

# Clean Energy Planning Engagement Series for Oregon Tribal Nations

September 27, 2024

# Presenters



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**Zanya Morgan**



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System Planning Specialist



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Grant Program  
Manager



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Solutions



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Customer Innovations



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Energy Trust of Oregon  
Senior Eastern Outreach  
Manager

Clean Energy Planning Engagement Series for Oregon Tribal Nations

September 27, 2024, 9:00-12:00 p.m., PT

For a Better Meeting Experience



- Use Gallery View (icon at top right) when in group discussion



- For technical support, chat "Tag G-D / E Source" as recipient, and send your message



- Questions are welcome at any time
- Please mute until speaking
- Speak by clicking the "Raise Hand" in the tool bar

	AGENDA
	Check In & Closing the Loop
	Warm Springs   Community Lens
	Energy Trust of Oregon / Warm Springs Projects
	Distribution System Planning
	Community Based Renewable Energy Updates
	Demand Response Portfolio Updates
	Transportation Electrification
	Facilitated Listening Circle
	Next Steps





# Closing the Loop from Last Meeting

## August's Focus

- Exploring Rural Mobile Training Unit & pre-apprenticeship programs
- Communicating general updates
  - Clean Energy Planning
  - On site acknowledgement
  - Post meeting surveys

What is your favorite family tradition?

# Energy Trust of Oregon





# Energy Trust of Oregon

## Pacific Power Tribal Nations Sept 28, 2024

# Agenda

- About our programs
- Work with Warm Springs
- How we support resiliency
- Highlights and continued learning



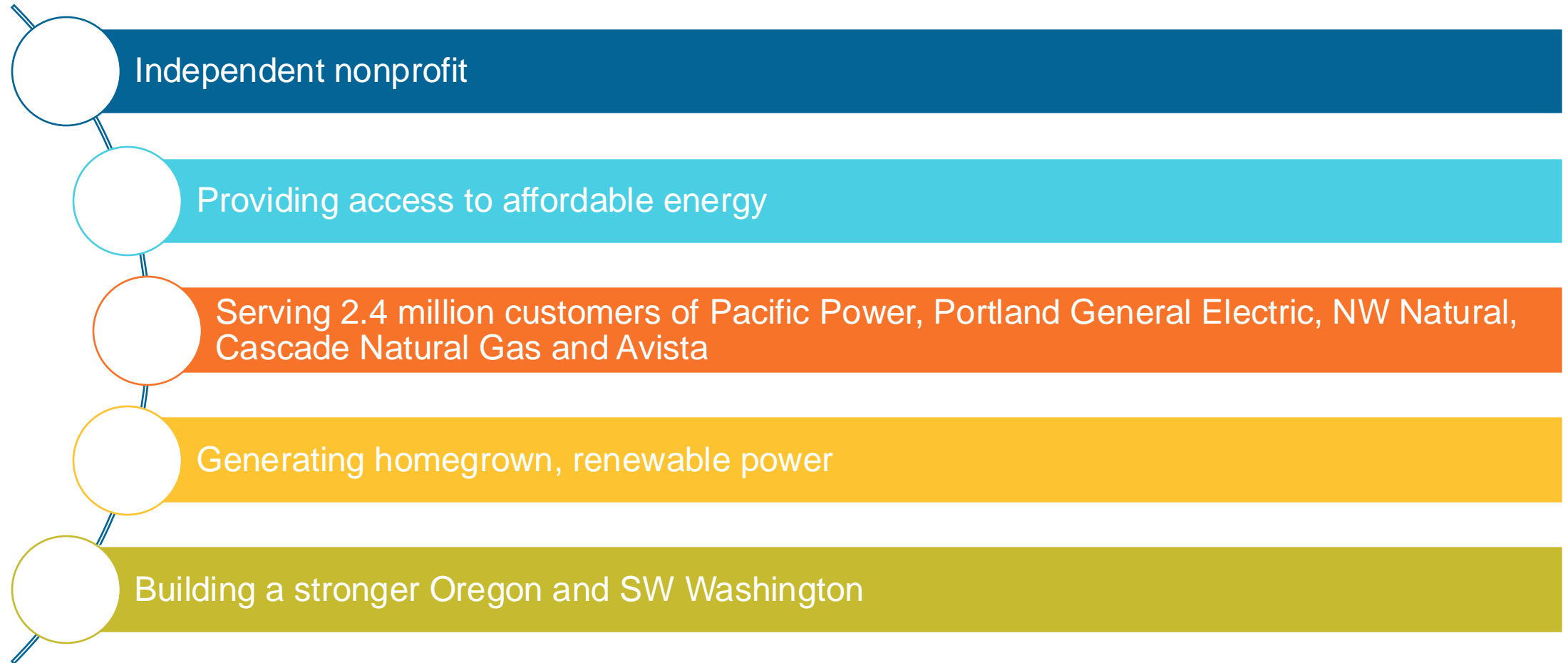
Energy Trust of Oregon

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# About Energy Trust

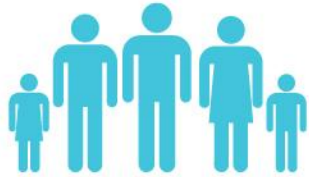
## ABOUT ENERGY TRUST

### Who we are

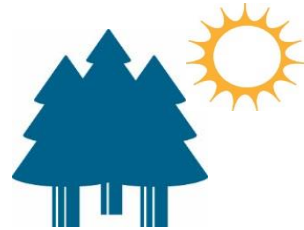


# Clean and affordable energy since 2002

From Energy Trust's investment of \$2.8 billion in utility customer funds:



**825,000 sites** transformed into energy efficient, healthy, comfortable and productive homes and businesses



**30,000 clean energy systems** generating renewable power from the sun, wind, water, geothermal heat and biopower

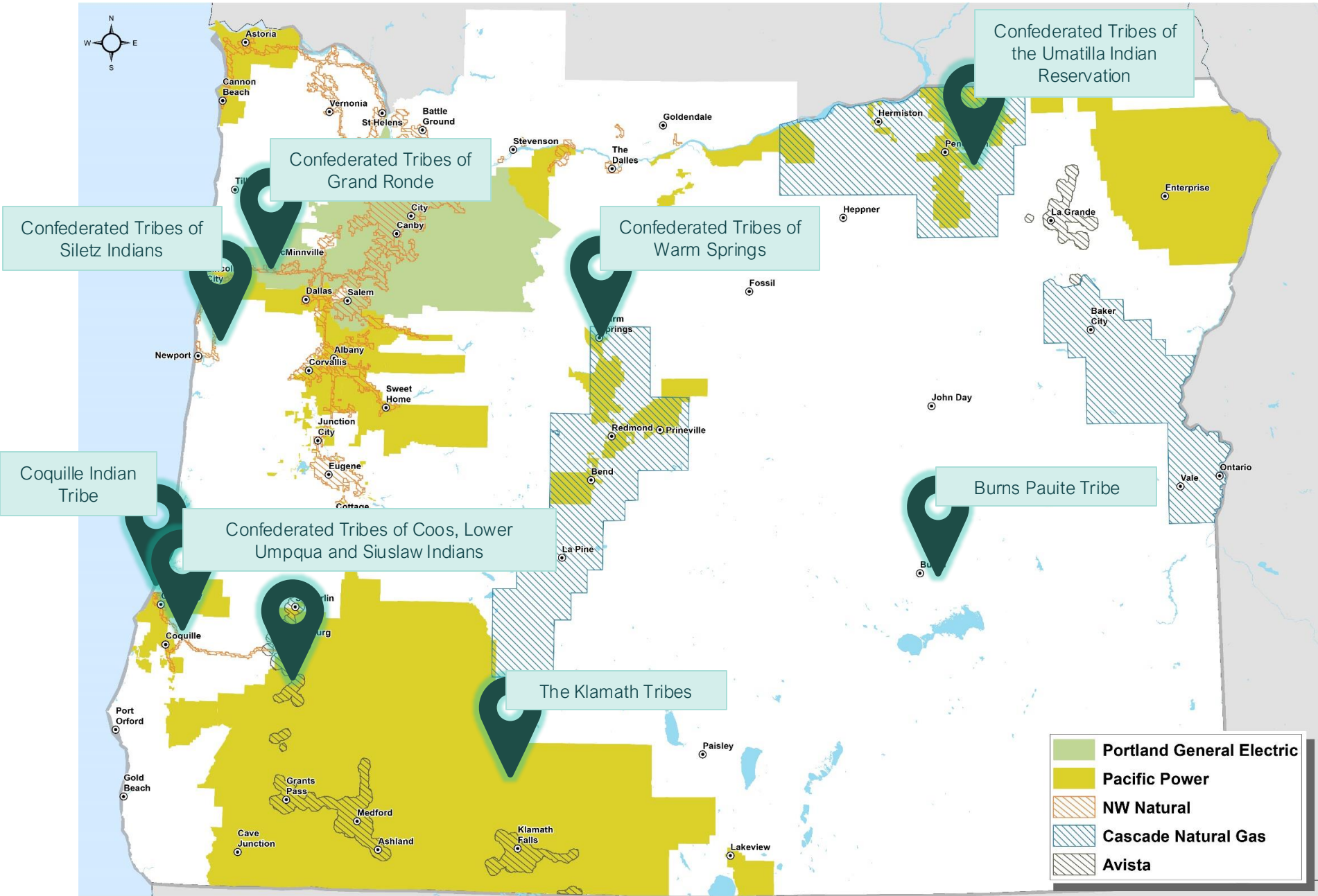


**\$13.5 billion** in savings over time on participant utility bills from their energy-efficiency and solar investments



**42.9 million metric tons of carbon dioxide** emissions kept out of our air, equal to removing 11.2 million cars from our roads for a year

# ABOUT ENERGY TRUST





## Work to date with Tribes



TRIBAL COMMUNITY  
WORKGROUP



PROJECTS SERVING  
TRIBAL CUSTOMERS



OTHER TOOLS AND  
STRATEGIES



## Prior approach

Individual relationships



Multiple staff contacting same customer



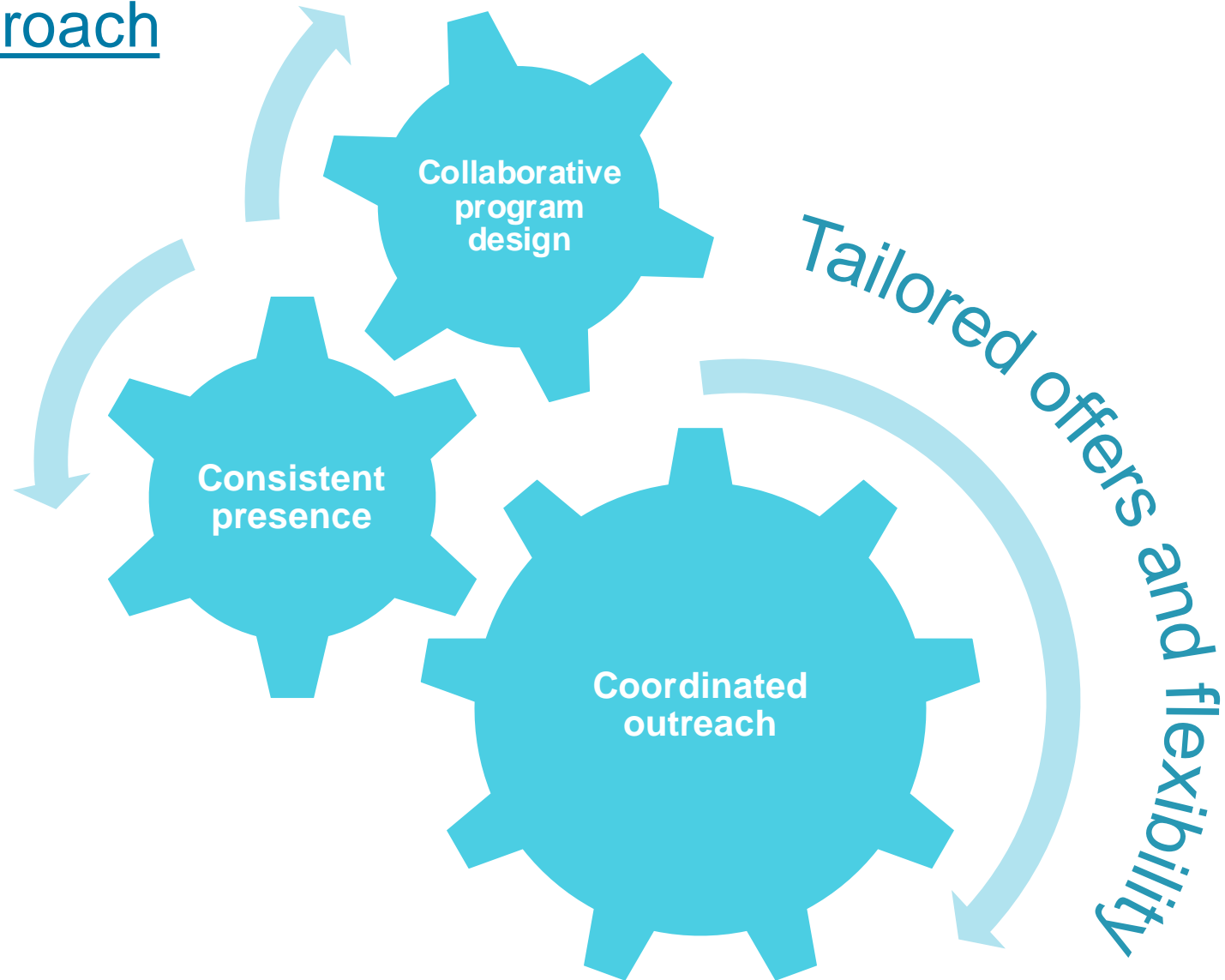
No tailored programs for Tribal communities or customers



Existed at project level



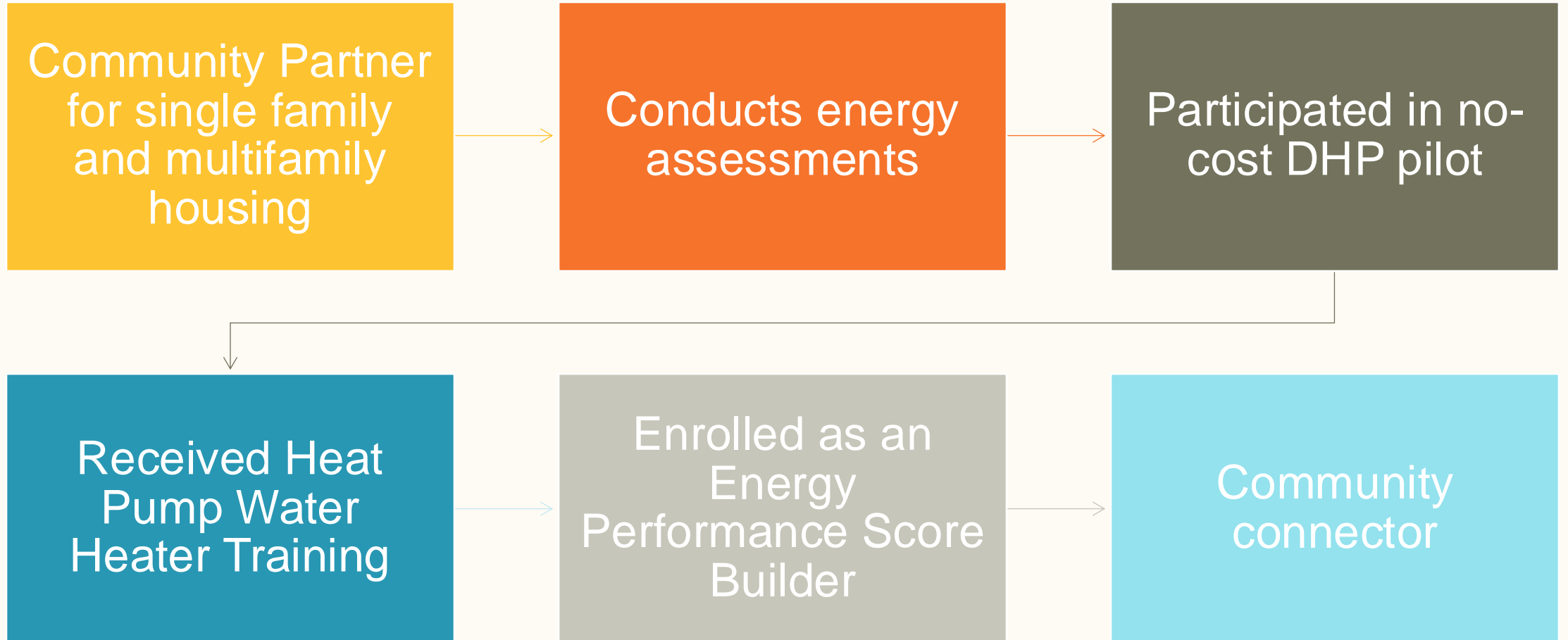
## Current approach





# Warm Springs Housing Authority

Danielle Wood, WSHA Executive Director  
Ray Hurtado, WSHA Facilities Manager



## Warm Springs Facilities



### **Water Treatment Facility**

Energy Trust provided no-cost lighting and an energy assessment for the existing site

Working with Indian Health Services (IHS) on energy efficiency, renewable energy and resiliency at new facility



### **Other areas of support (EV Charging)**

## Small Business Direct Install



### **35 sites received lighting assessments**

At the end of July 2024 23 sites have completed installation

Total incentive value \$244,785

Total energy savings 587,652 kWh



### **# sites received energy assessment to identify non-lighting opportunity**

WORK WITH WARM SPRINGS

## Warm Springs Enterprises

- Energy assessment Indian Head Casino
- Letter of support for Community Renewable Energy Grant Program Application + post award support
- Looking for other areas of opportunity





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# How we support resiliency

## Resiliency through standard and custom process

- Resiliency could support the ability to generate power paired with battery storage located at facilities that support health/life/safety services and critical infrastructure
- Resiliency could support activities that support the built environment
  - Better building envelope or retrofitted air sealing and insulation
  - Community gathering place like a community center or school to shelter, and store and prepare food
- Economic resiliency by lowering energy consumption
- Planning support
- Collaborative funding

## HOW WE SUPPORT RESILIENCY

### Project Highlight: Creekside Elder Housing

- 24 newly built, net zero single family homes
- Solar and battery storage
  - Produce enough solar power to cover 100% of the electricity that will be used
  - Battery systems will power essential loads during a power outage
- Quality construction using above code building techniques
- Air quality in the homes will be better and more healthy





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# Highlights and continued learning



## HIGHLIGHTS AND CONTINUED LEARNING

- Kick-off on new recruitment process for Tribal Community Workgroup
- Development of Tribal customer success stories
- Tribal Government and Stakeholder Relations Position & expansion of regional outreach team
  - Leadership communications plan
  - Meaningful engagement policy
  - Support cross-program strategic initiative
- Tribal project data improvements
- EPA Community Change Grant Joint Application w/ Confederated Tribes of Grand Ronde

# THANK YOU

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*Questions?*

Caryn Appler, Sr. Outreach Manager

[caryn.appler@energytrust.org](mailto:caryn.appler@energytrust.org)

541-561-1221

# Distribution System Planning

# Electric Grid Overview

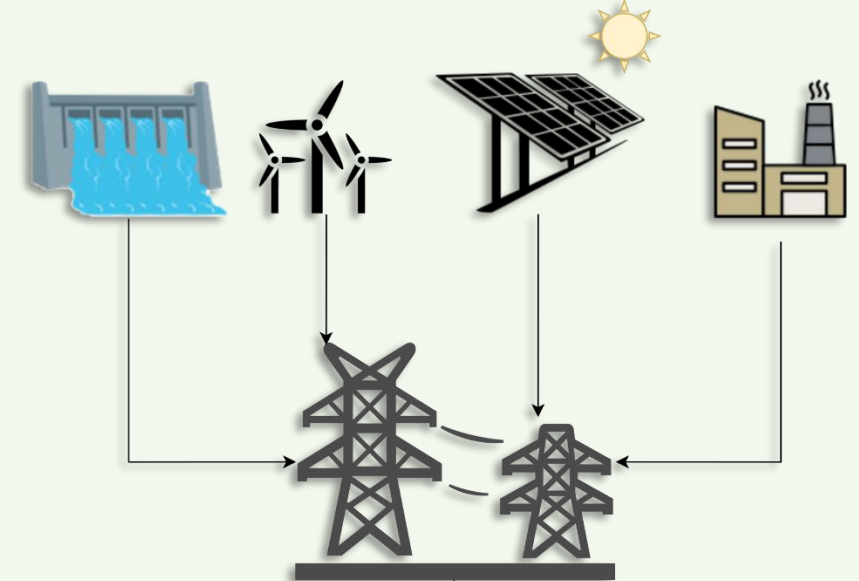


## Generation and Transmission System

- Generates power from various resources
- Transmission lines transmits power from generation plants to distribution substations

## Distribution System

- Starts at distribution substation and ends at customer meter
- Delivers power to consumers via poles and wires(overhead and underground)



### Distribution System

Distribution Substation



Circuit A Circuit B Circuit C Circuit D



# What is Distribution System Planning (DSP)?

## What is Oregon DSP?

- Advancements to traditional DSP based on guidelines proposed by Oregon PUC staff
- Increased transparency of DSP processes to meet the needs and leverage the capabilities of the modern grid

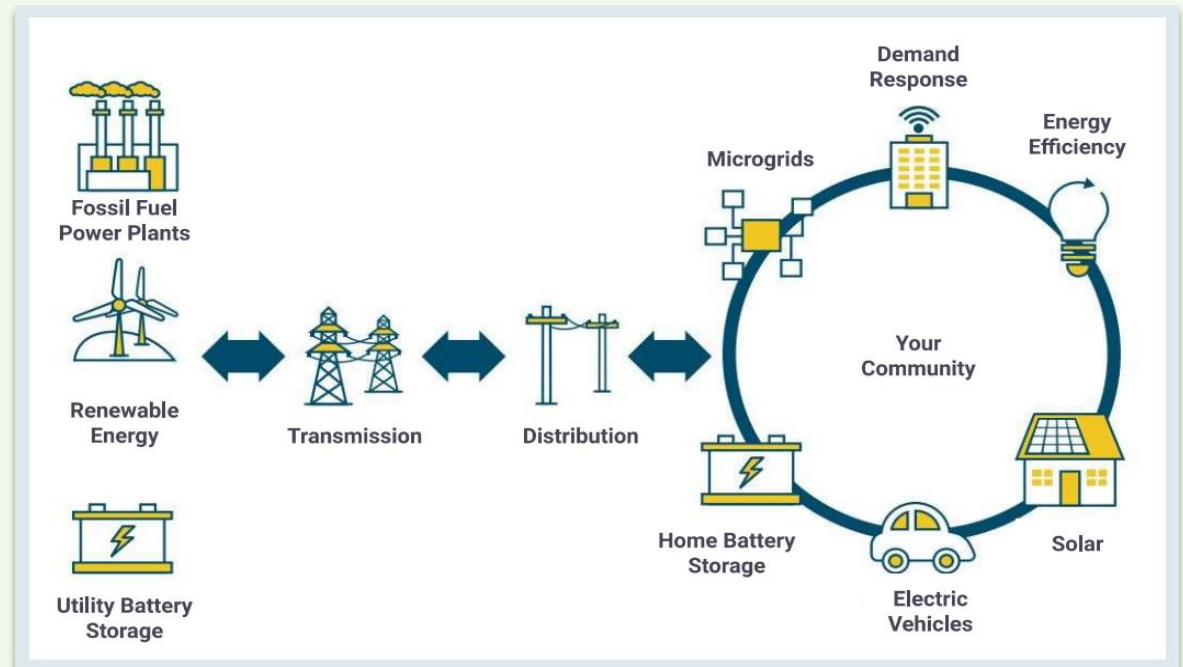
## Key Changes to Traditional DSP

- Enhanced forecasting:
  - 24-hour usage profiles
  - 10-year forecast horizon
- Reliability and Resilience
- Evaluation of nontraditional solutions to address grid needs
- Increased community engagement

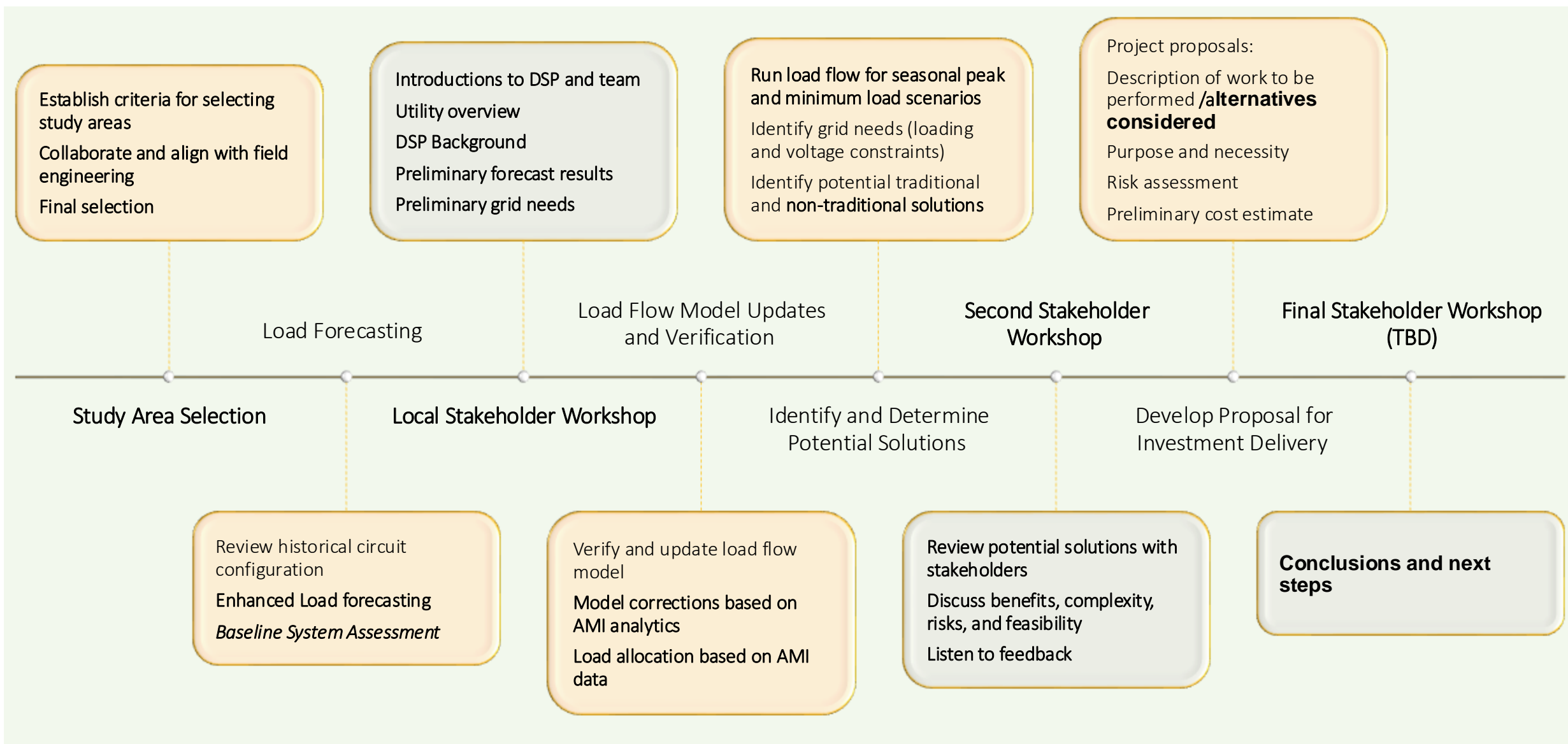
## Past Grid



## Modern Grid



# Example of DSP Study Process and Local Engagement Plan



## Proposal to Define Resiliency in CEP

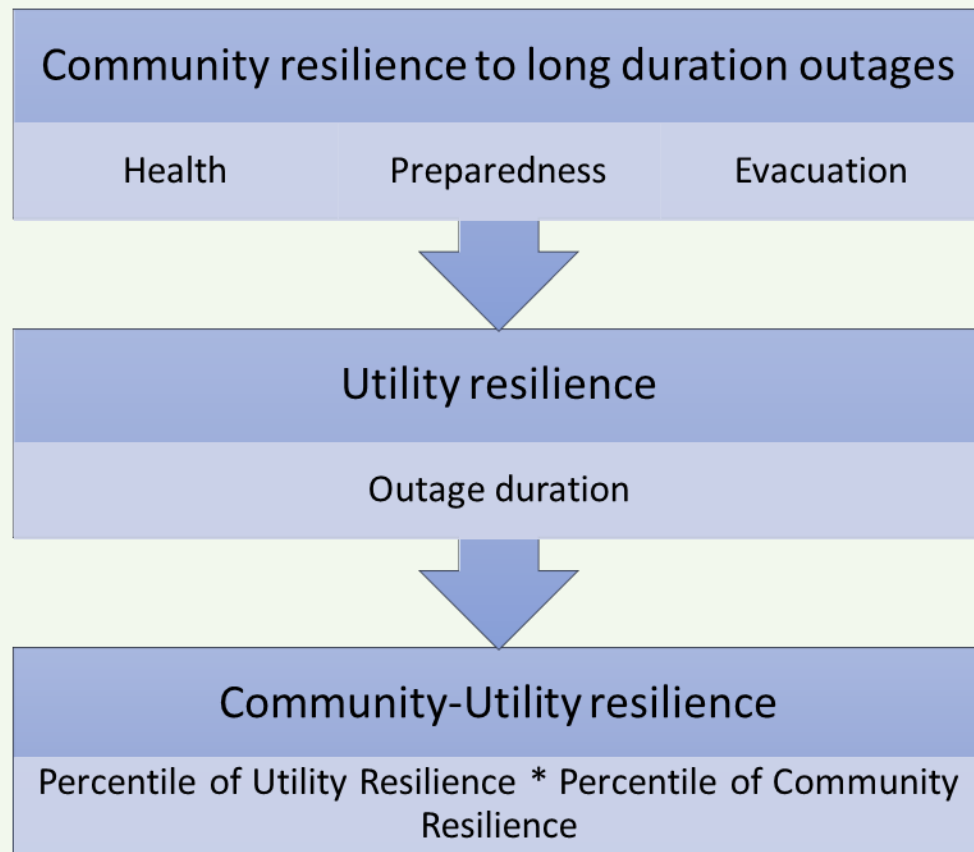
**Defining resiliency and resiliency:** The critical first step for PacifiCorp is to develop an initial definition of resilience and through reoccurring stakeholder meetings share and receive feedback. PacifiCorp expects this to include definitions of **utility resilience, community resilience, and community-utility resilience**, which will serve as the overall concept for resilience that informs subsequent analysis and planning.

In developing community-utility resilience metrics, PacifiCorp intends to **combine census tract level community and utility resilience scores into a composite community-utility resilience score**. This score will be used to identify and prioritize census tracts for additional analysis of system performance including outages and major events.

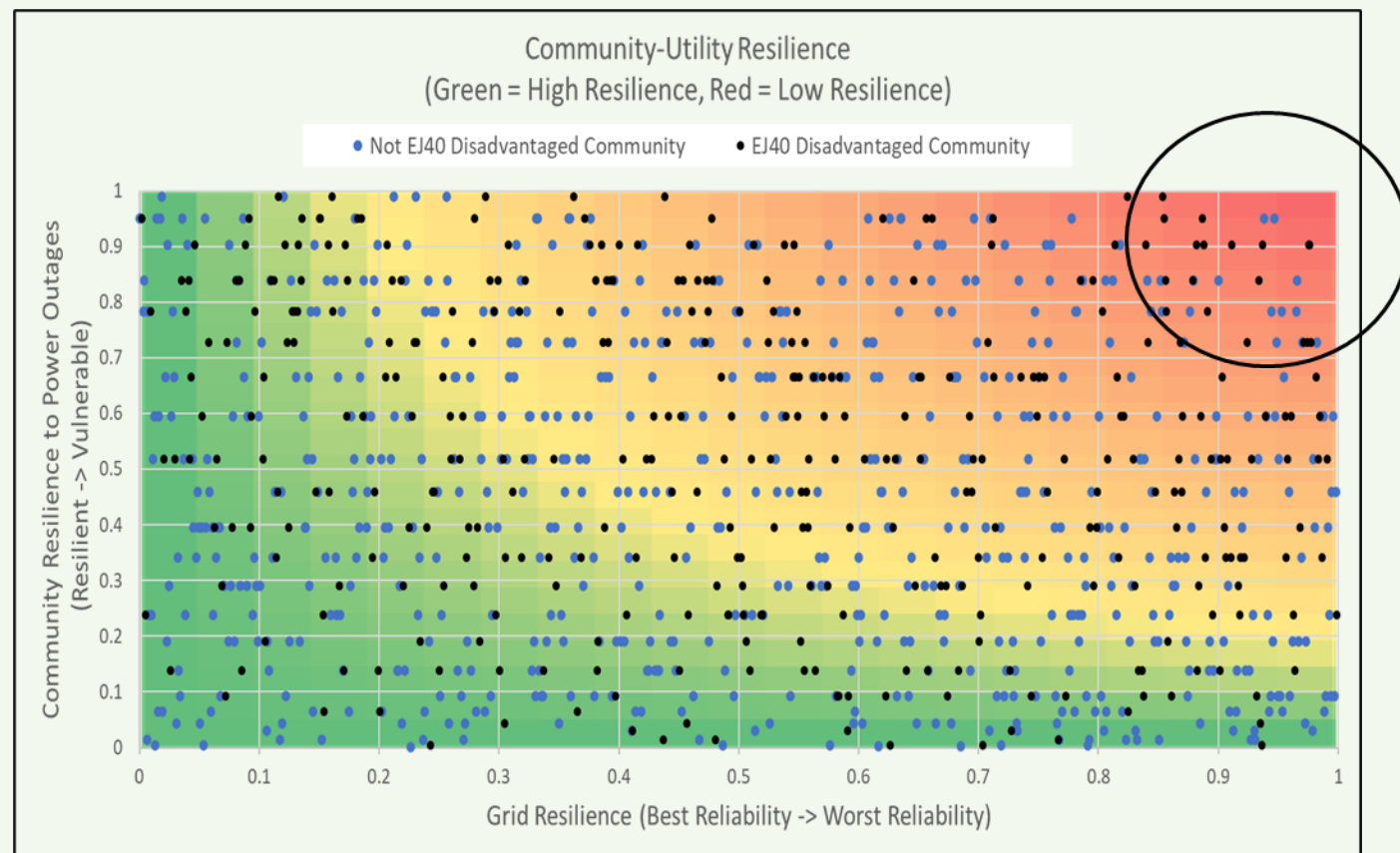
CBI Category	Interim CBIs	Interim CBI Metrics
Resilience (System and Community)	-Improve resilience of vulnerable communities during energy outages -Reduce frequency and duration of energy outages	-SAIDI, SAIFI and CAIDI at area level including major events -Energy Not Served (ENS) for IRP portfolios are included as an output from portfolio development

# Community and Utility Resilience

## Components of Resiliency Metrics



## Focus Efforts in Areas of Lowest Resilience and Worst Reliability





# Community Vulnerability Measures and Data Sources

- Age (Census)
- Health Conditions (CDC/PLACES)
- Medical flags on accounts (Utility Data)
- Weather (OSU PRISM)

## Health



- Education (Census)
- Housing and Occupancy Characteristics (Census)
- Income and Government Assistance (Census)
- Language Barriers (Utility Data)

## Preparedness



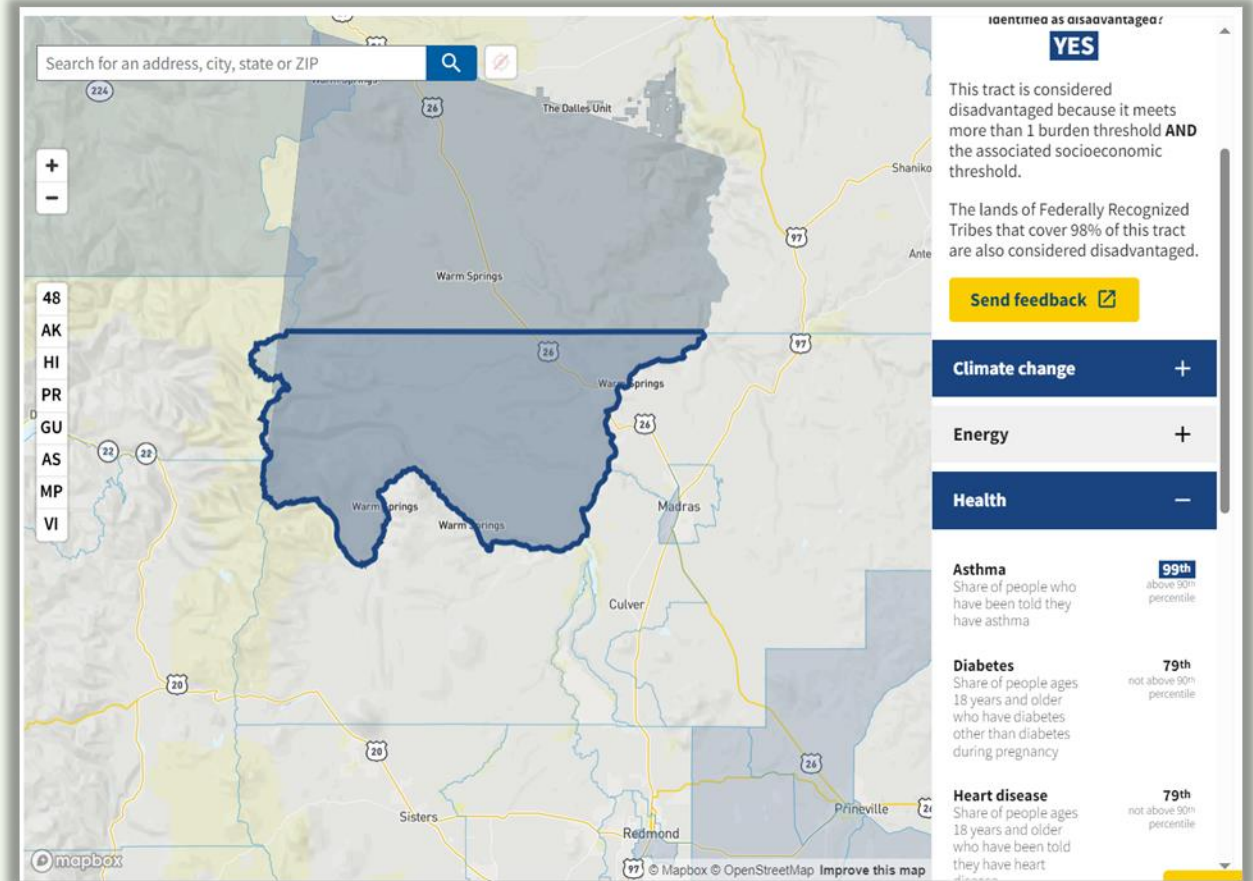
- Housing and Occupancy Characteristics (Census)
- Vehicle Availability (Census)
- Income (Census)
- Proximity to emergency shelters with backup generation (FEMA/Red Cross/Utility Data)

## Evacuation



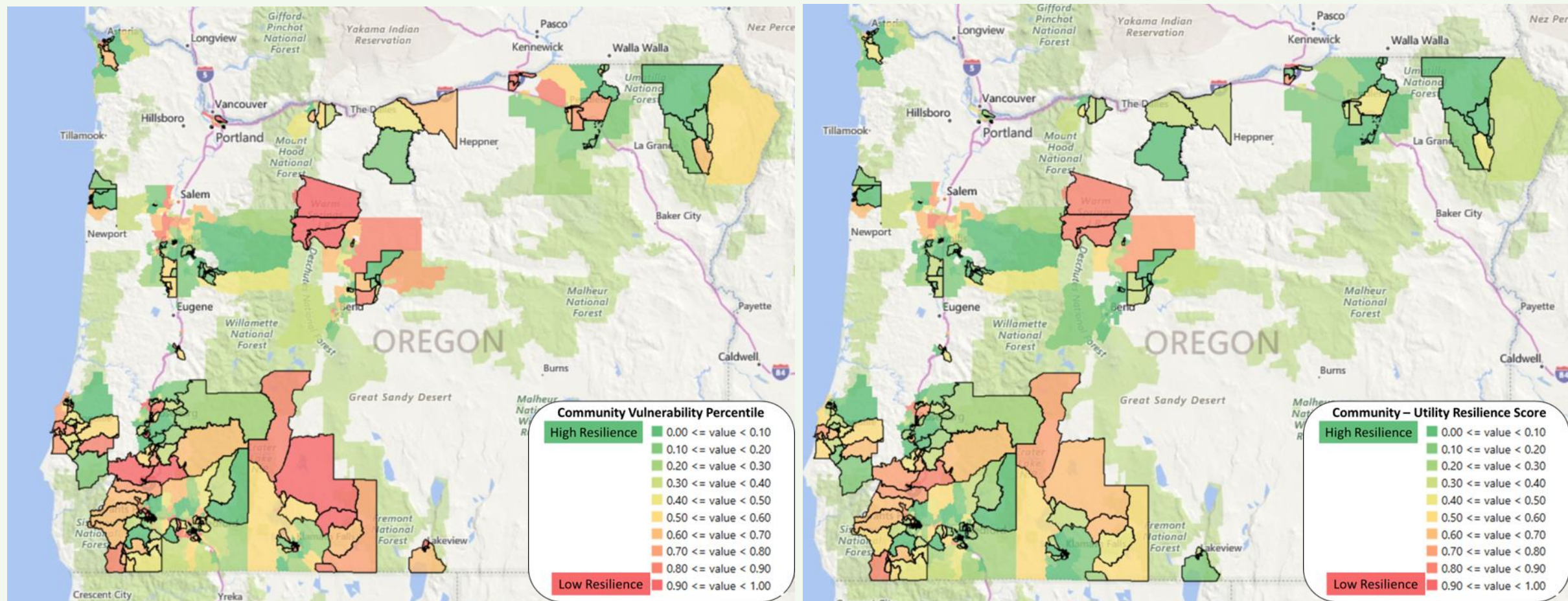
# Environmental Justice 40 (EJ40) Disadvantaged Communities

- Ability to apply filter on dataset to focus on EJ40 disadvantaged communities to help *identify grant opportunities that can lower the financial barriers to implementing a solution to reduce outage vulnerability.*
- Disadvantaged communities defined as Census tract that exceeds one or more of the following category thresholds:
  - Climate change
  - Energy
  - Health
  - Housing
  - Legacy Pollution
  - Transportation
  - Water and wastewater
  - Workforce development





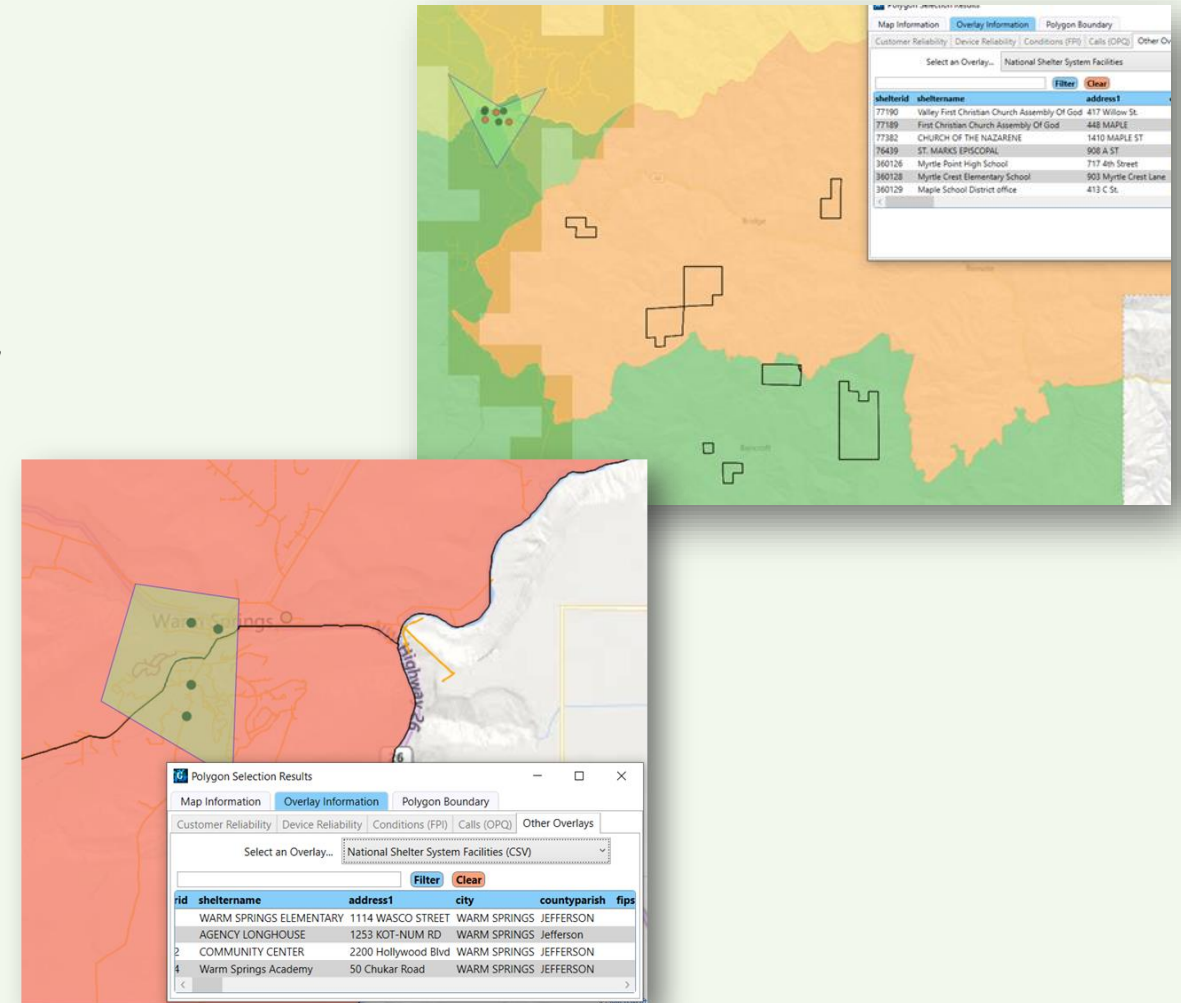
# Community-Utility Resiliency Map



\*Shaded areas are census block groups the company serves. Black outline indicates area is within EJ40 disadvantaged community.

# National Shelter System & Community Resource Centers

- FEMA and Red Cross have a database of facilities that can serve as a shelter in the event of a disaster, including indication if facilities have backup generation.
- The Company has established relationships with community and public safety partners to identify sites where the Company may activate a Community Resource Center (CRC) to provide services to communities during a PSPS event.
- The Company plans to review facilities near vulnerable communities with local emergency planning teams for potential opportunities for resilience based CBRE projects.





# CBRE-RH Pilot Components

1. **TECHNICAL ASSESSMENTS**: Continue to provide feasibility studies (begun in 2020) to communities interested in better understanding the costs and requirements of solar and battery energy storage systems at critical community facilities
2. **ONGOING PROJECT SUPPORT**: Leverage expertise and provide supplemental funding to support the planning for, and installation of, the battery storage component of planned and existing resilience projects to provide grid-enabled system-wide benefits and learning outcomes
3. **GRANT MATCHING**: Establish a mechanism to provide matching funds for communities seeking external grant awards for resilience projects at critical facilities



Provide a mechanism of support for communities that have yet to begin CBRE project development



Aid in the interconnection of funded, in-flight resilience projects with grid-enabled storage to capture takeaways & learnings with:

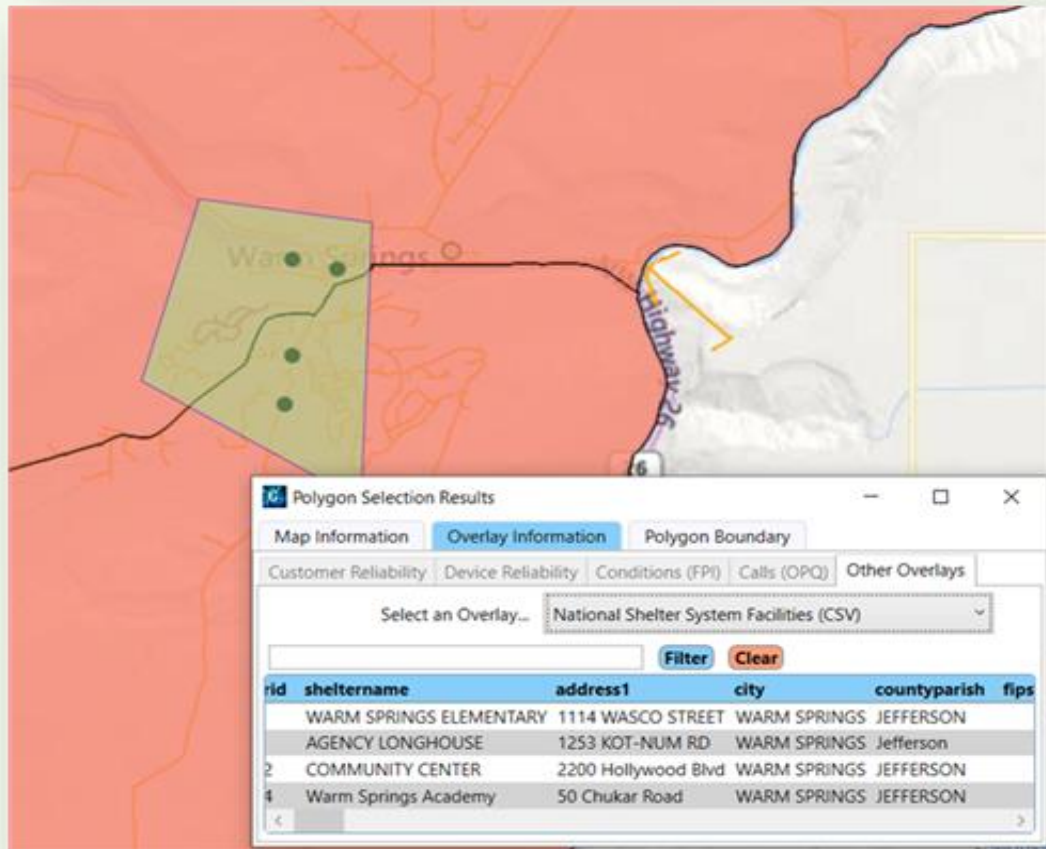
- 2a) Design Support
- 2b) Incentive Offering
- 2c) Ongoing Data Collection



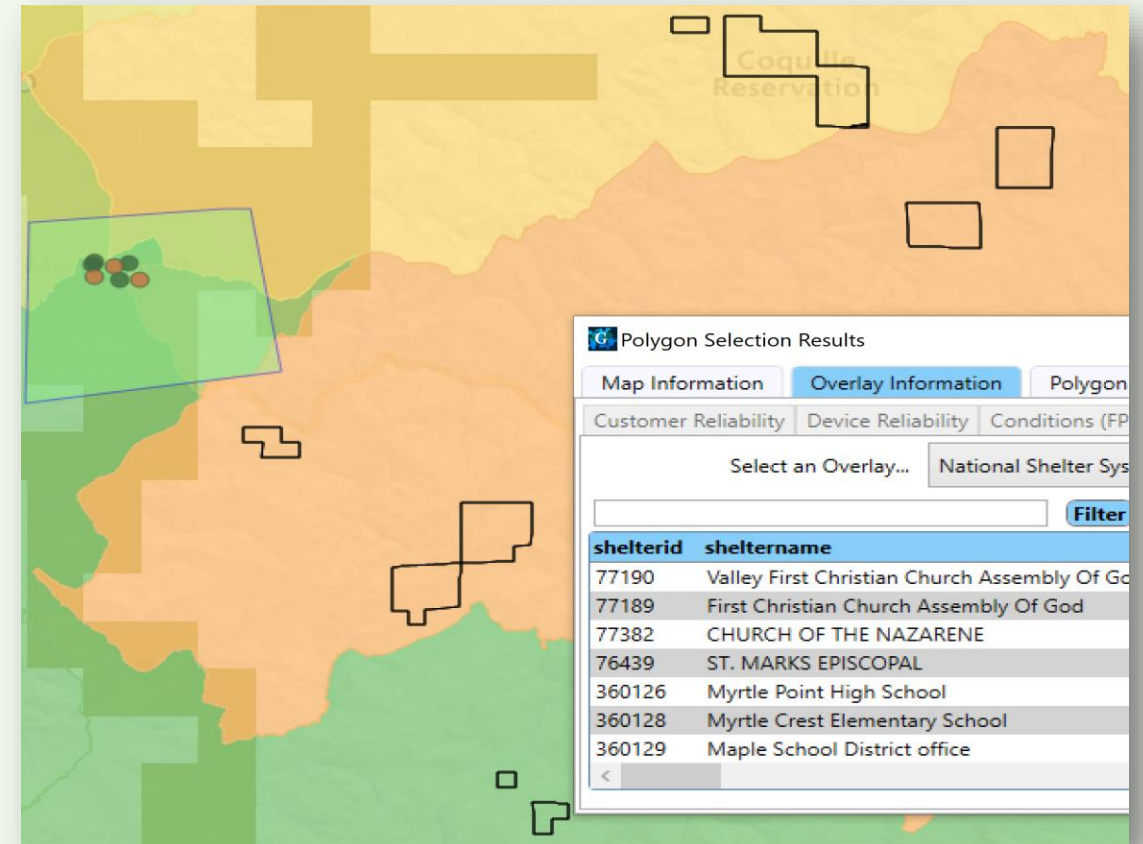
Assist communities as they take advantage of existing funding opportunities

# Examples of Community Resource Centers

## Warm Springs Tribe

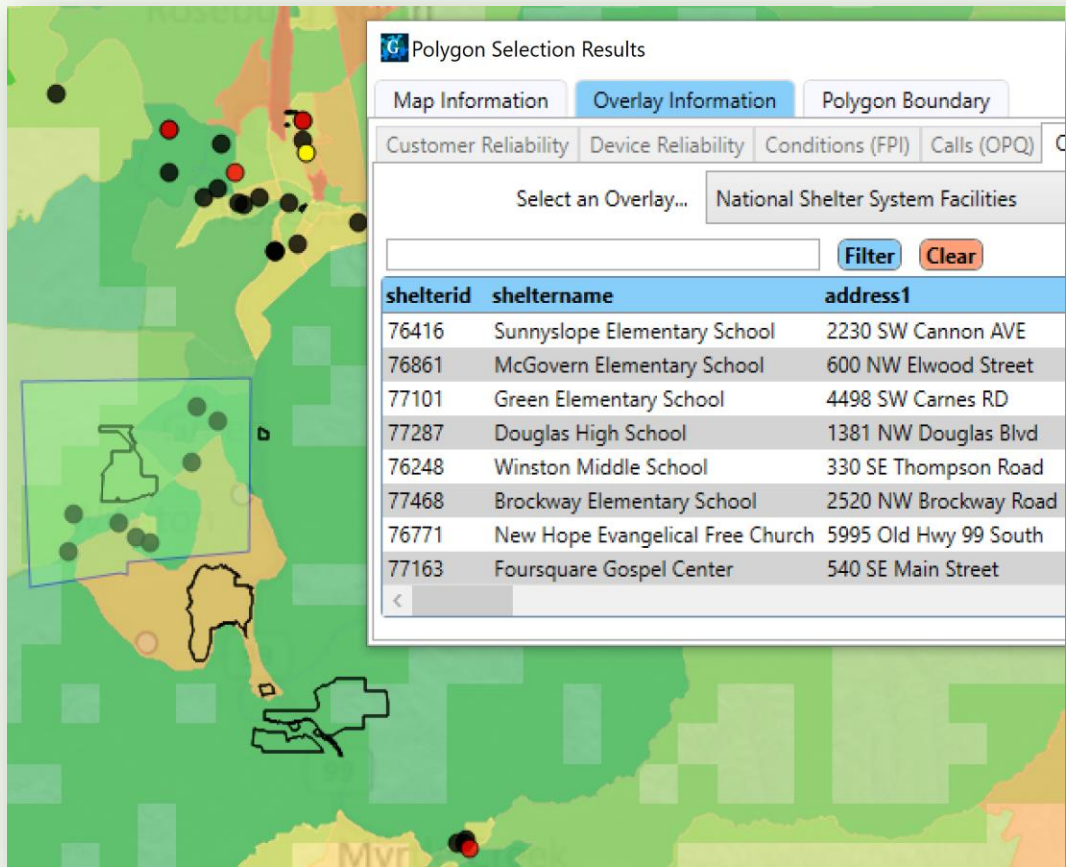


## Coquille Tribe



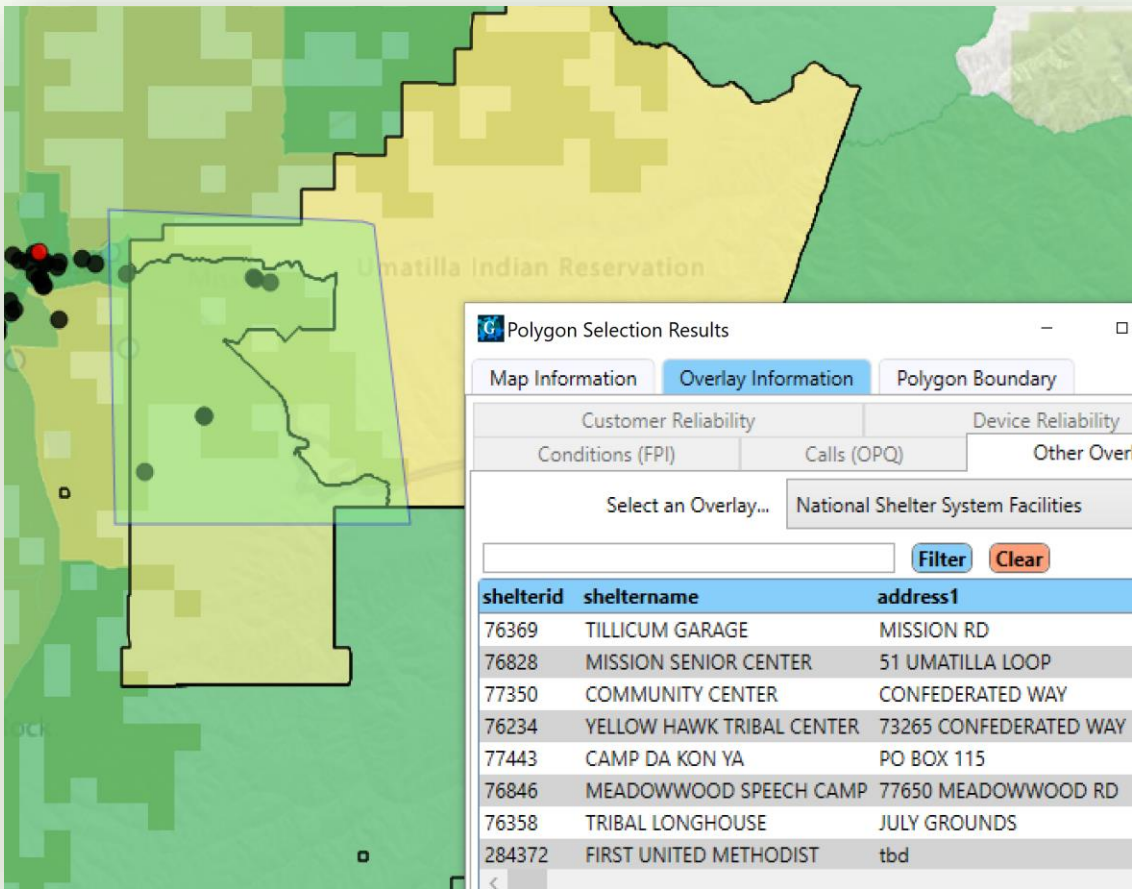
\* Map is not a comprehensive list, for discussion purpose only

## Cow Creek Band of Umpqua Tribe

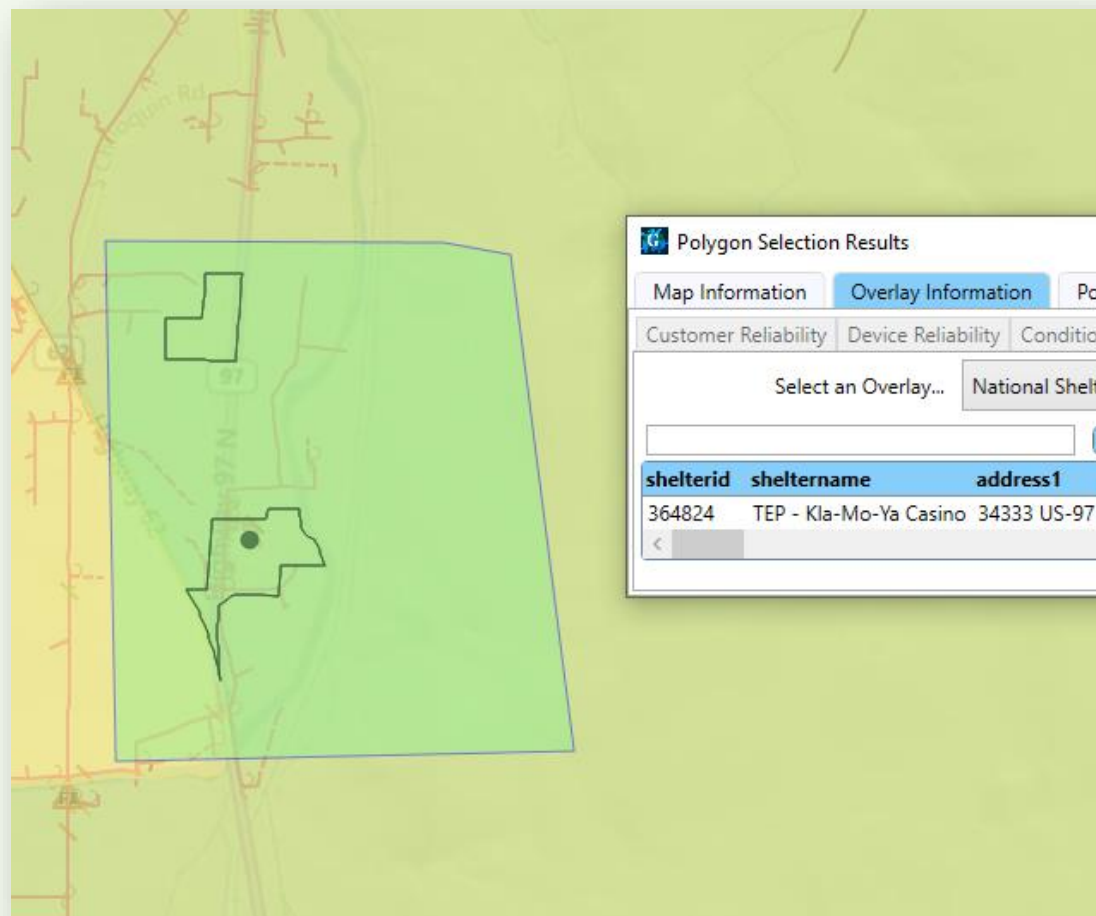


\* Map is not a comprehensive list, for discussion purpose only

## Umatilla Tribe



## Klamath Tribe



\* Map is not a comprehensive list, for discussion purpose only



# Demand Response Portfolio Updates

# Battery Program - Overview

## Battery Utilization

- Utility grid management
- Peak load management
- Frequency response
- Contingency reserve
- Daily load cycling

## Battery Dispatch

- Distributed Battery Grid Management Solution (DBGMS)
  - Allows for flexibility in battery control – total grid management
  - Currently configured with Sonnen batteries – scalable to other manufacturers
  - Integrated with PacifiCorp's Energy Management System
  - ISO 270001 security compliance
  - Real-time battery connectivity reports

PacifiCorp has successfully implemented battery programs since 2019

# Battery Program Incentives



## Enrollment Incentive

\$100 per kW upfront during commitment period (4 years)

Early program termination will require prorated repayment of upfront incentive



## Annual Incentives “up to”

\$15 per kW during commitment period years 2 – 4

\$50 per kW after year 4



## Example incentives for 5 kW battery

Enrollment incentive: \$2,000 (5kW x \$100 x 4 years)

Annual incentive years 2 – 4: \$75 (5kW x \$15)

Annual incentive year 5 and beyond: \$250 (5kW x \$50)



## Potential future lease option

Lease option will be evaluated based on customer feedback and participation levels

# Transportation Electrification



# Agenda & Objectives



Strategy Status:

 Ongoing

# Residential Offerings

- Non-income qualified: Up to \$500 for Hard wired level 2 chargers (not to exceed 75% of total costs)
- Non-income qualified: Up to \$250 for 240 volt charging (not to exceed 75% of total costs)

## Residential Standard Rebate



- Income qualified: Up to \$1,500 for home charging equipment (no cap on percentage of costs covered)
- Income qualified: Up to \$500 for 240 volt charging (no cap on percentage of costs covered)

## Residential Income Eligible Rebate



- Up to \$4,500 per port (not to exceed 75% of total costs)
- Maximum of 12 ports at a maximum incentive of \$54,000
- New online application with an option to reserve funding prior to the project being completed is currently in development

## Multifamily Rebates



- National Drive Electric Week (September 26 – October 4)
- Sponsorships Available
- Online Tools
- Workforce Development
- Ride & Drive Events
- Dealership Engagement

## Outreach & Education



# Commercial Offerings

- Grant Matching Applications Due August 30
- Grant Writing Applications still being accepted on rolling basis through December, or until funds are exhausted
- MAC Grant will likely be delayed and combined with 2025 E-Mobility cycle

## Grants



- Commercial Rebates are available up to \$1,000 per port (not to exceed 75% of total costs)
- Maximum of 6 ports for \$6,000

## Rebates



- Make-Ready incentives to support the customer side design and construction costs
- Up to \$100,000 in incentives based on the project specifics

## Fleet Make Ready



- For commercial customers considering EV charging and fleet planning. Provides a customized high-level preliminary cost and early site plan for the customer's project.
- Enhanced Technical Assistance becoming formalized to help projects move through construction

## Technical Assistance Services



# Performance Metric Discussion

Performance Area	2023 Findings
<b>Environmental Benefits including Greenhouse Gas Emissions Impacts</b>	<p>Estimated Reduction in GHG Emissions for Electric Vehicle in PAC Service Territory for 2023</p> <p>CO2e: 38, 278 Metric tons   NOx: 34 Metric tons   PM2.5: 0 Metric tons</p>
<b>Electric Vehicle Adoption</b>	<p>The Company expects to continue to see a positive impact on EV adoption from robust portfolio of EV programs and measures. At the time of filing the TEP, the Company estimated a cumulative total of 17,377 vehicles by the end of 2023. Current estimated actuals indicate that approximately 18,021 vehicles have been adopted in PacifiCorp's Oregon service territory. The Company's revised projections based on update actuals assume 36,321 cumulative vehicles by 2025 compared to 29,003 vehicles previously assumed in the TEP.</p>
<b>Underserved Community Inclusion and Engagement</b>	<p>The engagement groups hosted by PacifiCorp and comprised of interested parties included the Community Benefit and Advisory Group on June 15, 2023, Tribal Engagement on March 17, 2023, Oregon State Tribal Economic Development Cluster Groups as a guest on April 28, 2023, and August 25, 2023.</p>
<b>Equity of program offerings to meet underserved communities</b>	<p>In 2023, 95% of program-enabled ports are located within or provide direct benefits and services to underserved communities. 83% of the public ports are located within and/or providing direct benefits to underserved communities.</p>
	<p>Not applicable – PacifiCorp has no transit agency program participants.</p>
	<ul style="list-style-type: none"> <li>• Light-duty Fleet Vehicles: 4%</li> <li>• Medium and Heavy-duty Fleet Vehicles: 4%</li> <li>• Micromobility: 1%</li> <li>• Outreach &amp; Education: n/a</li> <li>• Passenger Vehicles: 91%</li> <li>• School Buses: n/a</li> <li>• Transit Buses: n/a</li> </ul>



# Performance Metric Discussion

Performance Area	2023 Findings
<b>Distribution system impacts and grid integration benefits</b>	For PacifiCorp owned chargers available to the public, 99% of charging during the winter occurred off-peak, while 82% of charging occurred during the summer off-peak.  Not Applicable – PacifiCorp did not have a managed charging program in 2023.
<b>Program Participation and Adoption</b>  <b>Number of program-enabled ports by use case</b>	Residential: 974 Multifamily: 0 Workplace: 3 Corridor: 6 Non-Corridor: 30 LDV/MDV Fleet (Private): 1 LDV/MHDV Fleet (Public): 13
<b>Percent of total public ports by use case within utility service area that are program enabled</b>	5%
<b>Number of participants in utility programs, broken down by program and underserved status</b>	The following utility data shared illustrates the number of projects completed in underserved communities within utility programs. E-Mobility Grant: 22 EVSE Rebate: 268 EVSE Rebate (Limited Time Offer): 690 Grant Matching: 1
<b>Infrastructure performance including charging adequacy, reliability, affordability, and accessibility</b>	Ongoing. PacifiCorp has initiated an investigation into all publicly available ports that are program enabled.
	PacifiCorp can only report currently on PacifiCorp owned-stations. The supported ports by use case is underway in the data dashboard development. Use Case: Corridor Public DCFC Ports: Average of 95.3% uptime Level 2: Average of 88.3% uptime

# Tribal TE Engagement Needs Assessments

**Goal:** Seeking to understand Tribes' interest, and ability to integrate charging stations and electric vehicles into Tribal operations and enterprises.

**Next Steps:**

- Oregon New TE Plan 2026-2028
  - Draft Due May 1
- February Discussion on TE Plan Concepts

How is the Tribe currently planning to implement a new charger-ready infrastructure, or provide electric vehicle chargers?

What potential challenges do you face in installing chargers at select locations?

What legal barriers and codes need to be considered to ensure successful implementation of electric vehicle infrastructure?

# BREAK

# Listening/Feedback

# Potential Topics

The items listed below are meant to serve as a potential starting point.





# Next Steps

Final Thoughts?

## Oregon Tribal Nations Engagement Series

October 25, 2024 | 9:00 – 11:00 a.m.

Zoom: <https://esource.zoom.us/j/81604254901?pwd=3z8YEAt4uayEh2WnH3naL8adFAxXFh.1>

Meeting Code: 816 0425 4901	Password: 760233
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November Offline Exercise

Email comments to:  
[TribalRelations@PacifiCorp.com](mailto:TribalRelations@PacifiCorp.com)


## PacifiCorp Stakeholder Engagement

IRP Public Input Meeting – September 25  
2024, Online  
[Public Input Process \(pacifiCorp.com\)](https://www.pacifiCorp.com/public-input-process)

CBIAG – October 17, 2024, Online  
[CBIAG Zoom Registration](#)

October 27<sup>th</sup> (Online) 1pm-4pm  
[CEP Zoom Registration](#)

For more information:  
[Oregon Clean Energy Plan Updated  
Engagement Strategy](#)

Email comments to:   
[TribalRelations@PacifiCorp.com](mailto:TribalRelations@PacifiCorp.com)

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**Clean Energy Plan Engagement Series for  
Oregon Tribal Nations - 2024 Meeting**

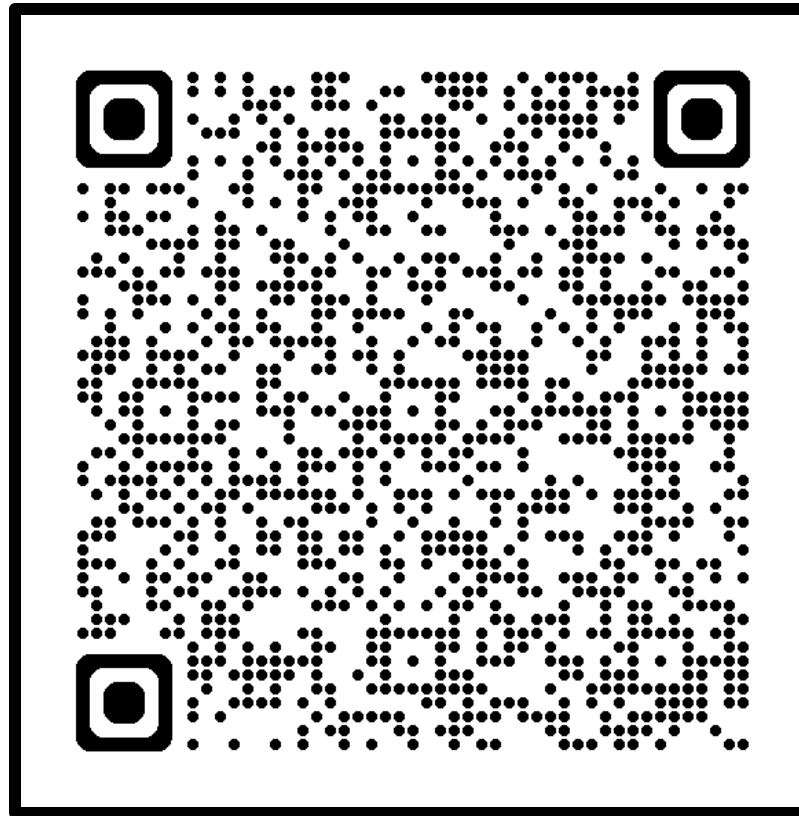
[Join Zoom Meeting](#)



# Clean Energy Planning Engagement Series for Oregon Tribal Nations

## Post-Meeting Survey

Link: <https://forms.office.com/r/ix8YFSgCV0>







**Thank You!**

