.

Transportation Analysis

Under an offsite disposal alternative, we recognize the potential risk reduction associated with transporting waste a shorter distance to its disposal destination, even if that path travels through Oregon. As stated during the April 2022 meeting, Oregon is willing to work with USDOE and others to ensure safe transportation of waste through the state and accident response planning.

The analysis as presented does not offer a clear and organized comparison between transporting LAW in a solid or liquid form. We request additional information on the relative tradeoffs, including total number of railcar shipments, non-radiological transportation fatality risk, logistical/cost considerations, and accident consequence comparison.

The FFRDC analysis should include an accident scenario in which a liquid shipment loses containment and consider the potential costs and risks associated with the necessary cleanup. Such a situation would potentially create new unintended exposure pathways if not addressed. The analysis should consider whether the cost of mitigating this risk, in the unlikely event that it is realized, would significantly affect the comparative evaluation of liquid vs. solid offsite LAW transport or onsite vs. offsite disposal of LAW.

Organic Pretreatment and Cross-Site Transfer Assumptions for Grout 4B and Grout 6

As we discussed in October 2021, we do not believe it is correct to assert that the cross-site transfer line for liquids is not needed under the onsite grout alternatives, so long as vitrification is upheld as an alternative treatment method for wastes that fail to meet LDR standards for organics after the proposed low-temperature oxidation pretreatment step. The latest FFRDC report appears to continue with this assumption (Vol. I, p. 29-30), while also portraying, “Moderate confidence LDR organics can be removed/destroyed to beneath regulatory limits” (p. C-37).

We request that the revised FFRDC report provide additional discussion of the logistical and cost aspects of diverting LDR-incompatible wastes for vitrification if pretreatment fails.



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

June 2, 2022

Patricia Hoffman

Acting Assistant Secretary

Principal Deputy Assistant Secretary, Office of Electricity

U.S. Department of Energy

1000 Independence Avenue SW

Washington, DC 20585

Re: Oregon Response to the Request for Information regarding the Formula Grants to States and Indian Tribes for Preventing Outages and Enhancing Resilience of the Electric Grid

The Oregon Department of Energy and the Oregon Public Utility Commission offer the following responses to the Request for Information regarding the Section 40101(d) supporting Grid Resilience. These funds are very critical to our state at a time of accelerating disasters and a vast need to enhance our state's resilience. We appreciate the United States Department of Energy's (USDOE) efforts to request comments on this new program, prior to implementation.

1. USDOE: What are the specific challenges you anticipate with regard to providing the Program Narrative outlined in Appendix A of the Notice of Intent, if any?

A primary concern to Oregon is the ability to complete the tasks associated with creating criteria, methods, and intended outcomes benefiting the public that will be used to award grants to eligible entities before the anticipated grant application deadline of early August. If USDOE intends there to be a robust engagement process to inform the grant-making, it will be difficult to do so within the implied 60-day timeframe for submitting the application. Additionally, it will be challenging to determine the methods used for soliciting, awarding, distributing, and leveraging funds before the grant application deadline (60 days after Administrative and Legal Requirements Documents (ALRD) release).

One suggestion would be that USDOE could allow applicants to describe the process the state will undertake to create the criteria, methods, and intended outcomes, rather than requiring the state to have already completed the plan prior to applying.

Due to limited state funds and the timing of state legislative sessions, it will be challenging to identify cost-share opportunities. In Oregon, for example, our legislature met in February and March of 2022 and won't meet again until February through June of 2023.

In addition, we would appreciate additional clarity on the types of cost-share will be acceptable (e.g. financial cost-share, in-kind cost-share, etc.). The ability to provide in-kind cost sharing will be particularly important in the first year since there may not be time to get the legislature's approval for general funds.

While our comments address the challenges faced by the state, we encourage USDOE to reach out specifically to tribes as sovereign nations, for whom it may be even more difficult to meet these requirements within the timeframe identified.

We would appreciate clarification from US DOE regarding expectations of how quickly subawards should be made to support planning efforts. It will be a challenge to stand up and implement the program with a 5% cap on technical assistance and administrative costs. This cap appears to limit in-kind contributions from agency staff, which would require the remaining cost-share to come from state general funds or an outside funding source, both of which will take time to request and get approved. We would also benefit from clarification on the definition of technical assistance. Does this include outreach and engagement with potential sub-applicants? There may be small utilities that could benefit from technical assistance from the state in both applying for the funding but also complying with requirements under Davis-Bacon, Buy-American, and NEPA.

Lastly, in order to support the distribution of funds for projects that will provide the maximum community benefit, Oregon encourages US DOE to allow a broad interpretation of the definitions of the types of resilience projects allowable under the program, so that a wide spectrum of resilience issues may be considered.

2. USDOE: What are the areas in which you would most appreciate receiving technical assistance? In addition, what approaches for providing technical assistance would be most helpful to you?

We would most appreciate guidance and templates on developing criteria, methods, and prioritization. For example, how to determine which projects generate the "greatest community benefit" and what are appropriate objectives and metrics for workforce engagement and energy justice. It would be helpful if this technical assistance could come with funding to states and tribes to undertake the tasks in the program narrative. Could there be an initial allocation of funding for planning before the applications are due?

We would also appreciate ongoing technical assistance on Federal Acquisition Regulations and completion of the environmental questionnaires. Technical assistance related to the sharing of best practices from the National Environment Policy Act (NEPA), Davis-Bacon, Buy American, and monitoring of subrecipients would be helpful, as well as clarification on whether National Historic Preservation Act (NHPA) applies to this fund.

We also encourage USDOE to invest in internal capacity to support NEPA reviews and subaward reviews as described in Section G of the Draft ALRD and advise grantees on those topics as well. Lastly, technical assistance specific to help potential sub-recipient entities (like

utilities) so they can plan for universally applicable compliance-related aspects such as Davis-Bacon, NEPA, and Buy American.

3. USDOE: What additional data sources are you aware of that may help USDOE prepare the award formula?

Criteria 40101(d)(3)(B)(iii) and (iv) of the formula are focused on disruptive events that have occurred over the last decade. The way these two criteria have been designed, however, misses out on two important elements of investments in grid resilience in Oregon. First, a count of the catastrophic wildfire events in Oregon over the last decade fails to capture the acceleration of those risks in the state (which can be seen over the last 10 years and makes it likely that the next 10 years will be even worse) due to prolonged, climate change induced drought conditions. Second, perhaps the most significant threat to grid resilience in Oregon comes from an event that occurs not on decadal timescales but on timescales of several hundred years. Geologists project that the Cascadia Subduction Zone – located about 100 miles off Oregon’s coastline – has a 37% chance of generating a magnitude 7+ earthquake within the next 50 years, and a greater than 1-in-10 chance of generating a magnitude 9+ earthquake over the same time horizon. Impacts from this event, particularly of magnitude 9+, would result in a significant tsunami devastating coastal areas of the state and knocking out the power system for many weeks to months across large swaths of western Oregon. For more information on the probability of a Cascadia Subduction Zone earthquake and on the anticipated impacts of such an event on Oregon’s energy system, see Chapter 6 of the Oregon Resilience Plan.

Criteria 40101(d)(3)(B)(v) evaluates “public and private expenditures during the previous 10 years to carry out mitigation efforts to reduce the likelihood and consequences of disruptive events.” These criteria should take into account expenditures related to reducing the consequences of disruptive seismic events, including replacing rigid components with flexible components, seismically stabilizing or relocating infrastructure from seismic hazard areas, and deploying resilient microgrids.

Sincerely,

Janine Benner
Director
Oregon Department of Energy

Megan Decker
Chair
Oregon Public Utility Commission



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

April 1, 2022

The Honorable Jeff Merkley
United States Senate
121 SW Salmon Street
Portland, OR 97204

RE: Letter of Support for Burns Paiute Tribal Community Wellness Retrofit

Dear Senator Merkley,

I am writing on behalf of the Oregon Department of Energy in support of the Burns Paiute Tribal Community Wellness Retrofit Project. 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. On behalf of Oregonians across the state, we achieve our mission by providing: a central repository of energy data, information, and analysis; a venue for problem-solving Oregon's energy challenges; energy education and technical assistance; regulation and oversight; and energy programs and activities that save energy, support the state's decarbonization efforts, make communities more resilient, and position Oregon to lead by example.

The Oregon Department of Energy recognizes and supports the goals of this project to increase the resilience, safety, and energy efficiency of the facility for Burns Paiute Tribal members now and for future generations. This project will also demonstrate measurable performance standards utilizing innovative energy conservation technologies and onsite renewable generation as a model for rural and tribal critical facilities. We understand the Community Wellness Center to be an important space for the Burns Paiute Tribe with the potential to become a resilience hub for the community. This project will benefit Tribal members as well as sensitive populations against extreme heat, cold, wildfire, smoke, or power outages. Long term energy savings and a high functioning, modern facility will enable the tribe to pursue community and economic development goals and activities, as well as maintain core functions for the tribe.

The Burns Paiute Tribal Community Wellness Retrofit Project and the project goals align with our agency mission. We produce several energy reports and studies, such as the [Biennial Energy Report](#), that could help to share the outcomes of this project with other tribes and interested stakeholders in the state. If funded, this project would support several aspects of the clean energy transition that are part of the work of Oregon Department of Energy: [energy efficiency and savings](#), [energy resilience](#), and [renewable energy](#). Our agency also administers several [energy financial incentive programs](#) that help to bring down the cost for the equitable clean energy transition, and federal funding can be combined with state funding opportunities. For example, Oregon Department of Energy manages [grant programs for renewable energy and energy resilience projects](#). It is important to note that this letter does not preclude applicants from participating in our financial incentive programs or provide a basis for a competitive advantage within ODOE programs. There would be a separate evaluation process for our [community renewable energy grant program](#), [solar + storage rebate program](#), or any other energy financial incentive program administered by Oregon Department of Energy, if this project or a related project submitted an application for funding from one of our programs.

We are eager to support this project and look forward to advancing long term resilience for the Burns Paiute Tribe.

Sincerely,

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

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

May 11, 2022

Diane Turchetta
U.S. Department of Transportation
Senior Advisor, Transition Team
Joint Office of Energy and Transportation
1200 New Jersey Ave, SE,
Washington, DC 20590

Dear Ms. Turchetta:

The Oregon Department of Energy strongly supports the Oregon Department of Transportation's nomination of Interstate 205, Interstate 405, U.S. Highway 95, and Oregon Highway 42 for Federal Highway Administration designation as Alternative Fuel Corridors for electric vehicle charging. Today, Oregon has seven FHWA-approved EV Alternative Fuel Corridors. The addition of these four EV Alternative Fuel Corridors—alongside funding support from the Infrastructure Investment and Jobs Act—will expand opportunities for greater EV adoption among under-served and underrepresented Oregonians, including communities of color, Tribes, Oregonians with lower incomes, and those in rural areas, among others.

Oregon consistently reports one of the highest market shares for zero emission vehicle sales nationwide. Oregon currently ranks third, with EVs representing more than 8 percent of new light-duty vehicle sales. The state also has the fourth highest rate of ZEV adoption per capita, with nearly 50,000 registered ZEVs. The addition of four new EV Alternative Fuel Corridors will help Oregon continue its leadership in promoting low-carbon alternative fuels.

Through its policies and partnerships, ODOT collaborates with sister agencies, EVSE providers, utilities, cities and communities, non-profits, and others to advance the transition to EVs and low-emission fuels. Developed in collaboration with a large and diverse group of stakeholders, ODOT's Transportation Electrification Infrastructure Needs Analysis study laid the groundwork for understanding the need for additional EV charging corridors to support equitable access to electric transportation fuel.

The Oregon Department of Energy collaborates with sister agencies, like ODOT, to support more efficient use of transportation fuels and reduce carbon emissions associated with Oregon's transportation system. ODOE provides data and analysis to inform all Oregonians and shape policy decisions that help the state meet its energy and climate goals. An Alternative Fuels Corridor designation will help Oregon as it continues to be a leader in the nation in promoting electric vehicles, ensuring broad access to EV charging, and achieving more energy efficient transportation. ODOE fully supports this application, and we look forward to continuing our collaboration with ODOT as we pursue a cleaner, greener transportation future.

Sincerely,

A handwritten signature in cursive script that reads "Janine Benner". The signature is written in black ink and is positioned above the printed name and title.

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

May 26, 2022

Ms. Vanessa Arjona
H2 Twin Cities Program
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Re: Letter of Support for Coos Bay and Stromness H2 Twin Cities Proposal

Dear Ms. Arjona,

I am writing on behalf of the Oregon Department of Energy in support of the proposal by the Oregon Coast Energy Alliance Network (OCEAN) and the City of Coos Bay with the City of Stromness in Scotland to participate in the U.S. Department of Energy's H2 Twin Cities program. 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. The Oregon Department of Energy recognizes and supports the goals of this proposal to increase stakeholder understanding and engagement with each city on analysis and planning of renewable hydrogen opportunities, especially historically underrepresented communities, and provision of expertise from mentor Stromness to Coos Bay on developing better planning scenarios, forecasts, and metrics for renewable hydrogen project consideration.

Oregon has long been a leader on clean and renewable environmental and energy policies and programs, including being the first state to establish a price on carbon with passage of the Energy Facility Siting Council CO2 standard in 1997. Oregon established greenhouse gas reduction targets in 2007, and in 2021 passed a bill requiring the state's electric utilities to achieve a 100 percent clean emissions standard. These goals are foundational to anticipated rapid adoption of renewable generation resources. ODOE will be releasing an [Oregon Renewable Energy Siting Assessment](#) later this spring, which will include a tool that provides information on the opportunities and constraints of building additional renewable energy and associated transmission in the state. Through this analysis, as well as through U.S. Department of Interior Bureau of Energy Management processes, there is indication of strong resource potential and interest for floating offshore wind resources along Oregon's coast.

In its 2021 session, the Oregon Legislature passed HB 3375 creating a planning goal for up to three gigawatts of floating offshore wind energy projects off the Oregon coast by 2030. The Oregon Department of Energy is supporting this planning goal with a [study on the benefits of and challenges to integrating floating offshore wind energy](#) into Oregon's electric grid and the feasibility of using this energy to generate renewable hydrogen. Additionally, the Oregon Department of Energy is conducting a separate [study on the opportunities and barriers associated with the production and consumption of renewable hydrogen](#) in Oregon as directed in SB 333 (2021 session).

Both floating offshore wind and production of renewable hydrogen can play an important role in helping Oregon meet its renewable energy targets and its greenhouse gas emission reduction goals. Both technologies also have the potential to provide local jobs and other economic benefits, clean energy infrastructure, and greater resiliency. Oregon is beginning to explore these technologies and would greatly benefit from the experience of Stromness and the Port of Cromarty Firth as they are easily several years ahead in terms of conceptual development and community engagement around new technology. The Oregon Department of Energy applauds the proposal's focus on community engagement, as expanding and improving stakeholder engagement is a crucial part of our agency's [2021-2024 strategic plan](#), including seeking to increase the diversity of agency stakeholder groups and continually increasing engagement with organizations representing historically and currently underserved populations and communities.

We support the Coos Bay H2 Twin Cities proposal and believe it will play a valuable role in Oregon meeting its climate and energy goals and we hope that U.S Department of Energy will select this application for funding.

Sincerely,

A handwritten signature in cursive script that reads "Janine Benner". The signature is written in black ink and is positioned above the typed name and title.

Janine Benner, Director
Oregon Department of Energy