



**Roundtable Participants:**

ODOE Staff	Roundtable Participants
Alan Bates	Annette Price
Janine Benner	Brooke Brownlee
Jen Senner	Chris Carpenter
Rob Del Mar	Dr. Michelle Maher
Ruchi Sadhir	Franklin Chen
Stacey Heuberger	Garth Bachman
Tom Elliott	Jaimes Valdez
Wendy Simons	Jana Gastellum
	Joshua Basofin
	Kerry Meade
	Knowledge Murphy
	Marcy Grail
	Mary Moerlins
	Max Greene
	Ranfis Villatoro
	Tucker Billman

- **Roundtable Objectives:** The objective of ODOE in convening this roundtable was to seek initial information, ideas, and perspectives on energy related workforce needs, existing activities/projects to potentially align/partner with, and where ODOE/potential federal funds can provide benefit in this space.
- **Background:** At the January 19th [Energy Advisory Work Group](#) meeting, there was a discussion on federal funding (see [EAWG slides](#)). This part of our EAWG agenda surfaced an important topic on workforce and potential funding opportunities, so ODOE pulled together a roundtable style follow up meeting with stakeholders who have mentioned interest in workforce
- **Director Benner** provided a brief welcome and shared background information and objectives for the roundtable.
- **Jen Senner (ODOE Grants Officer)** provided an overview of funding opportunities, including nearly \$100 Billion for energy-related funding for communities in Oregon, \$6.5 Million for State Energy Program, up to \$2 Million for Energy Auditor Training, Section 40512 of the IJA about Building Assessment Centers, Section 40513 of the IJA about Career Skills Training Grants ([see roundtable slides](#)).
- **Round 1 of Breakout Rooms – Needs and Opportunities**
  - **Energy Auditors** [ODOE Facilitator/Report Out: Tom Elliott]
    - Funding for energy auditors is needed across many different areas - residential/commercial/industrial sectors, different communities across the state, and with additional focus on low-income households and weatherization needs.
    - There are opportunities for certification in audits. Potential curriculums should be up-to-date with the important intersections of greenhouse gas emission reductions/climate change, energy efficiency, and cost savings.
    - It would be helpful to have multilingual auditors as well as training in cultural competency. It is important to focus on investment in low-income programs.

- **Specific Occupations (other than Auditors)** [ODOE Facilitator/Report Out: Rob Delmar]
  - New policies and requirements related to electric vehicle charging and other energy related infrastructure will result in need for new electrical work.
  - There is a shortfall of electricians in the market, especially journeyman electricians. Apprenticeship programs are fully booked – with capacity issue related to the work.
  - Grid interactive buildings and smart control systems within buildings – there is a need for a more sophisticated way to operate buildings in the future. Note that Northwest Energy Efficiency Council (NEEC) has a training program for building operators. In the northwest, training systems are central and are full, resulting in certified building operators that help educate building management and operations.
  - Noted tie-in with the energy auditor training themes above.
- **Equity and Workforce Diversity** [ODOE Facilitator/Report Out: Ruchi Sadhir]
  - Based on national analysis and broadly speaking, there are only about 20% people of color and 4% women involved in the solar workforce (it has historically been European descent/White men). There are currently zero *active* licenses for women in the renewable energy technician (solar technician) field.
  - Women and people of color need to see that these are jobs available to them, this is important pre-work before recruitment. Example shared from Oregon Metro where “Public agencies are teaming up with stakeholders from private industry, apprenticeship programs, unions and community-based organizations to provide reliable career pathways for women and Black, Indigenous, and people of color in the construction trades.” - <https://www.oregonmetro.gov/construction-career-pathways>
  - Noted pendulum swings in advocacy in this space, for example supporting students to graduate from high school, supporting students to attend 4-year colleges, focusing on STEM funding and the Trades, increasing STEM funding in high school level to get the training.
  - Discussion about how lineworker jobs are limited. To have an impact for lineworkers, there would need to be more encouragement of students going into the trades and apprenticeship programs. Noted that it’s important to have advocacy around diversity but also important to generally continue supporting the path for student to workforce related training to jobs.
  - Discussion about how there is additional study needed in Oregon – to better understand the market, retention, and investment needs in workforce. Discussion on focusing on harassment issues on some worksites that have disproportionate impact on people of color and women. Noted that any investments in workforce must have requirements to hire and retain those workers to help give a market signal. Example study shared from UC Berkeley study in High Road Pathways to clean energy: <https://laborcenter.berkeley.edu/putting-california-on-the-high-road-a-jobs-and-climate-action-plan-for-2030/> Example study shared from UC Berkeley study in High Road Pathways to Clean Energy:

<https://laborcenter.berkeley.edu/putting-california-on-the-high-road-a-jobs-and-climate-action-plan-for-2030/>

- Noted need for pathways to advancement, especially for women and people of color in the field, that involve clear ways to advance in pay and responsibility (not just entry level opportunities).
- Discussion about need to have apprenticeship programs to monitor what work is occurring by an apprentice at the worksite (example of cleaning the worksite versus of hours in the trade itself that helps with training).
- Discussion about the need for training at every level – entry level as well as journey level. Suggestion that the state should be exploring tools like project labor agreements and community benefit agreements, which can help with checks and balances with workers and contractors.
- **Employee Retention and Training** [ODOE Facilitator/Report Out: Jen Senner]
  - Acknowledgement that there are large pressures on certain occupations, especially in coordination with California and wildfire related work.
  - Noted issue of losing workers to other areas outside of Oregon, while continuing to have needs here. Discussion on how to mitigate that impact. Focusing on equity and diversity can help – Build awareness among communities about these jobs opportunities to create more local workforce interest.
  - Heard concerns with the Limited Renewable Energy Technician license, as well as larger systemic issues related to construction, which can be a barrier to a more diverse workforce.
- **Building the Workforce Pipeline** [ODOE Facilitator/Report Out: Wendy Simons]
  - Discussed need for understanding in the whole pipeline of jobs, especially lineworkers and construction, in a broad and statewide fashion. Noted that industry needs broad/diverse workforce to benefit everyone in the state, especially communities that have been previously left behind.
  - Discussed need for education and apprenticeships in the locations of where new projects are expected. There is interest in making sure workers come from the communities where the projects are going to be built.
  - Discussed need to meet existing labor standards for solar and wind energy, while also needing to think about new technologies when jobs and career training pathways aren't as defined yet, such as hydrogen, pumped storage, and Renewable Natural Gas. The discussion included themes of equity and diversity, rural communities, as well as communities that haven't participated in the energy sector before.
- **Round 2 of Breakout Rooms – Current State of Workforce Activities**
  - **Energy Auditors** [ODOE Facilitator/Report Out: Tom Elliott]
    - Discussed past instances of boom-and-bust cycles, noting that is it difficult to address a lack of consistency. Projects can have long lead times and work needed on a project may ramp up/down. It was noted that it could help to provide a peek behind the curtain; people who are supporting apprenticeships (such as union leaders and legislators) could see projects and tour them to get a better sense of them and help understand future workforce opportunities. It

was noted that working with unions and all the trades will be very important, as well as related trades (beyond those that are trades with a very specific energy focus).

- Example shared about working on installation of solar: what if there is a leaky roof – creates challenges for finding the “right” funds to fix the roof before it is ready for installation. What is a more holistic approach? Examples shared that could be built on more about Healthy Homes Program (Oregon Health Authority – see [HB 2842 \(2021\)](#)) and [Clean Energy Bright Futures](#) (with funding from Bonneville Environmental Foundation).
- **Specific Occupations (other than Auditors)** [ODOE Facilitator/Report Out: Rob Delmar]
  - Discussion about how there should be more attention and focus on workforce and clean energy transition and jobs. These jobs, by nature, must be local to that source of local energy.
  - Training employees that are physically located in the building or in a community. Challenges include re-training because not all jobs and skills associated with jobs are interchangeable. For example, some existing trades can have a different set of skills and experience such as work in rural oil/gas fields compared to urban building operators. Discussed needs to pull workers into training programs, if there is dislocation, and that there has been success with community partnerships in keeping those programs and jobs local.
- **Equity and Workforce Diversity** [ODOE Facilitator/Report Out: Ruchi Sadhir]
  - Discussed need to work with pre-apprenticeship programs that are targeting specific groups, as well as recruiting from colleges for certain jobs (especially those that would need a business degrees).
  - Examples shared in the chat:
    - Constructing Hope – helping people of color, unemployed people, the formerly incarcerated, and low-income individuals re-enter the workforce and attain middle-class wages.  
<https://www.constructinghope.org/>
    - Blueprint Foundation – training and recruitment for a diverse green sector - <https://www.theblueprintfoundation.org/>
    - Safe From Hate Alliance – addressing harassment (working with AGC as well as union groups to improve worksite culture) -  
<https://www.worksystems.org/sites/default/files/Safe%20from%20Hate%20-%20Pledge%20and%20Signatories%20-%20Updated%2001-07-21.pdf>
    - California Workforce Development Board’s High Road Training Partnership - <https://cwdb.ca.gov/initiatives/high-road-training-partnerships/>
    - 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” examining the progress women and workers of color have made entering the Oregon

construction industry-

<https://lerc.uoregon.edu/2021/10/26/apprenticeship/>

- Discussed the University of Oregon report (linked above), which examined graduation and retention rates as well as training and retaining. Noted that the report finds that union programs are outperforming nonunion counterparts. Discussed that engagement with labor is critical. Discussed that this valuable resource – Skills learned in these trades apply not to just one sector; could work on school building project one day and a very different project the next day.
- Discussed need to create incentives for DEI training and workforce development
  - Example shared on national and regional solar industry research - <https://irecusa.org/programs/solar-industry-diversity-study/> – research could be used in planning and intervention. For example, Energy Trust of Oregon trade ally network and other workforce partners plan to participate in Diversity, Equity, & Inclusion training, which helps make more training more accessible.
- Discussed need to increase communications by working with labor partners to increase Diversity, Equity, & Inclusion. There have been good conversations in this space, but there is a need to focus on the data. Discussion about how things won't change overnight, but seeing movement and progress.
- Example shared on community workforce agreement from ODOT – <https://www.oregon.gov/odot/equity/Documents/Presentation%20CWA%20101%20-%20What%20is%20a%20CWA.pdf>
- Discussed needs for market study: there is a growing body of workforce data based on gender, race – and need to use these tools in the clean energy space.
- Discussed that needs might be different for tribal communities, such as cultural and geographic isolation and lack of access to educational opportunity, and so may need tailored approach to fill those needs.
- **Employee Retention and Training** [ODOE Facilitator/Report Out: Jen Senner]
  - Discussed specific cities (including Los Angeles, Philadelphia, Chicago, NYC), that have good examples of programs that engage a diverse workforce in training programs, including the use of Community Work Agreements.
  - Discussed how Oregon might be able to break down barriers to entry level positions, such as licenses. There was recognition that if we invest in green jobs, there needs to be viable career paths and opportunities for advancement (or independent business startup).
  - Some local examples that were engaging diverse populations well included the IBEW, National Land pack, the Center for Workforce Development, Constructing Hope, and the Portland Clean Energy Fund.
  - Discussion emphasized need to get the trades into high schools.
- **Building the Workforce Pipeline** [ODOE Facilitator/Report Out: Wendy Simons]
  - Discussed the need for CTE/STEM funding in schools as well as career awareness in a broad sense – there is a narrative about trades as a viable career path but needs to shift farther.

**Oregon Department of Energy**  
**March 16, 2022 – Federal Funding/Workforce Roundtable**  
**Meeting Highlights**

- Discussed the importance of culturally appropriate ways to communicate – language, cultural organizations, “right message and right messenger;”- awareness that people are coming to the workforce from different situations and have different needs.
- Discussed need to better leverage the workforce boards in Oregon. Noted the importance of contractors being a part of BOLI’s apprenticeship programs.
- Other feedback from the chat included:
  - the desire to engage tribal communities to support this work,
  - incentives for private industry to gain DEI training to produce equitable results,
  - the need for a DEI survey for every industry including whether employees are bilingual and the corresponding forms of recruitment.
  - There were also comments reflecting the need for non-union apprenticeships for occupations that doesn’t require special licenses, permits, etc. for employment.
- **Summary and Next Steps**
  - ODOE heard about significant areas of need for energy auditors, other energy related occupations, equity and workforce diversity, employee retention and training, and building the workforce pipeline. ODOE will continue to look for opportunities to raise these issues in conversations with USDOE and other federal agencies.
  - In part based on the information ODOE learned in this workforce meeting, ODOE plans to pursue competitive funding from USDOE on energy auditor training. USDOE is expected to provide more information about this opportunity this summer.
  - ODOE has conducted additional outreach and discussion with workforce boards about needs and current resources in Oregon.
  - The agency has also engaged in conversations with USDOE on workforce needs and ways that federal funding through the Infrastructure Investment and Jobs Act can support the state’s efforts.
  - **Next steps** include:
    - Additional engagement and input opportunities on energy related federal funding (Summer 2022)
    - Request to complete the survey about workforce and supply chain to inform a potential policy brief in the upcoming [2022 Biennial Energy Report](#).

# WORKFORCE DEVELOPMENT OPPORTUNITIES & FEDERAL FUNDING

March 16, 2022



OREGON  
DEPARTMENT OF  
ENERGY

# TODAY'S AGENDA

- Welcome
- Overview of Funding Opportunities
- Breakout Rooms: Current Needs
  1. Energy Auditors
  2. Specific Occupations (other than auditors)
  3. Equity and Workforce Diversity
  4. Employee Retention and Training
  5. Building the Workforce Pipeline
- Share out from Breakout Rooms
- Breakout Rooms: Current Resources
- Share out from Breakout Rooms
- Summary of Themes and Next Steps



# Welcome to WebEx! (Modern View)

## Audio Options

Mute *Microphone On*

Unmute *Microphone Off*

Speaker

- Use system setting (ThinkPad USB-...
- Headset Earphone (ThinkPad USB-...
- Speakers (Realtek(R) Audio)
- E1342CKR (Intel(R) Display Audio)

Microphone

- Use system setting (ThinkPad USB-...
- Microphone Array (Realtek(R) Audio)
- Headset Microphone (ThinkPad US...

Webex smart audio

- Noise removal

Audio settings...

You're using computer for audio

Switch audio

Unmute

The screenshot shows the main WebEx meeting window. At the top, it says 'Cisco WebEx Meetings (Moderated unmute mode)'. Below that are menu options: File, Edit, Share, View, Audio & Video, Participant, Meeting, Help. The main area shows two video thumbnails for 'Jane Doe' and 'ODOE IT Host, internal'. On the right, there's a 'Participants (3)' list with search and sort options, and a 'Chat' window with a dropdown set to 'Everyone' and a text input field. At the bottom, there's a toolbar with icons for Unmute, Start video, Share, and other controls.

## Second Raise Hand Option

You can also click on the hand next to your name in the Participant list to raise your hand.

Click on Lower hand when you are done.

This close-up shows the 'Participants (3)' list. A hand icon next to 'Shiela Me' is highlighted with a black box and the text 'Lower hand (Ctrl + Shift + R)'. Another hand icon next to 'Jane Doe' is highlighted with a black box and the text 'Raise hand (Ctrl + Shift + R)'.

## Chat

You can chat to Everyone in the meeting.

Two screenshots of the chat window. The first shows a message 'Hello to Everyone!' sent to 'Everyone'. The second shows a private message 'Hello to Shiela!' sent to 'Shiela (Host)'.

You can send a private message to the Host or Presenter (or all Panelists when there is a Panel).

## Video Options

Stop video *Webcam On*

Start video *Webcam Off*

## Reactions

A close-up of the 'Raise hand' button in the toolbar. A tooltip above it says 'Raise hand(Ctrl + Shift + R)'.

Click to Raise your hand.

A close-up of the 'Lower hand' button in the toolbar.

Click on Lower hand when you are done.

# COMMUNITY AGREEMENTS

Designed to foster an inclusive and respectful meeting

- Be present and ready to learn
- Be respectful to others
- Learning happens outside of our comfort zones
- Listen to learn and not to respond
- Thank you for being flexible and patient around any technology needs or changes
- If you need something at this meeting, please ask for it!

## The Act includes nearly \$100 Billion in additional funding for infrastructure projects.



Oregon communities may have an opportunity to receive additional energy-related funding from the Act for:

- ⚡ Energy efficiency and conservation
- ⚡ Transmission lines
- ⚡ Smart grid investments
- ⚡ Zero emission school buses
- ⚡ Projects to improve the energy resilience of port
- ⚡ Hydrogen commercialization and deployment
- ⚡ Carbon capture and utilization
- ⚡ Grants to public school facilities for energy efficiency and renewable energy improvements
- ⚡ Building energy codes technical assistance and training
- ⚡ Grants for charging infrastructure
- ⚡ Battery recycling grants
- ⚡ Smart manufacturing technology



## STATE ENERGY PROGRAM

**\$6.5 Million** in funding to the Oregon Department of Energy to support investments in clean energy, energy efficiency, and resilience.



## ENERGY AUDITOR TRAINING

**Up to \$2 Million.** USDOE will competitively offer \$40 million to U.S. states to train energy auditors to help home business owners identify opportunities save energy and money by using less energy.

# OTHER WORKFORCE OPPORTUNITIES

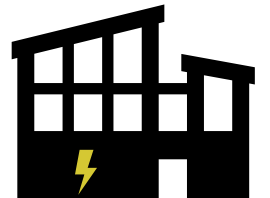
---

## Section 40512 of the Infrastructure Investment and Jobs Act (IIJA) – Building Training and Assessment Centers

- Institutes of Higher Education and Tribal Colleges and Universities are eligible for funds
- Grants to establish building training and assessment centers (preference for co-location with industrial research and assessment centers)

## Section 40513 of the Infrastructure Investment and Jobs Act (IIJA) – Career Skills Training Grants

- Nonprofit partnerships are eligible applicants
- Grants to support combination of classroom training and on-the-job training related to energy efficient building technologies
- 50% match required



# STATE ENERGY PROGRAM

---

The U.S. Department of Energy's State Energy Program (SEP) provides funding and technical assistance to states to enhance energy security, advance state-led energy initiatives, and maximize the benefits of decreasing energy waste. SEP emphasizes the state's role as the decision maker and administrator for program activities within the state that are tailored to their unique resources, delivery capacity, and energy goals.

SEP works with state energy offices to address the following goals:

- Increase the energy efficiency of the U.S. economy
- Implement energy security, resiliency, and emergency preparedness plans
- Reduce energy costs and energy waste
- Increase investments to expand the use of energy resources abundant in states
- Promote economic growth with improved environmental quality



# BREAKOUT SESSIONS

1. Energy Auditors
2. Specific Occupations (other than auditors)
3. Equity and Workforce Diversity
4. Employee Retention and Training
5. Building the Workforce Pipeline



OREGON  
DEPARTMENT OF  
ENERGY