

Agenda Environmental Justice and Equity Working Group:

August 6, 2024

2:00 PM – 4:00 PM

The Oregon Department of Energy strives to create accessible materials and host accessible meetings. If you need accommodation to participate, please let us know.

During this meeting we will invite you to share three words that describe your objective or purpose for joining this working group. Please start thinking about your “why” for participating in this work and be ready to share a little with the group.

There will be an interactive part to this meeting using Mentimeter. You will need to access an additional link (which will open a new window on your computer) or a QR code on your phone.

Time	Agenda Item	Presenter
2:00 – 2:05	Welcome	Lauren Rosenstein, Oregon Department of Energy
2:05 – 2:40	Introductions	Ben Duncan, Kearns & West
2:40 – 2:50	Setting the Stage	Edith Bayer, Oregon Department of Energy
2:50 – 3:55	Presentation and discussion <ul style="list-style-type: none">- Household vignettes- Mapping- Air quality and public health	Angela Long, Rockcross Consulting Ruby Moore-Bloom, Clean Energy Transition Institute Mariah Caballero, Clean Energy Transition Institute Jeremy Hargreaves, Evolved Energy Research
3:55 – 4:00	Wrap up and Next Steps	Edith Bayer, Energy Policy Team Lead

Oregon Department of **ENERGY**

Oregon Energy Strategy
Environmental Justice
and Equity Working
Group

Lauren Rosenstein and
Edith Bayer
August 6, 2024





OREGON DEPARTMENT OF ENERGY

Leading Oregon to a safe, equitable, clean, and sustainable energy future.

Our Mission

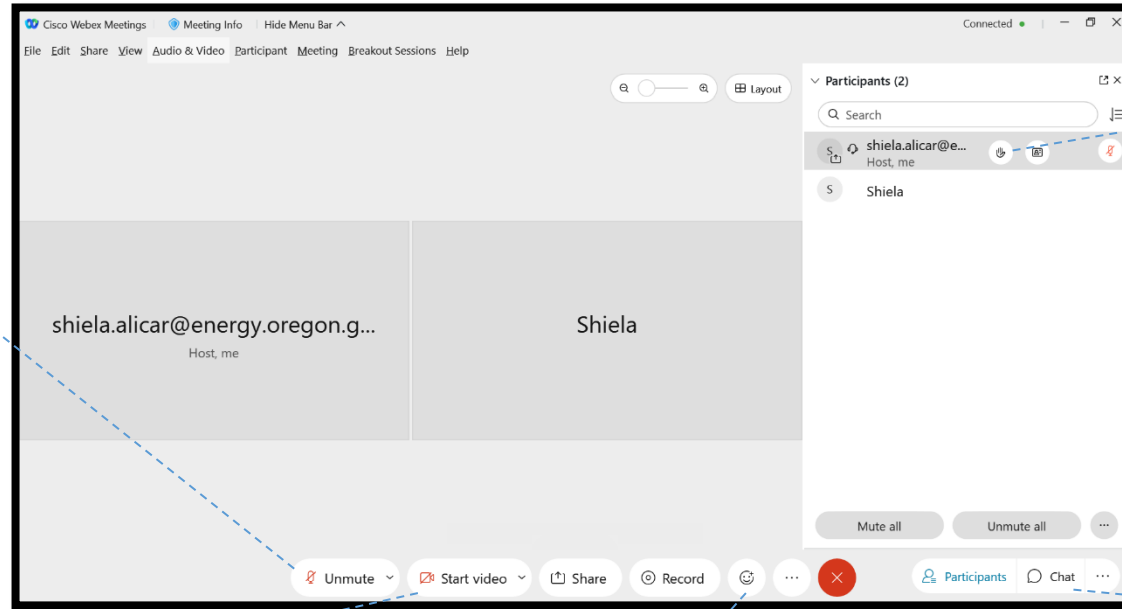
The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and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

What We Do

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

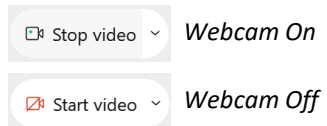
USING WEBEX



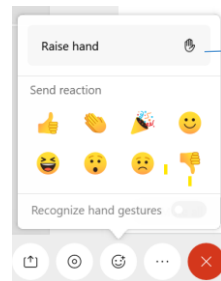
Audio Options



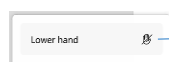
Video Options



Reactions



Click to Raise your hand.

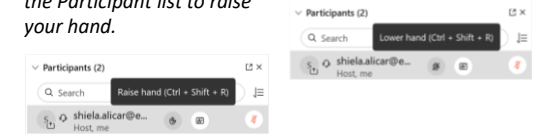


Click on Lower hand when you are done.

Second Raise Hand Option

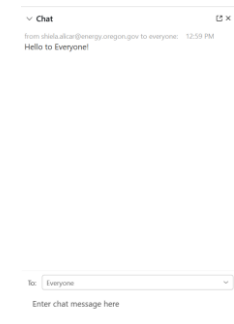
You can also click on the hand next to your name in the Participant list to raise your hand.

Click on Lower hand when you are done.

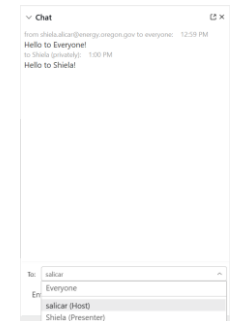


Chat

You can chat to Everyone in the meeting.



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



PURPOSE OF THIS WORKING GROUP

- Hear priorities for Environmental Justice and Equity in the Oregon Energy Strategy.
- Understand opportunities to evaluate equity and environmental justice effects of different pathways to meeting Oregon's clean energy objectives.
- Provide expertise and feedback to inform this evaluation.

Note: focus is on the modeling; discussion of policy recommendations will take place in early 2025.

GROUP AGREEMENTS

- Listen carefully; seek to learn and understand each other's perspective.
- Encourage respectful, candid, and constructive conversation.
- Keep an open mind.
- Ask questions to clarify and understand why.
- Be open, transparent, inclusive, and accountable.
- Respect differing opinions.
- Seek to resolve differences and find common ground.
- Be conscious of speaking time; step back to allow space for others to contribute.



AGENDA

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2:40 – 2:50	Setting the Stage	Edith Bayer, ODOE
2:50 – 3:55	Presentation and discussion <ul style="list-style-type: none">- Household vignettes- Air quality and public health- Mapping	Angela Long, Rockcress Consulting Ruby Moore-Bloom, Clean Energy Transitions Institute Jeremy Hargreaves, Clean Energy Transitions Institute Mariah Caballero, Clean Energy Transitions Institute
3:55 – 4:00	Wrap up and Next Steps	Edith Bayer, Energy Policy Team Lead

Note: ODOE will open the floor for comments and questions from observers if time permits. Comments and questions can be submitted to:

<https://odoe.powerappsportals.us/en-US/energy-strategy/>

WORKING GROUP MEMBERS

ORGANIZATION	NAME
Beyond Toxics	Lisa Arkin
BlueGreen Alliance	Ranfis Villatoro
Breach Collective	Nick Caleb
Coalition of Communities of Color	Nikita Daryanani
Community Energy Project	Greer Klepacki
Citizens' Utility Board	Sarah Wochele
Euvalcree	Noah Scott
Klamath and Lake Community Action Services	Christina Zamora
Northwest Energy Coalition	Alma Pinto
Northwest Energy Coalition	Alessandra de la Torre
Office of Sustainability, Multnomah County	Silvia Tanner
Oregon Public Health Institute	Masha Cole-Tagaeva
Oregon Rural Action	Kaleb Lay
Rogue Climate	Jess Grady-Benson
Rural Organizing Project	Hannah Harrod
Self Enhancement Inc	John Maddalena
Spark Northwest	John Seng
Tribal Consultant	Mark Healy
Verde	Anahi Segovia Rodriguez
Wy'East	Robert Wallace

CLEAN ENERGY TRANSITION INSTITUTE TEAM

Project Management

- Overall Project Manager: Eileen V. Quigley, CETI
- Technical Project Manager: Ruby Moore-Bloom, CETI

Technical Modeling

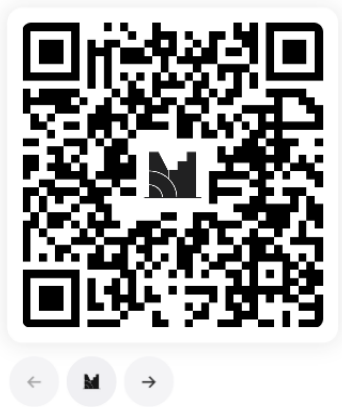
- Technical Project Lead: Jeremy Hargreaves, Evolved
- Technical Advisors: Elaine Hart, Moment Energy Insights; Amy Wagner, Evolved
- Technical Project Support: Ryan Jones and Gabe Kwok, Evolved
- Health Impacts Lead: Jamil Farbes, Evolved

Equity Support

- Equity Advisor: Angela Long, Rockcross Consulting
- Equity Advisory & Data Analyst: Mariah Caballero, CETI

WORDCLOUD

- Please use the QR Code or go to www.menti.com and type in code: 73158888
- Add three words to describe your objective and/or purpose for joining this group

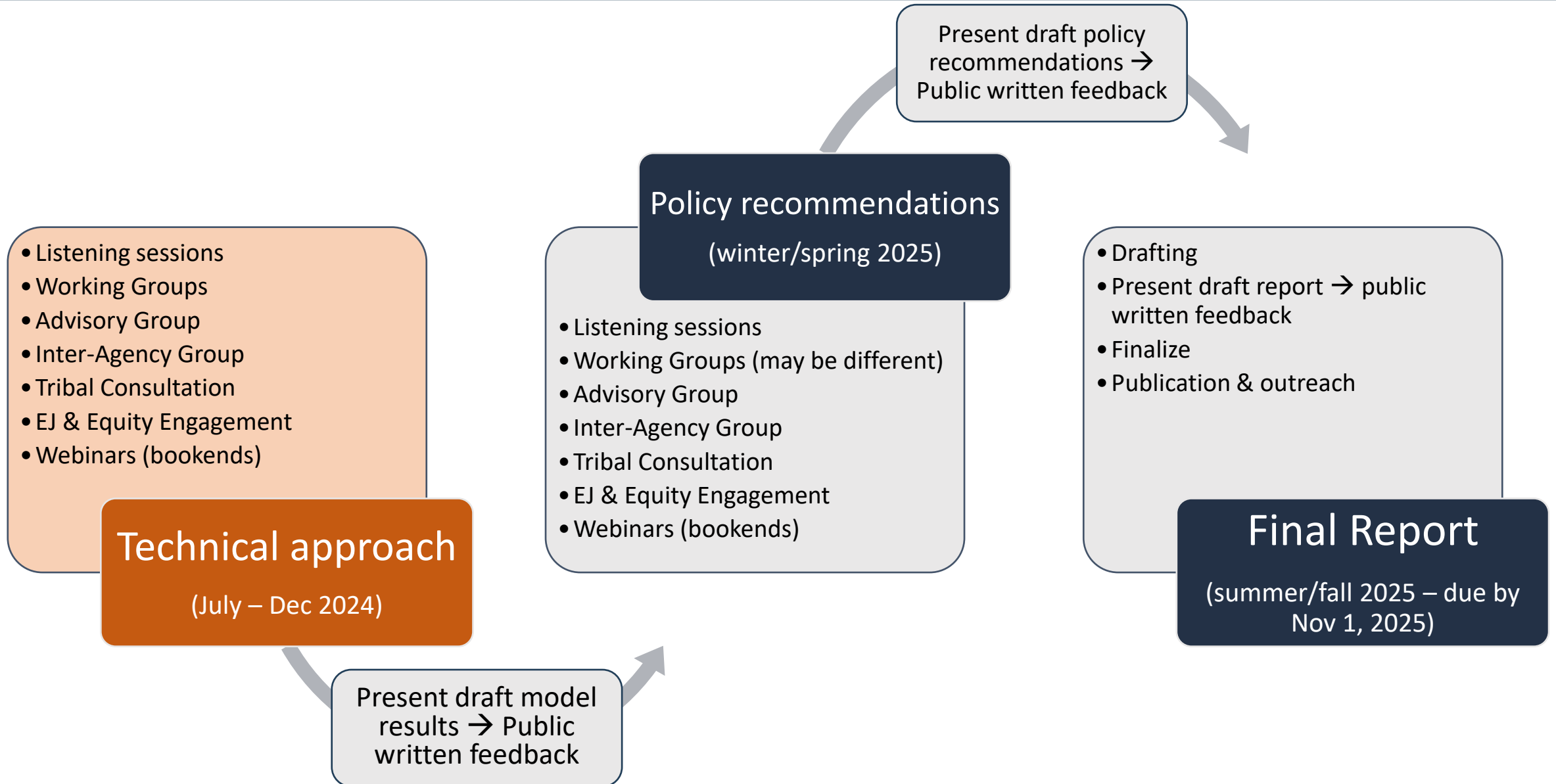


INTRODUCTIONS

- Please share your
 - Name
 - Affiliation
 - Geographic location you/your organization represents
 - A little more about one of the words you added to the WordCloud

Setting the Stage

WHERE WE ARE IN THE PROCESS

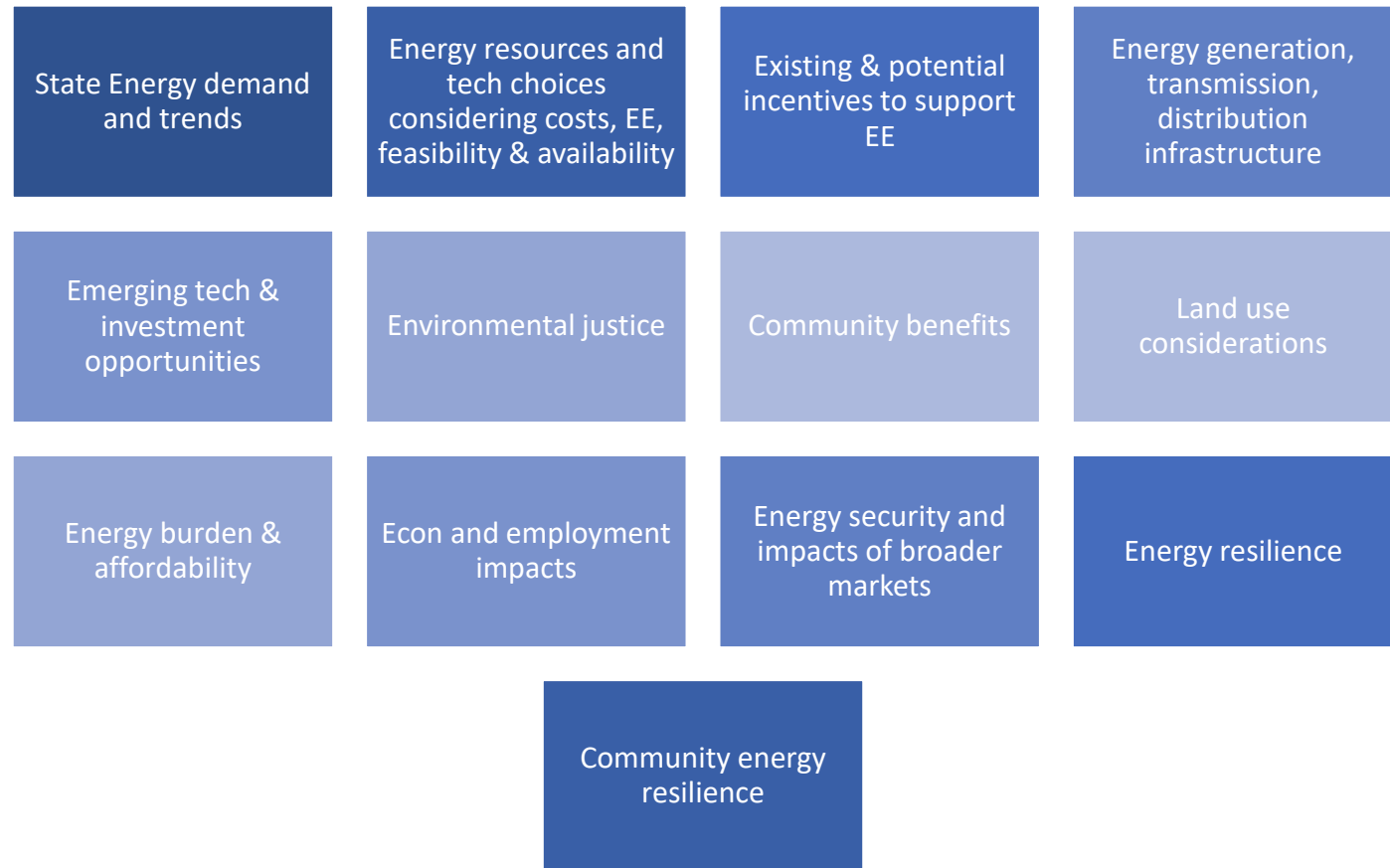


SCOPE OF THE ENERGY STRATEGY

The state energy strategy will take into account the state's energy policy objectives, which include themes of:

- Energy demand and infrastructure
- Energy resources and technologies
- Environmental justice and community benefits
- Affordability and incentives
- Social and economic impacts
- Resiliency and security

In identifying pathways to meeting the state's energy policy objectives, the state energy strategy must take into account, at a minimum:



Approach to Equity & Environmental Justice Considerations

SCOPE OF ANALYSIS

1. Energy Wallet

2. Air Quality Modeling (health impacts)

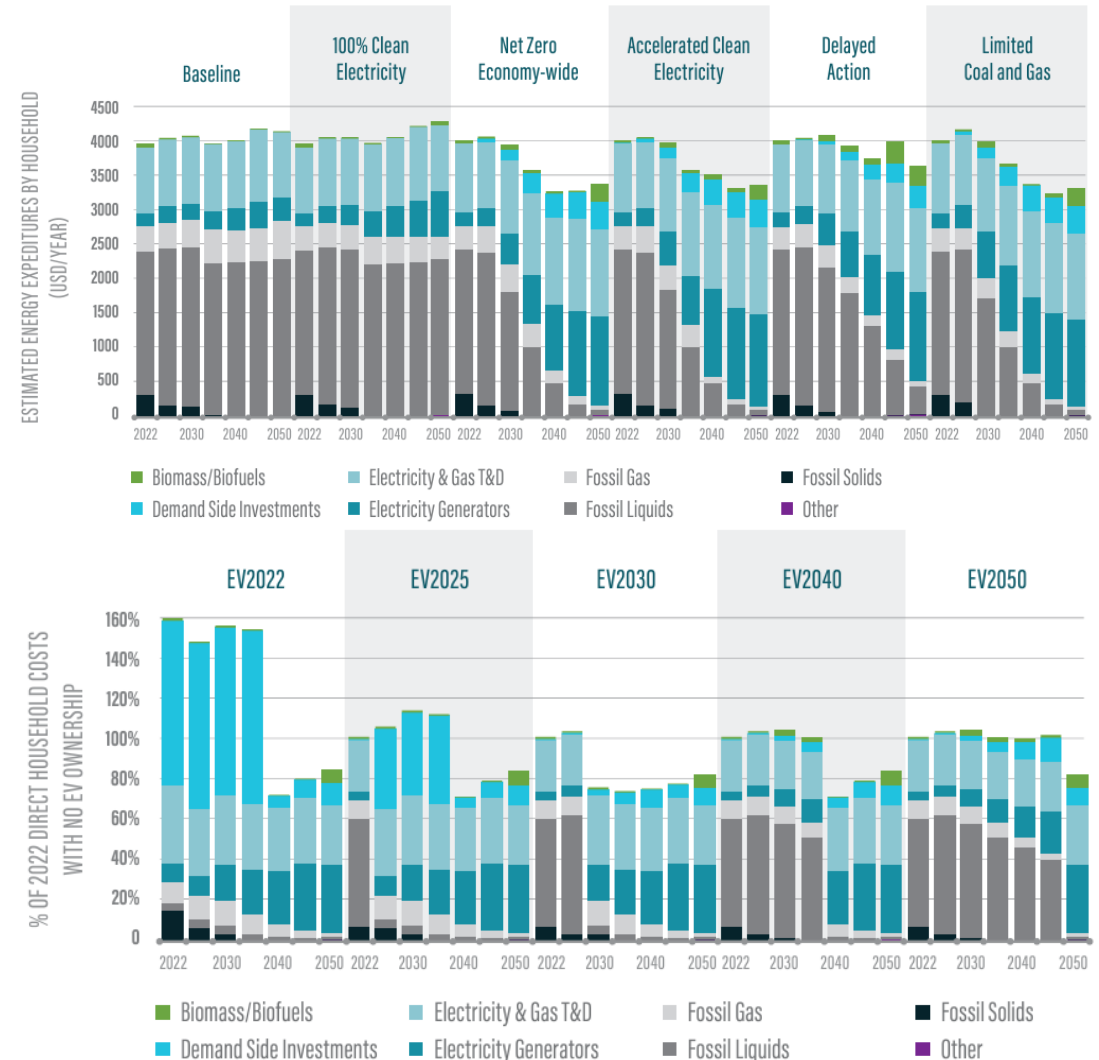
3. Geospatial Mapping with priority energy and equity metrics

ENERGY WALLET

- Electrification causes electricity bills to increase, but at the same time bills for other fuels (e.g., gasoline at the pump) decrease
- The Energy Wallet analysis explores questions such as:
 - How is total energy spending for different customer types impacted?
 - What is the impact on customers investing in electrification earlier or later?
 - How is energy burden impacted?

ENERGY WALLET (CONT.)

- Estimate energy expenditures (“energy wallet”) by household between now and 2050 across scenarios (top right)
- Examine temporal impact of clean energy technology adoption (e.g., electric vehicle) on customer costs for a single scenario (bottom right)
- Use gross household income for customer types to determine energy burden and how it changes over time
- Scale for up to five different customer types (definition to be developed with input):
 1. Average customer
 2. Metropolitan low-income and/or disadvantaged community
 3. Rural low-income and/or disadvantaged community
 4. Etc.



ENERGY WALLET DISCUSSION QUESTIONS

Which customer groups (up to five) should be included in this analysis, and how should they be defined?

- Average customer
- Metropolitan low-income and/or disadvantaged community
- Rural low-income and/or disadvantaged community
- Are there any other groups that we should consider? e.g.,:
 - Federal definition of disadvantaged communities (Justice40)
 - Oregon definition of Environmental Justice community

What data sources should we consult to define customer groups?

- Annual bills
- Annual energy use of all types (electricity, petroleum, natural gas)

Considerations:

- What are your biggest questions or concerns regarding energy burden and affordability in Oregon?
- What would you like the model to tell us about energy burden? What are you most interested in learning?

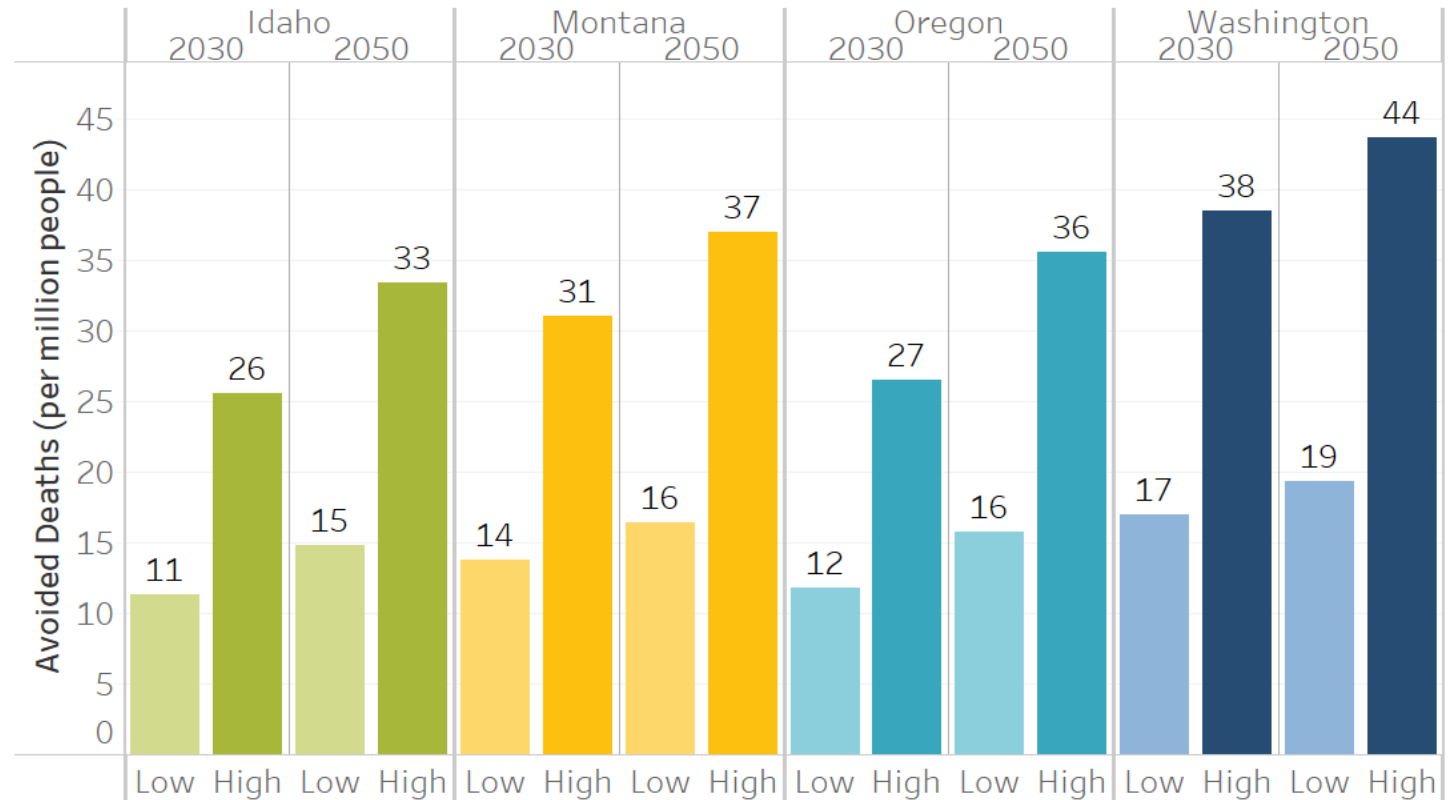
AIR QUALITY MODELING



AIR QUALITY MODELING (CONT.)

- Results from COBRA modeling include:
 - Fewer mortalities (“avoided deaths”)
 - Fewer lost workdays
 - Fewer hospital admissions
 - Economic benefits
- Results broken out by modeled Oregon zone (East and West)
 - Not at more granular level within each region

Range of Avoided Deaths Attributed to Annual Pollutant Reductions by State
(per million people)



Source: Evolved Energy Research. *Net-Zero Northwest Energy Pathways Analysis Technical Report*, June 2023, p. 201.
(Note: All labels on the bars are rounded. Low and high estimates reflect the range of findings in the epidemiological studies of health outcomes used in the modeling.)

AIR QUALITY DISCUSSION QUESTIONS

What are your biggest questions or concerns regarding air quality in Oregon?

What are you most interested in understanding about the link between energy and air quality?

GEOSPATIAL MAPPING

Potential indicators* to be included in geospatial mapping analysis:

Community Benefits

Customer and System Resiliency

- % of individuals with a non-institutionalized disability
- % of homes dependent on bottle, tank or propane gas, fuel oil or kerosene, coal or coke, or wood
- % Homes built before 1980

Economic

- % of households at or below 150% of the Federal Poverty Line
- % of individuals without a HS diploma
- % of individuals employed in agriculture, forestry, fishing, hunting, and mining

Environmental

- Tribal, Rural, Remote, and Coastal Communities
- Transportation insecurity
- Projected wildfire risk
- Projected flood risk
- PM 2.5 in the air

Energy Equity

- Average Energy Burden
- Justice40 eligibility (i.e., "DAC" as categorized by CEJST tool)
- % of homes prioritized for IRA incentives (0-80 % AMI)
- Race and Ethnicity
- % of mobile homes

Health and Wellbeing

- % of individuals ages 65+
- % of individuals 17 or younger
- % of individuals without health insurance
- % of individuals with Asthma
- Self-rated Health

***Starting point for variable selection:** Community benefits categories and Oregon environmental justice community definition outlined in HB 4077 (Includes but is not limited to: "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")

GEOSPATIAL MAPPING (CONT.)

Current drafted approach identifies **47** justice-related variables for all **992 Census Tracts** in OR, from **2018 to 2022**.

USEPA, USDOT, US Census Bureau, US DOE, and US CDC

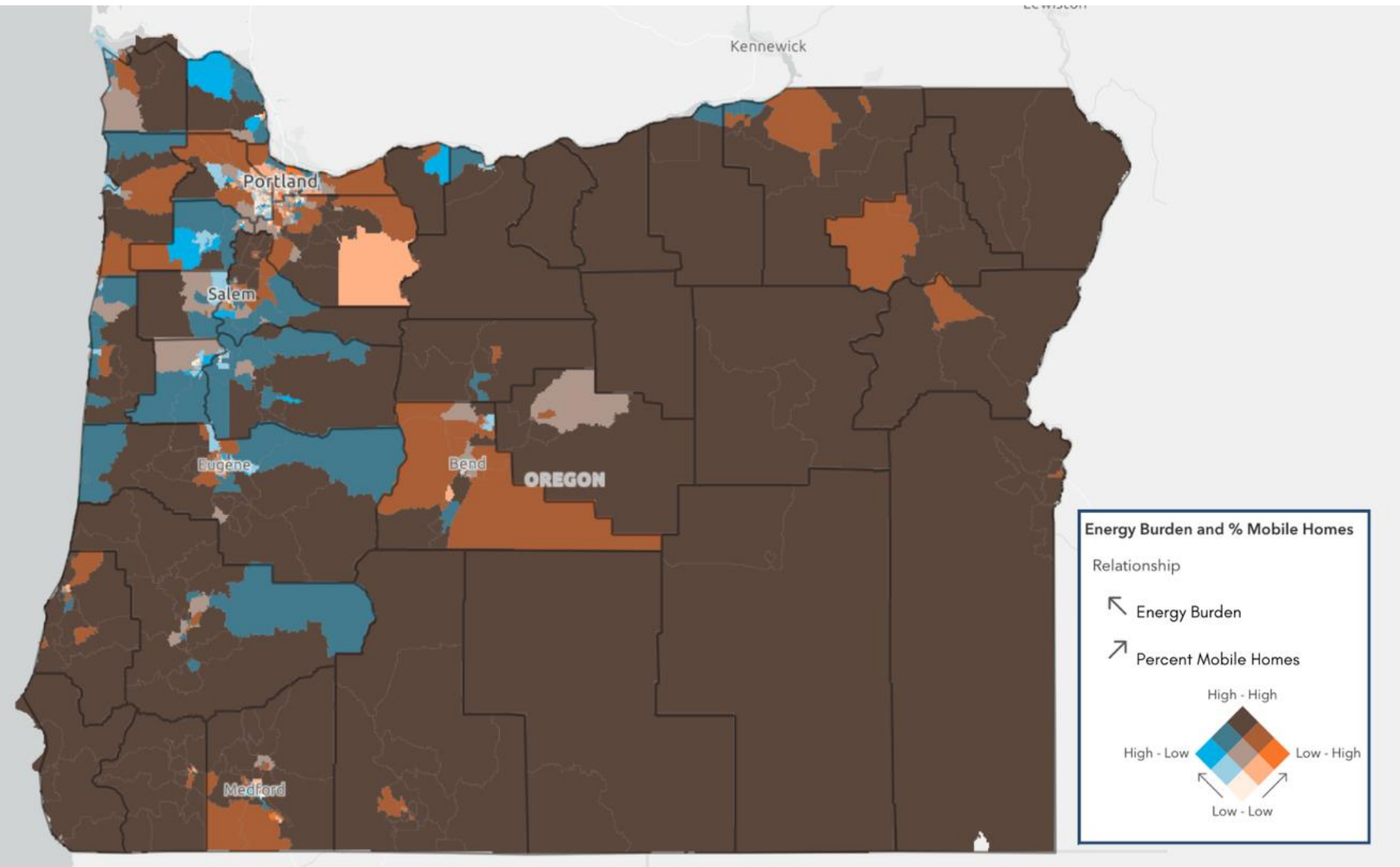
Uses a replicable approach with open-source data, with code that can be posted to GitHub

Can be updated with time using new datasets.

Can develop **OR-specific** indicators at the community-level

Identify communities with most pressing needs in the state for potential policy implementation.

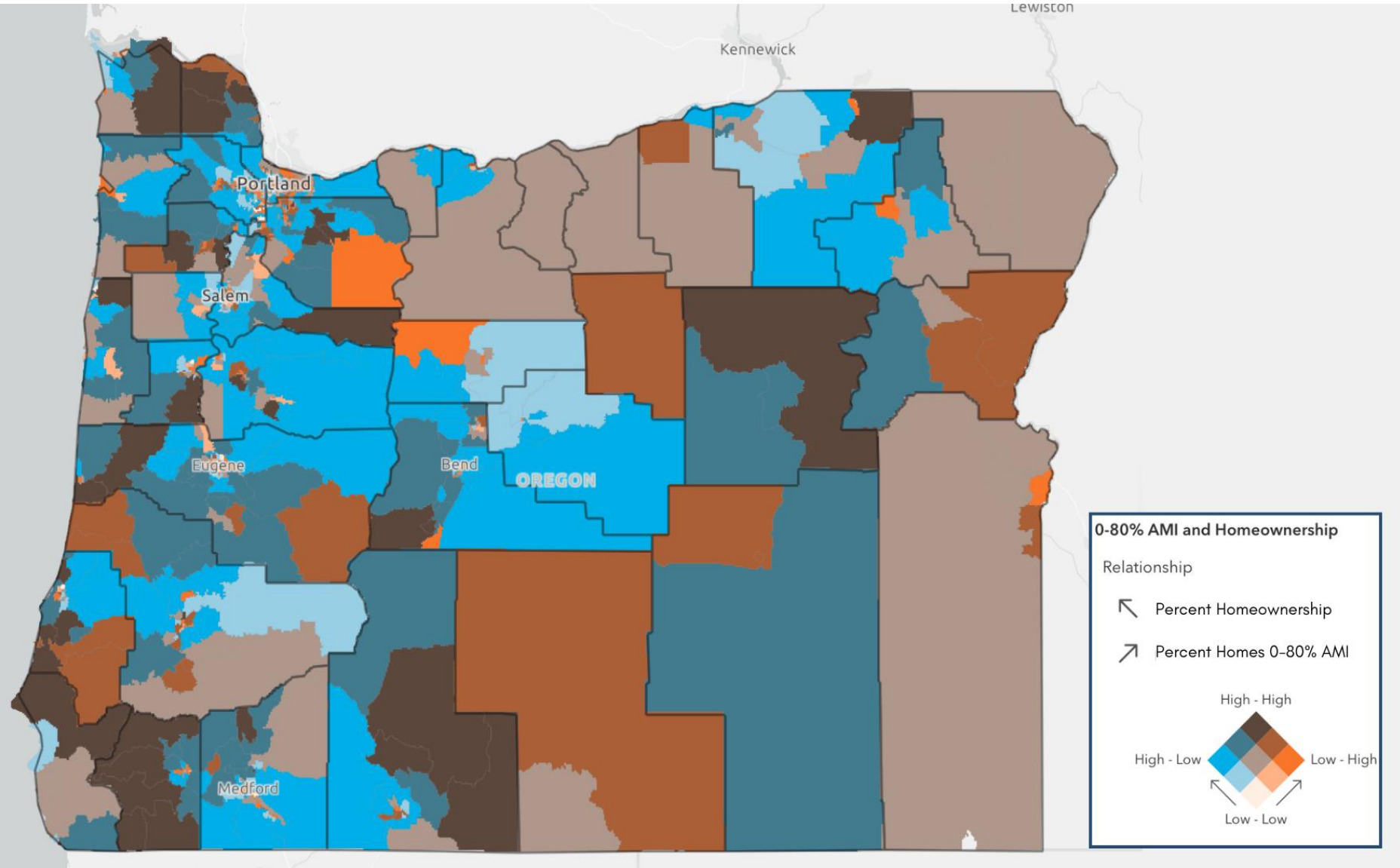
GEOSPATIAL MAPPING (CONT.): EXAMPLE MAP



Example Static Map: Relationship map showing energy burden and the percent of mobile homes. In this case, there are 161 census tracts in the 75th percentile for both energy burden (i.e., more than 5% energy burden) and percentage of households living in mobile homes (i.e., greater than 12.7% of families living in mobile homes). These tracts represent communities that could be prioritized for equitable home and energy investments.

Data Source(s): US DOE LEAD Tool, ACS 5-year estimates, 2018 - 2022

GEOSPATIAL MAPPING (CONT.): EXAMPLE MAP



Example Static Map: Relationship map showing the percentage of households prioritized for IRA incentive households (0-80% AMI) and percentage of homeowners. In this case, there are 20 census tracts in the 75th percentile for both homeownership (i.e., more than 79% of households in the community own their home) and homes prioritized for IRA incentives (i.e., more than 81% of households in a community meet the AMI income eligibility requirements for the greatest IRA incentives). These tracts represent communities that could be prioritized for IRA incentives.

Data Source(s): US DOE LEAD Tool, ACS 5-year estimates, 2018 - 2022

MAPPING DISCUSSION QUESTIONS

What would you like the geospatial mapping to tell us about community-level energy inequities and relationship to socioeconomic disparities? What are you most interested in learning?

What does resilience mean to you? (e.g., vulnerability to wildfires, access to refrigeration, etc.)

Which indicators/relationships are highest priority to map and analyze?

Are there any additional data sources we should be consulting?

NEXT STEPS

- Next meeting: August 16, 1:00 – 3:00
- Focus of next meeting:
 - Review topics relating to EJ and Equity arising from other working groups on the modeling and scenarios, discuss and collect feedback



OREGON
DEPARTMENT OF
ENERGY

Thank you



RESOURCES:

Project page: <https://www.oregon.gov/energy/Data-and-Reports/Pages/Energy-Strategy.aspx>

ODOE's website: www.oregon.gov/energy

Contact us: energy.strategy@energy.Oregon.gov

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Jeff Hammarlund

Natalia Ojeda, Energy Trust of Oregon

Kaleb Lay, Oregon Rural Action

Alma Pinto

Greer Klepacki

Sarah Jolls they/them

John Maddalena he/him SEI-Energy Program
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John Seng | he/him | Spark Northwest

Silvia Tanner

Sarah Wochele CUB

Alessandra de la Torre she,her

Jess

Lisa Arkin

Noah Scott

Christina Zamora

Robert Wallace, WyEast

Mark Healy

Bridget McEwen

McCammant

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