

Oregon Department of **ENERGY**

**Oregon Energy Strategy
Policy Working Group**
Building Efficiency,
Electrification, and DERs
Policy Working Group
Breakout Session #4

May 7, 2025





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:

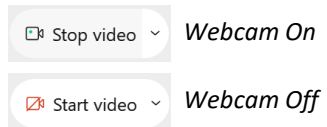
- A Central Repository of Energy Data, Information, and Analysis
- A Venue for Problem-Solving Oregon's Energy Challenges
- Energy Education and Technical Assistance
- Regulation and Oversight
- Energy Programs and Activities

USING WEBEX

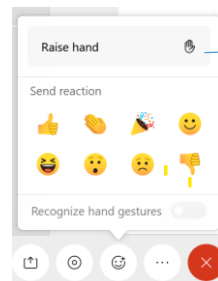
Audio Options



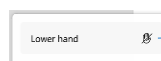
Video Options



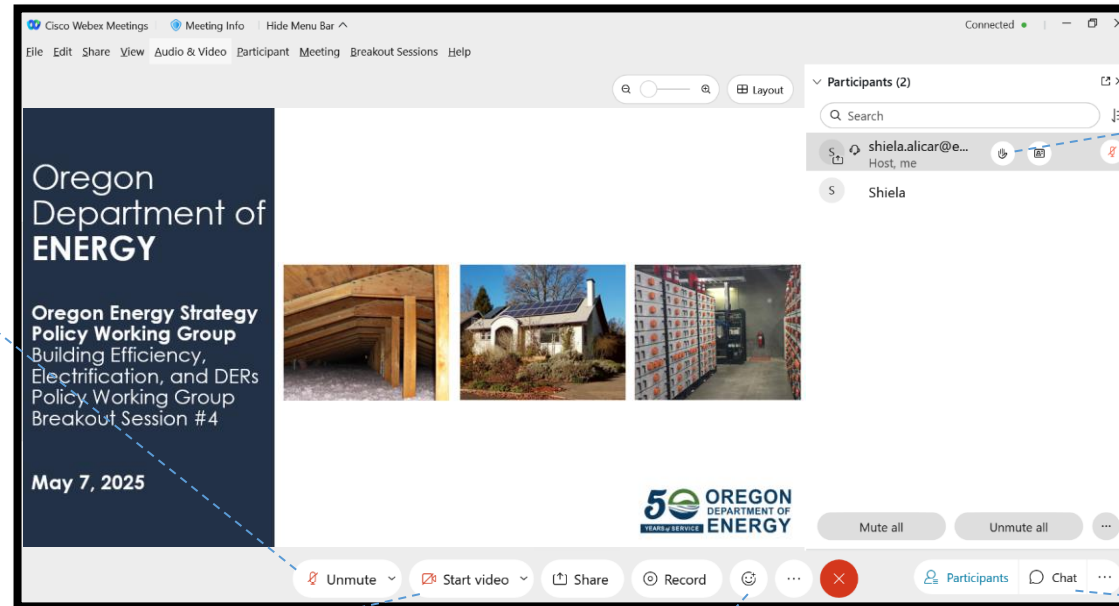
Reactions



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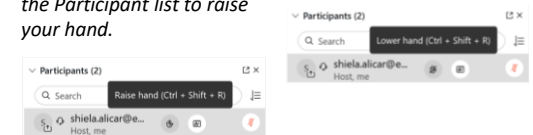
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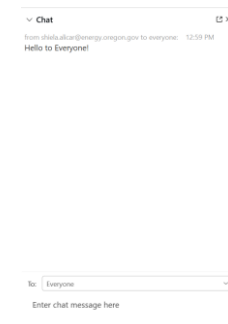
Second Raise Hand Option

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

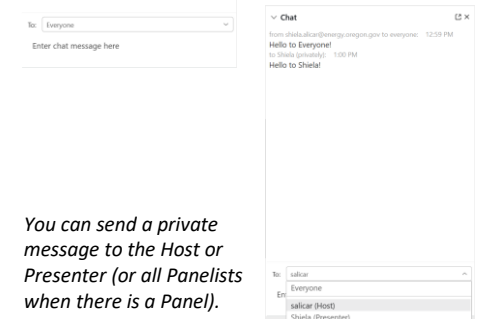
Click on Lower hand when you are done.



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).

GROUP AGREEMENTS

- Honor the agenda or modify by agreement.
- 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.
- Limit chat conversations.



WORKING GROUP ROSTER

ORGANIZATION	NAME
Bonneville Power Administration	Hannah Dondy-Kaplan
Building Codes Division	Kelly Thomas
Building Codes Division	Mark Heizer
Building Codes Division	Ann Gire
Cascade Natural Gas Corporation	Alyn Spector
City of Ashland	Bob Kaplan
City of Portland Bureau of Planning and Sustainability	Paul Hawkins
Climate Solutions	Claire Prihoda
Columbia River Inter-Tribal Fish Commission	Chris Golightly
Columbia River Inter-Tribal Fish Commission	Elijah Cetas
Community Energy Project	Charity Fain
Community Energy Project	Nick Cheke
DecisionWare Group; Mobilizing Climate Action Together	Dr. Pat DeLaquil
Earth Advantage	Maddy Salzman
Earth Advantage	David Heslam
Enercity Collaborative	James Metoyer

ORGANIZATION	NAME
Energy Trust of Oregon	Adam Shick
Energy Trust of Oregon	Spencer Moersfelder
Eugene Water & Electric Board	Juan Serpa Munoz
Eugene Water & Electric Board	Billy Curtiss
Gensco	Ken Morgan
Klamath & Lake Community Action Services	Christina Zamora
Northwest Energy Efficiency Alliance (NEEA)	Jonathan Belais
Northwest Energy Efficiency Alliance (NEEA)	Ryan Brown
NW Natural	Kellye Dundon
NW Natural	Mary Moerlins
Oregon Citizens' Utility Board	Ryan Tran
Oregon Health Authority	Samantha (Sam) Henstell
Oregon Housing and Community Services	Dr. Joy Adrich
Oregon Housing and Community Services	Dan Elliott
Oregon People's Utility District Association	Ryan Perry
Oregon Solar and Storage Industries Association	Patrick Sterns
Portland General Electric	Jake Wise

INTRODUCTIONS

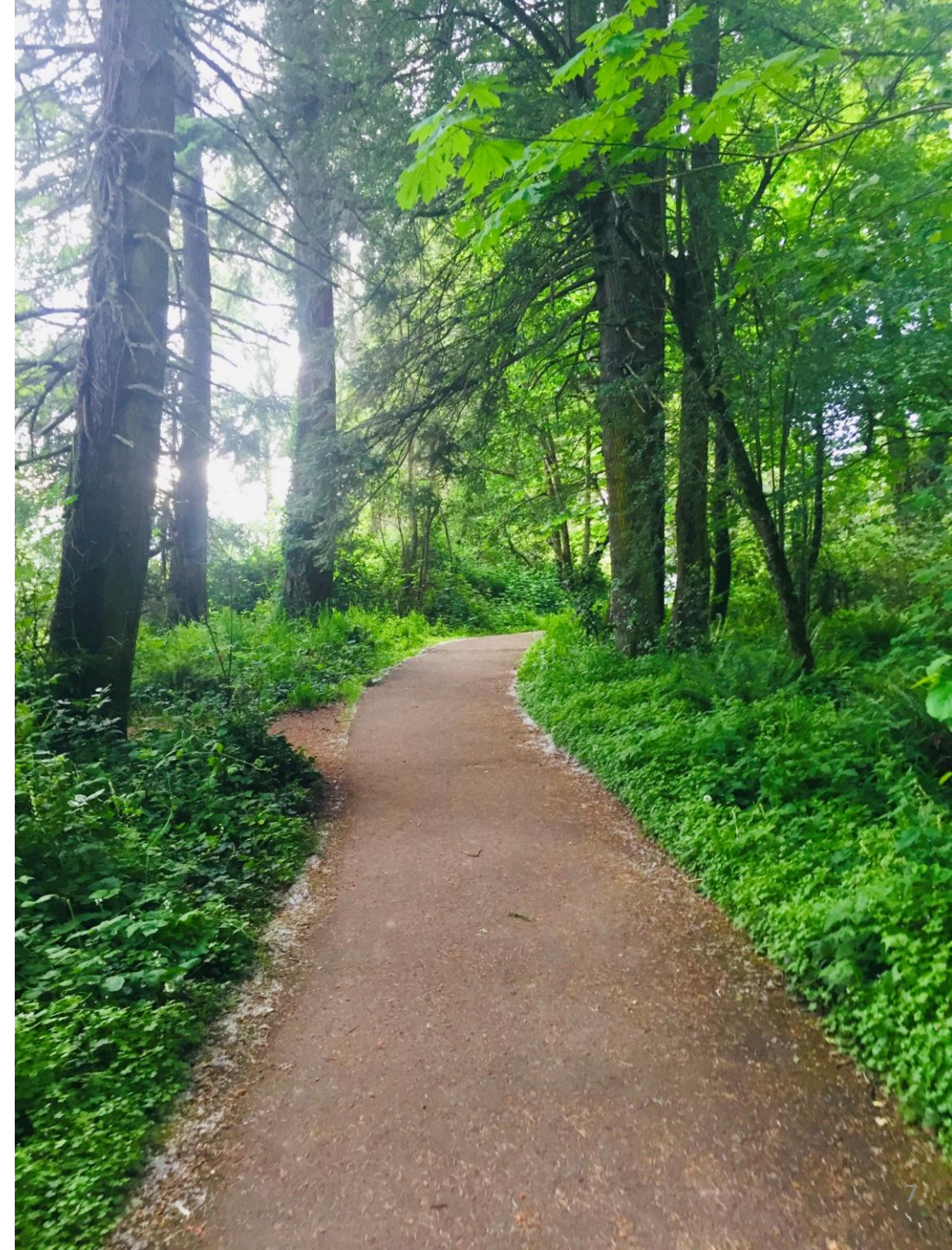
Please share the following with the group, in the chat:

- Name
- Affiliation
- Share something you're looking forward to this summer



Working Group Purpose

To support the development of policy recommendations related to energy efficiency, building electrification, and distributed energy resources for the Oregon Energy Strategy.



OUR MEETINGS

February 12, 2025

- Plenary session on modeling results and group process
- Breakout session on how modeling results provide direction

March 5, 2025, Meeting 2

- Introduce existing policy landscape
- Identify barriers and competing priorities

March 11, 2025, Optional office hours

- Q&A opportunity with Jeremy Hargreaves
- This is time and date focused on questions relevant to this group.

March 19, 2025, Meeting 3

- Review barriers
- Discuss policy gaps
- Brainstorm policy concepts

April 16, 10 a.m. – 11:30 a.m., Webinar, please attend or review recording

- Webinar on complementary analysis results
- Energy Wallet, Air Quality, Geospatial Mapping
- (Jobs and workforce analyses will come later)

May 7, 1 - 4 p.m., Meeting 4 (TODAY)

- Develop draft policy actions

May 9, 5 p.m., Deadline for written comments to be considered and incorporated for May 21st plenary session

May 21, 9 - 12 p.m., Meeting 5

- Plenary session
- Report out from all working groups

MEETING OBJECTIVES

- Review policy recommendation development process.
- Share insights from complementary analyses.
- Discuss and evaluate draft policy actions.



AGENDA

9:00 a.m.	Welcome, Agenda & Introductions
9:10 a.m.	Policy Recommendations/Actions Development Process
9:20a.m.	Review Key Findings from Complementary Analyses
9:30 a.m.	Reducing Carbon Intensity – Draft Policy Actions: Presentation & Discussion
10:20 a.m.	10-minute Break
10:30 a.m.	Improving Residential Buildings – Draft Policy Actions: Presentation & Discussion
11:00a.m.	Commercial and Industrial – Draft Policy Actions: Presentation & Discussion
11:20 p.m.	Distributed Energy Resources– Draft Policy Actions: Presentation & Discussion
11:40 p.m.	Closing Thoughts / Round Robin
12:00 p.m.	Next Steps / Adjourn

DRAFT POLICY ACTIONS DEVELOPMENT

SOME EXISTING POLICIES

*Remember this slide
from February 26*

Some Existing Policies	Source	BE	EE	DR	DER	ORS	OAR	Utility	OPUC	Fed?	EO?
Oregon Energy Efficiency Specialty Code	EO 20-04, ORS 455-496		X			X	X				X
Oregon Residential Specialty Code	EO 20-04, OAR 918-480-0005 and OAR 918-480-0010		X			X	X				X
Oregon Commercial Reach Code	ORS 455.500		X			X	X				
Oregon Residential Reach Code	OAR 918-465-0050		X			X	X				
Bonneville Energy Efficiency Programs	1964 Fed. PNW Cons Power Preference Act	X	X					X		X	
Public Purpose Charge	HB 3141					X			X		
Bonneville / COU contracts	1964 Fed. PNW Cons Power Preference Act	?	?	?	?			X		X	
CAP Agency Weatherization	1976 Fed. Energy Conservation Policy Act		X			X	X			X	
Building Performance Standard	HB 3409		X			X	X				
Home Energy Performance-Based Whole House Rebates (HOMES)	2022 Fed. Inflation Reduction Act		X			X	X			X	
Community Heat Pump Deployment Program	SB 1536	X	X			X	X				
Home Electrification and Appliance Rebates (HEAR or HEEHR)	2022 Fed. Inflation Reduction Act	X	X							X	
EO 20-04 Energy Efficiency Standards	EO-20-04	X	X	X							X
HB 2062 Energy Efficiency Standards	HB 2062	X	X	X		X	X				
Voluntary Building Energy Performance Score Systems	HB 2801		X			X	X				
Net Metering	ORS 757.300			?	X	X	X	X			
Solar Property Tax Exemption	ORS 307.175				X	X					
Residential and Commercial Energy Conservation Rules	OAR 860-030-0000 thru -0075						X				
Utility Distribution System Plans	Order No. 20-485	X	X	X	X			X	X		
Designated State Agency Programs	ORS 469.763	X	X			X	X				
PGE Demand Response	Energy Shifting Programs							X	X		
PGE Smart Grid Test Bed	Smart Grid Test Bed PGE	X		X	X			X	X		
Pacific Power TOU rates	Choices for Homes			X				X	X		

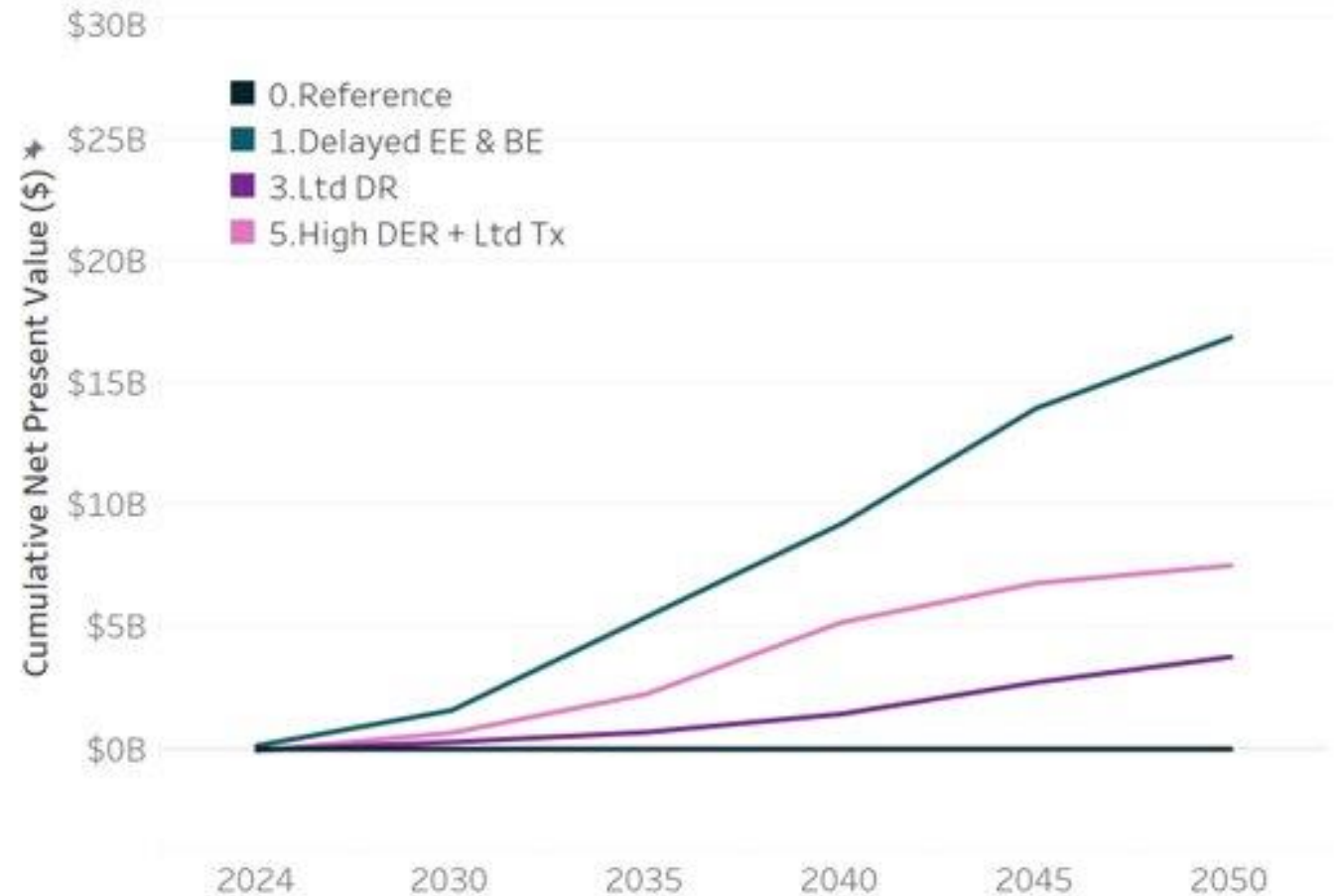
RESIDENTIAL AND SMALL COMMERCIAL BUILDING ELECTRIFICATION AND EFFICIENCY

Remember this slide from February 26

Delayed energy efficiency and building electrification represents the highest cost of all the scenarios that were modeled.

The model demonstrates that a delay of 10 years in energy efficiency and building electrification results in more than \$17B in additional costs through 2050.

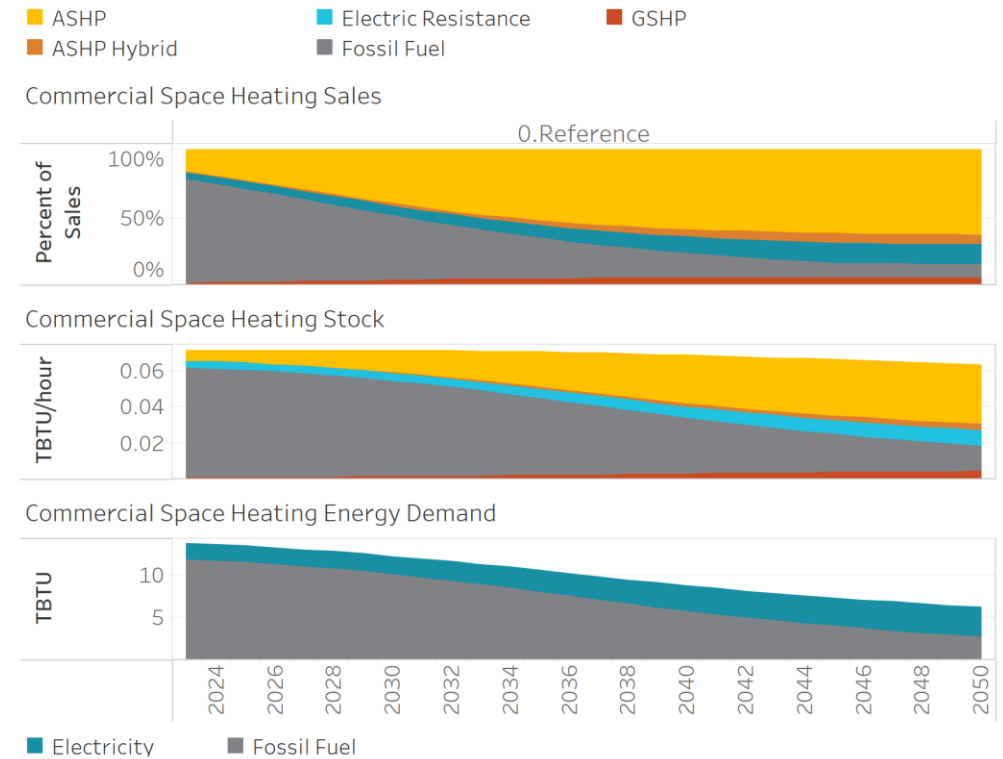
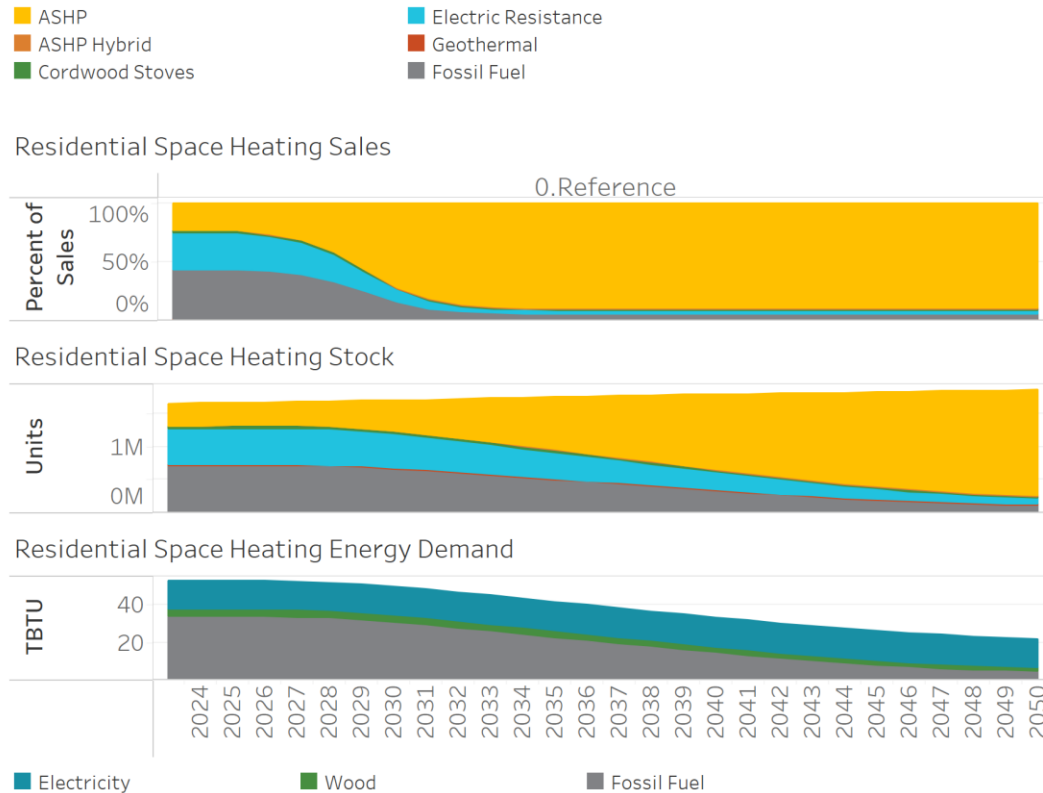
Difference to Reference (Cumulative NPV \$B)



RESIDENTIAL AND SMALL COMMERCIAL BUILDING ELECTRIFICATION AND EFFICIENCY






Building electrification results in system-wide reductions in energy demand.

Model assumes existing policies play out for all space heating technologies
65% electric heat pump sales by 2030; 90% by 2040



COMPLEMENTARY ANALYSES

ENERGY WALLET

Household Characteristic	Jessica's	Stephanie's	Ruchi's	Alan's	Hugh's
					
Building Category	Single Family Detached	Single Family Detached	Single Family Detached	Single Family Manufactured	Multi-family
Region	Urban	Rural Cold Climate	High Priority Area	Rural	Urban
Ownership	Own	Own	Own	Rent	Rent, Below county AMI
Primary Heating Fuel Type	Natural gas	Natural gas	Electricity	Electricity	Electricity
Primary Heating System	Furnace	Furnace	Furnace	Furnace	Baseboard
Primary Cooling System	Central AC	None	Portable AC	Window AC	None
Water Heater Technology	Fossil Fuel Non-Condensing	Fossil Fuel Non-Condensing	Electric Resistance	Electric Resistance	Electric Resistance
Water Heater Fuel	Natural gas	Natural gas	Electricity	Electricity	Electricity
Area (sq ft)	3100	1855	1400	1520	-
Year	2012	2006	2007	1986	1977
Stove/Oven	Natural gas	Natural gas	Electric	Electric	Electric
Occupants	6	4	2	2	2
Vehicles	2 SUVs	2 SUVs	2 SUVs	2 Cars	1 Car

HEATING COST UNCERTAINTY: SAVINGS OF HEAT PUMPS ARE RATE AND TECHNOLOGY DEPENDENT

- Whether a heat pump saves a household money or not depends on rate, technology, and service demand
- Customers with electric heat save under all rates, the greatest savings under the highest electric rates
- Households with gas heating save the most under the lowest electric rates
 - Jessica's household saves in all but the "higher" electric rate
 - Stephanie's household does not have AC so doesn't receive the benefits of avoiding an AC purchase with a heat pump
- Hugh's rental unit has high costs for installation (\$14,900/unit) and struggles to save even at the highest electric rates

2030 HP purchase estimated bills as % of no HP purchase (assumes no EV purchase)



Note: Spike downwards is in years when customers do not have a loan payment to make on heat pump equipment

THE POLICY LANDSCAPE

*Remember this slide
from February 26*

There are Layers of Relevant Policies

- Our focus is STATE-level policies
 - Mandates
 - Incentives
 - Studies / State-led Conversations
 - Programs
 - Example: County Energy Resilience Grant Program
 - *Application deadline February 28, 2025*
 - Other
- Policies at other levels are contextually relevant

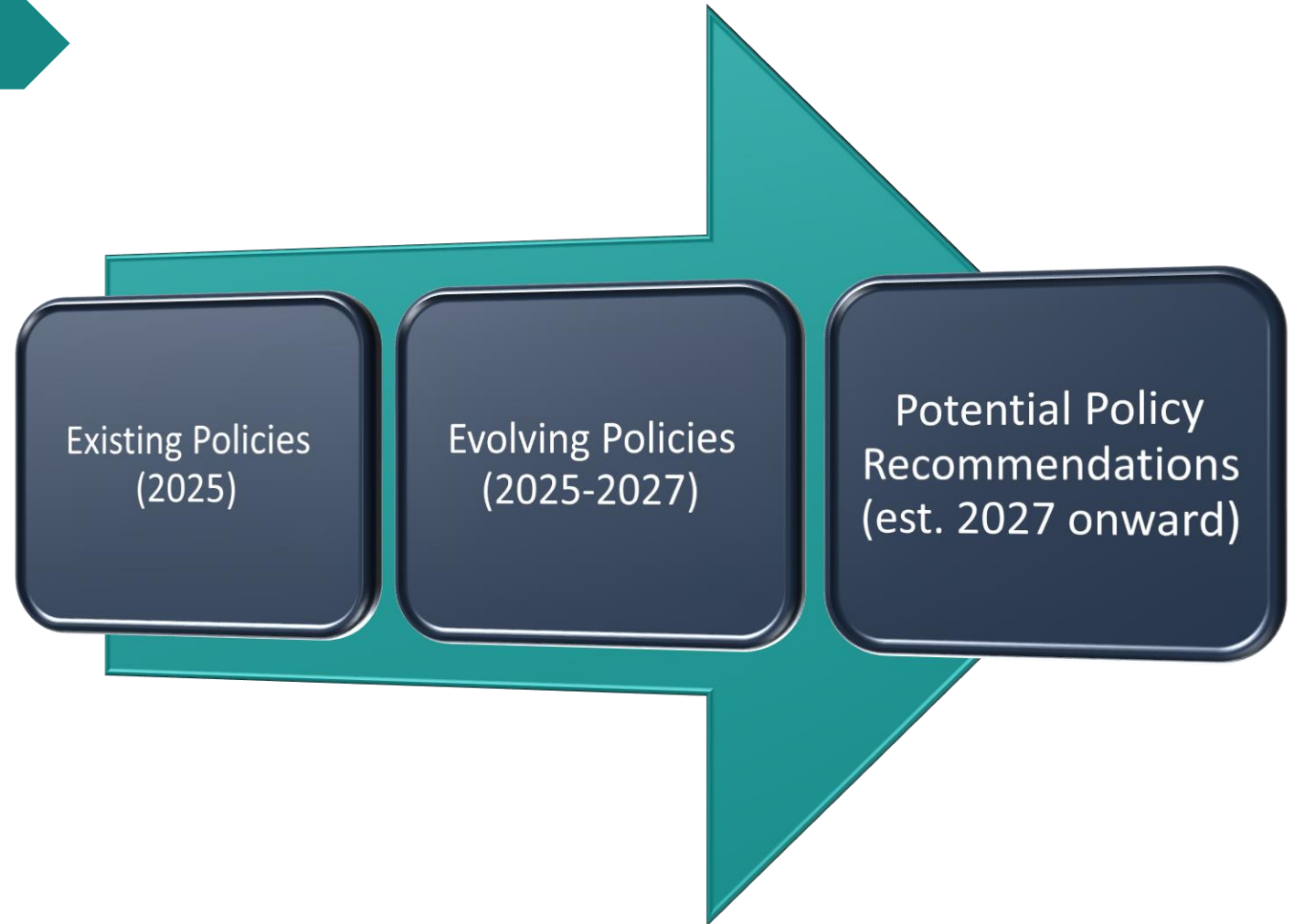


OUR POLICY TIMELINE

*Remember this slide
from February 26*

For Policy Implementation, Timing M

- The Oregon Energy Strategy is due November 1, 2025
- Our focus is 'near-term' but not 'right now'
 - Recommendations will likely be aimed at the 2027 Legislative Session
- In addition to considering existing policies, we should aim to recognize (and avoid duplicating) existing workstreams and evolving policies



POLICY FRAMING

Strategy 1

Policy recommendations
(high level)



Policy Actions



Strategy 2

Policy recommendations
(high level)



Policy Actions



Strategy 3

Policy recommendations
(high level)



Policy Actions



Strategy 4

Policy recommendations
(high level)



Policy Actions



Strategy 5

Policy recommendations
(high level)

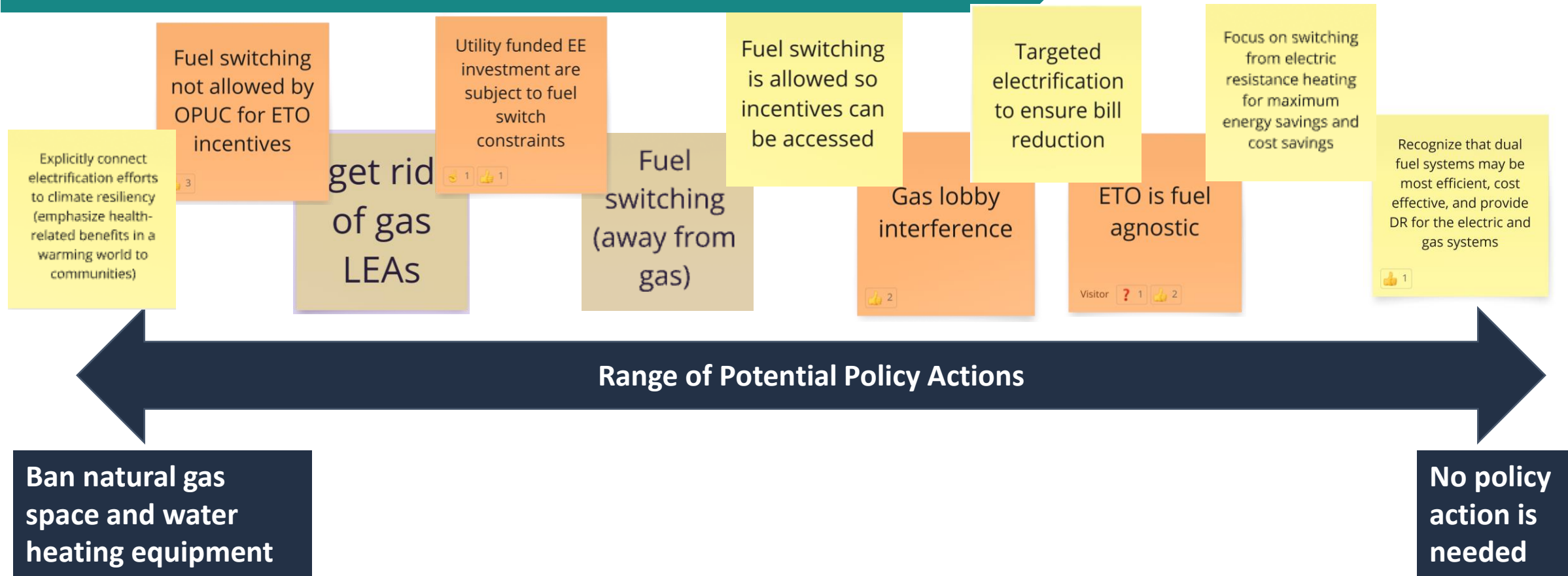


Policy Actions



BALANCING DIVERSE NEEDS AND VIEWPOINTS

Building Electrification – Residential Gas Heating Appliances



PLAN FOR PRIORITIZING GROUP INPUT

We have ~2+ hours for discussion. (*We welcome written comments as well!*)

Step 1: We will present a series of draft policy actions and address clarifying questions but not yet engage in discussion.

Step 2: We will take a series of polls relating to the draft policy actions to gauge interest in discussion.

Step 3: We will allocate our discussion time to address the most pressing issues.

MENTI POLL: FIST TO FIVE

For each item, working group members will be asked to indicate

- 0: This idea does not work for me, and we should discuss
- 1: I see MAJOR issues with this idea, and we should discuss
- 2: I see MINOR issues with this idea, and we should discuss
- 3: I see minor issues we can address in written comments
- 4: I do not have any concerns that I want to discuss today
- 5: I like this idea as drafted

We will prioritize discussion on proposed actions that receive a score of 2 or less.

Go to

www.menti.com

DRAFT POLICY ACTIONS

POLICY RECOMMENDATION 1

Reduce the carbon intensity of residential and small commercial buildings while maintaining affordability and energy system resilience.

DRAFT POLICY ACTION

Reduce the carbon intensity of residential and small commercial buildings while maintaining affordability and energy system resilience.

Draft Policy Actions:

1.1 Develop a revolving loan fund to support low interest loans for heat pumps, heat pump water heaters, and weatherization for households that are not income qualified. Support on-bill financing options. Support applications to USDA to fund programs in COU territories.

State revolving fund, no-interest loans



Support for community loan funds to facilitate low interest 10-year consumer loans



Establish a loan loss reserve / interest rate buydown to pull private funders into marketplace



Long term zero interest loans to fund 10-year on-bill or associated consumer financing



Insufficient consumer finance options

absence of state provided zero interest loans

Heat pumps are really expensive

Mortgages that finance energy efficiency investments at the time of purchase

Fully funded programs for low-income. NO loan programs for low-income.



Many heat pump applications are not currently cost-effective in IOU territories

DRAFT POLICY ACTION

Reduce the carbon intensity of residential and small commercial buildings while maintaining affordability and energy system resilience.

Draft Policy Actions:

1.2 Establish an alternate-pathway compliance path in residential building code that requires increased envelope efficiency measures if electric resistance or natural gas is used for primary space or water heating systems.

1.3 Eliminate incentives for new natural gas space and water heating equipment.

1.4 Review and advance state equipment efficiency standards for primary space and water heating systems.

Focus on switching from electric resistance heating for maximum energy savings and cost savings

Develop a fuel-neutral cost-benefit calculation to identify beneficial fuel switching or dual fuel opportunities

get rid of gas LEAs

Fuel switching not allowed by OPUC for ETO incentives

targeting high energy use customers

Develop a fuel-neutral cost-benefit calculation to identify beneficial fuel switching or dual fuel opportunities

Fuel switching is allowed so incentives can be accessed

Targeted electrification to ensure bill reduction

Fuel switching is allowed so incentives can be accessed

Utility funded EE investment are subject to fuel switch constraints

Recognize that dual fuel systems may be most efficient, cost effective, and provide DR for the electric and gas systems

Gas lobby interference

MENTI POLL: FIST TO FIVE

For each item, working group members will be asked to indicate

- 0: This idea does not work for me, and we should discuss
- 1: I see MAJOR issues with this idea, and we should discuss
- 2: I see MINOR issues with this idea, and we should discuss
- 3: I see minor issues we can address in written comments
- 4: I do not have any concerns that I want to discuss today
- 5: I like this idea as drafted

We will prioritize discussion on proposed actions that receive a score of 2 or less.

Go to

www.menti.com

10 MIN BREAK

POLICY RECOMMENDATION 2

Improve the energy efficiency and resilience of existing residential buildings. Prioritize programs to serve Oregon's communities with the greatest needs.

DRAFT POLICY ACTION

Improve the energy efficiency and resilience of existing residential buildings. Prioritize programs to serve Oregon's communities with the greatest needs.

Draft Policy Actions:

2.1 Transition existing heat pump incentive programs to primarily serve low- and moderate-income households. Increase the incentives to cover a higher share of total costs. Prioritize funding for homes with electric resistance or fossil fuel primary heating systems. (Consider an exception for utility incremental costs-based programs to continue incentivizing highly efficient equipment selection.)

Lack of ZERO cost programs for low-income people



maintaining affordability for month-to-month energy expenses



Targeted electrification to ensure bill reduction

Incentives are too low for actual install costs--major issue for low income

targeting high energy use customers

Focus on switching from electric resistance heating for maximum energy savings and cost savings

Fully funded programs for low-income. NO loan programs for low-income.



Lack of state and federal funding for low-income individuals and families

From public comment: Homeowners being talked out of heat pumps by contractors

Many heat pump applications are not currently cost-effective in IOU territories

Heat pumps are really expensive

DRAFT POLICY ACTION

Improve the energy efficiency and resilience of existing residential buildings.
Prioritize programs to serve Oregon's communities with the greatest needs.

Draft Policy Actions:

2.2 Establish a grant program with flexible funding for statewide efficiency, weatherization and related deferred maintenance measures. Eligible entities should include CAP agencies and other community partners that provide energy-related services. Consider increased revenues from public purpose charge as a potential source of funding in IOU service territories. Allow direct contribution to community organizations from funding partners such as data centers.

Better (emergency) use of ETO funds. higher utility costs = \$100 million more than 2 years ago.

Need for full weatherization with HP installs

Low focus on weatherization (only 20%) wastes a lot of energy

LI households lack basic weatherization / tech that make DR participation safe and possible

need to address existing health and safety issues prior to EE to protect the investment and resident

working with communities to prioritize efforts and provide education around measure interaction

Recognizing that weatherization benefits home owner/ renter in summer and winter regardless of energy source

Comprehensive weatherization programs are difficult to achieve

Need for whole home weatherization on funding

creative solutions to support older manufactured homes

Need to pair with other home remediation activities (sealing, etc.)

The amount of homes that need weatherization/EE before installing rooftop solar. Not the best first step if you have not done the other work yet.

Funding for deferred maintenance (roofs!)

deferred maintenance impacts up to 1/3 of eligible customers

MENTI POLL / DISCUSSION

POLICY RECOMMENDATION 3

Evaluate and promote opportunities to improve efficiency, transition to low carbon fuels, and/or electrify large commercial and industrial thermal processes.

DRAFT POLICY ACTION

Evaluate and promote opportunities to improve efficiency, transition to low carbon fuels, and / or electrify large commercial and industrial thermal processes.

Draft Policy Actions:

3.1 Recommend a study to identify leading energy efficiency and or fuel switching opportunities, including low carbon fuels and electrification, in large commercial and industrial sectors.

3.2 Establish a research, development and demonstration grant program to support clean fuel technology solutions for hard to electrify industrial and large commercial applications. Funding for this program could be supported by gas utility public purpose charge funds to support implementation of pilot projects completed in cooperation with Gas utilities.

Need for R&D on alternative processes for hard to electrify industries

Focus on alternative fuels like H2 for industrial uses

All energy needs do not have electric alternatives

Recognize that these customers compete in global markets and driving them out of state to areas with higher energy emissions is an even bigger loss for global emissions reductions

some industrial processes are theoretically impossible to electrify

missing policy/program/incentives around low carbon fuel use in industrial

Electricity grid constraints

Make more specialized knowledge/navigation available

Recognize that one size doesn't fit all with these facilities

Lack of clean options for hard to electrify industries

Building may have been constructed around systems and it is very difficult to upgrade

target areas/industries where energy savings can be realized and share best practices among industry customers

MENTI POLL / DISCUSSION

POLICY RECOMMENDATION 4

Support adoption of distributed energy resources to advance energy resilience, enable demand response programs, and provide grid services and financial benefits for utilities and customers.

DRAFT POLICY ACTION

Support adoption of distributed energy resources to advance energy resilience, enable demand response programs, and provide grid services and financial benefits for utilities and customers.

Draft Policy Actions:

4.1 Direct ODOE, ODOT and Energy Trust of Oregon to catalogue DR ready devices installed through existing incentive programs. Allow additional incentives to be paid for DR ready devices. Develop / adopt equipment standards requiring DR readiness for heat pumps, EV chargers and other consumer energy related devices.

Continue to support & incentivize installation of connected equipment to expand callable DR resource

State efficiency standards to include CTA-2045 reqs

Build DR capability into more appliances. This can be paired with efficiency efforts.

Customers need to know how they can benefit (and if will help stabilize their rates))

Develop consistent methodology for identifying potential and setting targets across utilities

Need a framework for VPPs

Issues associated with apps in appliances for grid connectivity

pathways to integrate DER's into wholesale markets

Lack of utility incentives for smart appliances

Customer Buy-In

Limited or non-existent time of use rates

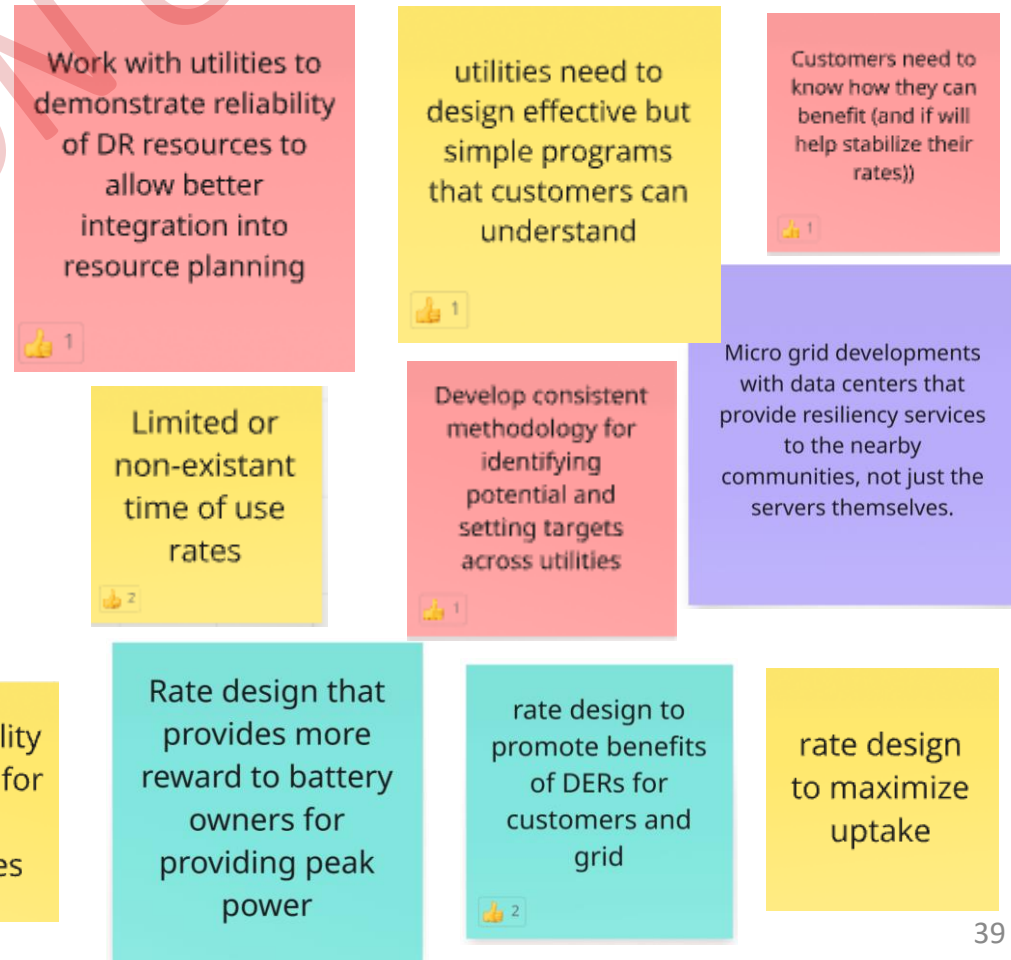
rate design to maximize uptake

DRAFT POLICY ACTION

Support adoption of distributed energy resources to advance energy resilience, enable demand response programs, and provide grid services and financial benefits for utilities and customers.

Draft Policy Actions:

4.2 Direct investor-owned electric utilities to develop programs that demonstrate the value of distributed energy resources. Programs should include demand response capacity targets, tariffs for reimbursement of grid services provided by customer sited DERs, and development of opt-out time-of-use tariffs for residential customers.



DRAFT POLICY ACTION

Support adoption of distributed energy resources to advance energy resilience, enable demand response programs, and provide grid services and financial benefits for utilities and customers.

Draft Policy Actions:

4.3 Consider changes to Oregon net metering laws to promote adoption of small-scale rooftop solar (up to 200kWdc) and battery storage to support energy resilience in rural communities.

Lack of
standardized
offerings

rate design to
promote benefits
of DERs for
customers and
grid

Net Metering,
including
virtual net
metering

On premise
generation
should be a
complete system
(Solar+battery)
for grid resilience.

Lack of full
valuation of
resiliency
role of DERs

Limits to net
metering that
discourage
exporting surplus
to the grid

Changing
net-metering
landscape

Need a better
process for
VNEM /
multifamily

MENTI POLL / DISCUSSION

NEXT STEPS

MAY 9, 2025 | 5 P.M.

Deadline for additional comments related to today's meeting

- What additional suggestions (if any) do you have on the policy actions discussed today?
- What policy actions were NOT discussed today that should be surfaced in our list?
- What benefits or risks exist for policy action (or inaction) on the following areas: cost, feasibility, energy burden, environment justice, land use and natural resources, resilience, community benefits, economic effects, and employment?
- If any, what additional suggestions to those action or additional policy actions would you suggest to mitigate risks or leverage benefits?
- Do you have any supplemental information (reports, analysis, testimonials, etc.) related to these policy actions that you could share?

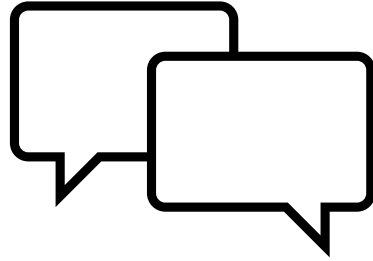
NEXT MEETING

Policy Working Groups Final Plenary Meeting

- May 21, 2025 | 9 a.m. - 12 p.m.
 - Report Out from all Working Groups



COMMENT PORTAL



Provide written public comment

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

A photograph of a wind farm with several large wind turbines on a dry, grassy hill under a blue sky with wispy clouds. The turbines are arranged in a line, receding into the distance.

Thank You!

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

ADDITIONAL CONSIDERATIONS

1. Allow higher admin costs for CAP agencies and other community partners to implement programs to support program delivery costs which are often higher when serving energy justice communities, rural communities and when conducting quality assurance reviews for most or all income qualified households (key to ensure energy savings).
2. Develop a framework for data centers to be able to contribute to local CBOs or CAP agencies that administer efficiency, weatherization, and deferred maintenance programs (see policy action 1.2 above).
3. Include rooftop solar and battery storage in draft policy actions to direct rebate funding primarily to low-income households and establish a revolving loan fund for non-income-qualified households.

CROSS-CUTTING DRAFT POLICY ACTIONS

1. Integrate electric and natural gas resource planning to support the timely and orderly shift to electricity and clean fuels that prioritize an equitable transition to explicitly include environmental justice communities.
2. Fund a consumer facing energy transition service program to educate and financially support residential and commercial building conversions from primarily natural gas, propane, or oil heat to efficient electric options owned or operated in low income, rural, and disadvantage communities.
3. Extend HB 2021 clean energy requirements to new large loads, including obligations regarding providing direct benefits to communities and minimizing burdens for environmental justice communities ([HB 2021](#), Section 2)
4. Develop a grant program to fund HVAC technician and building-trades education programs at community colleges. Prioritize funding to rural parts of the state and disadvantaged communities.
5. Conduct a study to determine best practices for maintaining energy system affordability and resilience while conducting widespread electrification.