

Northwest Ports Clean Air Strategy (NWPCAS)

2020 NWPCAS: Draft Strategy Engagement Summary of Input Received

Summary of input received

This document summarizes the input received during the consultation period of October to early November 2020. During this period, the following opportunities for engagement were provided:

- Draft Strategy online workshop: October 20, 2020; 1pm – 4pm
- Written feedback: 6 submissions received
- Additional meetings: 1 meeting held with 3 organizations

This document provides a summary of all input received. General comments that apply to the whole strategy are summarized first, followed by sector-specific input. The comments are grouped by the source of the comment (online workshop, written feedback, additional meetings).

For details about the online workshop agenda and participants, please see Attachment A. Comments and suggestions from participants are greatly appreciated and, together with input received from Canadian port consultation, will be used to inform the ongoing development of the Draft Strategy. The Ports look forward to the continued input from participants in the implementation of the 2020 NWPCAS.

Key themes in the input received

The following points briefly summarize key themes highlighting the type of input received. Following this, more detailed comments are provided.

- **Support for updated vision:** Several respondents expressed support for the updated vision with a clearer timeframe for phasing out emissions of 2050.
- **Interim objectives and near-term action:**
 - Several respondents expressed the need for interim objectives, preferably quantifiable, and strengthened near-term actions to ensure ports get on track towards meeting the vision.
 - Some respondents noted the importance of renewable fuels in the interim and called for clarity around life cycle assessment in the Strategy.
- **Timing and funding of infrastructure:**
 - Numerous respondents expressed concern about the objective to have infrastructure in place to enable adoption of zero-emission technologies by 2030.
 - Some feel this is too delayed, particularly in relation to trucks and CHE.
 - Others feel this may be too early, with the risk of overbuilding infrastructure before we are sure which zero-emission technologies will “win.”
 - Numerous respondents identified a gap in funding and asked the strategy to more clearly communicate where ports will seek funding to support infrastructure expansion.
 - Some respondents urged the ports to commit to no more fossil fuel infrastructure.

- **Engagement and social equity:**
 - Several respondents requested the Strategy strengthen its commitments for ongoing engagement with the community.
 - Some respondents emphasized the importance of social equity when implementing the plan and provided ideas for actions to support this.
 - Some respondents highlighted the importance of ensuring emission reduction investments consider equity and prioritize emission reductions in areas that have been unevenly affected.
- **Metrics and implementation:**
 - Respondents highlighted a lack of measures tracking efficiency.
 - Respondents requested that annual reports clearly state how ports will remedy areas that are falling short of targets and objectives.
 - Respondents urged ports to commit to sufficient staff and project resources to implement this Strategy.
- **Sector-specific input:**
 - Several suggestions were made for each sector, with particular emphasis on Trucks, OGV (shore power) and CHE sectors.
 - In particular, numerous respondents highlighted the upcoming Advanced Clean Truck Regulation that will dictate the sale of new Class 4 to 8 trucks starting in 2023, and that the truck objectives in this Strategy may lag behind the new regulation.
- **Implementation plans:**
 - Several suggestions were made in relation to each of the ports' implementation plans.

Document outline for detailed input:

| | |
|---|-----------------|
| <u>NORTHWEST PORTS CLEAN AIR STRATEGY (NWPCAS)</u> | <u>1</u> |
| SUMMARY OF INPUT RECEIVED | 1 |
| GENERAL INPUT | 3 |
| SECTOR: OCEAN-GOING VESSELS | 8 |
| SECTOR: HARBOR VESSELS | 9 |
| SECTOR: TRUCKS | 10 |
| SECTOR: CHE | 12 |
| SECTOR: RAIL | 13 |
| IMPLEMENTATION PLANS | 14 |
| ATTACHMENT A: LIST OF WORKSHOP ATTENDEES AND ORGANIZATIONS PROVIDING INPUT | 16 |

General input

The following feedback represents general input about the strategy that is not specific to a particular sector. These have been grouped into: interim objectives and near-term actions, infrastructure, engagement and social equity, collaborative action, metrics and implementation, and other.

Interim objectives and near-term actions

Written and additional meeting feedback:

- Lifecycle Analysis. It's not clear how LCA is being incorporated into the strategy.
 - Renewable fuels need to be a part of the transition to ZE strategy
 - Don't count out other near-zero strategies
- Desire for more interim goals / objectives.
- Ports can and must take many creative, proactive actions that will help advance electrification and reduce air pollution in the immediate and near terms. We urge Ports to identify *concrete* actions they can take *in the next few years* along these lines, e.g.:
 - Continue to actively champion a Washington State Clean Fuel Standard
 - Require shore power and electric operations through lease agreements
 - Install charging infrastructure and make port property available to charge and store trucks
 - Fund pilot projects for new technology
 - Purchase electric options for port operations and administration
 - Support truck drivers in the transition to electric (low-interest revolving loan fund or similar)
 - Truck appointment system with preference to electric / zero emission trucks
 - Require all truck calls be zero-emission vehicles by 2040
 - Advocate for grants for electric equipment, especially to prioritize immigrant operators and others from vulnerable communities
 - Fund and support training programs on maintenance for electric vehicles and equipment and recruit trainees from local underserved communities
 - Protect near-port communities today by funding air emission barrier projects on roads with high port traffic
- Ports accelerate zero-emission goals to reflect the urgency of the climate crisis. For example, goals should be closer to California port goals to electrify all CHE by 2030 and all drayage trucks by 2035.
- How can we move timelines up and put more interim dates to actions?
- Is health the priority or is Port competitiveness the priority? If the Strategy has a Community Health guiding principle, what are the short-term things that can be put into place to mitigate the impact of those sources?
- NWPCAS lacks intermediate steps to address local air quality.
- NWPCAS and resulting implementation strategies need to contain clear, quantifiable conditions for success. We fear that rephrasing "conditions for success" to "key challenges" negates the ability to track progress and adapt measures as needed if conditions for success are not being met.

Online workshop:

- Important to recognize near-zero options with renewable fuels in interim where zero-emissions isn't feasible – applies to multiple sectors.

Infrastructure

Written and additional meeting feedback:

- Utilities must be part of the determining the voluntary infrastructure timelines (if industry is subject to a 2040 deadline to use ZE, utilities must be accountable for providing the service beforehand).
- Hydrogen: Barriers exists to producing hydrogen in the area, from land use rules barring the production of hydrogen in the Port area, to a lack of hydrogen subsidies by the state to encourage the adoption of expensive carbon free solutions which need the boost until carbon pricing can offset the additional expenses. We'll need outside partners to help make this transition happen.
- Funding sources need to be clearly identified and part of the strategy.
 - Covering infrastructure cost (design and construction) is a major gap in funding transportation- electrification projects; this is the main reason why pilot projects don't move forward.
 - Support policy that develops utility infrastructure programs.
- 2030 sufficient infrastructure then 2050 adopt zero emission technology: there is a 20-year gap in which the utilities will not want to build infrastructure only to wait 20 years for it to be used
 - Utilities may pass-through costs of not using infrastructure on to the customer, which will ultimately hurt the economics for industry electrify equipment.
- We support the Ports' plans to evaluate the growth and progression of technologies in the electric vehicle (EV) and clean fuel sector within five years but believe the target year for having sufficient zero-emission vehicle (ZEV) infrastructure in place could be moved up a few years.
- We understand that around the year 2023, manufacturers will have the capacity to mass manufacture trucks. Thus, we believe NWSA should plan to have the infrastructure ready to accommodate electric trucks between 2026-27. This would be a few years before the plan's current target year of 2030. We encourage NWSA to examine whether ZEV technology for shore power, cargo handling equipment (CHE), terminals, and rail would be available before 2030, and if so, to move the dates up for each of these technologies as well. We believe such action sends a clear signal to stakeholders, such as utilities and other clean fuel providers, to begin investing in the appropriate infrastructure.
- WA statue demands a 45% reduction in emissions from 1990 levels by 2030 – so infrastructure to *begin* the transition by that year is very much inadequate.
- 2030 Infrastructure target: Think technology will be available sooner, can we push earlier to 2026/27?
- Suggest “yoking” timelines to technology development. For example, commit that within 2 years of the technology coming out, we will adopt the technology across our fleet.
- The development of new fossil fuel infrastructure is incompatible with achieving the ambitious but necessary targets set forth both in Washington State and British Columbia statute and in the Strategy's vision. Ports should not invest in new fossil fuel-based infrastructure and instead, along with port tenants, provide electric fueling stations for harbor vessels, ocean going vessels, cargo handling equipment, trucks, and so forth.
- Ports refrain from investing in any new infrastructure for fossil fuels to avoid stranded assets.

Engagement and social equity

Written and additional meeting feedback:

- Ports should consult directly with workers on the best ways to address barriers to the transition to clean technologies.
- As ports move to reduce pollution, they must also ensure that communities that have been impacted by this pollution are consulted with to ensure that the actions ports take truly have a positive impact.
- Ports work to advance racial equity through all plans, actions, and investments. Potential actions:
 - Co-design and co-implement solutions with terminal-adjacent community members, who are most impacted by Port operations.
 - Conduct a study to create a roadmap for an equitable transition to fully electrified (or otherwise zero-emissions) Port operations that addresses current barriers to achieving equity and identifies potential solutions.
 - Ensure that the cost of air quality improvements to meet the Strategy's goals does not fall on the shoulders of those least able to afford it.
 - Work directly with community members, truck drivers, port tenants and the Port of Seattle's Duwamish Valley Equity Program to create opportunities for community-based solutions for an equitable transition, including workforce development and training programs related to electrification.
 - Work to improve truck traffic flows to reduce impacts on nearby neighborhoods, including such strategies as staggered shifts, container pick-up/drop-off reservations or other efficiency improvements.
- 4.2: Add a bullet to last row for Ports: Engage with communities to understand and mitigate impacts of strategies.
- The Port should make lease agreements that set specific conditions for industry to pay employees and contractors fair, prevailing wages and adopt stringent environmental standards - and it should partner with other West Coast ports to ensure consistency of these standards. We believe such action sends a clear signal to stakeholders, such as utilities and other clean fuel providers, to begin investing in the appropriate infrastructure.
- Ports should use its power as a convener to align all of the stakeholders necessary to accelerate the just transition to ZEV technology.
- The Ports should advocate for the state and federal agencies to enact forward thinking policies.
- The Ports should fund training programs to ensure all operators of clean vehicles and equipment are given adequate training to use these technologies.
- The plan should include more ways to reduce noise and air pollution and other hindrances from idling trucks, in consultation with surrounding communities.

Online workshop:

- Update and strengthen statements about community engagement to be more active, rather than just reporting out. E.g. engage with communities that will be affected by construction, etc.

Collaborative action

Written and additional meeting feedback:

- Section 4.3: We welcome the commitments to collaborative actions, particularly the proposals to undertake air quality studies, to actively engage near-port communities and the non-profit sector, and to conduct comprehensive activity-based emission inventories every five years.
- Would like to see a commitment to no new fossil fuel infrastructure as a shared action.

Metrics and implementation

Written and additional meeting feedback:

- This strategy doesn't report on fuel efficiency or other efficiencies. Furthermore, a fuel efficiency plans goal was the one unfinished goal that the ports didn't carry over from the 2013 strategy.
- We advocate for absolute carbon reduction and for abandoning the use of efficiency metrics in any GHG reporting. If they continue to be included, be sure to acknowledge guidance on usage of these metrics (see p.68 of GHG Protocol Corporate Accounting and Reporting Standard).
- In each annual progress report, if Ports are falling short of interim goals the report should indicate how Ports will get back on target.
- Ports need to invest in staff and fund projects to make sure Ports have the resources to achieve these goals.
- 4.2: Ports should also try to get private business, like Amazon, Walmart, and Costco to partner on projects.

Online workshop:

- Suggested metric – develop metric of systems efficiency, e.g. time from vessel docking to empty (use ecosystem approach).
- Benchmark other ports in the PNW for performance. How successful is the implementation strategy in relation to others?
- Important to share data and information with public and stakeholders.
- Short format.
- Iterative report, updating annually would be great.
- Total cost of ownership of zero-emission vs. diesel is a good metric. Set time for when this info will be reported and updated (annually?).
- Include other metrics / reporting besides numbers. E.g. how are we comparing to other ports? Monitor and report what other ports are doing – their successes and failures.
- Provide explanation of shortfalls and provide a plan to get back on track.

Other

Written and additional meeting feedback:

- We welcome many of the changes, including acknowledgement that IMO regulatory pathways are not aligned with the global efforts to mitigate the climate crisis, the new proposals for air quality testing and comprehensive emission inventories and the update of guiding principles to include community health, climate urgency and social equity.
- Vision: We are very appreciative and strongly agree with the updated vision.

- Section 3.1: We applaud the acknowledgement that the IMO regulatory pathway is not aligned with 1.5°C efforts. Suggest additional measures:
 - Advocacy for stronger federal regulation of shipping and cruise industries. E.g. advocate for improved coordination between USCG and EPA to use the regulatory framework already in place; support the CRUISE Integrity Act; etc.
 - Initiate discussion of limiting shipping and cruise activity until zero-emissions propulsion and fuel options are readily available and in use.
- Section 1.1 and throughout: recommend that ports distinguish between essential and non-essential / luxury (cruise) activities in all narratives and data reporting related to climate and air quality
 - Section 1.2: is economic / social cost of air pollution considered when ports present economic benefits of non-essential cruise travel?
 - Section 3.1: we advocate for greater transparency between what is considered “critical service” and what, in the face of the existential threat of the climate crisis, may rightly be considered “luxury service,” such as cruise business
 - 5.1: appreciate OGV data provided; we recommend that the cruise and shipping emissions be reported separately in future emissions inventories
 - 5.1: are the costs of infrastructure needed to support alternative fuels for cruise factored into the economic benefit of cruise business?
- Section 1.3: can the ports be more explicit about near-term and long-term impacts of climate change outcomes on economic competitiveness? Is there an analysis of how events (e.g. flooding of the Tacoma Tide Flats area) are expected to affect economic competitiveness of ports depending on different climate change scenarios?
- Section 3.4: Suggest more discussion of how the pathway to phase out fossil fuels remains unknown for some sectors, and whether to set growth targets for sectors that have no known pathway to phase out fossil fuels.
- Land-use is a huge issue that is largely ignored in the strategy. Land-use needs to be part of any first step evaluation.
- Ports and tenants focus on improving throughput and other port efficiencies as they relate across sectors. Treat ports like an ecosystem and look for sector interdependencies that, if improved, could reduce emissions.
- Include the cost of climate change.
- We did not see the social cost of carbon explicitly accounted for in the plan. This omission dramatically underestimates both the cost of continuing to burn fossil fuels and the benefits of transitioning off them.
- We hope our comments will aid in creating a strategy that is robust, equitable, and one that shows northwest ports can be leaders in the innovative steps we need to take to ensure clean air and healthy futures, for everyone. We look forward to reviewing the Implementation Strategies as they are released.

Online workshop:

- Will the ports include or engage with other ports and/or terminals in the Northwest? E.g. Prince Rupert, terminal at Cherry Point and many others?
- Improve the clarity of what is included / not included. Show pie chart of emissions. Show what part of the regional inventory is part of this strategy.
- Build a stronger connection to broader supply chain / efficiency programs.
- Need a flexible approach re: technology – it should not be exclusively electric focused.
- Request section on co-benefits of air emissions, air quality initiatives.

Sector: Ocean-going vessels

Objectives

Written and additional meeting feedback:

- In response to challenge that individual ports of call have limited influence – we hope that the collaborative efforts of NWPCAS can help to overcome this disadvantage. From the ports' perspective, what needs to change to address this?
- Scrubbers: we are interested to know more about how NWPCAS ports may “phase out or prohibit undesirable practices,” especially in light of the mention in Section 4.1 that ports have little to no regulatory authority. The current wait and see approach is disappointing.

Online workshop:

- Vague language with efficiency – how will you determine if you're being successful?
- Are you comparing ports standards to federal standards? Ports strategy includes goals and objectives, not standards.
- How to choose technology pathway when setting up infrastructure?

Actions

Online workshop:

- Re: “Supporting international efforts towards phasing out emissions” – what does this look like? Clarify.
- Cruise ships have opted for scrubbers not shore power, which influences emission reductions from shore power.
- Need to incentivize shore power.

Metrics

Online workshop:

- Monitor how many shore power capable ships are coming into port (in addition to number plug in).
- Target for percentage of ships that plug-in to shore power vs. are shore power capable.
- Target 100% for connection to shore power.
- Add metric on transiting cruise ship emissions. Note co-benefit opportunity to slow down and reduce marine mammal impacts.

Sector: Harbor vessels

Objectives

Online workshop:

- Ports will only have influence over tug escort – small subset of overall tug community.
- Clarify scope for harbor vessels at POS (includes tugs, recreation, fishing fleets).

Actions

Online workshop:

- Support near-zero options while zero-emission not feasible (note applies to CHE as well).
- Obtain input from tug community on meeting power demand with lower emission technologies.
- Request all-electric pilots along with transitional requirements.

Metrics

Online workshop:

- Number of pilots that demonstrate zero emissions functionality.

Sector: Trucks

Objectives

Written and additional meeting feedback:

- This year California adopted the Advanced Clean Truck Regulation, which Washington State is bound to through the Zero Emissions Vehicle Mandate. Under this regulation, 75% of Class 4 – 8 straight truck sales must be zero emissions by model year 2035. To reach this requirement, infrastructure will already need to be in place well before 2030, with a significant portion of sales being zero emission prior to that year. In fact, this will demand that 50% of sales of Class 4 – 8 trucks are zero emissions by model year 2030. *[N.B. for Class 7-8 Tractor trucks the requirement is 30% of sales by 2030.]*
- Prices for zero emission trucks are projected to be near diesel equivalent in 10 years. It should not take 20 years to employ them. This needs an interim goal. 60% by 2040 or 90% by 2045. These goals can be internal, but ports need to create the conditions to make these internal interim goals feasible.
- The Strategy should be synchronized with Washington state's ZEV strategy (which could drive timelines for ZEV trucks). Why does POS have a higher level of ambition than POT and why NWSA isn't pressuring POT to synch with POS.
- Interested in hearing more from Ports on their barriers to more ambitious action and faster timelines.
- Spoke with advocate in CA anticipates ZE trucks in CA by 2023. Could NWPCAS set at 2026/27 date by which for ZEV trucks given that timeline? Would need to press the federal government and state government.
- 2030 infrastructure / 2050 adopt vehicles: this transition to zero emissions trucks must begin sooner. Emissions reductions in easier-to-decarbonize sectors must, and can, happen sooner in order to align with our statutory obligations and with climate science. To limit warming, there are benchmarks that we must achieve along the way. Washington State statute demands a 45% reduction in emissions from 1990 levels by 2030, and a 70% reduction by 2040.
- The health disparity maps in the King County SCAP show the entire Duwamish Valley as heavily impacted and we would like to know how much of that is attributable to the port.
- Due to ongoing impacts of lithium-ion batteries and emissions from tire wear, at what point do we talk about a reduction of activity rather than a 1:1 substitution of zero tailpipe emissions technology for fossil fuel technology?
- Missing from strategy:
 - Intent to convene conversations - put something into the strategy that sets an action plan for continuing engagement.
 - Funders as a key partner (external, private).
 - Financing of technology development.
 - Paring the truck standards with the Washington ZEV standards.
- We recommend the electrification goals be expedited, which is supported by numerous statutes:
 - The forthcoming State Energy Strategy specifies that we will need the following in our lowest-cost pathway to achieve reductions: 100% of short-haul heavy-duty vehicles sales in 2045 are electric, as well as 75% of medium-duty vehicle sales. Long-haul heavy-duty vehicle sales are 75% hydrogen and 25% electric.
 - We're bound to CA's new Clean Truck Rule under our ZEV Mandate, which requires 50% of sales of Class 4 – 8 trucks are zero emissions by model year 2030. Again, we will need the infrastructure in place prior to that year to meet law.

- The Port should ensure all the program funds they are responsible for distributing for truck upgrades be designed to improve the financial condition of drivers, through decreasing their operating costs.

Online workshop:

- Avoid piecemeal approach; need a whole state approach. State plan to address hydrogen costs needed.
- Keep in mind the individual cost impact, especially for owner-operators.
- Is it possible to accelerate the trucks adoption before 2050?
- Align with the 15 state MOU on trucks (WA is one of these states). Make the link to the California rule and anticipated MOU.
- Green hydrogen is a key element in making trucks carbon free. California has subsidies for hydrogen costs.
- Unsure if there's enough time to get infrastructure in place by 2030 without overbuilding assets. Expanding electrical infrastructure needs to happen quickly, but won't know which technologies will "win" for a few years to come.

Actions

Written and additional meeting feedback:

- No improvements have been made to address truck parking in Georgetown neighborhoods. Trucks drive through neighborhoods and park and idle. One of the things that would reduce pollution burden in the neighborhood is to have a parking lot for trucks. Think that is a simple intermediate step.

Online workshop:

- Costs will ultimately be transferred to customers / products.
- Lobbying federal and state level for funding is very important.
- Where is the investment coming from to support the trucking communities? Truck companies need support by receiving grants and scrapping trucks – need to mention in the implementation plan.
- Demonstration projects.
- Need state-wide policy, funding and program.
- Seek funding from private partners. Private/public partnerships. Especially larger companies that are advancing clean freight initiatives.

Sector: CHE

Objectives

Written and additional meeting feedback:

- Given that trucks and cargo handling equipment together account for over a quarter of the ports' current emissions, the transition to zero emissions must occur sooner, especially given that these two sectors face fewer technological barriers compared to ocean going vessels in transit, for example.
- California has earlier commitments, supported by statewide policy and investment (e.g. a Clean Fuel Standard), which is why port advocacy in Washington for these critical policies is crucial.
- Some equipment like yard trucks could be zero emissions well before 2050. You should have an earlier goal for yard trucks. 2040?
- Other ports are already using zero emission technology. For example, Germany already has entirely zero emission CHE. Why wait until 2050 if this technology already exists?
- How can the port help with investment in development of the technologies that are needed for zero emission operation?

Online workshop:

- Unsure if there's enough time to get infrastructure in place by 2030 without overbuilding assets. Expanding electrical infrastructure needs to happen quickly, but won't know which technologies will "win" for a few years to come.

Actions

Written and additional meeting feedback:

- Port of Tacoma should provide a model for 100% zero emissions CHE at the terminal it operates.

Online workshop:

- Need to identify where money will come from for this significant investment. Note that volumes and capital in California have supported higher, faster investments.
- Lobbying federal and state level for funding is very important.
- Plan needs to support heavy-lift equipment near-zero options until zero-emission options are feasible (applies to tugs as well). Demonstration projects in California show electric not ready for this heavy-lift application yet.

Sector: Rail

Objectives

Written and additional meeting feedback:

- We advocate that the ports accelerate meeting the NWPCAS 2013 objective of retiring old locomotives.
- Zero emission rail by 2050 is not economically nor technically feasible; why state that technology advancement for rail will take longer then put it on the same timeline as other sources like CHE?

Implementation plans

Port of Seattle

Written and additional meeting feedback:

- We expect the Port of Seattle to explain the efficiency metric and report total GHG emissions for the same time period in any future publication of efficiency metrics.
- Cross-sector: We are generally supportive of these actions, particularly the engagement of the Duwamish Valley community and the evaluation of lifecycle emissions of alternative fuels in seaport applications.
- Green lease terms: Why wait for 2030 to engage tenants and pilot green lease terms when development is only slated for five years?
- OGV, transition: We recommend the Port of Seattle research and develop strategies to reduce the aviation emissions associated with cruise passengers flying to and from Seattle. For ground transportation, we recommend POS advocate for strategies that alleviate gridlock in Belltown near Pier 66, which impact local air quality.
- Complete, and if feasible, implement the evaluation of slow steaming with the Quiet Sound program as quickly as possible.
- Given the technology gap between what is presently available and zero-emissions OGV, we recommend that the Port of Seattle limit or eliminate cruise activity.
- We would like to see more details and shorter timelines in the implementation plans for the Ports of Tacoma and Seattle.
- “Evaluate opportunities to demonstrate zero-emission truck technology that could serve the port’s cruise ships and fishing fleets” on a 5-year timeline. This is in contrast with the Advanced Clean Truck Regulation, which will require 11% of sales of Class 4 – 8 trucks be zero emissions for model year 2025.
- Ports need ways to determine if they are on track to meet the goals. They should also be comparing themselves to California and other ports. These interim goals need to show if the Ports have done all they can to set the conditions for the final goals to be attainable. If these interim goals are not met, Ports need to say why and have a plan.
- Port leadership needs to commit to supporting the staff and providing resources to do the work under this strategy.

Port of Tacoma / NWSA

Written and additional meeting feedback:

- We would like to see more details and shorter timelines in the implementation plans for the Ports of Tacoma and Seattle.
- Ports need ways to determine if they are on track to meet the goals. They should also be comparing themselves to California and other ports. These interim goals need to show if the Ports have done all they can to set the conditions for the final goals to be attainable. If these interim goals are not met, Ports need to say why and have a plan.
- Port leadership needs to commit to supporting the staff and providing resources to do the work under this strategy.
- POS has supporting workforce development and training for vessel and equipment operators and mechanics in Washington to maintain zero emissions. NWSA should also have this goal.

- Harbor vessels, transition: This seems weak to me. Should be "Actively engages with PSCAA and other partners to promote repowers and other projects to reduce emissions.
- Rail, zero emission: I don't know what AQ criteria is, and I am not familiar with existing rail incentive programs. Please clarify.
- Rail, transition: This seems weak to meet. Should be "Actively engages with PSCAA and other partners to promote locomotive re-powers and other emission reduction projects.

Attachment A: List of Workshop Attendees and Organizations Providing Input

Online Workshop

October 20, 2020, 1PM – 4 PM

Agenda:

- Welcome, agenda and introductions
- Overview of Draft Strategy
- Break-out group discussions: Marine and Landside
- Share findings from break-out groups
- Closing and next steps

Attendees:

| Attendee | Organization |
|----------------------|------------------------------|
| Andrew Schiffer | Port Community Action Team |
| Erin Dilworth | Citizens for a Healthy Bay |
| Eugenia Bogazzi | EcoSS |
| Sameer Ranade | Front and Centered |
| Chris Wolfe | EDF, FOSJ |
| Beth Carper | Puget Sound Clean Air Agency |
| Ron Stuart | Ecology |
| Sarah Frederick | EPA |
| Keil Drescher | City of Tacoma |
| Bruce Lambert | Washington DOT |
| Karl Pepple | EPA |
| Amy Fowler | Puget Sound Clean Air Agency |
| Jeremy Stewart | City of Tacoma |
| Mike Moore | PMSA |
| Eric Bayani | ITS |
| Thomas Jelenić | PMSA |
| Karen Zima | RoadOne |
| David White | ColumbiaH2 |
| Karla Sanchez | Harbor Truckers Association |
| Shannon Holmes | Shippers Transport Express |
| Alec Coleman | Washington United Terminals |
| Alex Adams | Port of Seattle |
| Ryann Child | Port of Seattle |
| Elise Lasky | Port of Seattle |
| David Fujimoto | Port of Seattle |
| Graham VanderShelden | Northwest Seaport Alliance |
| Nicola Graham | Northwest Seaport Alliance |
| Steve Nicholas | Northwest Seaport Alliance |

Written feedback

Written feedback was submitted by the following organizations:

- 350 Seattle
- BNSF
- Citizens or a Healthy Bay
- Climate Solutions
- Front and Centered
- Puget Sound Clean Air Agency
- Tacoma Power

Additional meetings

An additional meeting was held via online / teleconference method with the following organizations:

- Duwamish River Cleanup Coalition
- Front and Centered
- Port Community Action Team member