

Date: March 6, 2023

To: Interested Zero Emission Demonstration Stakeholders

Subject: **NWSA Request for Information (RFI) 030623:**

**Zero Emission Drayage Truck Pilot Demonstration and Incentive Program**

**Background**

The Northwest Seaport Alliance (NWSA), one of the largest container gateways in the United States, is a marine cargo operating partnership of the Ports of Seattle and Tacoma. Formed in 2015 to increase the competitiveness of the cargo operations at these ports, the NWSA is an independent port development authority that constructs, maintains, and operates marine terminals, and addresses related transportation and air quality issues. Every year, the NWSA handles approximately \$66 billion in waterborne trade with marine cargo operations, supporting over 58,000 jobs.

The NWSA is committed to reducing and ultimately eliminating the air and climate pollution – and related environmental health disparities – associated with cargo shipping operations. Drayage trucks – which carry containers on and off the terminals and often to warehouses scattered throughout King and Pierce Counties and the broader region – are a key element of these operations. Drayage trucks account for a significant percentage of overall seaport emissions associated with NWSA’s regional activities: about 8% of diesel particulate matter (DPM) and 27% of greenhouse gases (GHG).

The 2020 Northwest Ports Clean Air Strategy (NWPCAS), unanimously adopted by the Managing Members of the NWSA in April 2021, sets the goal of phasing out emissions of DPM and GHG from all seaport activities by 2050. The NWSA’s 2021-2025 Clean Air Implementation Plan includes a significant milestone for bringing zero-emission trucks into our gateway in the near term: *“At least 10 zero-emission drayage trucks have been demonstrated in the NWSA gateway” by 2025*. To meet this goal, the NWSA has secured and is pursuing additional funding to support zero emission truck demonstrations.

The purpose of this RFI is to provide the NWSA with information to develop a zero-emission (ZE) drayage truck demonstration (battery electric vehicles and/or hydrogen fuel cell electric vehicles (FCEV)) program in our gateway using state and federal grant funding.

**Zero-Emission Trucks in the PNW**

A growing number of stakeholders in the commercial trade and transportation sectors are committing to decarbonizing supply chains, and state and federal funding opportunities are increasing to support the transition. However, ZE trucks remain largely inaccessible for drayage fleets in the Pacific Northwest, due to higher upfront costs for vehicles and infrastructure, the lack

of available public charging/fueling infrastructure and service facilities to support ZE trucks, and the challenges of small businesses accepting large grants given tax implications.

Investing in new heavy-duty ZE trucks can be eight to ten times more expensive than the average cost of a used diesel drayage truck on the second- or third-hand market, making adoption cost prohibitive for many drayage operators. This is particularly true for small fleets and independent owner-operators that are a critical part of NWSA operations and who often rely on the used truck market as their primary source for low-cost trucks. The drayage sector is largely comprised of lower-income first-generation immigrant drivers and great care must be taken to ensure that the push for ZE trucks does not have negative impacts to this community. The move to ZE trucks must be done in a way that is fair and equitable for all of those involved in this market.

Long-term success requires development of reliable and equitable incentive funding and financing mechanisms, development of the ZEV infrastructure (maintenance/service and charging/fueling), partnerships with a variety of stakeholders, and the creation of pathways for a secondary market that recognizes meaningful residual values for ZE trucks. We believe that the development of a strong secondary market for ZE trucks could present a unique opportunity to improve ZE truck availability and affordability, which aligns with the realities of the existing drayage service business model in the NWSA gateway and helps to ensure equity to existing drayage operators.

While there are many challenges to demonstrating ZE trucks in the NWSA gateway, there is also a strong foundation and significant momentum on which to build. Washington State adopted California's Advanced Clean Truck Rule in 2021. Relevant to drayage at the NWSA, the rule will require 40% of new class 8 tractor sales to be zero-emission by 2035, with the percentage required ramping up over subsequent years.

The NWSA is well-positioned to catalyze a successful collaborative effort, building on lessons learned from California ports implementation of commercial ZEV pilots.

### **Available Program Funding**

The NWSA has secured a federal CMAQ grant of \$2.8 million towards a ZE truck demonstration project in our gateway in 2025. The Port anticipates leveraging the CMAQ grant to secure additional funding and increase the number of ZE vehicles and infrastructure deployments in the gateway:

- Federal funding from the Infrastructure and Jobs Act, Inflation Reduction Act and Diesel Emission Reduction Act (DERA) program could be added to this program.
- There are significant opportunities for funding at the state level. With the implementation of the Climate Commitment Act and Carbon Fuel Standard at the start of 2023, there is currently (as of February 2023) proposed funding in a statewide medium and heavy-duty ZE vehicle incentive program, which could be used by truck owners to complement this program.
- The NWSA is also seeking additional state funding to add to the CMAQ funding for this demonstration program.

## RFI Overview

This RFI seeks information on how to deploy these funds in an effective and equitable way, to provide an opportunity for truck owners to put ZE trucks into operation in our gateway, highlighting key lessons learned for the Pacific Northwest trucking community, the NWSA, and other stakeholders and partners.

The goals of the initial demonstration projects include but are not limited to:

- **Validate Zero Emission Drayage Truck Technology:** Validate the emerging ZE truck technologies in our local context and with the drayage service provider network in particular.
- **Increase NWSA and Drayage Fleet's Understanding of Transition Opportunity:** Increase the understanding and support for the transition to these technologies.
- **Increase NWSA and Drayage Fleets' Understanding of the Challenges Associated with Adopting ZE Technologies:** Provide critical lessons learned that can be applied to improve the experience in future demonstrations/deployments.
- **Inform the Longer-Term Strategy for Drayage Decarbonization:** Apply learnings from the pilots to inform development of a longer-term strategy to decarbonize the drayage. The NWSA is leading the formation of a multistakeholder Puget Sound Zero Emission Truck Collaborative which can use many of these lessons learned to develop the Decarbonizing Drayage: Roadmap to 2050
- **Generate the Partnerships Required for Success:** Generate the partnerships and opportunities needed to develop successful pilot projects.
- **Explore Support and Incentives for Second-Life Application:** Identify potential funding, desired support and services that may be required for successful adoption of a second or third-hand market of ZE trucks.

## RFI Responses

The following section seeks input from respondents that will better structure the NWSA demonstration program. The NWSA seeks broad input from a wide range of stakeholders. To improve your input ability and to assist us in organizing responses please utilize the Microsoft Form link provided on the solicitation page. The below respondent information is captured in the Microsoft Form. If you have additional supporting documentation to provide, or questions, please utilize the [Procurement Portal](#). Questions and additional documentation are to be submitted via the [Port of Tacoma Procurement Portal](#). Instructions for utilizing the portal can be found on the main procurement web page ([Procurement | Port of Tacoma](#)).

### Respondent Information:

- Name of Respondent (or Names, if response represents multiple entities)
- Respondent Type (Business, Government, Non-profit, Individual)
- Contact name, email address, phone number, and website (if applicable)
- Interest and potential role in the Pilot

### **General Program Information:**

- What are the challenges and barriers facing implementation that are specific to our region and port?
- What types of support is needed to expand ZE truck adoption in our region? Examples could be financial and/or practical, such as a voucher, grant program, help with permitting, public charging/fueling or other ideas.
- What measures are necessary to ensure a just and equitable transition to ZE trucks in our region and state?
- Are there any existing projects or partnerships related to the deployment of ZE trucks and related fueling/charging infrastructure in our region that you want to make sure NWSA is aware of?

### **Fleet Information:**

- Can you provide some details concerning your current fleet?
  - Average age of trucks entering NWSA terminals in your fleet
  - Number of trucks in your fleet
  - Average Route Distance (Miles)
  - Average Daily Usage (24/7, 9 AM-5PM, etc.)
  - Do you purchase or lease trucks?
  - Do you typically purchase lease new or used vehicles?
- Has your fleet explored the adoption of ZE trucks? If yes, please provide details
- If your fleet has explored ZE trucks, please you provide feedback on any barriers you encountered that limited or prevented deployment.
- What funding level (\$ or %) would you need (per truck and associated charging/fueling infrastructure) to be able to participate in this pilot program?
- Are there any other types of non-monetary support your organization would need to participate in a ZE truck demonstration project?
- Would public charging/fueling or private/behind the fence charging/fueling be most practical for your operations?

### **ZE Truck Demonstration Project Concepts**

- Does your organization have interest in participating in a ZE truck demonstration in the next 5 years?
- If yes, what do you see your organization's role being in the demonstration?
- If interested in a demonstration in the future, please share any project plans/concepts that you are interested in pursuing and/or think we should include as eligible in our program:
  - Would the trucks be owned or leased? If owned, who would own the trucks?
  - Who would operate/drive the trucks?
  - Who would maintain the trucks?
  - How would the trucks be charged/fueled and who would own the infrastructure?
  - Where would your demonstration be based?
  - How long would the truck owner/operator want to keep the trucks?

- Would the truck owner be willing to scrap existing diesel trucks and replace them full time with the zero emission trucks if required by the available funding?
- Would you be willing to purchase/operate a second hand zero emission truck?

### Questions:

Firms are encouraged to be creative and candid in their responses. Should you have any questions, please submit them by **(4:00 PM PDT April 13th, 2023)**. Questions are to be submitted via the [Port of Tacoma Procurement Portal](#). Instructions for utilizing the portal can be found on the main procurement web page ([Procurement | Port of Tacoma](#)).

### Response date:

Interested firms must provide their responses, by electronic means through the Microsoft Form link provided on the solicitation page by **(12:00 PM (noon) PDT, on April 20th, 2023)**. Additional documentation may be submitted via the [Port of Tacoma Procurement Portal](#). Instructions for utilizing the portal can be found on the main procurement web page ([Procurement | Port of Tacoma](#)).

**NOTE: ALL COST INFORMATION IS FOR BUDGETARY PURPOSES ONLY AND NO CONTRACT OR PURCHASE ORDER WILL BE ISSUED AS A RESULT OF THIS RFI. SHOULD ANY OF YOUR RESPONSE BE CONSIDERED A TRADE SECRET OR OTHERWISE NOT FOR PUBLIC DISEMINATION PLEASE ANNOTATE YOUR RESPONSE ACCORDINGLY**