

NW Seaport Alliance Puget Sound
Zero-Emission Truck Collaborative

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August 19, 2024



Meeting Objectives

- Discuss port terminal operations and what it would take to implement non-financial operational incentives for ZEVs at and around port terminals
- Discuss the role of shippers in the ZEV transition
- Discuss the process for Collaborative review and refinement of the draft Roadmap
- Review and affirm the Collaborative’s initial thinking about the purpose of “Collaborative 2.0” following the completion of the Roadmap

Roadmap Outline: Today's Focus



1. Introduction
2. Principles
3. Drayage Sector Context
4. Forecasted Transition
5. **Issues & Actionable Recommendations**
6. Funding and Enabling Policy Needs
7. **Roles and Responsibilities**
8. **Ongoing Collaboration and Coordination**
9. Conclusion

Vehicles:

- Non-financial incentives

- Role of shippers in the ZEV transition

- Role of “Collaborative 2.0” in Roadmap implementation

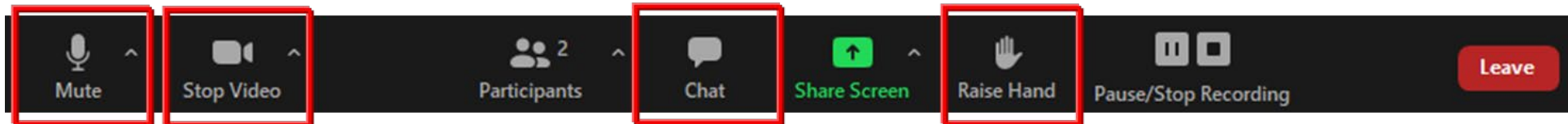
Meeting Agenda



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|---------------|--|
| 9:00 – 9:10 | Welcome and Meeting Overview |
| 9:10 – 9:20 | NWSA Program and Funding Update |
| 9:20 – 10:20 | Non-financial Operational Incentives for ZEVs |
| 10:20 – 10:35 | <i>Break</i> |
| 10:35 – 11:35 | The Role of Shippers in the ZEV Transition |
| 11:35 – 11:50 | Review of Collaborative 2.0 |
| 11:50 – 12:05 | Roadmap Next Steps |
| 12:05 – 12:15 | Public Comment |
| 12:15 – 12:30 | Wrap up and 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
- If needed, update your name and affiliation
- 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

- Those observing the meeting will 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

Meeting Schedule & Materials

About the Collaborative

The transition to zero-emission drayage vehicles serving ports in the Pacific Northwest is a key step to meet zero emission trucking targets adopted in the Northwest Ports Clean Air Strategy while also contributing to city and state decarbonization goals. The multi-stakeholder Puget Sound Zero-Emission Truck Collaborative to develop a roadmap for transitioning to zero-emission drayage services at the Puget Sound region marine cargo terminals no later than 2050. The Collaborative will meet approximately every other month for half-day meetings between June 2023 and December 2024. Most of these meetings will be virtual but some may be in-person meetings that will include site visits and/or listening sessions. This website will be updated with relevant materials for each of these meetings.

Meeting Schedule and Materials

Meeting 1: June 30, 2023

The purpose of this first meeting is to introduce members of the Collaborative and create a shared understanding of project context, background, and objectives and proposed process for the Collaborative. Members will discuss and affirm Roadmap principles and Collaborative purpose, as well as the Collaborative charter and operating guidelines.

[Meeting Agenda](#) [Draft Charter](#) [Collaborative Members](#) [Collaborative and Roadmap Scoping Document](#)

Meeting dates and materials will be posted for future meetings as available.

Quick Ice Breaker



What are you going to squeeze into the last few weeks of summer?

- Please chat in



NWSA Program and Funding Update



Non-financial Operational Incentives for ZEVs



Non-financial Operational Incentives for ZEVs



Moderator: Dennis McLerran, Cascadia Law Group

Panelists:

- Tamara Benson-Kulp and Meghan Weinman, SSA Marine
- Ryan Lucido, Husky Terminal

Closing Remarks: Jeff Bellerud, Chief Operating Officer, NWSA

Break (resume at 10:45)



The Role of Shippers in the ZEV Transition



The Role of Shippers in the ZEV Transition



Moderator: Patrick Couch, GNA

Guest: Stephen Weinberg, Sustainability Leader, IKEA

Puget Sound Zero-Emission Truck Collaborative

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SUPPORTING

[DOING]

LEADING

Hight Logistics

- Mid-size drayage fleet
 - ~50 trucks
 - Facility within 10 miles of the ports, mostly handling short runs
- Early partner with Forum Mobility
- Has deployed 10 EVs
- Will have 20 EVs by the end of 2024, and another 10 in 2025
- Initial motivation – compliance with regulations
- Key enablers
 - Incentives to cover ~90% of the cost of the trucks
 - Infrastructure solutions/partners (Forum Mobility, TEC)
- Announced opportunities
 - Lime partnering to move about 300 cans (about 50% of volume) per year based on ZE fleet and Lime’s ESG commitments



Performance Team

- Large multi-state warehousing and distribution company, acquired by Maersk
- ~100 electric trucks in the fleet, with 200 additional units planned through 2025
- Near-dock facility (Commerce, CA)
- Facility owned by Prologis, who served as the infrastructure development partner for a large EVSE project
 - 96 DC fast chargers (9 MW total charging capacity)
 - 18 MWh battery storage
 - 2.75 MW of onsite generation (linear generators)
- Significantly subsidized infrastructure project
- Microgrid necessary to address utility upgrade costs and timelines



Additional Examples

- **WattEV**
 - Providing ZE freight transport for Proctor & Gamble for two years with ~20 trucks
 - Plans to expand to nearly 200 trucks in the coming year
 - Has been very successful in securing incentive funding, acting as both an infrastructure developer and logistics fleet operator
- **Amazon**
 - Recently announced deployment of 50 electric trucks for drayage in SoCal
 - Part of their owned fleet
 - Unclear how much has been motivated by regulations, TCO, or ESG goals
- **IMC**
 - Deploying 50 Nikola FCEV through the end of 2024
 - Significant incentives from HVIP
 - Noted both ESG and regulation as drivers for the deployments
- **JB Hunt**
 - Deploying ZE trucks to meet California regulations
 - CEO noted at ACT Expo that while there is great interest from shippers in ZE, few are willing to pay for it

Thanks!



Call Us:

Patrick Couch
310.279.9150



Email Us:

pcouch@trccompanies.com



Visit Us:

TRCcompanies.com

Review of “Collaborative 2.0”



Collaborative 2.0 Purpose (1 of 2)



1. Track and learn from ongoing implementation, especially:

- Regional pilot projects for vehicles and infrastructure
- Market development for used and new ZEVs
- Implementation and impact of vehicle incentive and financing programs (e.g., state, NWSA)
- Regional public, utility, and private sector investment in EV charging and fueling infrastructure
- Siting and design of infrastructure and fueling network

2. Continue to inform ZEV transition in specific areas:

- Secondary market development
- Siting needs, location, type, and design
- NWSA incentive and other program design
- Workforce development and economic opportunity

3. Advise on optimal use of grant and other resources coming into the region to implement Roadmap

Collaborative 2.0 Purpose (2 of 2)

4. Advise on and advocate for supporting state/federal funding and policy for ZEV transition
5. Continue to be a collaborative forum for:
 - Cross-sector dialogue and collaboration
 - Community, environmental justice, and driver engagement
 - Private sector engagement (OEMs, dealers, infrastructure, trucking-as-a service, unions)
6. Monitor emerging issues and identify areas for research and solutions development
7. Update Roadmap recommended actions based on sector development and learning

Collaborative 2.0 Updated Membership/Participation



- Drayage drivers
- OEMs, dealers, and leasing companies
- Charging providers and Trucking-as-a-service firms
- Policy experts (including air quality)
- Kent/Auburn representatives
- Workforce development

- *Will need to optimize breadth and size*

Collaborative 2.0 Outreach and Engagement



- Increase community engagement-focused events or outreach to give environmental justice communities impacted by this transition the ability to learn and contribute
- Create a drayage driver group/forum that can provide direct insights on process and help drivers effectively acquire ZEV trucks
- Continue to center BIPOC/low-income truck drivers and impacted communities in Collaborative discussions

Roadmap Next Steps



Roadmap Review and Revision Process

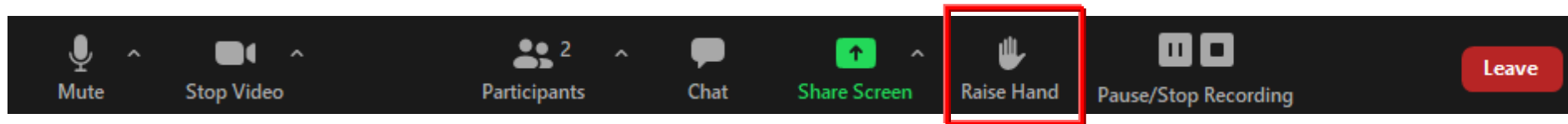
- Share initial draft (early September)
- Convene small groups to review/refine sections
 - Vehicles (Sept 10, 3:00-5:00 PM)
 - Equity (Sept 16, 2:00-4:00 PM)
 - Infrastructure (Oct 3, 2:00-4:00 PM)
- Discuss revisions suggested by small groups at October meeting (Oct 17)
- Driver and community review of revised draft (Oct-Nov)
- Finalize Roadmap at December meeting (Dec 12)
- Release Roadmap by end of year

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



Next Steps



Next Steps

- Meeting summary, slides and materials will be posted on website
- Small groups meeting in September/October
- Next full Collaborative meeting: October 17, 9:00 AM – 12:30 PM