



**NW Seaport Alliance Puget Sound  
Zero-Emission Truck Collaborative**

# **Puget Sound Zero- Emission Truck Collaborative**

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Collaborative 2.0 Meeting  
May 19, 2026

# Agenda



9:00 AM

**Welcome, Meeting Overview, and Networking**

9:20 AM

**Relaunching as Collaborative 2.0**

9:40 AM

**Zero Emission Drayage Updates**

*Break at  
approximately  
10:15*

- WAZIP Launch
- Zero-Emission Drayage Assistance Program
- Sea-Tac Drayage Vehicle and Charging Deployment
- Driver and Fleet Perspectives
- State Policy

11:00 AM

**Implementation Priorities**

11:20 AM

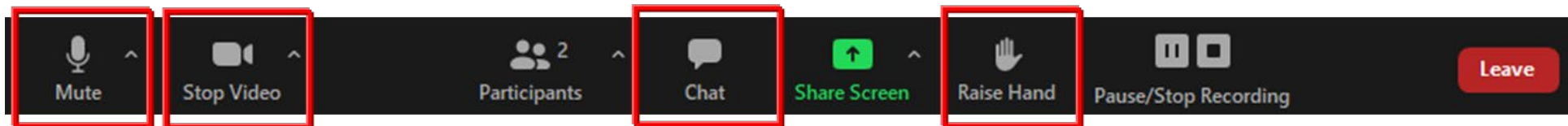
**Public Comment and Wrap Up**

11:30 AM

**Adjourn**

# Participating Effectively via Zoom

- Collaborative members please show your video
- If you're using your telephone for audio, remember to enter your participant ID
- To reduce background noise, please mute yourself when you are not speaking
- During discussions, please let us know you'd like to jump in by "raising your hand"



# Public Participation

- For those observing the meeting, please be muted, off video, and off chat until the public comment time
- There will be an opportunity for 2-minute public comments at the end of the meeting. At that time, members of the public who would like to comment should raise their hands if they would like time to speak

# Project Website

URL:

<https://www.rossstrategic.net/Zero-Emission-Truck-Collaborative/>

PUGET SOUND ZERO-EMISSION TRUCK COLLABORATIVE

## Collaborative 2.0

### Decarbonizing Drayage Roadmap

The transition to zero-emission drayage vehicles serving ports in the Puget Sound region is a key step to improve air quality, reduce greenhouse gas emissions, and reduce environmental health disparities in communities living near port terminals and along major freight corridors. The Puget Sound Zero-Emission Truck Collaborative developed the *Decarbonizing Drayage Roadmap* to help chart a just and equitable path through the many opportunities and challenges created by the transition to zero-emission drayage.

The Decarbonizing Drayage Roadmap was developed during the first phase of the Collaborative (Collaborative 1.0). [Materials from this phase are available here.](#)

[Roadmap](#)

[Executive Summary](#)

[Press Release](#)

### About Collaborative 2.0

The Puget Sound Zero-Emission Truck Collaborative brings together public agencies, ports, utilities, industry, and community organizations to support the transition to zero-emission drayage trucks in the Puget Sound region. During its first phase, the Collaborative developed the Decarbonizing Drayage Roadmap, which outlines shared priorities and recommended actions. The current phase of work (Collaborative 2.0) is focused on implementation, supporting partners in advancing priority actions, coordinating across efforts, and accelerating progress toward the deployment of zero-emission drayage trucks and supporting infrastructure in the region.

### Collaborative 2.0 Meeting Materials

Materials will be posted here as they become available.

# Impromptu Networking



- This is a chance to get re-acquainted and meet new people participating in the Collaborative
- In a few moments Zoom will prompt you to join a breakout group with one other randomly-chosen participant. Please share:
  - Your name and affiliation
  - What interests you most about the transition to zero-emission drayage?
- The rooms will close automatically after three minutes, so you'll have to be efficient!
- We're planning to do three rounds total



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# **Relaunching as Collaborative 2.0**

# Focus and Approach

- Implementation Focus: *What do we need to do in the next 2-3 years to overcome barriers and get traction on the ZE drayage transition?*
- Emphasis on small groups, guided by full collaborative
- Collaborative work planning: *Where can the Collaborative help accelerate implementation and overcome barriers through coordination and problem-solving?*
- Workforce and jobs strategy

# Charter: Collaborative Purpose



- Contribute to effective implementation of Roadmap
- Identify implementation gaps and develop new strategies where needed
- Provide a “hub” of information about the status and trajectory for Puget Sound drayage decarbonization
- Share lessons and inform best practices
- Connect with related regional efforts
- Facilitate public communication and stakeholder engagement
- Inform complementary policy and program development
- Help attract state, federal, and private sector funding and investment

# Charter: Operating Guidelines



- Aim for convergence, not consensus
- ¾ vote in favor to add members. Members can replace themselves without a vote.
- Alternates OK; can observe if primary member attending
- Community-based organizations and driver representatives eligible for stipend compensation
- All full Collaborative meetings open to the public with time for comment
- Member observations presumed to represent their personal, not organizational, perspectives
- Members encouraged to reach out to constituencies to gather input and ideas
- Please frame observations in terms of needs and interests, not positions
- Refrain from characterizing the views of other members in public statements

# Membership



- Thank you returning Collaborative members!
- Welcome to new members joining today!
  - Zeem Solutions (local project; TAAS)
  - TEC Equipment (dealer)
  - Breaking Barriers Collaborative (technical assistance)
- Ongoing outreach to potential new members:
  - Dealers
  - Fleets
  - Logistics
  - Terminal operators
  - Ports



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# Zero Emission Drayage Updates

- WAZIP Launch
- Zero-Emission Drayage Assistance Program
- Sea-Tac Drayage Vehicle and Charging Deployment
- Driver and Fleet Perspectives
- State Policy



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# **Update: Sea-Tac Drayage Vehicle and Charging Deployment**

***Alma Pacheco, Zeem***

# Puget Sound Zero-Emission Truck Collaborative

May 2026



Tesla Inc.  
USDOT 2238288

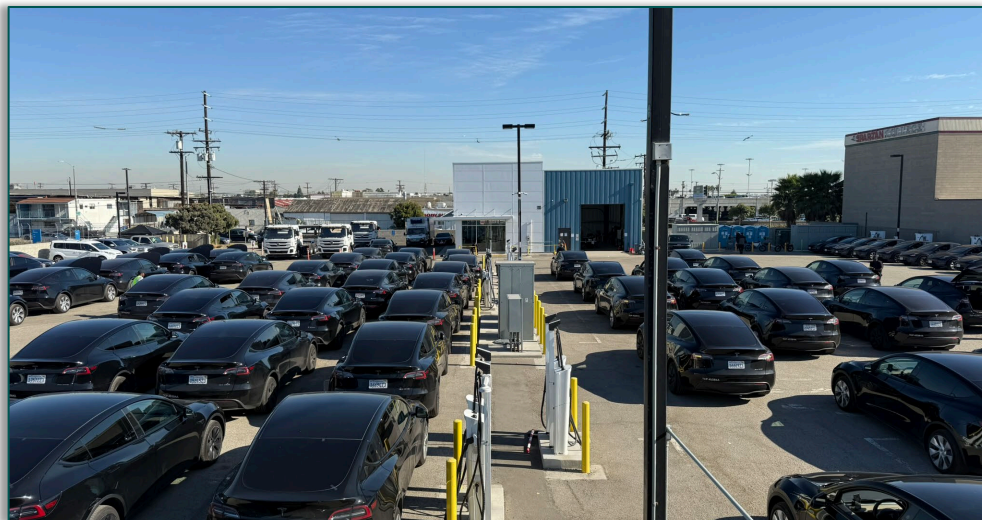
**Zeem**

## ZEEM

### WHO WE ARE

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- **Pioneered shared fleet charging models**, deploying 7 charging depots to date , leveraging our experience to understand and overcome real-world operational challenges with over 350K+ charge sessions out of our LAX location.
- **Designed, constructed, and operated EV infrastructure** across diverse fleet types and sizes, from rideshare, last-mile delivery, to heavy-duty drayage, and everything in between.
- **Identified and solved common pain points** faced by fleets, including power constraints, incorrect utility interconnection, high utility demand charges, vehicle failure, and vehicle scheduling complexities.
- **Developed a proprietary, best-in-class software platform** that intelligently manages charging, trucking / cargo assets, and fleet operations.



### SHARED DEPOTS

Zeem secures commercial real estate for the sole purpose of providing charging, parking, and management services for multiple fleets.

### IN-YARD DEPOTS

Zeem deploys capital to install EV Infrastructure on customer's real estate for the sole purpose of charging their fleet.

## BUSINESS MODEL

Zeem's core offerings are scalable solutions tailored for fleets at every stage of electrification



Shared Depot



In-Yard Depot

<b>Customer Proposition:</b>	Instant scalability and highly economical	Tailored to customer's exact specifications
<b>Customer Mix:</b>	Highly diversified mix of customer types and vehicles classes	Exclusive use by customer
<b>Real Estate Control:</b>	Zeem	Customer
<b>Infrastructure Ownership:</b>	Zeem (chargers and facilities)	Zeem (charging infrastructure)
<b>Vehicle Ownership:</b>	Customer, Zeem in selected instances	Customer, Zeem in selected instances
<b>Fee Structure:</b>	Fixed-fee and/or activity based	Fixed-fee and Variable
<b>Contract Tenor:</b>	Multi-year and/or monthly evergreen	Multi-year

## IN-YARD DEPOT

### BRINGING EV CHARGING TO THE CUSTOMER: MYGRID

- **Enabling electrification of existing vehicle depots:** Smooth transition for those fleets operating on-site diesel operations. Ability to convert some or all the diesel trucks to EV with minimal disruption to day-to-day operations.
- **Rapid, Low-Cost Deployment:** Unique design eliminates the need for expensive and time-consuming trenching, allowing for installation in days instead of months. This drastically reduces project timelines and initial capital expenditure.
- **Modular & Scalable No-Trench KIT:** 2.5 MVA system (transformer, switchgear, breakers, chargers) built in a controlled environment on a skidded platform. It's trucked and craned into place. Designed to grow with your fleet, allowing for easy expansion as you add more EVs without re-engineering your entire charging infrastructure.
- **Pricing standardization:** Consistent pricing structure for all elements of the MyGrid across the US. Flexibility for customer to purchase MyGrid outright or finance infrastructure via Zeem.



## SHARED DEPOTS

### ACTIVE & PLANNED DEPOTS

Depot service agreements / pricing available for charging, vehicle service & maintenance, and overnight parking.



SITE CHARACTERISTIC	LAX	POLB - CA	SEATAC - WA	ESSEX - NJ
Highlight	2 Sites within .2 miles of each other, both within 2 miles of Los Angeles International Airport.	Centrally located in the Port of Long Beach to facilitate drayage at the two largest ports in the US.	Centrally located between the Ports of Seattle and Tacoma and adjacent to Kent Valley logistics facilities.	Located less than 3 miles from marine terminals at PANYNJ.
Status	Operating	Q3 2026	Q4 2026	Q4 2026
Property Size	3 acres combined	2.8 Acres	2.7 Acres	3 Acres
Interconnection	7.5 MW	15 MW	7.5 MW	33 MW
# of DCFC Ports	78 DCFC	84 CCS / 8 Tesla Stalls	12 (Phase 1)	40
Support CCS Charging	Yes	Yes	Yes	Yes
Support MCS Charging	Planned	Yes	Yes	Yes
Charging Capacity / Daily	1,250 Class 1 OR 250 Class 8	500+ Class 8	500+ Vehicles	1,000+ Vehicles
Notes	Sites have delivered over 13+GWh of charging with over 350K sessions varying from Class 1 – 8	Purpose built to service drayage customers with future expansion options to double capacity	Purpose built to service AV/rideshare & drayage customers with future expansion options to double capacity	Designed to support all fleets and high-volume transport with options to double capacity

## **ZEEM SEATAC DEPOT: FULL-SERVICE EV EXPERIENCE FOR FLEETS**

### **OVERVIEW**

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#### **Zeem is developing a shared charging depot in SeaTac, Washington**

- 3.7-acre facility
- Mix of DCFC ports and 1.2MW power cabinets, 7.5 MW interconnection
- Serving approximately 250-500 Class 8 vehicles daily
- Located centrally between the Ports of Seattle and Tacoma, and adjacent to Kent Valley logistics facilities.
- Zeem is partnering with local drayage operators to deploy 19 electric Class 8 trucks.
- Funding partners: NWSA, City of Seattle, Puget Sound Energy

**CURRENT STATUS: In the permitting and pre-construction process, signing fleets up for vehicle demos to test daily operations with an EV.**

# THANK YOU

Alma Pacheco

[apacheco@zeemsolutions.com](mailto:apacheco@zeemsolutions.com)

The Zeem logo is located in the bottom right corner of the slide. It features the word "Zeem" in a bold, italicized, sans-serif font. The letter "Z" is a dark blue, while the letters "eem" are a lighter, teal blue. The logo is positioned in the lower right quadrant of the slide.



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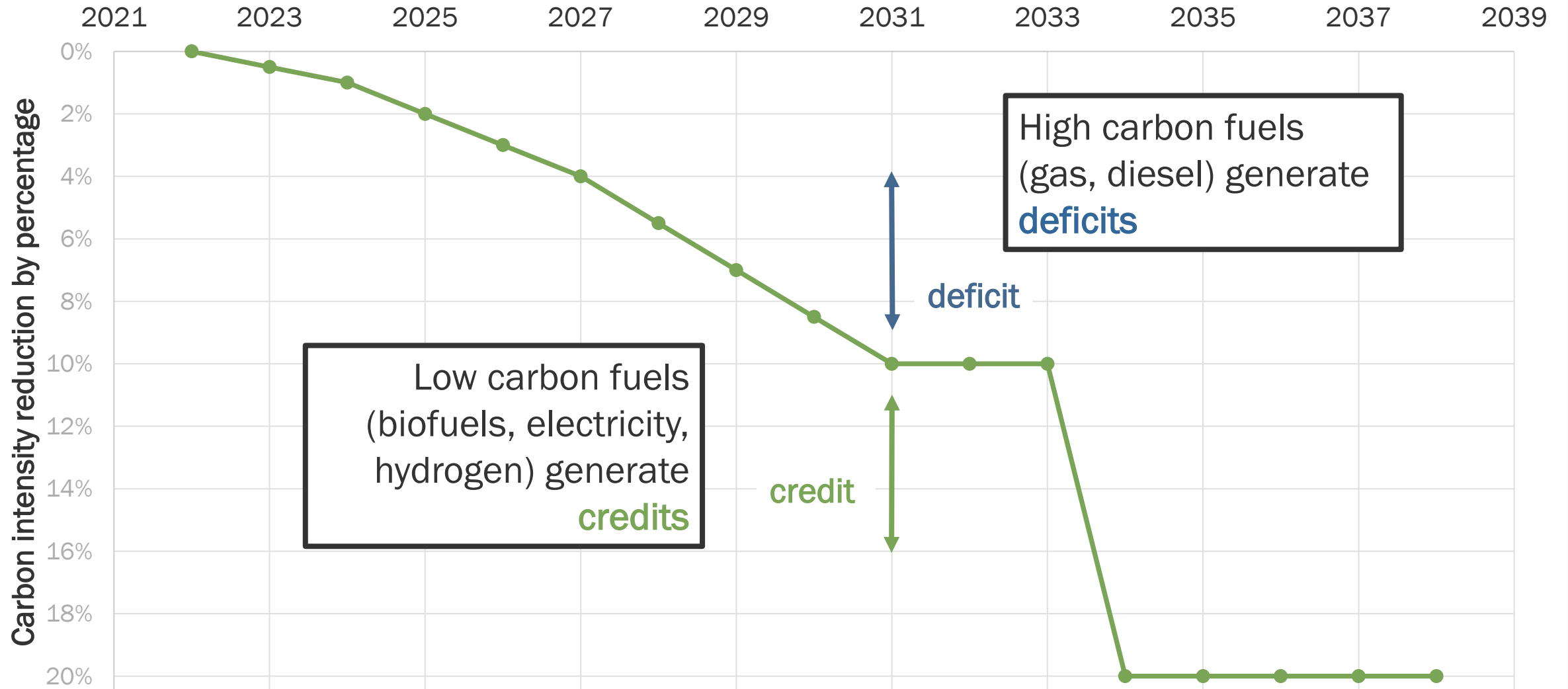
# **Update: State Policy** *Josh Grandbouche, Ecology*



# Clean Fuel Standard

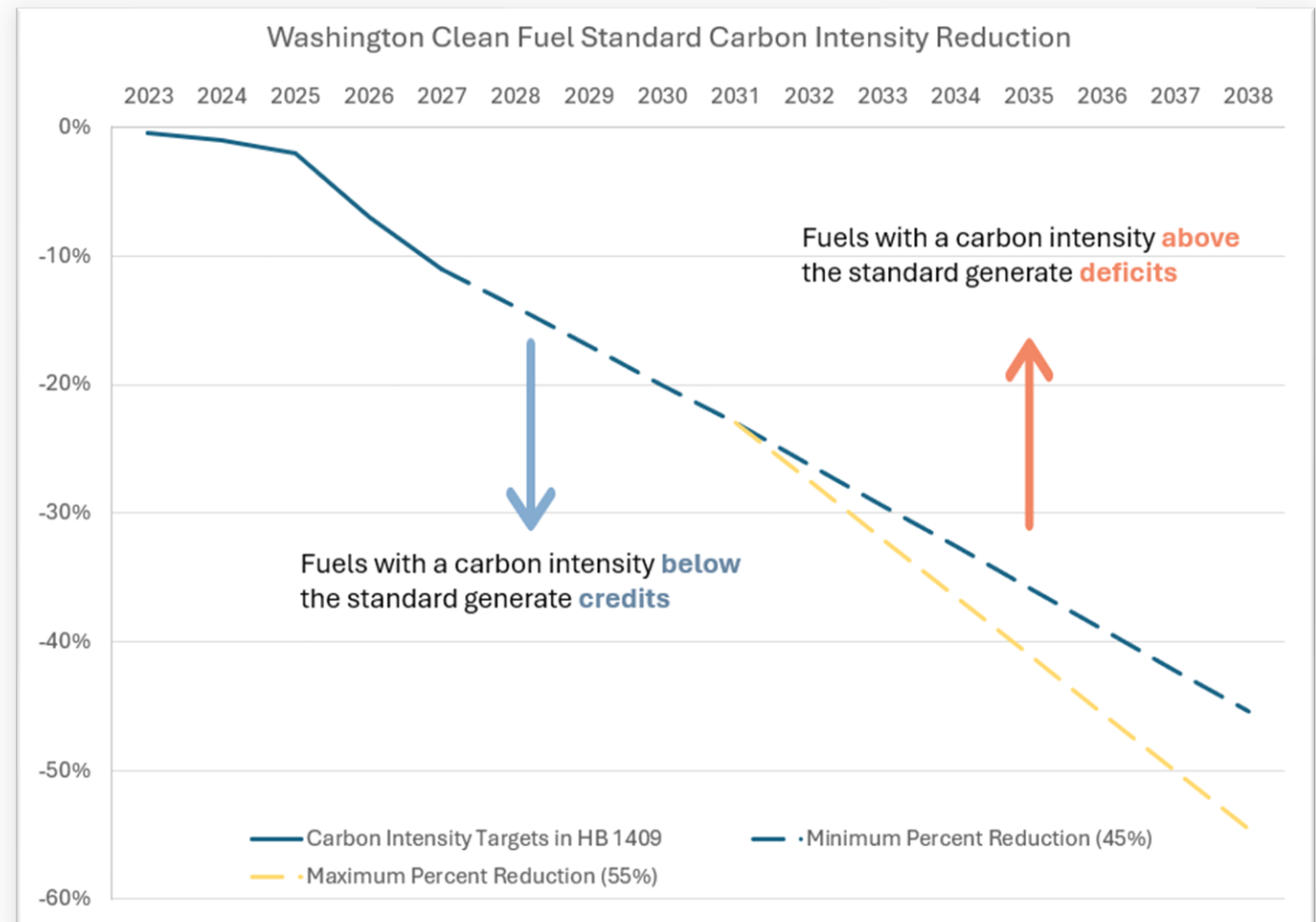
Updates on prior and current rulemakings

# Clean Fuel Standard 101



# Updated carbon intensity standards

- HB 1409 (2025):
  - Amended the CFS's carbon intensity reduction target from 20% to 45% below 2017 levels by 2038.
  - Allows Ecology to increase the reductions to as much as a 55% starting in 2032 if certain conditions are met.



# Upcoming CFS meeting

- Clean Fuel Standard rulemaking meeting on May 27<sup>th</sup> focusing on transportation electrification
- Register online: [WAC 173-424-455 - Washington State Department of Ecology](#)

# Fast-Charging Infrastructure (FCI) Credits

- Often referred to as capacity credits
- 2025 rulemaking made shared depots eligible to earn credits
  - 2+ third-party heavy-duty EV fleets
  - Site security is allowed, but authorized vehicles must have access
  - Required registered equipment training must be accessible to users at no additional cost



# Clean Vehicles Program Rulemaking

# Clean Vehicles rulemaking scope

Ecology is considering rule revisions to keep our motor vehicle emissions standards up-to-date *and* maintain the most protective standards in Washington during federal rollbacks

These revisions update our low-emission vehicle standards for light-, medium-, and heavy-duty vehicles

**Ecology is considering additional fleet reporting requirements to support better utility grid planning and state transportation electrification grant programs**

# Fleet Reporting – 2022/2023

- **Reporting parties:** Fleets/brokers with 5+ medium- and heavy-duty vehicles OR \$50+ million in corporate revenue
  - Tribal fleets are **NOT** required to report
- **Type of information collected:** Number, type, age, location, and operations of vehicles in WA in 2022
- Information is used to understand how Washingtonians **depend on these vehicles** and shape policies that **better support** these businesses.



# Draft rule language: Fleet reporting pt 1

**Authorizing Ecology to collect fleet reporting no more than once every other year**

Expanding to light-duty vehicle fleets of 10 or more vehicles

Reducing information collected to the most useful for grid planning and state grant programs

Ecology must provide six months advance notice for any reporting period

# Draft rule language: Fleet reporting pt 2

Information requested includes ↓↓↓

**For fleet depots:** Address, facility type, if facility is owned or leased, amount and type of vehicle types housed there, & contact information for responsible official.

**For vehicles:** Number of vehicles, vehicle type, model years, fuel type, daily mileage, trips per day, destination types, average annual mileage, & length of ownership.



**ZEVergreen**

# ZEVergreen launch

## Governor Ferguson, Ecology launch ‘ZEVergreen’ to expand access to zero-emission vehicles

September 22, 2025

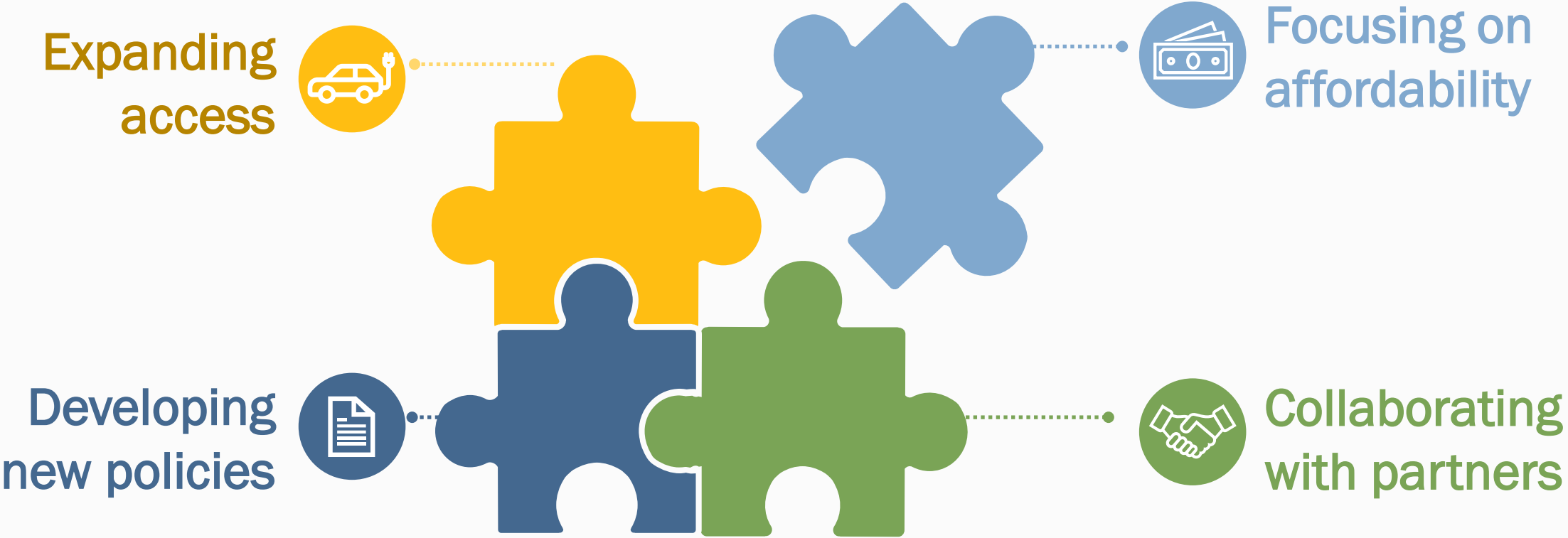
**OLYMPIA** — In response to the Trump Administration cutting off support for zero-emission vehicles, Governor Bob Ferguson and the Washington State Department of Ecology today announced the launch of ZEVergreen, a statewide effort to help Washingtonians save money by expanding access to these vehicles. In 2024, one out of every five new vehicles purchased in Washington was powered by zero-emission technology — one of the highest rates in the nation.

Earlier this year, Congress ended electric vehicle rebates and attempted to strip Washington and other states of their authority to require manufacturers to increase clean vehicle sales. Washington is part of a bipartisan, multistate coalition [fighting that action in court](#). ZEVergreen is designed to explore other tools the state can use to keep moving forward. To that end, Ecology is hosting a series of workshops with industry, utilities, Tribal governments, environmental groups and community groups ahead of the next Legislative session to inform ideas for new policies.

The public is invited to the first meeting on Oct. 27 to get information from Ecology staff and share their feedback and ideas. People can sign up [here](#), or [submit written comments](#) through Oct. 31.

“We know that Washingtonians want these vehicles, and yet the Trump Administration seems intent on keeping people dependent on volatile global oil markets,” Governor Ferguson said. “We’ve made significant investments in expanding access to zero-emission vehicles, and those have paid off. Washington will continue to be a leader.”

# What is ZEVergreen?



# ZEVergreen dialogue questions

- 1 What is the number one action Washington should take to promote clean transportation and/or reduce transportation emissions?
- 2 What kinds of programs, other than financial support, could provide incentive to purchase and operate zero-emission vehicles and equipment?
- 3 What types of programs would you like to see Washington State assess and possibly implement to meet air quality and climate targets for transportation?
- 4 What principles for program design ensure we don't leave communities behind in the transition to zero-emission transportation?

# Example of ZEVergreen participant feedback

- **Concern:** impacts of increased ZEV adoption to state revenue for transportation
- **Strategy identified by participants:** road usage charge



# ZEVergreen: Looking forward

Read the ZEVergreen report when it is released

Defend motor vehicle emission standards in court

Continue rulemaking and regulatory guidance

Work with EV Council to implement strategies where feasible and/or where aligned with the 2024 Transportation Electrification Strategy (TES) recommendations

Work with other states and California on future standards



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# Implementation Priorities

# Implementation Priorities

- Charging/fueling infrastructure planning & deployment
- Grid planning & readiness
- Workforce development
- Driver education & training
- Vehicle affordability & business case for adoption
- Financial incentives and access to capital
- Equity for drivers and communities
- Accelerating vehicle deployment and scaling pilots
- Engaging shippers

*Where can the Collaborative help accelerate implementation and overcome barriers through coordination and problem-solving?*

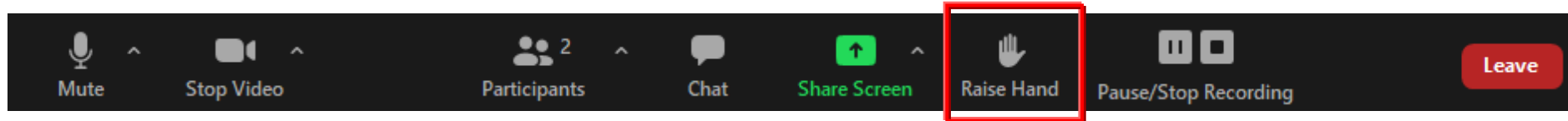


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# Public Comment

# Instructions for Public Comment

- Members of the public that are interested in making 2-minute statements are invited to do so
- To the extent possible, please frame remarks as comments rather than questions
- Please use Zoom to raise your hand if you would like to make a statement, and you will be unmuted





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# Wrap Up and Next Steps

# Wrap Up and Next Steps



- Meeting agenda, materials, and notes on Collaborative website
- Review draft charter and discuss/adopt at next meeting
- Poll next meeting date
  - Tuesday, June 30 (1-4 PM)
  - Thursday, July 9 (1-4PM)
- Topics for next meeting
  - Updates, Round 2: Vehicle technology, utility planning and programs, infrastructure planning, air quality, and federal policy
  - Work planning



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**Thank you!**