Oregon Department of **ENERGY**

Oregon Energy Strategy Policy Working Group

Transportation Electrification
Breakout Session #3

Jillian DiMedio
April 10, 2025

50 YEARS of SERVICE OREGON DEPARTMENT OF ENERGY

OREGON DEPARTMENT OF ENERGY

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

Our Mission

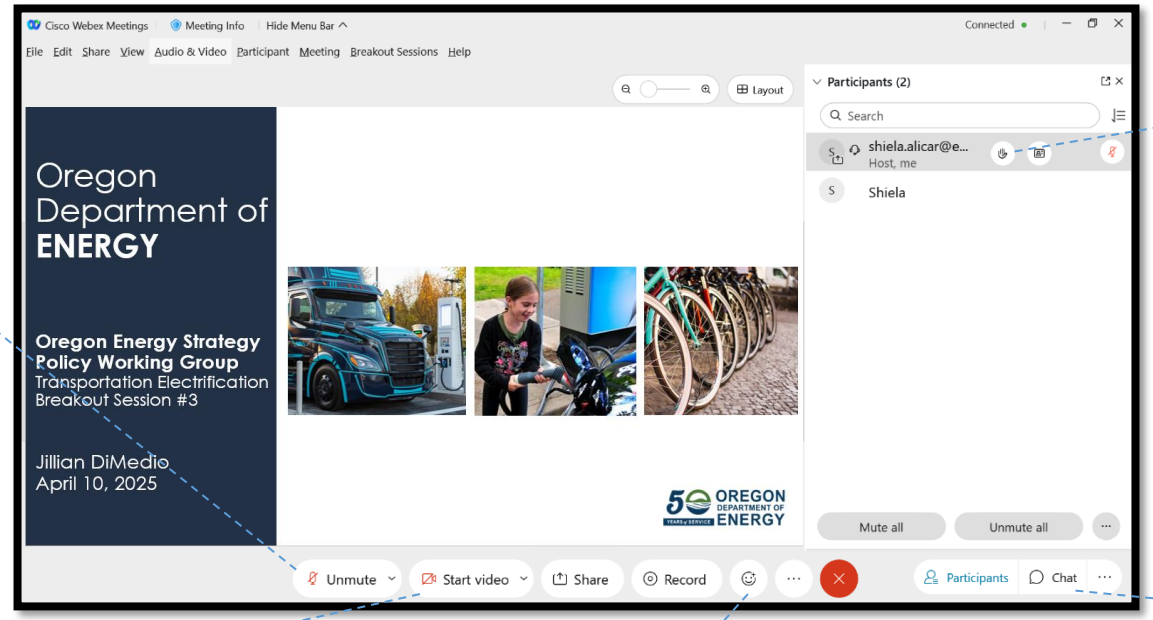
The Oregon Department of Energy helps Oregonians make informed decisions and maintain a resilient and affordable energy system. We advance solutions to shape an equitable clean energy transition, protect the environment and public health, and responsibly balance energy needs and impacts for current and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

Mute — *Microphone On*

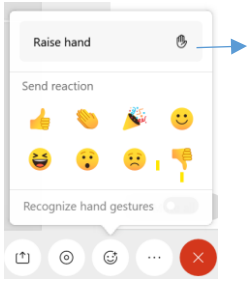
Unmute — *Microphone Off*

Video Options

Stop video — *Webcam On*

Start video — *Webcam Off*

Reactions

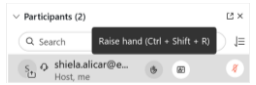


Click to Raise your hand.

Click on Lower hand when you are done.

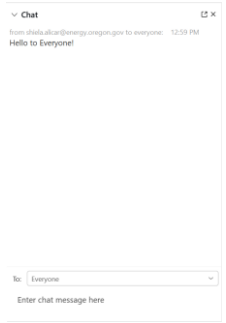
Second Raise Hand Option

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



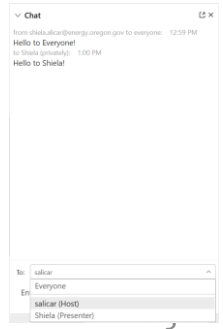
Click on Lower hand when you are done.

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).

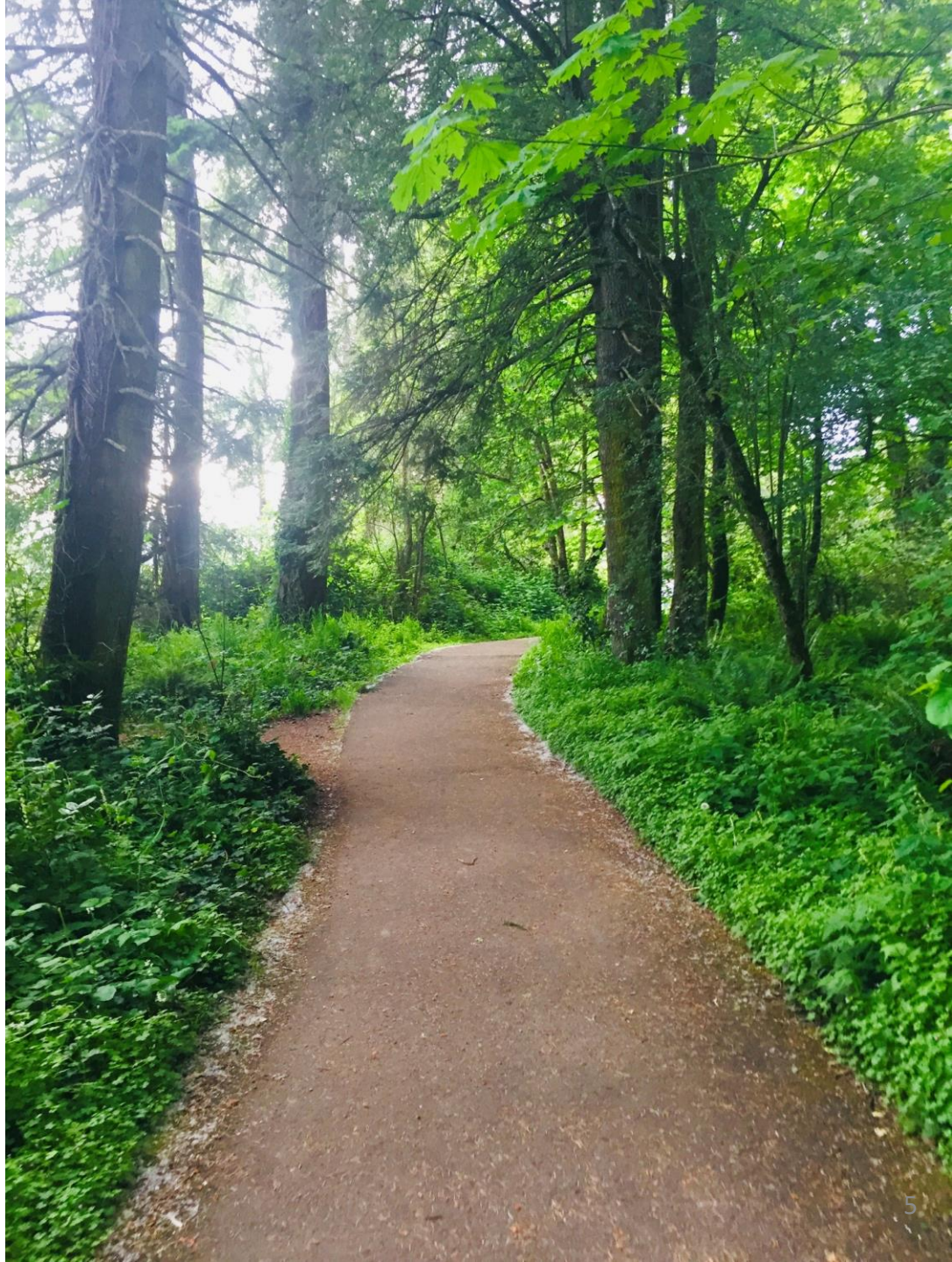


WORKING GROUP SCOPE

Environmental Justice and Equity	• Role in providing EJ and equity perspectives in the other working groups • Evaluate analysis and develop recommendations related to EJ and equity
Building Efficiency, Electrification, and DERs	• Residential and commercial • Customer-side of the meter
Developing Clean Electricity Generation and Transmission	• Electricity generation and storage in front of the meter • Transmission • Development needs and barriers/competing priorities
Low-carbon Fuels	• Best application of low carbon fuels used in buildings, industry, and transportation • Identification of barriers and potential solutions to production and distribution of fuels
Transportation Electrification	• Light-, medium- and heavy-duty zero emission vehicles (battery electric and hydrogen fuel cell) • Charging and fueling infrastructure • Grid integration • Vehicle miles traveled reduction

Working Group Purpose

To provide feedback on transportation priorities, policy gaps, and opportunities in Oregon, and support the development of policy recommendations related to our scope for the Oregon Energy Strategy.



OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

MEETING OBJECTIVES

- Build relationships with fellow working group members.
- Review top barriers to policy pathways identified.
- Brainstorm and discuss top strategies for overcoming barriers.
- Identify key areas of focus for next meeting.

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

AGENDA

9:30 a.m.	Welcome & Process Reminders	
9:35 a.m.	Vehicle Electrification: Summary of Barriers	ODOE Presentation
9:50 a.m.	Strategies to Overcome Barriers to Vehicle Electrification	Brainstorm & Discussion using Miro
10:30 a.m.	Grid Integration: Summary of Barriers	ODOE Presentation
10:40 a.m.	Strategies to Overcome Barriers to Grid Integration	Brainstorm & Discussion using Miro
11:20 a.m.	10-minute Break	
11:30 a.m.	VMT Reduction: Summary of Barriers	ODOE Presentation
11:40 a.m.	Strategies to Overcome Barriers to VMT Reduction	Brainstorm & Discussion using Miro
12:20 p.m.	Next Steps	
12:30 p.m.	Adjourn	

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

Comments and questions from observers can be submitted to: https://odoe.powerappsportals.us/en-US/energy-strategy/

TE WORKING GROUP ROSTER

ORGANIZATION	NAME
City of Portland	Ingrid Fish
Climate Solutions	Brett Morgan
Daimler	Bret Stevens
Eugene Water & Electric Board	Juan Serpa Munoz, Kelly Hoell
Forth	Stu Green
Green Energy Institute	Jamie Johnson
IBEW Local 48	Marshall McGrady
City of Eugene	Logan Telles
Oregon Trail Electric Coop	Charlie Tracy
Oregon Trucking Association	Jana Jarvis
Pacific Power	Kate Hawley
Port of Portland	Lewis Lem
Portland General Electric	Nancy Bennett
Portland State University	Jeff Hammarlund
Private Citizen	Michael Graham
Private Citizen	Tonia Moro
Renewable Hydrogen Alliance	Rebecca Smith
Titan Freight Systems	Jason Altamirano
TriMet	Kyle Whatley
Wy'East	Robert Wallace

INTRODUCTIONS

Please share the following with the group in the chat:

- Name
- Affiliation
- Is there a transportation project in your area you are particularly excited about?

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

TE POLICY WORKING GROUP MEETING SCHEDULE

Wednesday, February 12 **9 a.m. – 12 p.m.**	Opening Plenary Meeting – All Working Groups
Tuesday, March 4 **9:30 a.m. – 12:30 p.m.**	First Break Out Meeting
Thursday, April 10 (Today) 9:30 a.m. – 12:30 p.m.	Second Break Out Meeting
Wednesday, April 30 **9 a.m. – 12 p.m.**	Third Break Out Meeting
Wednesday, May 21 **9 a.m. – 12 p.m.**	Closing Plenary Meeting – All Working Groups

STEP BY STEP PROCESS

Today

Meeting 4

PATHWAY	ISSUE STATEMENT/BARRIERS	STRATEGY TO ADDRESS BARRIERS	POLICY ACTION
VEHICLE ELECTRIFICATION	**1. Upfront Cost** *EVs have a higher purchase price than traditional internal combustion engine vehicles.*	"Expand EV market share through incentives"	"Continue funding the Oregon Clean Vehicle Rebate Program"
GRID INTEGRATION			
VMT REDUCTION			

OREGON DEPARTMENT OF ENERGY

50 YEARS of SERVICE

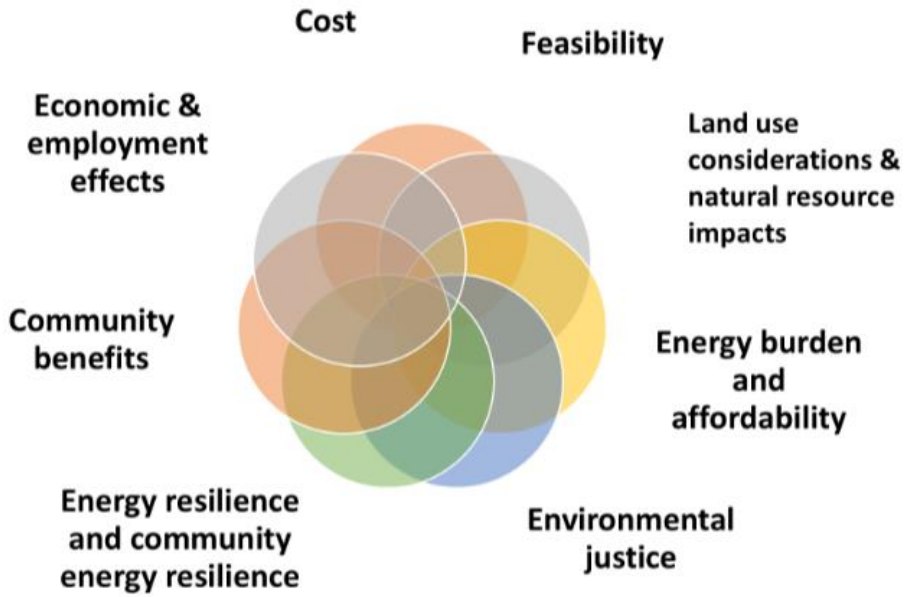
GROUP AGREEMENTS

- 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.

MEETING GUIDANCE

- Focus on providing insight on the barriers to achieving our energy and climate goals.
- Focus on the overarching themes that the model results indicate.
- Consider barriers from the perspective of the different key considerations.
- Offer different perspectives on barriers as appropriate.
- Hold off on identifying solutions since this is the focus of the next meeting.

Energy Strategy Key Considerations



OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

WHAT WE'RE HEARING IN OTHER WORKING GROUPS

Building Electrification, Efficiency, DERs

- EV chargers installed in conjunction with building electrification measures exacerbate grid integration issues.
- EV charging may lead utilities into demand response programs that also enroll HVAC and water heating equipment.

Environmental Justice & Equity

- Vehicle electrification is challenging in rural communities where there is a lack of infrastructure and workforce training for maintenance (both for personal and work vehicles).
- EVs are expensive and a financial burden to families in low-income brackets. Additionally, incentives may run out of money quickly, are regressive, or not offer enough to create an affordable pathway.
- Low-income and MFH lacks access to chargers.
- There is a lack or gaps in prioritization and investment in public transportation systems.

Low-Carbon Fuels

- Limited fuel infrastructure and supply leads to competition with other states and end uses.
- Market isn't driving demand for low carbon fuels.
- Upfront costs of vehicles, equipment, new technologies, and infrastructure.
- Lack of support for those who can't afford to transition.

Developing Clean Electricity

- Current planning efforts are too siloed (energy/water, electricity/gas, utility/utility)
- Information is too limited for finding the 'best' sites for new resources (grid integration, land-use impacts)
- Concerns about costs and affordability

EXISTING POLICIES

Overarching
E.O. 20-04 – Economy-wide GHG Emissions Reduction Targets
HB 2021 – "Clean Electricity Targets" for IOUs and ESSs
Climate Protection Program – Declining Cap on GHG Emissions from fossil fuels
Oregon Clean Fuels Program

Policies to Encourage and Enable Light-Duty Vehicle Purchase
Advanced Clean Cars I / Advanced Clean Cars II
Direct Sales of EVs to Consumers
DEQ's Oregon Clean Vehicle Rebate Program (OVCRP) (ongoing)
SB 1044 Statewide LD ZEV targets
Federal Vehicle Tax Credits (30D / 45W)

Policies to Encourage and Enable Medium- and Heavy-Duty Vehicle Purchases
Advanced Clean Trucks / Heavy Duty Engine and Vehicle Omnibus
DEQ's Zero Emission Rebates for Oregon Fleets (ZERO Fleet) (one time, $18M, state and federal)
DEQ's Diesel Emissions Mitigation Grants
Federal Tax Credits (45W)
Diesel Emissions Reduction Act Grants (state & federal)
Multi-State Medium- and Heavy-duty Zero Emission Vehicle MOU

Policies to Increase Availability of Charging and Fueling Infrastructure
ODOT's National EV Incentive Program (NEVI) (one time, $52M)
ODOT's Charging & Fueling Infrastructure (CFI) (one-time, $30M)
ODOT's Community Charging Rebates (CCR) (~$17M, state & federal)
ODOT's Electric Vehicle Charging Reliability and Accessibility Accelerator (EVC-RAA) (one-time, $10M)
ODOE's Energy Efficiency & Conservation Block Grant Program (one time, $1.2M)
ODOT's Carbon Reduction Program (one time, $82M)
DEQ's Oregon Zero Emission Fueling Infrastructure Grant (OZEF) (one time, $18M, state & federal)
Federal Congestion Mitigation and Air Quality Funds (CMAQ) (ongoing)
Federal Tax Credit (40C)
Building Code: HB 2180 EV Charging Parking Space Requirements
Building Code: ORS 94.762 HOAs/Condo Assoc. Must Allow Chargers

Policies to Electrify Fleets
SB 1044 – LD ZEV Purchasing Requirements for State Fleets
E.O. 17-21 – State Agencies to Assist School/Transit Agency Fleets
VW Settlement Funds / School Bus Replacement Program
ODOE's Public Purpose Charge Schools Program (ongoing)
DEQ's Zero Emission Rebates for Oregon Fleets (ZERO Fleet) (one time, $18M, state and federal)
DEQ's Clean HDV Program for School Buses (one time, $6.5M)
EPA's Clean School Bus Program grant (closed)

Policies/Programs for Education, Data and Awareness
EV Dashboard
Go Electric Oregon Webpage
SB 1044 – ODOE's Biennial Zero Emission Vehicle Report
E.O. 17-21 – Establishes ZEVIWG and ZAP
E.O. 20-04 – Establishes Every Mile Counts Initiative
ODOT's CCR Community Outreach and Engagement Program
DEQ's OCVRP Dealer and DAC Outreach Program
ODOT's Oregon Transportation Emissions Webpage
PAC Outreach and Education Program

Policies to Encourage and Enable VMT Reduction
Employee Commute Options rules (OAR 340-242-0010-0290)
Climate Friendly and Equitable Communities
HB 2017 – Established Statewide Transportation Improvement Fund & Safe Routes to School Fund (ORS 184.740)
HB 2592 – Established Multimodal Active Transportation Fund (ORS 367.091)
ODOT's Oregon Transportation Plan – 20% VMT reduction per capita
Metro's Climate Smart Strategy
City of Ashland E-bike Incentive
EWEB E-Bike Incentive
Portland E-bike Incentive and Workforce Training Program
PAC Municipal & Community Grants (Micromobility programs)
ODOT's Innovative Mobility Program (one time, $20M)
ODOT's Safe Routes to School Program (ongoing)
ODOT's Oregon Community Paths Program (ongoing, state & federal)
Carbon Reduction Program (one time, $82M)

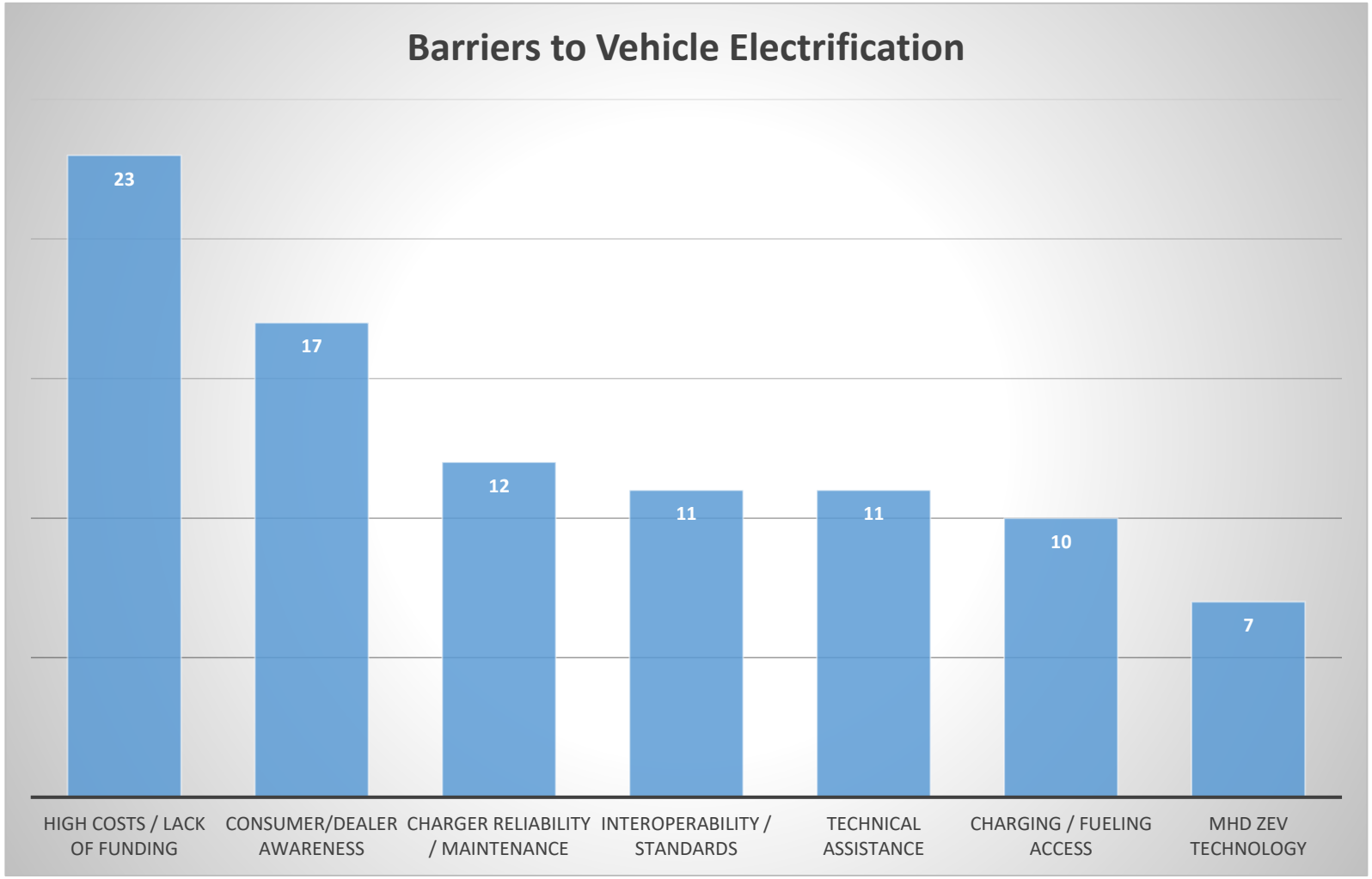
Utility TE Investments and Policies
SB 1547 – IOUs Must Submit TE Plans, Rate Recovery for TE
HB 2165 – Monthly Meter Charge for TE
HB 3055 – Authorizes Gas Utilities to Invest in Trans. Infrastructure
Central Electric Coop Level 2 Charger Rebate
Central Lincoln PUD Level 2 Charger Rebate
City of Ashland – EV and Commercial Charging Rebates
Clatskanie PUD – Level 2 Charger Rebate
Columbia River PUD – Residential and Comm. Charger Rebate
Consumers Power, Inc – Level 2 Charger Rebate
Emerald PUD – Level 2 Charger Rebate
Eugene Water & Electric Board – MFH EV Charging Rebates
Northern Wasco County PUD – Res. & Comm. Charger Rebate
PAC Electric Fleet Pilot Program
PAC Oregon Electric Mobility Grants
PAC Oregon Municipal & Community Grants
PAC Residential, MFH, Business EV Charger Rebates
PAC Commercial & Residential Time of Use Rates
PAC Public Infrastructure Utility-Owned Program
PAC Residential Managed Charging Pilot
PGE Business & MFH Make Ready Solutions
PGE Business EV Charging Rebates
PGE Public Charging Programs (Electric Ave., Municipal Charging Collaboration, Curbside Charging)
PGE Fleet Partner Program
PGE Electric School Bus Fund
PGE Drive Change Fund
PGE Smart Charging (Managed Charging/Panel Upgrade Rebates)
Salem Electric – Residential EV Charger Rebate
Springfield Utility Board – Residential EV Charger Rebate
Tillamook PUD – Residential Charger Rebate

**Note: orange, italicized text denotes federal funding*

VEHICLE ELECTRIFICATION

BARRIERS TO VEHICLE ELECTRIFICATION

- More than 120 comments
- Other categories include federal uncertainty, batteries, hydrogen supply, resilience/redundancy.



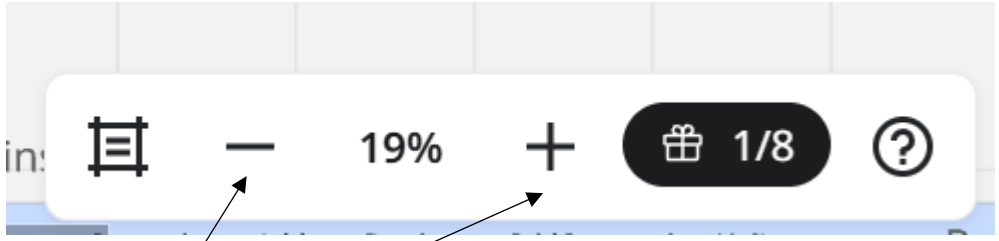
OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

VEHICLE ELECTRIFICATION: ISSUE STATEMENTS

Barrier Category	Issue Statement
High Costs / Lack of Funding	The high upfront and operational costs of zero emission vehicles and infrastructure coupled with a lack of sufficient incentive funding and uncertainty around federal programs makes ZEV adoption unattainable for many residents, businesses, and fleets.
Consumer / Dealer Awareness	Myths related to electric vehicles are pervasive and many consumers, dealers, and communities are not aware of their health, environmental, and economic benefits nor of their operational capabilities, the incentives available to reduce upfront costs, or how to operate charging infrastructure. Similarly, many consumers and the public are unfamiliar with hydrogen and have questions about its safety.
Charger Reliability / Maintenance	Many charging stations are unreliable and often difficult or expensive to repair due to poor design, undependable companies, and a lack of a skilled and qualified maintenance workforce across the state, particularly in rural locations.
Interoperability & Standards	The lack of interoperability between charging station hardware and software equipment as well as between chargers, vehicles and the grid, combined with a lack of standardized systems for user interface (e.g., connector types, payment, etc) leads to charger downtime and consumer confusion.
Technical Assistance	There is a large learning curve for fleets wishing to transition to zero emission vehicles - including navigating grant application and reporting processes, training drivers and staff, understanding the best infrastructure for their needs and utility rate structures - and no statewide technical assistance available.
Charging & Fueling Access	The availability and accessibility of charging and fueling infrastructure in Oregon is limited, particularly at workplaces, in rural communities, for rental unit and multi-family housing residents, and for drivers of heavy-duty vehicles. In some cases, MHD vehicles in particular, there is a lack of information about infrastructure needs.
MHD ZEV Technology	There are limited commercially available zero emission vehicles for some medium- and heavy-duty sectors and use cases.

MIRO REMINDER: TIPS

Switch between the ‘select tool’ and ‘hand mode’ on the top of the toolbar to the left

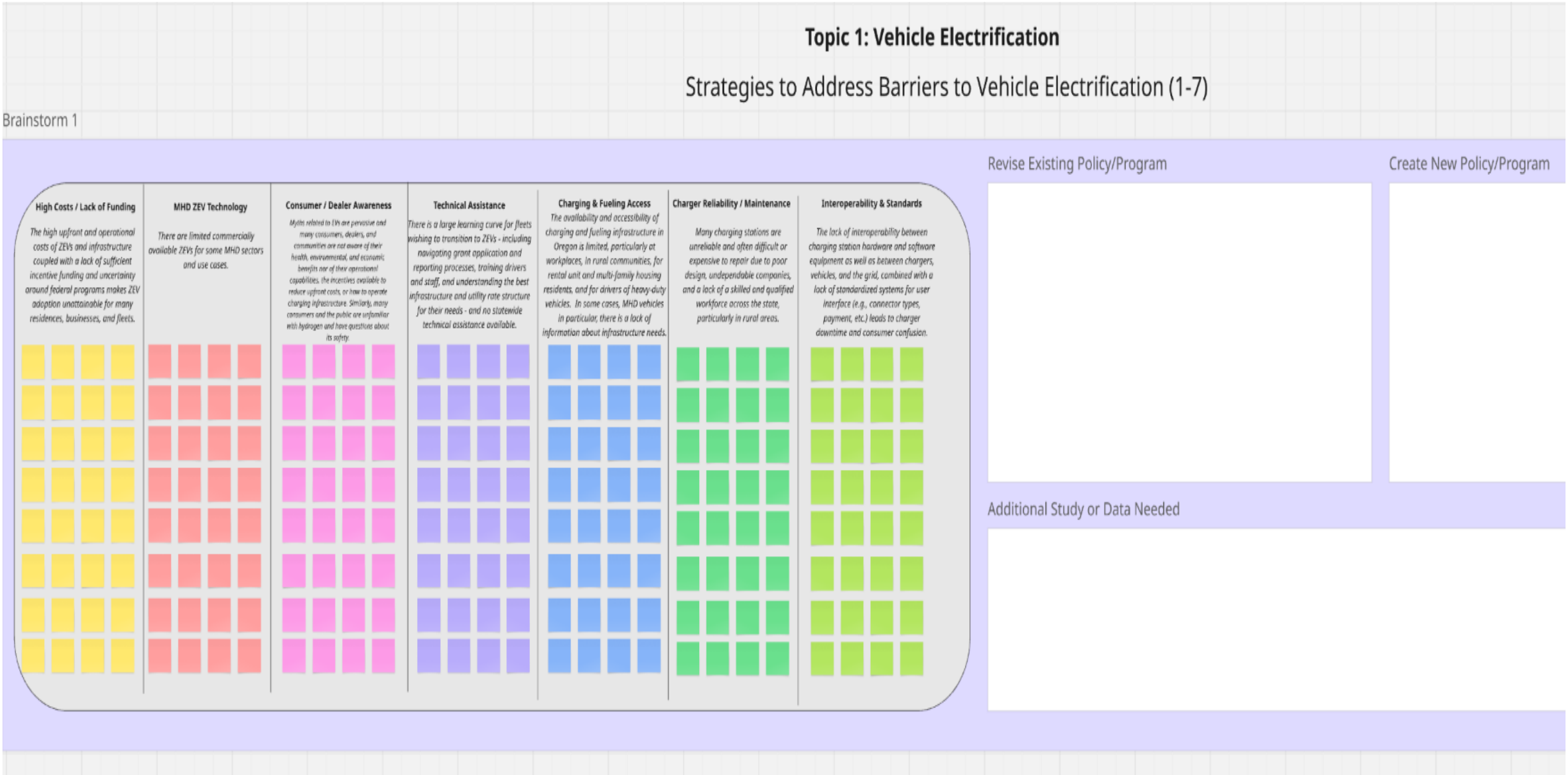


Zoom in and out using the plus and minus signs on the toolbar at the bottom

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

https://help.miro.com/hc/en-us/articles/360017731053-Using-Miro-with-a-mouse-trackpad-or-touchscreen

TODAY'S MIRO EXERCISE



BRAINSTORMING ACTIVITY 1:
STRATEGIES TO OVERCOME BARRIERS TO VEHICLE ELECTRIFICATION

Consider:

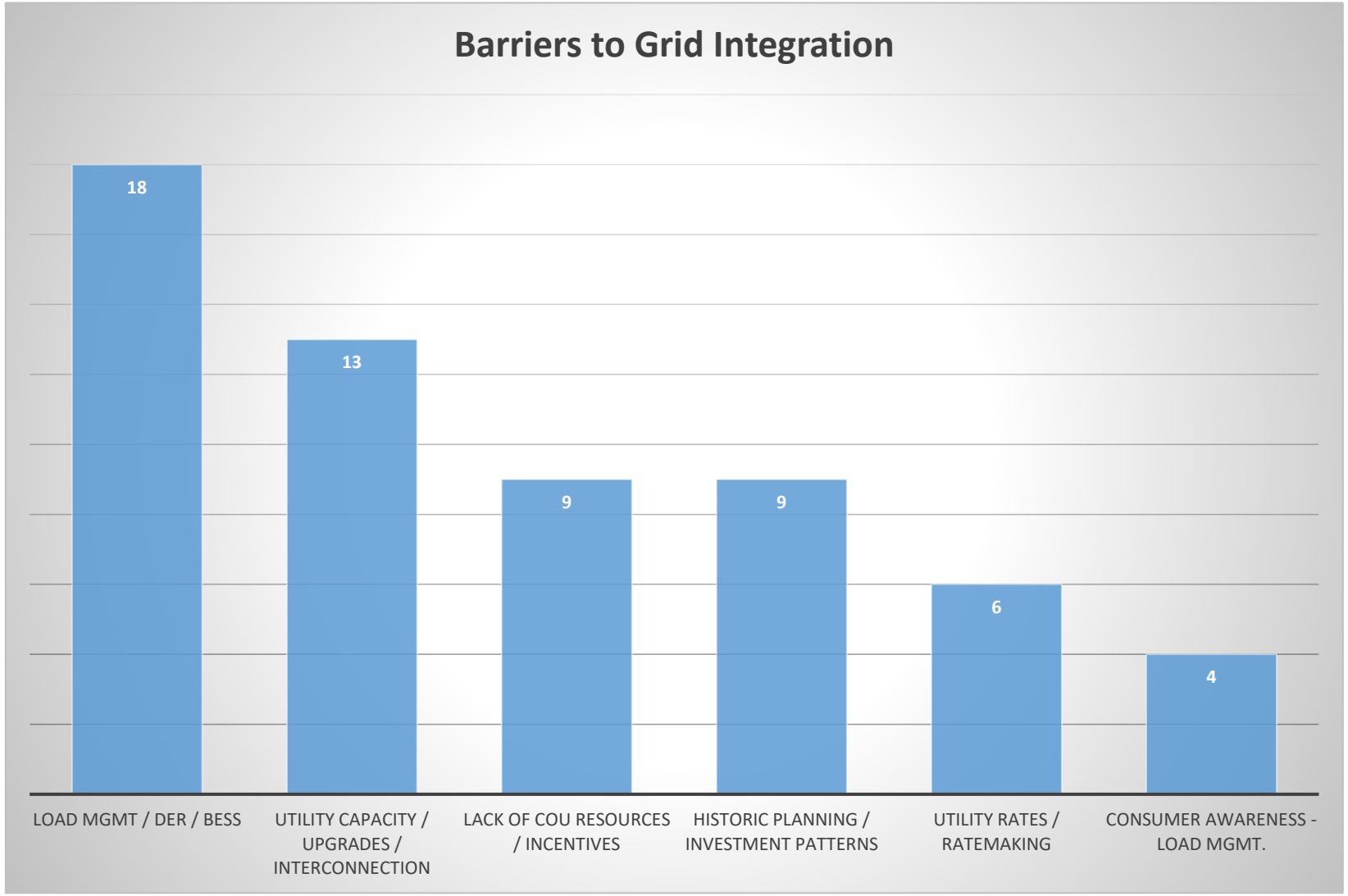
- Where are existing policies falling short in overcoming the barriers to vehicle electrification?
- What policy gaps exist?
- What strategies should be a focus as we develop policies to overcome barriers?
- Where is additional information or data needed?

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

GRID INTEGRATION

BARRIERS TO GRID INTEGRATION

- More than 100 comments
- Other categories include federal uncertainty, supply chain, siting & permitting.



OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

GRID INTEGRATION: ISSUE STATEMENTS

Barrier Category	Issue Statement
Load Management / DER / BESS	Load management strategies and technologies are not well understood or developed and managed charging programs are not widespread or tuned to maximize participation.
Utility Capacity / Upgrades / Interconnection	The large power demand for many EV charging sites (particularly those designed for MHD vehicles) coupled with limited grid capacity in many parts of the state results in high utility upgrade costs – with no clear direction on who pays and limited incentives for make ready infrastructure – and high costs and timelines for interconnection.
COU Resources and Incentives	Some public utilities in Oregon have limited transportation electrification resources, expertise and forecasting information to help customers electrify and plan for EV load growth. Many also lack the necessary price signals from BPA for demand-side management and time-of-use rates.
Historic Planning and Investment Patterns	Utilities invest in new infrastructure to accommodate known and identified demand rather than proactively in anticipation of growth; they are hesitant to invest proactively without certainty of cost recovery approval by regulators.
Utility Rates / Ratemaking	High electricity costs, demand charges, regional variability, the lack of tiered rate structures and the lack of rates that reflect the grid benefits of EVs diminish the benefits of EVs.
Consumer Awareness – Load Management	Consumers are reluctant to opt into managed charging programs due to lack of sufficient incentives from utilities, mistrust of corporations and misconceptions around data privacy and not having their vehicle available when needed.

Consider:

- Where are existing policies falling short in overcoming the barriers to grid integration?
- What policy gaps exist?
- What strategies should be a focus as we develop policies to overcome barriers?
- Where is additional information or data needed?

BRAINSTORMING ACTIVITY 2:
STRATEGIES TO OVERCOME BARRIERS TO GRID INTEGRATION

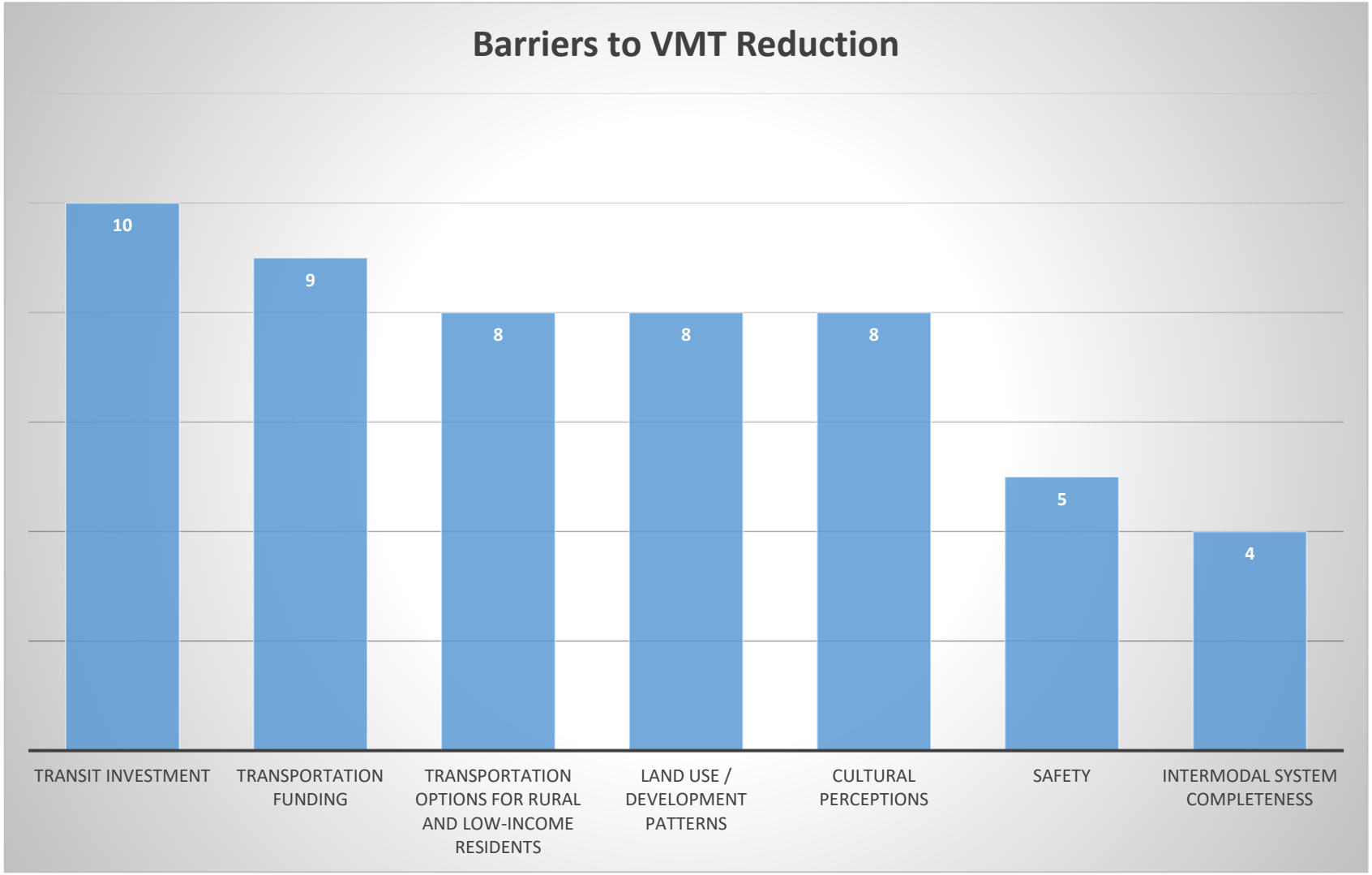
10 MIN BREAK

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

VMT REDUCTION

BARRIERS TO VMT REDUCTION

- More than 75 comments
- Other categories include infrastructure, rail, and e-bikes.



VMT REDUCTION: ISSUE STATEMENTS

Barrier Category	Issue Statement
Transit Investment	There is a lack of sufficient transit and a lack of sustainable funding to maintain or expand current service and improve access, particularly in low density areas.
Transportation Funding	There is a lack of sustainable funding for road maintenance and transportation options in Oregon and funding does not prioritize active and other transportation modes.
Transportation Options for Rural & Low-income Residents	Many rural residents and people with low-incomes face longer distances to reach essential goods and services and lack viable alternatives to single-occupancy vehicles, including transit and ridesharing.
Land Use / Development Patterns	Many development patterns favored vehicle travel and policy changes encouraging transportation options are still catching up and are sometimes overlooked for targeted industries.
Cultural Perceptions	There is a cultural preference for personal vehicle ownership and use and a negative impression of and a lack of education around the value and benefits of active and other transportation modes.
Safety	There are safety concerns around active and other transportation modes, including biking and transit, and constraints and high costs for safety improvements.
Intermodal System Completeness	There are gaps in the multimodal system that make it inconvenient to connect various modes of transportation.

BRAINSTORMING ACTIVITY 3:
STRATEGIES TO OVERCOME BARRIERS TO VMT REDUCTION

Consider:

- Where are existing policies falling short in overcoming the barriers to VMT reduction?
- What policy gaps exist?
- What strategies should be a focus as we develop policies to overcome barriers?
- Where is additional information or data needed?

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

NEXT STEPS

UPCOMING MEETINGS

Transportation Electrification Policy Working Group

- April 30, 2025 | 9 a.m. - 12 p.m.
- May 21, 2025 | 9 a.m. - 12 p.m.

Additional Meetings

Presentation of Complementary Analysis

- April 16, 2025 | 9 a.m. – 10:30 a.m.

Environmental Justice & Equity Office Hours (Optional)

- April 18, 2025 | 10 a.m. – 11 a.m.

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

APRIL 30 DRAFT MEETING AGENDA

1. Review and discuss compilation of strategies to overcome barriers.
2. Discuss policy implications of complementary analyses.
3. Share any relevant information from other WGs.
4. Learn about example policies in other states / regions.
5. Discuss final policy actions.

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

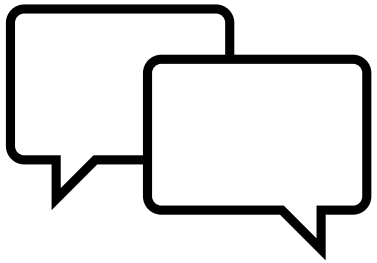
CONSIDERATIONS

For our next meeting, please consider:

- What strategies discussed today are most important for overcoming identified barriers?
- How can they be translated into specific policies or programs?
- What best practices / policies are being implemented in other states/regions? Would they work for Oregon? Why or why not?

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE

OPPORTUNITIES FOR PUBLIC COMMENT



Provide written public comment

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

OREGON DEPARTMENT OF ENERGY
50 YEARS of SERVICE


50
YEARS of SERVICE
OREGON
DEPARTMENT OF
ENERGY
Thank You!
https://www.oregon.gov/energy/Data-and-Reports/Pages/Energy-Strategy.aspx