

Puget Sound Zero-Emission Truck Collaborative

Meeting Summary | March 27, 2024

Attendees

- **Collaborative Members:** Sheri Call (Washington Trucking Associations), Logan Danzek (Communities for a Healthy Bay), Jamie Hearn (Duwamish River Community Coalition; *Alternate: Mia Ayala-Marshall*), Steven Hershkowitz (WA Department of Commerce), Jim Jensen (WSU), Colin Lay (Kenworth), David Logsdon (Seattle City Light), Michael Mann (Clean and Prosperous Washington), Dan Marshall (Tacoma Public Utilities), Betz Mayer (PNWER), George Mitchell (Mercer Logistics), Steve Nicholas (Northwest Seaport Alliance; *Alternate: Nicola Graham*), Clarisse Reiter (IKEA), Margaret Sonnen, (Tri Pak, Inc.), Tracey Whitten (City of Seattle), Marcos Wanless (Latino Metropolitan Chamber of Commerce), Keith Weir (IBEW 46), Paul Williams (Suquamish Tribe)
- **Tetra Tech:** Rodrigo Gonzalez-Abraham, Monica Wright
- **Project Team:** Tom Beierle (Ross Strategic), Heather Christopher (Ross Strategic), Dennis McLerran (Cascadia Law Group), Tania Park (Port of Seattle), Consuelo Davis (Stepherson & Associates), Natalie Graves (Stepherson & Associates), Kate Nolan (Northwest Seaport Alliance), Patrick Couch (GNA)

Meeting Overview

This sixth Collaborative meeting was held virtually on March 27th, 1:00 – 4:00pm Pacific. The objectives of this meeting were to:

- Share information about recent legislative session, grant proposals, and federal initiatives
- Review and affirm initial draft recommendations on utility planning and infrastructure (from January meeting)
- Understand and discuss key takeaways from recent driver and community outreach activities
- Hear about Tetra Tech drayage characterization study and discuss implications for Roadmap

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 and led introductions for two new Collaborative members: Jamie Hearn (Duwamish River Community Coalition) and Dan Marshall (Tacoma Public Utilities).

Quick Funding and Policy Updates

State legislative session recap

Michael Mann (Clean and Prosperous Washington) provided an overview of recent legislative actions, focusing on the allocation of Climate Commitment Act (CCA) revenue. He highlighted the significant funding allocation of \$120 million for the medium- and heavy-duty vehicle incentive program. Within this allocation, \$20 million was designated for school buses, while the remaining \$100 million was earmarked for vehicle purchase and incentive rebates. Michael emphasized the importance of this funding for incentivizing the transition to zero-emission vehicles and highlighted the program's robust incentives, including up to \$120,000 for Class 8 vehicles. He also mentioned the need for additional staffing and an upcoming RFP to facilitate program implementation.

Grant awards and proposals for zero-emission drayage

Steve Nicholas (Northwest Seaport Alliance) provided updates on grant awards and proposals related to zero-emission drayage. He announced that approximately \$21 million had been secured from state and federal sources to support the transition to zero-emission drayage. This included a \$2.8 million Congestion Mitigation and Air Quality (CMAQ) grant from the Federal Highway Administration and a \$12 million charging and fueling infrastructure grant. Additionally, \$6.3 million in CCA funds from the state's biennial transportation budget had been allocated. NWSA has an additional \$16 million in federal grant funding that's pending. Steve outlined upcoming federal funding opportunities, including the Climate Pollution Reduction Grant (CPRG) program and the EPA Clean Ports Program. NWSA aims to have a \$100 million program by the end of this year to support the transition to zero-emission drayage.

National ZEV Corridor Strategy

Dennis McLerran (Cascadia Law Group) gave an overview of the [National Zero Emission Freight Corridor Strategy](#), highlighting its significance and alignment with the work of this Collaborative. The strategy, developed by the US Department of Energy and other federal agencies, aims to achieve at least 30% zero-emission medium and heavy-duty vehicle sales by 2030, with a goal of 100% by 2040. Dennis reviewed the strategy's four-phased hub and corridor approach ([slide 11](#)) and noted that Washington's identified freight hubs are well-positioned under this strategy document. Dennis highlighted the strategy's role in guiding Bipartisan Infrastructure Law and IRA investments, in addition to its potential to support grant applications for the Clean Ports Program and other federal transportation planning initiatives.

Draft Recommendation Review: Utility Planning & Infrastructure

Tom reviewed the draft recommendations related to utility planning and charging/fueling infrastructure, coming out of the January Collaborative meeting and Funding/Financing and Charging/Fueling Infrastructure Subgroup meeting. See meeting [slides 12-16](#).

Key items from the discussion:

- David Logsdon (Seattle City Light) emphasized the need for increased proactivity in utility management, particularly around future demands for charging infrastructure. He highlighted the significance of iterative planning for EV charging depots, where plans are refined based on anticipated capacity needs for truck charging in the near to medium term. David also highlighted the necessity for utility infrastructures to evolve and possibly be rebuilt to support long-term growth. David acknowledged

substantial load growth in the Pacific Northwest, driven by electrification and the expansion of AI data centers, emphasizing the need for long-term capacity planning beyond traditional infrastructure to include distributed energy resources like battery deployments.

Driver and Community Outreach

Consuelo Davis (Stepherson & Associates) reviewed the goals of driver and community engagement, as well as the engagement tools that were used. Consuelo gave an overview of S&A's engagements with near-port community groups, including the Climate Alliance of the South Sound, the South Park Neighborhood Association, and Georgetown Community Council, and reviewed high-level feedback that was shared. See meeting [slides 20-26](#).

The engagement team noted that drivers were knowledgeable about natural gas and biofuels and suggested incorporating these alternative fuels into the roadmap. Drivers also recommended expanding project funding to include revenues from the Port of Seattle, alongside state and federal funding. Drivers emphasized the need to both reduce truck traffic while supporting small business truck drivers in the South Harbor and Georgetown communities.

Key items from the discussion:

- Steve Nicholas noted that the NWSA is exploring renewable diesel due to its growing availability and affordability, partly influenced by clean fuel standards. The port is transitioning its vehicles and equipment to renewable diesel and planning to engage with marine terminal operators and drayage companies to promote this change.
- Betz Mayer (PNWER) noted that the stakeholder engagement process for the JTC study revealed a strong preference for drop-in fuels, although this preference challenges the objective of designing an incentive program focused on long-term zero-emission goals rather than short-term emissions reduction.
- One participant noted that a significant drayage operator has switched from electric to hydrogen trucks, highlighting the evolving nature of alternative fuel choices and their implications for the secondary market of used electric trucks.
- Participants raised concerns about the current state of the trucking industry, with fluctuations in work availability potentially influencing truckers' economic stability and their capacity to transition to cleaner vehicles. Participants also discussed market dynamics, with COVID-19 having caused shifts in freight movement, affecting the economic environment for truckers.

Natalie Graves (Stepherson & Associates) provided a debrief of two truck driver listening sessions that were conducted in February, one at the Port of Seattle and the other at Port of Tacoma. The purpose was to understand truck drivers' perspectives on the transition to zero-emission trucks. Around 20 truck drivers attended, mostly independent owner-operators, with some associated with larger fleet operators. Sessions were held in person, with facilitators leading discussions in a relaxed setting, allowing for direct conversation. Trucker feedback covered various areas, including their awareness of zero-emission trucks, perceived benefits and challenges of the transition, needs for transitioning, and ideas to facilitate the process. See meeting [slides 27-29](#).

Key items from the discussion:

- One participant commented on the significance of the independent contractor model within the trucking industry, especially in light of recent legislative changes in California, such as Assembly Bill 5, which supports classifying independent contractors as employees. This has been a contentious issue, particularly affecting owner-operators who are critical to the industry's ability to manage the cyclical nature of freight demand.
- Kate Nolan (NWSA) attended both listening sessions and noted that drivers expressed significant interest in hearing about these trucks from drivers who have actual experience with them. Participants in the listening sessions expressed a reluctance to be the first to adopt new technologies due to the risks associated with being early users. They prefer larger trucking companies to lead the way, not just for financial reasons but to mitigate these risks, given larger firms' better capacity to manage potential issues with new technology.

Kate and Nicola Graham (NWSA) reviewed the results of an online survey conducted to gather data on truck drivers in the North and South Harbors (slide 30). The survey was distributed during trucker appreciation events and through various communication channels, resulting in 129 responses. This survey aimed to inform multiple initiatives at the Northwest Seaport Alliance, such as programming for truckers and analysis on parking and driving habits. Key findings highlighted the diversity of the trucker community, particularly in terms of race and language, with many drivers not speaking English as their first language. The survey also sought to understand respondents' operations, like fleet size and parking habits, and results emphasized the need for charging infrastructure at company yards. Kate and Nicola noted the survey's limitations, including its availability only in English, which may have influenced the demographics of the respondents. Future efforts aim to include more languages and consider literacy levels to ensure inclusivity and better support for truckers, especially in accessing new resources and programs.

Drayage Characterization Study

Monica Wright and Rodrigo Gonzalez-Abraham from Tetra Tech presented their study on drayage vehicle movement and potential infrastructure needs for zero-emission drayage trucks. The presentation covered the methodology and findings from the study, acknowledging the lack of comprehensive data due to the unavailability of trackers on all drayage trucks. The study utilized data from a company called Streetlight to analyze route trends, drayage behaviors, and dwell locations to suggest potential infrastructure development areas. The analysis aimed to enhance understanding of where trucks go, work, and stop long enough for potential charging. It involved a tiered analysis of truck behaviors, focusing on regional traffic patterns and port-to-port movements to determine critical locations for ZEV infrastructure. The study identified specific regions and traffic patterns, suggesting where infrastructure could be most beneficial. Monica and Rodrigo highlighted the need for overlaying utility data to identify viable locations for charging stations and underscored the importance of collaboration across the logistics value chain to select optimal sites for infrastructure development. See meeting slides 34-59.

Key items from the discussion:

- One participant asked whether the current data is robust enough to inform about the potential of dwell locations for establishing charging infrastructure within port terminals. Drivers have indicated interest in integrating charging infrastructure into terminal operations, potentially affecting truck lanes designated for zero-emission vehicles.

- Rodrigo acknowledged a data gap in the study, particularly concerning the detailed analysis of dwell behavior, which includes understanding the duration trucks stay at a particular location and their activities during this time. He suggested that a more granular study is needed for a deeper understanding of these behaviors, which would inform better where to place charging stations.
- Monica added that the study's findings could help design engagement sessions with truckers, where they could provide input on their parking and charging preferences. This approach would also help identify safety and security needs for charging locations. However, she noted that planning a comprehensive regional strategy might be premature based on the current data and that further detailed analysis is necessary to develop a more informed infrastructure placement strategy.
- George Mitchell (Mercer Logistics) emphasized the importance of understanding the specific drayage operations around major importers in areas like Sumner, noting significant activity from large distributors like Target and Green Mountain Coffee. He suggested engaging directly with these major importers to provide more detailed insights into the volume and patterns of drayage operations.
- Margaret Sonnen (Tri Pack, Inc.) affirmed that the study aligns with her twenty years of experience in the corridor. Margaret noted that the dwelling data could significantly inform optimal locations for charging stations. She emphasized the importance of understanding the practical aspects of truck routes, dwell times, and charging needs, especially during slower terminal operations. Margaret also highlighted the importance of analyzing volumes from major importers in the Sumner area to refine infrastructure planning.
- Nicola Graham (NWSA) added that the study confirms well-known industry patterns, providing tangible evidence that can inform broader discussions and planning, especially in contexts like federal grant applications. She highlighted the need for inclusive community engagement in planning processes, noting that communities like Sumner are highly impacted and should have input in the roadmap.
- Patrick Couch (GNA) emphasized the value of the data in confirming or challenging assumptions for where charging infrastructure should go. He suggested that early deployments should be incentivized and supported by grant-funded projects, noting the importance of installing infrastructure near ports and along key corridors. He acknowledged the uncertainty about the optimal locations for charging stations but highlighted the need to take initial steps without being hindered by the fear of imperfection.
- Sheri Call (WTA) raised the concept of a charging hub where drivers can park their electric trucks and switch to a passenger vehicle for the day. Sheri suggested that this could provide valuable data on vehicle operations and reveal potential challenges or resistance from drivers, especially if their business requires long-distance travel outside the hub's range.
- David Logsdon (Seattle City Light) shared that the data presented validates his own expectations and aligns with findings from other studies, like those conducted by the Electric Power Research Institute and the [West Coast Clean Transit Corridor Initiative](#). David noted that the locations identified for early charging infrastructure, especially in Tukwila and around Tacoma, are key points along the I-5 corridor, suggesting that these sites will serve not only drayage but potentially long-haul trucking as well.

Breakout Session Discussion of Drayage Characterization Study

In this session, Collaborative members were divided into two breakout groups to discuss the following questions:

- *What does the drayage study suggest about the type and location of infrastructure needed to start supporting the ZEV transition in the near term (3-5 years)?*
- *What further questions do you have? Where should we do more analysis?*

Key items from the breakout sessions, synthesized across the two groups, are listed below.

- **Real estate and utility availability:** The need to integrate real estate and utility data into planning for charging infrastructure, acknowledging that some locations may be utility-deficient while others are well-suited for development.
- **Driver experience and confidence:** The importance of establishing near-term charging infrastructure to build confidence among potential ZEV purchasers, emphasizing the need to start somewhere despite uncertainties.
- **Incentives and policies:** The role of incentives, such as utilization credits, in promoting infrastructure development and ZEV adoption, and learning from other regions like California to avoid potential pitfalls. Participants also discussed tailoring clean fuel standards to support fast-charging infrastructure, suggesting a system where credits support infrastructure build-out until a certain utilization threshold is met.
- **Security and accessibility:** Addressing concerns about the security and accessibility of charging stations, particularly for third-party depots, to ensure reliability and convenience for users. Engaging private real estate and trucking companies in hosting infrastructure could provide additional security and reliability benefits.
- **Diverse business models:** Importance of diverse business models to test different approaches to infrastructure and service provision, catering to various fleet sizes and types.
- **Community engagement and coordination:** Participants discussed community benefit plans and highlighted the need to align various programs and projects to avoid conflicting demands on local resources.
- **Engaging cargo owners:** Importance of engaging beneficial cargo owners to drive demand for ZEVs, as their commitment could be pivotal in accelerating the transition.
- **Fleet size:** Participants discussed the financial implications for smaller versus larger fleets, noting that larger fleets might be better positioned to lead in early adoption due to their resources and infrastructure.
- **Criteria for "no regret" sites:** There's interest in developing criteria to identify strategic locations for early infrastructure development, considering factors like strategic location, power availability, community acceptance, and security.

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 *Equitable Transition* and *Charging/Fueling Infrastructure* Subgroups will meet on April 4th to process information coming out of today's Collaborative meeting.

The next full group meeting is planned for Monday, April 29th.