

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
STAFF BRIEFING

DATE: July 24, 2023

TO: Managing Members

FROM: John Wolfe, CEO
Sponsor: Jason Jordan, Director, Environmental & Planning Services
Project Manager: Steve Nicholas, Senior Manager, AQSP
Nicola Graham, Project Manager, AQSP

SUBJECT: Clean Truck Program Update; Emphasis on Zero-Emission Trucks

A. BRIEFING REQUESTED

While continuing our efforts to work with drayage trucking companies to further reduce emissions from diesel trucks, we are turning more of our attention toward facilitating the just and equitable transition to zero-emission drayage trucks by 2050 or sooner – as called for in the 2020 Northwest Ports Clean Air Strategy, the NWSA’s 2021-2025 Clean Air Implementation Plan, and the NWSA’s 2023 Key Initiatives.

We are seeking the Managing Members’ guidance on two questions:

- Are our efforts to facilitate the transition moving in the right direction?
- Do you have specific suggestions for changes and improvements?
For example, should we be identifying port-owned properties that are good candidates for zero-emission truck charging or fueling?

B. SYNOPSIS

The NWSA’s strategy for facilitating a just and equitable transition to zero-emission drayage trucking in our gateway has two core elements: 1) facilitating the development, financing, and implementation of zero-emission drayage truck demonstration projects; and 2) leading the formation of the Puget Sound Zero Emission Truck Collaborative, whose main job is developing a Decarbonizing Drayage Roadmap – a coordinated regional strategy for reaching a zero-emission drayage fleet across-the-board by 2050 or sooner.

Both elements are progressing well. To date NWSA staff have secured \$9.5M in state and federal funding to support demonstration projects, with another \$28M in federal grant requests in motion. We intend to launch an incentive program in Fall 2023. Meanwhile, the Zero Emission Truck Collaborative held a successful kick off meeting on Friday, June 30. Their goal is to develop an initial iteration of the Roadmap by the end of 2024.

C. BACKGROUND & CURRENT STATUS

NWSA’s Clean Truck Program: Past & Present

The NWSA relies heavily on a network of about 4,500 trucks that provide essential cargo-hauling (i.e., drayage) services in and out of our terminals in Seattle and Tacoma. About half of our drayage service-providers are independent owner-operators or small trucking companies

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that own 10 or fewer trucks. Currently, all but a handful of the drayage trucks serving our gateway are diesel-powered and their emissions constitute about eight percent of all seaport-related diesel particulate matter (DPM) and about 27% of the greenhouse gases. Because of their travel patterns, drayage truck emissions contribute to environmental health disparities in overburdened communities living near NWSA terminals in Seattle and Tacoma, along major freight corridors, and close to warehousing centers.

The Clean Truck Program is the NWSA's long-standing initiative to work with drayage trucking companies to reduce emissions. Core elements of that program include the Clean Truck Rule (which requires that trucks serving the NWSA's international terminals must have a 2007 engine or newer) and the scrap-and-replace bonus program which provides financial incentives to encourage the owners of pre-2007 trucks to scrap those vehicles and purchase newer, cleaner vehicles. Under the NWSA's 2021-2025 Clean Air Implementation Plan, we are taking steps to extend the Clean Truck Rule to the domestic terminals by the end of 2025. In addition, we are continuing our efforts to incentivize the scrapping and replacing of additional pre-2007 trucks, supported by a \$720,000 DERA (Diesel Emission Reduction Act) grant from the US EPA, and \$108,000 in support from the City of Seattle. This grant funding is available to incentivize the purchase of up to 36 new trucks and outreach is being focused on drivers entering our domestic terminals. Drivers can receive up to \$30,000 towards the cost of a new truck, depending on the value of the replacement truck, to provide drivers support to get a compliant truck in advance of the extension of the Clean Truck Rule to these terminals by the end of 2025. Currently the total number of old truck replacements over the life of the port truck scrapping program is 452.

Coming Next: Transition to Zero Emission Trucks

At the same time, we increasingly are turning our attention to the transition to zero-emission drayage trucking, which will be as challenging as it is necessary. The transition to zero-emission truck serving ports in the Pacific Northwest is a key step to meet zero emission goals adopted in the Northwest Ports Clean Air Strategy while also contributing to local, regional, and state decarbonization goals. As a region, we have a window of opportunity to harness momentum toward zero-emission trucking, which is growing rapidly. Responding to industry trends, green supply chain initiatives, and new policies like the Advanced Clean Truck Rule, truck manufacturers are ramping up their manufacturing and marketing of zero-emission trucks. There is a growing awareness of the need for zero-emission truck charging and fueling infrastructure, and several local utilities and fuel providers are exploring investments. An increasing number of retailers are committing to decarbonize their supply chains. And state and federal funding opportunities are on the rise. At the same time, there are significant challenges to be overcome, including high capital equipment and infrastructure costs, social equity considerations, and more.

Staff sees the NWSA's role in this transition as one of "facilitative leadership": working with the drayage service providers and many other stakeholders to facilitate a transition to zero-emission trucks that is just and equitable – that reduces and eliminates the *emissions* associated with drayage services without also reducing or eliminating the *livelihoods*. Our strategy for doing that is twofold: 1) to facilitate the development, financing, and implementation of zero-emission drayage demonstration projects in our gateway in the next 2-4 years; and 2) to develop a longer-term strategy for achieving zero-emission drayage across the board. Each element of our strategy is described in more detail below.

Zero-Emission Drayage Demonstrations: It is essential that we get zero-emission trucks into drayage operations here in our gateway as soon as possible, for several reasons: to bolster confidence in, and support for, these new technologies within our network of drayage service-providers; to get some initial charging and fueling infrastructure in place; to stimulate the local zero-emission truck industry, market, and workforce; and to gather data and garner lessons learned that can inform our longer-term strategy and solutions at-scale.

Zero-emission trucks are expensive, and the associated charging or fueling infrastructure is complex and resource-intensive (in terms of land, money, and time). Our strategy is to secure state and federal funding to support an NWSA-led incentive program that will harness additional investments from other partners (e.g., charging and fueling providers, retailers, trucking companies, utilities, etc.). To date we have secured \$9.5 million for this purpose, and by the end of July will have an additional \$28 million in federal grant proposals under consideration by funders. (See below for details.)

Other zero-emission drayage demonstration projects are under development. For example, City of Seattle is developing a project specifically targeting trucks and truckers in the Duwamish Valley, alongside SCL installing on-street truck charging on Harbor Island. NWSA staff are guiding, supporting, and tracking these projects. Our hope is that a portfolio of demonstration projects of diverse types and models emerges in our gateway in the coming years – some led or facilitated by NWSA and some led by a range of other partners with support from NWSA.

Decarbonizing Drayage Roadmap/Zero Emission Truck Collaborative: As demonstration projects are happening in our gateway, we need to be working with multiple partners to develop a coordinated, data-driven, stakeholder-guided regional strategy for achieving zero-emission drayage at scale: a Decarbonizing Drayage Roadmap. There is a huge gap between the vision of zero emissions by 2050 and the status quo. Success will require a carefully crafted, long-term strategy rooted in the best available data, multistakeholder collaboration, and lessons learned from similar efforts around the country. A regional roadmap will put forward recommendations for making a just and equitable transition to zero emission drayage by improving zero-emission truck availability and affordability, developing charging, and fueling infrastructure, and ensuring sufficient and equitable funding and financing.

Given the big gap between where we are and where we need to be, the many players and moving parts involved, and the need for vehicle purchases and charging/fueling infrastructure availability to be closely coordinated, a highly collaborative approach is most likely to be successful. For this reason, the NWSA led the creation of the Puget Sound Zero Emission Truck Collaborative to develop the Roadmap. Staff worked with a consulting team led by Dennis McLerran of the Cascadia Law Group to assemble an *ad hoc* multistakeholder “convening group” to develop the Collaborative membership, goals and objectives, and a draft charter; the convening group included representatives from WTA, African Chamber of Commerce, cities of Seattle and Tacoma, Affiliated Tribes of Northwest Indians, SSA, and Climate Solutions. The convening group’s recommended scope, goals, and charter were discussed and embraced by the Collaborative at its first meeting on Friday, June 30. The meeting agenda and materials, as well as the membership and draft charter, can be found at the [project website](#), and are attached for convenience.

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To ensure strong, competent, and neutral facilitation and management of the Collaborative, NWSA staff secured a grant from the state Department of Transportation to hire an independent “backbone organization.” Through a competitive procurement process, we selected a consulting team led by Ross Strategic and including Cascadia Law Group (Dennis McLerran), GNA (a CA-based clean energy consultancy with experience helping to deploy zero-emission technologies at the Ports of LA and Long Beach) and Stepherson & Associates (a Black-owned, Seattle-based firm specializing in community and stakeholder engagement).

Throughout this process, NWSA staff have worked closely with the Port of Seattle’s Office of Diversity, Equity, and Inclusion (OEDI) to ensure that DEI goals are fully integrated into the work. For example, OEDI staff advised the NWSA on the selection of the backbone organization (helping to develop the RFP and participating on the selection panel). And since the selection of the “backbone organization,” OEDI staff, along with NWSA staff, have participated on the core planning group that is guiding the consulting team’s work.

D. FINANCIAL IMPLICATIONS

NWSA-led zero-emission truck demonstration projects will be funded mostly via state and federal grants, with some NWSA-provided matching funds. So far staff have secured \$9.5 million for demonstration projects, which includes \$2.8M in federal CMAQ (Congestion Mitigation Air Quality) funded granted to us via the PSRC, and \$6.3 in state Climate Commitment Act (CCA) revenues allocated to the NWSA by the state legislature via the 2023-24 state transportation budget. The state CCA funding will be administered by WSDOT and staff have begun negotiations with WSDOT staff on a grant agreement, to be approved by Managing Members at a future meeting once completed.

We are also pursuing \$28M in additional federal funding via two Federal Highways Administration (FHWA) funding opportunities: Charging & Fueling Infrastructure (CFI) (\$12M proposal submitted on June 13) and Reducing Truck Emissions at Port Facilities (RTEPF) (\$16M proposal being submitted on July 26). The CFI application was focused on funding a Trucking-as-a-Service (TaaS) and/or Charging-as-a-Service (CaaS) demonstration, and the RTEPF application will seek additional funding to add to our existing CMAQ and CCA incentive program.

The Puget Sound Zero Emission Truck Collaborative (PS-ZETC) is being supported by a \$400,000 grant from the WA Department of Transportation. As approved at the November 2022 Managing Members meeting, NWSA is providing \$325,000 in staff time over 2 years to support this project. We also included an additional \$400,000 in support for the Collaborative into the two federal grant proposals cited above.

E. PREVIOUS ACTIONS OR BRIEFINGS

- Meeting with NWSA Managing Members on June 7, 2022
- Meeting with NWSA Truck Working Group on September 7, 2022
- Meeting with NWSA Truck Working Group on October 4, 2022
- Meeting with NWSA Managing Members on November 1, 2022
- Meeting of NWSA Environmental Working Group on July 14, 2023

F. NEXT STEPS

For the ZE Drayage Demonstration(s):

- The NWSA plans to publish a “Request for Proposals” in Fall 2023 to solicit proposals for zero-emission drayage truck deployments (vehicle purchases plus infrastructure development). We anticipate selecting project(s) by the end of the year and executing contracts in early 2024; initial deployments of zero-emission trucks will likely occur in the 2025-2026 timeframe.
- Initially, \$9.5M in incentive funding will be offered; we anticipate this will be sufficient to incentivize the deployment of 20 or more zero-emission trucks in our gateway. If one or both federal grant proposals cited earlier – or other fund-raising efforts – are successful, additional RFPs will be issued and more zero emission truck deployments will be incentivized.

For the ZE Truck Collaborative:

- With the kick-off meeting behind it, the Collaborative will begin meeting bi-monthly, with the goal of completing the first iteration of the Decarbonizing Drayage Roadmap by December 2024. The Collaborative Coordinator is developing and implementing near port-community and trucker engagement strategies that will guide the development of the Roadmap.
- In addition, the Coordinator, the NWSA, and other entities will complete data-gathering and analysis to ensure that the Roadmap is data-driven. First up will be a comprehensive assessment of the traffic and parking patterns of the existing network of drayage trucks.

Item No.: 10B

Date of Meeting: 8/1/2023

Clean Truck Program Update



THE NORTHWEST
SEAPORT ALLIANCE

SEATTLE + TACOMA

Steve Nicholas, Senior Manager, Air Quality & Sustainable Practices
Nicola Graham, Project Manager, Air Quality & Sustainable Practices

Previous Actions & Briefings

- Meeting with NWSA Managing Members on June 7, 2022
- Meeting with NWSA Truck Working Group on September 7, 2022
 - *Consulting team's scoping report/recommendations approved*
- Meeting with NWSA Truck Working Group on October 4, 2022
- Meeting with NWSA Managing Members on November 1, 2022
 - *Zero Emission Truck Collaborative project authorized*
- Meeting of NWSA Environmental Working Group on July 14, 2023

GUIDANCE REQUESTED

We are seeking the Managing Members' guidance on two questions:

- Are our efforts to facilitate the transition to zero-emission drayage moving in the right direction?
- Do you have specific suggestions for changes and improvements? For example, should we be identifying port-owned properties that are good candidates for zero-emission truck charging or fueling?

Background: NWSA Clean Truck Program – Past & Present

- NWSA relies heavily on network of \approx 4,500 drayage trucks
- Half are independent owner/operators or small companies (< 10 trucks)
- All but a handful are diesel-powered
- Truck emissions constitute 8% of seaport-related DPM; 27% of GHG
- Drayage trucks travel near and through neighborhoods near terminals and along freight corridors that are experience significant environmental health disparities
- Clean Truck Rule (2007 or newer trucks at international terminals) initiated in January 2019; being extended to domestic terminals by end of 2025
- Long-standing scrap-and-replace bonus program has incentivized the replacement of 452 trucks since inception; 36 more planned in coming months
- Diesel Particulate Matter (DPM) emissions from trucks reduced 85% since 2005

Toward ZE Drayage: Opportunities & Challenges

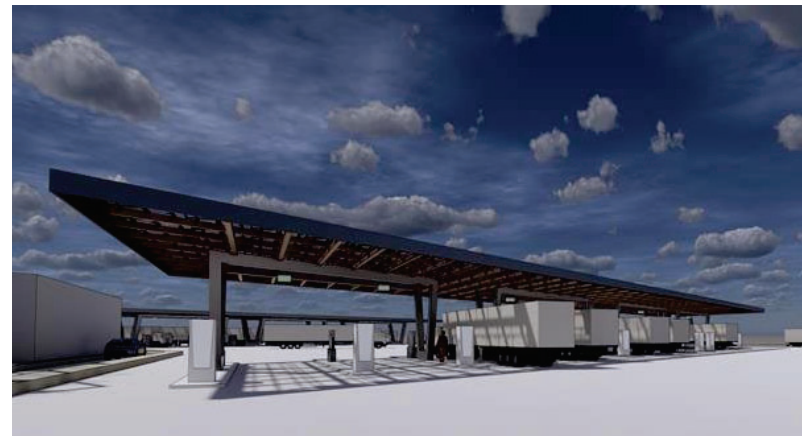
Opportunities	Challenges
<ul style="list-style-type: none">• Growing interest and concern• NW Ports Clean Air Strategy• Policy (e.g., Advanced Clean Truck Rule)• Increasing production• Early adopter fleets; first-generation demonstration projects• Innovative business models• State funding (CFS, CCA, etc.)• Federal funding (IJJA, IRA, etc.) on the rise	<ul style="list-style-type: none">• ZE trucks not yet readily available and affordable in Puget Sound region• Lack of local familiarity with the technologies• Dearth of ZE charging/fueling infrastructure• Drayage service providers highly sensitive to big changes in cost and convenience of doing business• State and federal funding support just beginning to flow

Toward ZE Drayage: NWSA Role & Strategy

- Momentum building for transition to zero emission heavy duty trucks.
- Big opportunities, big challenges!
- NWSA as “facilitative leader”: with drayage service providers and other stakeholders to facilitate a just and equitable transition.
 - Reducing/eliminate emissions without reducing/eliminating livelihoods
- Two-pronged strategy
 - Develop, fund, implement ZE drayage truck demonstration projects.
 - ZE Truck Collaborative → Decarbonizing Drayage Roadmap

ZE Drayage Demonstration Projects

- Needed to:
 - Bolster familiarity and confidence
 - Jump-start local market
 - Get initial infrastructure in place
 - Inform larger-scale solution(s)
- NWSA-led:
 - ZE Drayage Demonstration Program launching Fall 2023
- Led by others:
 - City of Seattle



Decarbonizing Drayage Roadmap

- Big gap between the vision and reality.
- Need carefully crafted strategy rooted in best available data, multistakeholder collaboration, and lessons learned.
- Roadmap will feature recommendations for making a just and equitable transition to zero emission drayage by:
 - Improving zero-emission truck availability and affordability.
 - Developing charging/fueling infrastructure.
 - Ensuring sufficient funding, financing, and trucker support.



Puget Sound Zero Emission Truck Collaborative (July 2023)

Jed Boba, Puyallup Tribe of Indians
Stephanie Bowman, PNWER
Sheri Call, Washington Trucking Associations
Alec Cervenka, PACCAR/Kenworth
Christine Cooley, Puget Sound Clean Air Agency
Peter Gishuru, African Chamber of Commerce
Jeff Grant, HTEC
Steven Hershkowitz, WA Dept. of Commerce
Jim Jensen, WSU Green Transportation Program
Rick Kolpa, Prologis
George Mitchell, Mercer Logistics
Sarah Mouriño, SSA Marine
David Logsdon, Seattle City Light
Melissa Malott, Communities for a Healthy Bay

Michael Mann, Clean and Prosperous Washington
Leah Missik, Climate Solutions
Steve Nicholas, Northwest Seaport Alliance
Christian Poulson, Duwamish River Community Coalition
Clarisse Reiter, IKEA
Paula Sardinas, Build Black Back Alliance
Wade Smith, Puget Sound Energy
Margaret Sonnen, Tri Pak, Inc. (a TTSI company)
Jeremy Stewart, Tacoma Public Utilities
Marcos Wanless, Latino Chamber of Commerce
Tracey Whitten, City of Seattle
Paul Williams, Suquamish Tribe
Labor Representative (TBD)

Process Management Highlights

- Partnership with Port of Seattle/OEDI
 - *Under new service agreement, NWSA staff is partnering with OEDI staff to integrate EDI values and goals into project.*
- Ad Hoc Convening Group formed to guide scope, goals, composition.
- “Backbone organization” hired
 - Given multistakeholder nature of problem and solutions, we’re most likely to be successful if effort is independently managed.
 - With \$400K from WA DOT, hired consulting team to lead effort:
 - Ross Strategic (lead), Cascadia Law Group, GNA Clean Transportation & Energy Consultants, Stepherson & Associates

Financial Implications

- ***Scrap-and-Replace Bonus Program***
 - *Funded by state and federal grants, plus City of Seattle funds*
 - *Current budget is \$828,000 (\$720,000 USEPA; \$108K City)*
- ***ZE Drayage Demonstration Project(s)***
 - Funded mostly via State and Federal grants, plus NWSA match
 - \$9.5M secured so far:
 - \$2.8M federal CMAQ funding
 - \$400,000 NWSA match (in CIP)
 - \$6.3M State CCA funding
 - \$24M more in federal funding grant funding proposed:
 - Charging & Fueling Infrastructure @ \$12M via FHWA
 - Reducing Truck Emissions from Port Facilities @\$12M via FHWA
- ***ZE Truck Collaborative***
 - \$400,000 secured so far (WA DOT grant)
 - \$400,000 in additional federal funding proposed (via CFI & RTEPF)

Next Steps

- ***ZE Drayage Demonstration Project(s)***
 - RFP in Fall 2023
 - Initially \$9.5M in incentive funding offered
 - If CFI and/or RTEPF and/or other grant proposals are successful, additional RFPs/funding rounds will be issued
- ***ZE Truck Collaborative***
 - Bi-monthly meetings (next up: August and October 2023)
 - Strategies under development for engaging near-port communities and drayage truckers/fleets
 - Data-gathering and research agenda under development
 - First iteration of Decarbonizing Drayage Roadmap due December 2024

GUIDANCE REQUESTED

We are seeking the Managing Members' guidance on two questions:

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