

Puget Sound Zero-Emission Truck Collaborative

Meeting Summary | June 4, 2024

Attendees

- **Collaborative Members:** Aaron August (Puget Sound Energy), Mia Ayala-Marshall (Duwamish River Community Coalition), Sheri Call (Washington Trucking Associations), Mary Cho (Puget Sound Clean Air Agency), Logan Danzek (Communities for a Healthy Bay), Peter Gishuru (African Chamber of Commerce of the Pacific Northwest), Josh Grandbouche (Department of Ecology), Jim Jensen (WSU Green Transportation Program), Colin Lay (Kenworth/PACCAR), Dan Marshall (Tacoma Public Utilities), Betz Mayer (PNWER), Leah Missik (Climate Solutions), George Mitchell (Mercer Logistics), Steve Nicholas (Northwest Seaport Alliance; *Alternate: Nicola Graham*), Angela Song (Seattle City Light), Margaret Sonnen, (Tri Pak, Inc.), Marcos Wanless (Latino Metropolitan Chamber of Commerce), Tracey Whitten (City of Seattle)
- **Dealer/OEM Panel:** Logan Andrew (Volvo Truck), Danny Mirts (Volvo Truck), T.J. Daniel (Daimler), T.J. Reed (Daimler), Paul Rosa (Penske), Scott Coleman (TEC)
- **Project Team:** Tom Beierle (Ross Strategic), Heather Christopher (Ross Strategic), Dennis McLerran (Cascadia Law Group), Tania Park (Port of Seattle), Kate Nolan (Northwest Seaport Alliance), Patrick Couch (GNA), Erik Neandross (GNA)

Meeting Overview

This eighth Collaborative meeting was held virtually on June 4th, 1:00 – 4:15pm Pacific. The objectives of this meeting were to:

- Understand opportunities and constraints for dealers and OEMs selling used and new zero-emission trucks and explore solutions for providing access to these vehicles for drayage fleets and independent owner operators
- Hear insights from Act Expo about the potential role of shippers in the ZEV transition
- Begin to scope purpose and membership for “Collaborative 2.0” for 2025 and beyond
- Review and affirm initial draft recommendations on vehicle incentive programs and hydrogen (from April meeting)

Meeting materials and presentation slides can be found on the [Zero Emission Truck Collaborative webpage](#).

Opening

Tom Beierle (facilitator, Ross Strategic) reviewed the objectives and agenda for the meeting. New Collaborative member Josh Grandbouche (Department of Ecology) introduced himself.

The Role of Dealers and OEMs in Accelerating Adoption of New and Used ZEV Trucks for Drayage: Moderated Panel

Moderated panel discussion and Q&A

Logan Andrew (Volvo Truck), Danny Mirts (Volvo Truck), T.J. Daniel (Daimler), T.J. Reed (Daimler), Paul Rosa (Penske), and Scott Coleman (TEC) shared their insights on the role of dealers and OEMs in accelerating adoption of new and used zero-emission vehicle (ZEV) trucks for drayage. Erik Neandross (GNA) moderated the conversation and began with a set of prepared questions before opening up the discussion to Q&A with Collaborative members.

Key items from the discussion:

- **Secondary market for used ZEV trucks:**
 - Panelists highlighted the important role of a secondary market in accelerating the adoption of ZEV trucks within the drayage sector. They discussed how a robust secondary market for used ZEV trucks would alleviate upfront costs for fleet operators and lead to widespread adoption.
 - Panelists emphasized that a successful secondary market would make ZEV trucks more accessible to small/medium-sized companies and independent owner-operators.
 - Panelists noted that a secondary market for used ZEV trucks would broaden the pool of potential buyers, including those with budgetary constraints or risk aversion towards investing in new, unproven technologies.
 - Panelists highlighted the environmental benefits inherent in creating a secondary market for used ZEV trucks. By extending the operational lifespan of ZEV trucks, the secondary market would lead to greater greenhouse gas emission reductions.
 - Panelists emphasized that a well-established secondary market would instill confidence among fleet operators and investors regarding the long-term viability and residual value of ZEV trucks. This confidence is crucial in incentivizing initial investments in ZEV technology and fostering adoption, innovation, and market growth.
- **Characteristics of the drayage market that are appealing or challenging for dealers/OEMs:**
 - Panelists highlighted several appealing characteristics of ZEV trucks for the drayage market, including the high demand for transportation services driven by port activities, the proximity of fleets to charging infrastructure, and the potential for frequent, short-haul trips that align with the range capabilities of electric vehicles.
 - Panelists noted that the drayage market is characterized by a high-intensity operational profile, with trucks often traveling short distances between ports, rail yards, and distribution centers. This operational pattern presents both opportunities and challenges for ZEV adoption, as short-haul routes are well-suited for electric vehicles. However, the nature of drayage operations requires robust infrastructure, reliable charging solutions, and optimized vehicle performance to support ZEV trucks.
 - Panelists discussed the unique vehicle utilization patterns of the drayage sector, where trucks often operate in cyclical or round-the-clock schedules to meet fluctuating demand patterns and operational requirements. Panelists emphasized the importance of designing ZEV solutions that

- align with these usage patterns, such as ensuring sufficient range and rapid charging capabilities, to support continuous operation without impacting productivity.
- Panelists underscored the significance of total cost of ownership (TCO) considerations for the drayage sector, where fleet operators prioritize cost-effectiveness, reliability, and operational efficiency when evaluating vehicle options. While ZEV trucks offer potential long-term savings through reduced fuel and maintenance costs, upfront costs and infrastructure investments remain key considerations for fleet operators. Beyond large fleets, the drayage market consists of many small companies and independent owner-operators who typically purchase at the low end of the used vehicle market.
 - Panelists emphasized the importance of understanding customer preferences and operational requirements within the drayage market. Customization options and fleet management tools would enable dealerships and OEMs to accommodate the diverse needs of the drayage sector.
- ***Role of dealers in accelerating ZEV adoption:***
 - Panelists discussed the role of dealerships in accelerating the adoption of ZEV drayage trucks, noting that dealerships serve as key intermediaries between OEMs, fleet operators, and end-users.
 - Panelists highlighted the role of dealerships in raising awareness and educating customers about the benefits, features, and operational considerations of ZEV trucks. Panelists noted that hosting test drive events and product demonstrations can familiarize fleet operators with ZEV technologies.
 - Panelists emphasized the importance of dealerships in driving ZEV sales and distribution channels, leveraging their established networks, customer relationships, and marketing capabilities to promote electric and hydrogen-powered trucks.
 - Panelists highlighted the role of dealerships in providing after-sales support and maintenance services for ZEV trucks. Dealerships play a critical role in ensuring vehicle uptime, reliability, and maintenance services.
 - Panelists shared that dealerships play a crucial role in facilitating vehicle financing, bundling financial incentives, and offering leasing options to fleet operators interested in transitioning to ZEVs.
 - Panelists noted that dealerships can play a proactive role in advocating for infrastructure investments, collaborating with utilities, and facilitating the installation of charging stations at strategic locations.
 - Panelists also shared that dealerships can serve as valuable channels for customer engagement, gathering feedback, and incorporating user insights into product development and improvements.
 - ***Incentives or programs to encourage dealers/OEMs to advance new and used ZEV truck sales:***
 - Panelists identified several key incentives and programs that could facilitate the acceleration of ZEV truck sales in Washington. These included tax credits or rebates for ZEV purchases, grants or

- subsidies for infrastructure development, and funding for workforce training and education in electric vehicle technology.
- Panelists noted that the proposed point-of-sale rebates on their own are unlikely to bring new and used ZEVs to a price point for most drayage customers, emphasizing that rebates need to be stackable with other incentives.
 - Panelists discussed the importance of implementing vehicle purchase and lease programs tailored to the needs of drayage operators. These programs may involve flexible financing options, favorable leasing terms, and reduced interest rates for ZEV trucks.
 - Panelists highlighted the importance of fostering public-private partnerships to advance ZEV adoption and infrastructure development. These partnerships bring together government agencies, industry stakeholders, and technology providers to collaborate on joint initiatives, pilot projects, and demonstration programs.

Insights From ACT Expo About the Role of Shippers in Incentivizing Drayage Fleet Transition to Zero-emission Vehicles

Patrick Couch (GNA) shared insights and takeaways from the ACT Expo meeting, describing the dynamics between shippers and carriers in the context of decarbonization and sustainability goals. Patrick outlined three broad strategies employed by shippers to reduce emissions and enhance sustainability:

- **Operational improvements:** Shippers focus on enhancing operational efficiency and reducing vehicle miles traveled.
- **Optimization of carrier relationships:** Shippers collaborate with carriers to optimize container/trailer fill rates and implement fuel-efficient routing strategies.
- **Adopt new technologies:** Shippers adopt new technologies such as electrification and hydrogen, which involves substantial investments and poses implementation challenges.

Patrick emphasized the need for collaboration between shippers and carriers to achieve climate goals. He highlighted the importance of co-investment strategies and alignment of efforts between stakeholders, such as drayage market participants, OEMs, dealers, and infrastructure providers. Patrick noted the reluctance of shippers to bear the cost of zero-emission technologies without certainty of utilization and economic viability.

Key items from the discussion:

- One participant expressed support for market-based actions and emphasized the importance of understanding shippers' sustainability goals and strategies for implementation. They questioned whether current incentives are sufficient to drive the transition to ZEVs, especially considering the high costs involved.
- One participant highlighted the high taxes and licensing fees imposed on ZEVs, making them economically challenging.
- Another participant shared that an [ICCT report](#) forecasts cost parity between electric and diesel vehicles by 2030 and emphasized the importance of shippers bearing the cost or being willing to pay for the transition.

- Another participant emphasized the financial challenges faced by drayage operators, particularly small businesses, in meeting climate targets along with the pressure to lower rates. They emphasized the need for realistic expectations regarding the costs and incentives associated with ZEV adoption.
- One participant highlighted the important role of a secondary market and questioned if shippers have been engaged in discussions about making ZEV adoption financially viable through lower entry costs. They suggested exploring the potential for modest premium payments for clean transportation and creating incentives for shippers to pass on to carriers.

Initial Scoping of “Collaborative 2.0”

Steve Nicholas (NWSA) discussed ongoing grant funding and the value of continuing the Collaborative beyond 2024. He mentioned that NWSA has secured two Federal Highway Administration grants, one for charging and fueling infrastructure and the other for reducing truck emissions at port facilities. These grants include funding for the Collaborative over the next couple of years. NWSA has also incorporated funding for the Collaborative into two larger grant proposals: the Climate Pollution Reduction Grant (CPRG) program and the Clean Ports Program.

Collaborative members were invited to brainstorm around the following questions via a virtual whiteboard:

- *What ongoing role should the Collaborative play to support Roadmap implementation in 2025 and beyond?*
- *What adjustments to membership should we make to optimally fulfill a future role for the Collaborative?*

Collaborative members were given 5-7 minutes to add their responses to each question via the virtual whiteboard. The whiteboard included a “star” feature, where participants could add stars to suggestions they supported. Key themes identified through the brainstorming session, in order of priority based on the number of stars, are summarized below:

- **Ongoing role for the Collaborative:**
 - Facilitate active dialogue between drayage market participants, policymakers, utilities, OEMs/dealers, and other stakeholders to discuss the realities, challenges, and opportunities for ZEV trucks in the drayage sector (7 stars)
 - Joint advocacy for state/federal funding, incentives, and policy development related to ZEV drayage (4 stars)
 - Educate target industry segments (4 stars)
 - Provide advisory role on impacts of policy decisions and roadmap recommendations, specifically economic and environmental health impacts on drivers and communities (3 stars)
 - Foster engagement with environmental justice communities and drivers to minimize transition harms (3 stars)
 - Collaborative hub to learn from each other, share ideas, updates, etc. (3 stars)
 - Help identify critical infrastructure needs and help to support and encourage utility and third-party engagement to fill these needs (3 stars)
 - Identify emerging problems and areas to research (3 stars)

- **Adjustments to membership:**
 - Include drayage drivers (4 stars)
 - Increase community engagement-focused events or outreach to give environmental justice communities impacted by this transition the ability to learn and contribute (4 stars)
 - Include OEMs, dealers, and leasing companies (4 stars)
 - Include charging providers (3 stars)
 - Include policy experts (3 stars)
 - Expand Collaborative's reach beyond Seattle/Tacoma to include areas like Kent and Auburn (3 stars)
 - Create a drayage driver group/forum that can provide direct insights on process and help drivers effectively acquire ZEV trucks (3 stars)
 - Continue to center BIPOC/low-income truck drivers and impacted communities in Collaborative discussions (2 stars)
 - Incorporate workforce development representation (2 stars)
 - Retain utility involvement (1 star)
 - Include trucking-as-a-service firms (1 star)
 - Include air quality experts (1 star)

Draft Recommendations Review: Vehicle Incentive Programs and Hydrogen

Tom reviewed the draft recommendations related to vehicle incentive program design and hydrogen, coming out of the April Collaborative meeting and Vehicle Affordability and Access Subgroup meeting ([see meeting slides 19-24](#)).

Key items from the discussion:

- One participant raised a point about potential income tax penalties for incentive recipients, which might dilute the overall purchasing power of the incentives. They suggested that this information should be communicated upfront or considered in the incentive amount.
- One participant shared insight from a project with the City of Seattle, highlighting the importance of engaging drivers and offering incentives for their participation. They emphasized the challenges drivers face and the need to consider their input for the success of initiatives.
 - Another participant suggested providing clear feedback mechanisms for drivers. They also highlighted the importance of addressing other challenges beyond ZEV trucks, such as parking, during the engagement process.
- One participant emphasized the importance of being fuel-neutral and suggested that if the Collaborative aims for fuel neutrality, it should equally lean into the specific strengths of battery electric vehicles over hydrogen in certain applications. They proposed using clear language such as "require" instead of "emphasize" when discussing the use of green hydrogen, noting that the Washington statute calls for electrolytic green hydrogen.
 - Another participant suggested focusing on low carbon hydrogen rather than solely on green hydrogen, advocating for a measure of carbon intensity to determine the environmental impact of hydrogen production methods.
- One participant raised concern about overburdening marginalized communities with hydrogen-related infrastructure development, urging for openness and transparency of the associated impacts.

Public Comment

No public comments.

Wrap up and Adjourn

Tom Beierle reviewed next steps coming out of this meeting, noting that a summary of today's meeting and all materials will be posted on the website. The *Vehicle Affordability and Access* Subgroup will meet on June 13th to process information coming out of today's Collaborative meeting.

The next full group meeting is planned for Monday, August 19th.