Puget Sound Zero-Emission Truck Collaborative

Meeting Summary | July 9, 2026

Attendees

- **Collaborative Members:** Alma Pacheco (Zeem), Betz Mayer (CALSTART), Brad James (WSU Green Transportation Program), Dan Marshall (Tacoma Public Utilities), Emily Pinckney (Breaking Barriers Collaborative; *Alternate: Steven Alaman*), Heather Mulligan (Puget Sound Energy), Jennifer Keene (Puget Sound Clean Air Agency), Logan Danzek (Communities for a Healthy Bay), Mia Ayala-Marshall (Duwamish River Community Coalition), Michael Mann (Clean and Prosperous Washington), Ryan Lucido (Husky Terminal), Rosa Nelson (Department of Ecology), Sheri Call (Washington Trucking Associations), Steve Nicholas (Northwest Seaport Alliance; *Alternate: Nicola Graham*), Terry Howe (HTEC)
- **Speakers:** Danielle Kievit (Puget Sound Energy), Erica Walters (Puget Sound Clean Air Agency)
- **Project Team:** Tom Beierle (Ross Strategic), Heather Christopher (Ross Strategic), Micaela Unda (Ross Strategic), Kyle Murphy (Cascadia Law Group), Patrick Couch (TRC), Erik Neandross (TRC)

Meeting Overview

This second meeting as “Collaborative 2.0” was held virtually on July 9, 2026, 1:00 – 4:00pm Pacific. The objectives of this meeting were to:

- Affirm Collaborative 2.0 Charter and membership
- Identify and prioritize Collaborative work to advance implementation of drayage decarbonization
- Hear relevant updates on utility programs and planning, regional EVSE planning, ZE truck market development, hydrogen truck deployment, and policy

Meeting materials and presentation slides can be found on the Zero Emission Truck Collaborative webpage.

Opening

Heather Christopher and Tom Beierle (co-facilitators, Ross Strategic) welcomed participants and reviewed the objectives and agenda for the meeting. Heather facilitated a brief Poll Everywhere icebreaker asking participants to share their favorite summer activity.

Transitioning to Collaborative 2.0

Tom Beierle provided an update on Collaborative membership and welcomed two new members: Pat Swiger with Stryder and Ryan Lucido with Husky Terminal. Tom noted that Pat was not able to attend the meeting but invited Ryan to introduce himself.

Ryan shared that he serves as Director of Sustainability & Terminal Services at Husky Terminal at the Port of Tacoma. He noted that Husky Terminal is pursuing similar zero-emission transitions for its behind-the-fence fleet and is interested in supporting the broader drayage transition.

Tom described several remaining membership needs and transitions:

- The Collaborative is continuing outreach to additional logistics and fleet companies and is holding places open for those representatives.
- Peter Hasegawa, who had represented labor through IBEW 46, is no longer able to participate in the Collaborative, so the project team will seek another labor representative.
- Some representatives from organizations that previously participated in the Collaborative are moving into new positions, including Leah Missik of Climate Solutions. The project team will follow up with those organizations about identifying new representatives.

Tom then turned to the Collaborative 2.0 Charter, which had been distributed to members before the meeting. He noted that the project team had not received requests for substantive changes. Tom invited members to raise any remaining questions or concerns about the Collaborative's purpose or operating guidelines. No questions or proposed revisions were raised, and the Collaborative affirmed the Charter. The finalized Charter and updated membership list will be posted on the Collaborative website.

Zero Emission Drayage Updates 1

Puget Sound Energy programs and planning

Danielle Kievit and **Heather Mulligan, Puget Sound Energy**, provided an overview of PSE's transportation electrification programs, including fleet charging incentives, commercial charging rates, Transportation Emission Reduction (TER) Grants, and upcoming transportation electrification planning efforts.

Danielle described PSE's Up & Go Electric portfolio, highlighting programs that support fleet electrification through charging infrastructure incentives and new commercial charging rates designed for fleet operators and public charging providers. She explained the eligibility requirements for fleet charging incentives, the two available ownership models (PSE-owned turnkey service and customer-owned charging), and enhanced incentives available through PSE's Empower Mobility program for organizations serving communities with identified needs.

Danielle also reviewed PSE's Transportation Emission Reduction (TER) Grant program, which provides funding for transportation electrification projects, matching funds for non-PSE grants, and grant-writing assistance. She noted that PSE recently awarded approximately $7.5 million in the program's first funding cycle.

Danielle discussed upcoming initiatives, including the Washington Utilities and Transportation Commission's updated transportation electrification policy statement, which is expected to support more proactive utility investments, and PSE's next Transportation Electrification Plan, which will focus on scaling

transportation electrification programs, supporting grid planning, strategically investing Clean Fuel Standard revenues, and expanding equitable access to transportation electrification.

Key items from the discussion:

- A participant asked how PSE is conducting outreach to ensure fleet operators are aware of the utility's transportation electrification programs.
    - Danielle explained that PSE uses a variety of outreach approaches, including ongoing social media marketing, participation in industry conferences such as the Green Transportation Summit & Expo and the Forth Mobility Roadmap Conference, partnerships with vehicle dealers, and collaboration with organizations such as the WSU Energy Program. Heather Mulligan added that PSE is always looking for additional ways to connect with fleet operators and welcomed suggestions from Collaborative members.
- The participant also asked whether fleets participating in PSE's incentive programs may operate vehicles outside Washington State or outside PSE's service territory.
    - Heather explained that vehicles may operate outside the state. The primary requirement is that the supported charging infrastructure is located within PSE's electric service territory and that the participating customer is eligible for the program.
- A participant asked for additional information about Danielle's comments regarding the Washington Utilities and Transportation Commission's proposed policy changes supporting more proactive utility investment.
    - Heather explained that the UTC recently released the first two chapters of its updated transportation electrification policy statement and encouraged interested participants to review the document. She noted that the draft policy includes discussion of allowing utilities to make proactive distribution system investments several years in advance of anticipated transportation electrification demand, rather than waiting for customers to request service. Heather emphasized that utilities are encouraged by these discussions, although additional details regarding implementation are still forthcoming.

Puget Sound Clean Air Agency Regional EVSE plan

Erica Walters, PSCAA, provided an overview of the PSCAA's Regional EV Charging Infrastructure Plan, which is being developed on behalf of the Puget Sound region to guide coordinated deployment of charging infrastructure for light-, medium-, and heavy-duty electric vehicles.

Erica explained that the planning effort grew out of the Regional Electric Vehicle (REV) Collaborative, where local governments identified a need for a coordinated regional approach to charging infrastructure planning. The plan is intended to support jurisdictions of all sizes by providing consistent recommendations across jurisdictional boundaries, helping local governments identify priority charging locations, increasing competitiveness for funding opportunities, and identifying strategies to address common implementation barriers such as zoning, permitting, utility coordination, workforce development, supply chain constraints, and vandalism.

Erica described the plan as a regional roadmap that will provide coordinated recommendations for where and how charging infrastructure should be deployed. The plan will include demand modeling for eight charging use cases across light-, medium-, and heavy-duty vehicles; site evaluation criteria; recommendations related to permitting, partnerships, and implementation; and a regional action

framework that identifies implementation strategies, responsible entities, timelines, and metrics for tracking progress. She also described the collaborative planning process, including the steering committee, technical advisory group, stakeholder engagement activities, and plans for additional public review before the final plan is completed later this year.

Erica also discussed implementation planning. In addition to the final report, the project team expects to develop interactive maps, data spreadsheets, decision-support tools, and other implementation resources to help local governments use the plan. She also encouraged participants to continue providing feedback throughout the planning process.

Key items from the discussion:

- Tom asked whether workforce development is being incorporated into the planning effort.
    - Erica explained that workforce development has been a recurring theme throughout stakeholder engagement and was identified early as an important component of successful charging infrastructure deployment. She noted that the project team recently convened a workforce-focused discussion with regional workforce development organizations. The project team is also working to align workforce recommendations with those developed through the Comprehensive Climate Action Plan process. Erica said the final Regional EV Charging Infrastructure Plan will likely include a dedicated section with workforce development recommendations.
    - Tom noted that workforce development is also a priority area for Collaborative 2.0 and suggested that the Collaborative follow up with Erica and Jennifer to learn more about the workforce engagement process and connections that have been established through the planning effort.
    - Erica welcomed continued coordination and agreed that there are opportunities for the two efforts to inform one another.

Work Planning Exercise 1: Small Group Brainstorming

Tom introduced the first work planning exercise, explaining that Collaborative 2.0 is intended to focus on implementation and that the purpose of the exercise was to identify where the Collaborative could add the greatest value over the next two to three years. Tom asked participants to consider the following question:

- **Using our ability to collaborate, align work, and problem solve, where can the Collaborative add significant value to implementing drayage decarbonization in the next 2–3 years?**

Participants first reflected individually before being assigned to pairs to discuss their ideas. Pairs were then combined into groups of four to six to further refine and discuss their priorities. Each small group recorded its ideas in the meeting chat, which the project team synthesized into a prioritization exercise for later in the meeting.

Following the breakout discussions, participants highlighted several recurring themes that emerged across the groups.

Key items from the discussion:

- A participant emphasized the Collaborative's potential role in building consensus around key issues. They noted that the Collaborative includes organizations with broad influence beyond the group itself, and that developing shared messages and direction could help build broader support for zero-emission drayage and improve communication with stakeholders outside the Collaborative.
- Another participant highlighted a suggestion to develop an activity directory describing what organizations across the region are working on and the status of those efforts. They noted that having a centralized source of information would help participants better understand ongoing work and identify opportunities for collaboration.
- Erik Neandross (TRC) shared lessons learned from a similar collaborative effort supporting drayage decarbonization at the Ports of Los Angeles and Long Beach. He explained that after considerable discussion and strategy development, the group found it valuable to establish a set of implementation milestones, including targets for vehicle deployment, charging infrastructure, and associated funding needs. He suggested that agreeing on shared milestones allows stakeholders to identify funding gaps, coordinate different funding sources, measure progress over time, and build consensus around implementation priorities.
    - Steve Nicholas (NWSA) agreed that developing implementation milestones could be a valuable role for Collaborative 2.0. He suggested building from the existing Roadmap by translating its recommendations into a manageable set of milestones that the Collaborative could use to track implementation progress.
- Steve also emphasized the importance of continuing to focus on workforce development, noting that one barrier to fleet confidence in adopting electric trucks is the limited maintenance and repair support network currently available in the region. He observed that workforce development was also a commitment associated with federal funding supporting the Collaborative and encouraged the group to continue considering how it could contribute in this area.

Tom concluded by noting that he and Heather would synthesize the ideas shared during the breakout exercise and use them to develop a prioritization exercise for the second work planning session later in the meeting.

Zero Emission Drayage Updates 2

ZEV Truck Market and Technology Update

Patrick Couch and **Erik Neandross (TRC)** provided an update on the evolving zero-emission Class 8 truck market, highlighting recent developments in vehicle availability, pricing, charging technology, and total cost of ownership.

Patrick explained that there are currently at least ten zero-emission Class 8 truck models either commercially available or expected to enter the market soon. While diesel trucks typically cost between $150,000 and $170,000, zero-emission trucks currently range from approximately $260,000 to more than $450,000 before incentives. Patrick noted that increasing production volumes, new market entrants, and incentive funding are helping reduce costs and expand vehicle availability.

Patrick highlighted the Tesla Semi as one of the most significant recent developments in the Class 8 market. He described the truck's expected production ramp-up, lower purchase price relative to many competing electric trucks, longer driving range, and megawatt charging capability. Patrick also discussed new offerings from traditional truck manufacturers, including Freightliner and PACCAR, as well as newer market entrants such as Windrose and Tern, and provided an overview of hydrogen fuel cell truck offerings from Hyundai and Hyzon. He noted that manufacturers continue to introduce new models with longer range and improved performance.

Patrick also discussed recent changes in the economics of zero-emission trucks. He explained that Washington's WAZIP incentive funding, combined with current diesel fuel prices, has significantly improved the total cost of ownership for battery-electric trucks. While results vary depending on fleet operations and duty cycles, Patrick noted that battery-electric trucks are becoming increasingly cost competitive with diesel vehicles.

Key items from the discussion:

- Steve Nicholas asked which of the available zero-emission truck models currently comply with Buy America requirements.
    - Patrick responded that he did not know the answer offhand and noted that battery sourcing presents one of the primary challenges for meeting Buy America requirements.
    - Tom Beierle suggested that Buy America compliance would be a useful topic for future follow-up.
- Patrick added that, in addition to lower vehicle prices, Tesla has introduced megawatt charging equipment at a significantly lower price point than competing products. He noted that the listed capital cost for Tesla's megawatt charging equipment is approximately half that of comparable charging equipment from other manufacturers. Patrick emphasized that while lower equipment costs do not reduce utility-side infrastructure or make-ready costs, they do reduce charger hardware costs.
- Tom Beierle asked whether the lower charging infrastructure costs Patrick described were reflected in the total cost of ownership comparisons presented.
    - Patrick explained that the analysis assumed the same charging infrastructure costs across vehicle manufacturers, based on Tesla's charging equipment costs. As a result, the lower infrastructure costs were not the primary driver of the differences shown in the total cost of ownership analysis.
- A participant asked about the current status of megawatt charging standards and interoperability, particularly as fleets begin investing in charging infrastructure.
    - Patrick explained that the megawatt charging standard is essentially complete, but cautioned that achieving full interoperability across manufacturers will likely require additional time. He noted that Tesla's chargers are expected to work seamlessly with Tesla trucks, while interoperability with trucks from other manufacturers may involve challenges as the industry gains operational experience.

Hydrogen truck deployment experience

Terry Howe, HTEC, provided an overview of HTEC's hydrogen production, fueling infrastructure, and heavy-duty fuel cell truck deployment efforts in British Columbia. Terry explained that HTEC's mission is to

support the transition to hydrogen transportation by developing hydrogen production, distribution, fueling infrastructure, and vehicle deployment across the value chain.

Terry described HTEC's existing hydrogen network in British Columbia, including its clean hydrogen production facility in Burnaby, a network of seven light-duty hydrogen fueling stations, and a recently opened heavy-duty hydrogen fueling station in Tsawwassen, located adjacent to DeltaPort. The heavy-duty station is designed to support both port drayage operations and regional logistics fleets and can fuel Hyundai XCIENT fuel cell trucks in less than 20 minutes, providing approximately 700 kilometers of driving range.

Terry also described HTEC's heavy-duty truck leasing program, under which the company procures hydrogen fuel cell trucks, secures provincial and federal funding, and leases the vehicles to fleet operators at rates intended to be competitive with diesel truck leasing costs. HTEC also coordinates vehicle maintenance, telematics, and performance reporting, allowing fleet operators to focus on operating the vehicles rather than managing the supporting infrastructure.

Terry shared early deployment experience from several fleet operators currently using hydrogen fuel cell trucks in British Columbia, including Loblaw, Iron Horse, and Harbor Link. He noted that Loblaw has successfully operated hydrogen trucks on routes between Vancouver and both Whistler and Merritt, including the challenging Coquihalla Highway corridor, demonstrating the technology's ability to support longer-distance freight operations with full trailer loads.

Key items from the discussion:

- A participant asked about HTEC's maintenance model and whether Velocity Truck Centres specializes in servicing hydrogen fuel cell trucks.
    - Terry explained that Velocity Truck Centres serves as HTEC's maintenance partner. Because the company already maintained compressed natural gas (CNG) vehicles, HTEC worked with Velocity to upgrade one of its maintenance bays so it could safely service hydrogen fuel cell vehicles, including the additional safety requirements associated with hydrogen systems.
- A participant asked whether Hyundai XCIENT fuel cell trucks are eligible for funding through Washington's WAZIP incentive program.
    - Terry responded that they are eligible under the program.
- Another participant asked about the current outlook for hydrogen truck deployment in the United States, observing that reduced federal support for hydrogen hubs appeared to have slowed momentum relative to battery-electric trucks.
    - Terry acknowledged that recent federal policy changes have created challenges but noted that High Road has acquired Nikola's assets and is working to place hydrogen trucks into service through new leasing and truck-as-a-service models. He also noted that Hyundai Translead is continuing to pursue hydrogen truck deployments.
    - Erik added that while hydrogen deployment remains challenging, several organizations continue to support the technology. He highlighted ongoing investments by the Ports of Los Angeles and Long Beach to expand hydrogen infrastructure and reduce hydrogen fuel costs for truck operators, noting that those efforts are intended to maintain momentum until broader market conditions improve.

ZEV policy update

Kyle Murphy, Cascadia Law Group, provided an update on recent federal litigation and Washington State rulemaking affecting zero-emission vehicle policies and heavy-duty vehicle deployment.

Kyle began by discussing two federal court cases that could significantly affect states' authority to adopt and implement zero-emission vehicle requirements. He explained that the first case, California v. United States, concerns Congress's use of the Congressional Review Act to revoke the federal waiver that allowed California—and states that adopt California's standards, including Washington—to implement the Advanced Clean Trucks (ACT) rule. Kyle explained that Washington has paused enforcement of its ACT rule while the litigation proceeds and noted that the case is likely to remain unresolved for some time as it moves through the federal courts.

Kyle then discussed United States v. California, in which the federal government argues that federal fuel economy law preempts California and other states from adopting certain zero-emission vehicle requirements. Although the current case focuses on passenger vehicles, Kyle noted that its outcome could have important implications for heavy-duty vehicle regulations as well. He emphasized that both cases involve fundamental questions about the authority of states to establish vehicle emission standards beyond federal requirements and are likely to influence state zero-emission vehicle programs for years to come.

Kyle reviewed several ongoing Washington rulemakings relevant to the Collaborative, including Ecology's proposed Clean Vehicles Rule, which establishes a regulatory framework depending on the outcome of the federal litigation; implementation of the Clean Fuel Standard's advanced credit program; proposed linkage of Washington's Climate Commitment Act with California and Québec's cap-and-invest programs; and Ecology's forthcoming rulemaking addressing air quality in overburdened communities.

Work Planning Exercise 2

Tom explained that the project team had synthesized the ideas generated during the first work planning exercise into two sets of priorities for participants to rank using Poll Everywhere. The first poll focused on potential functions of the Collaborative (i.e., the type of work the Collaborative should do), while the second focused on potential topical areas for future Collaborative activities (i.e., what issues the Collaborative should focus on).

Prioritizing Collaborative Functions

Participants first ranked the potential functions of the Collaborative. The final prioritization was:

1. Issue and gap identification
2. Advocacy (e.g., funding and policy priorities)
3. Knowledge sharing within the Collaborative
4. Lessons learned and success stories
5. Activity directory and tracking
6. Education and outreach beyond the Collaborative
7. Measurement and reporting of targets, progress, and gaps
8. Matchmaking (fleets, technical assistance providers, funders, OEMs, cargo owners, etc.)
9. Consensus building

Prioritizing Topical Areas

Participants next ranked potential topical areas for future Collaborative work. The final prioritization was:

1. Drayage driver engagement and education
2. Utility and infrastructure planning
3. State and local policy
4. Technical assistance and fleet transition support
5. Funding, financing, and incentive navigation
6. Cargo owner engagement
7. Vehicle affordability and market development
8. Workforce and jobs
9. Non-monetary incentives

Tom shared that project team would synthesize the poll results and use them to identify priority topics for future meetings, develop Collaborative resources, and organize smaller working discussions around the highest-priority implementation challenges. Tom noted that the project team would reach out to members following the meeting to gauge interest in participating in topic-specific small group conversations before the next full Collaborative meeting.

Public Comment

No public comments.

Wrap Up and Next Steps

Tom thanked participants for their active participation throughout the meeting and summarized the project's next steps. He noted that the project team would:

- Post the meeting summary, presentation materials, and other meeting resources to the Collaborative website.
- Synthesize the results of the work planning exercises and use them to guide future Collaborative programming and activities.
- Reach out to members to identify interest in participating in small-group discussions focused on the Collaborative's highest-priority topical areas.
- Begin planning the next full Collaborative meeting, anticipated for late third quarter or early fourth quarter 2026. Tom explained that this timing would allow the project team to convene the smaller topical discussions and report back to the full Collaborative on those conversations.