



PORT of
vancouver

Vancouver Fraser
Port Authority

Climate and Air Quality Action Plan

Engagement summary

Vancouver Fraser Port Authority

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Purpose of this document

The Vancouver Fraser Port Authority is developing a Climate and Air Quality Action Plan (CAQAP) for the Port of Vancouver in collaboration with stakeholders and Indigenous groups that will help to identify pathways and actions to reduce emissions that contribute to climate change and that affect air quality. To prepare a relevant and actionable plan, the port authority is actively engaging with the port community and Indigenous groups to obtain broad input on the plan's direction, and specifically, how the port authority can best support its customers and the broader port community in reducing emissions. This document provides a summary of the objectives, process, and input gathered through these engagements to date.

Background

Our climate and air quality actions support the Government of Canada's domestic and international greenhouse gas commitments, are guided by the national Air Quality Management System, and are aligned with the Northwest Ports Clean Air Strategy, developed in partnership with the port authorities of Seattle, Tacoma and the Northwest Seaport Alliance.

Our approach is based on:

- Improving equipment and operational efficiency
- Implementing interim emission reductions
- Developing low and zero emission energy infrastructure
- Adoption of low and zero emission technologies and fuels

The port authority is developing the CAQAP to chart actions that need to happen across the port ecosystem to reduce emissions from Port of Vancouver-related activities. At this time, the focus of the CAQAP will be on the timeframe to 2030, while also considering what needs to occur over the longer term, through 2050.

This will be the first climate and air quality action plan for the Port of Vancouver, and it is intended to be a dynamic document, reviewed and updated on a recurring basis going forward.

Engagement objectives

To successfully reduce emissions from Port of Vancouver-related activities, the port authority cannot act alone. Taking a collaborative approach to implementation across the port community will be essential to reducing emissions across the key sources: ocean-going vessels, harbour vessels, rail, on-road vehicles, non-road equipment, and administration. As such, the port authority is actively engaging with a broad range of stakeholders and Indigenous groups to develop the CAQAP.

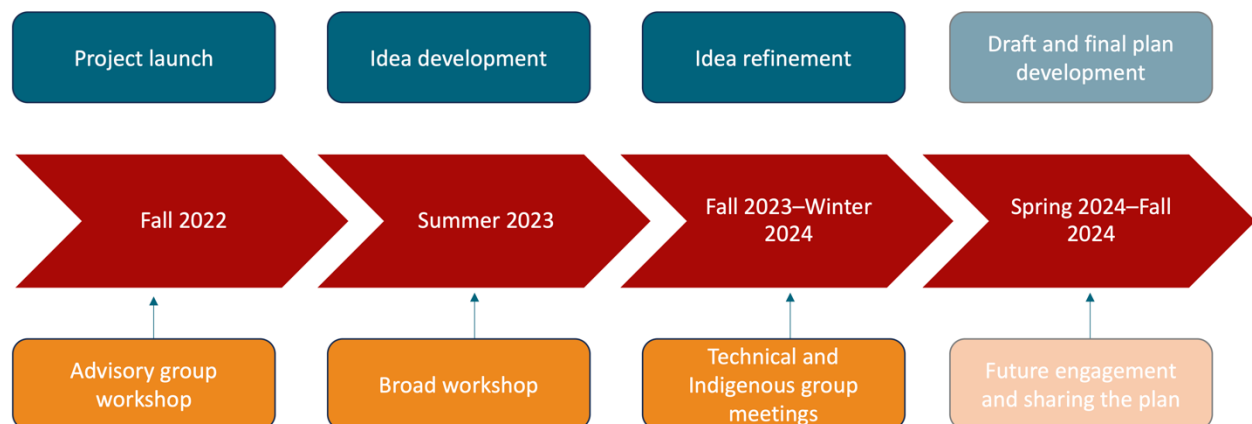
The objectives of this engagement include:

- To provide an opportunity for the port authority to share information on port-related emissions, communicate existing initiatives and strategies to reduce emissions, and present preliminary ideas for further work
- To hear perspectives from stakeholders and Indigenous groups on the key actions that should be taken to reduce Port of Vancouver-related emissions
- To gather input on the roles of the port authority in advancing key actions, with a focus on the 2030 timeframe, while considering the port authority’s long-term role with respect to emissions reduction and energy transition
- To learn and hear from stakeholders and Indigenous groups about the actions they are taking to contribute to emissions reduction in and around the Port of Vancouver, and to seek alignment between these efforts and the CAQAP

Engagement process

The port authority team leading the development of the CAQAP initiated external engagement in November 2022 with the convening of a Climate and Air Quality Advisory Group, intended to help provide high-level input prior to going out to the broader group of stakeholders and Indigenous groups. Engagement continued in 2023, first with outreach to a broad group of stakeholders including governments, industry, environmental groups, and academia, as well as Indigenous groups, underscoring the port’s dedication to fostering an inclusive and collaborative planning process. This was followed by more targeted discussions with representatives from specific industry sectors, and an invitation to Indigenous groups to participate and provide input. Figure 1 outlines opportunities for input, both virtually and in-person, as well as key timepoints where updates and inputs were provided on the port’s online engagement platform (i.e., Civil Space).

Figure 1. External engagement process timeline



Stakeholders

Over the course of the engagement to date, more than 450 individuals representing a diverse range of stakeholder types were invited to participate, and over 150 participated in one or more meeting. Participants included representatives from the following stakeholder types:

- Terminal operators
- Tenants
- Ocean-going carriers
- Harbour vessel operators
- Railway companies
- Trucking companies
- Government
- Industry and employer associations
- Technology providers
- Fuel/energy providers
- Shippers
- Maritime not-for-profits
- Environmental non-governmental organizations
- Classification societies
- Academia
- Other ports

Indigenous groups

The port authority invited Indigenous groups to participate in the advisory group, a broad workshop, and one-on-one meetings. In summer 2023, The port authority notified 36 Indigenous groups of the development of the CAQAP, via introductory letter. Each group was provided an information package and an invitation to meet to discuss CAQAP. The port authority met with seven Indigenous groups and provided one-on-one presentations. During these meetings, Indigenous groups were given a summary of the engagement conducted to date, including themes and topics raised in workshops and meetings, asked how they preferred to provide input on the CAQAP and their desired level of engagement throughout the planning process and finalization of the CAQAP.

The port authority addressed all questions and comments during the presentations with Indigenous groups. Following the meetings, the port authority sent the CAQAP presentation and responded to any outstanding questions they had. The port authority will continue to engage with Indigenous groups throughout the CAQAP development and finalization phase, and may consider a tailored approach.

Engagement input at a glance

What we heard: General themes

Since November 2022, 32 distinct engagements have been held, involving a wide range of stakeholders and Indigenous groups. Throughout these engagements, common themes have emerged (see Figure 2 and Table 1).

Figure 2. Common themes across engagements



Table 1. Summary of key considerations for the CAQAP

What we heard: Key considerations	
Technology testing, demonstration, and adoption	<ul style="list-style-type: none"> • Availability and use of shore power could have great emissions reduction impacts, but more shore power equipped berths are needed, for cruise, container, ro-ro, and bulk • Alternative fuels research, including researching the lifecycle emissions of different fuels, safety of fuels, and technology readiness • Pilot testing of new fuels and technologies is essential to better understand implications for specific fleets, operational parameters, and local conditions
Energy infrastructure planning	<ul style="list-style-type: none"> • Need to better understand the requirements and capacity of the electrical grid, limitations in available real estate for charging infrastructure, the cost of such infrastructure • Uncertainty exists regarding the responsibility for funding infrastructure upgrades, and opportunities for cost-sharing across multiple entities • Need for coordination of capital planning for energy infrastructure among terminal operators, port authority and utility providers • Alternative fuel infrastructure planning is needed, particularly in finding suitable space, storage, and bunkering • Consideration of timing, costs, and alignment with initiatives in other jurisdictions, particularly for providing marine fuels and shore power
Fostering industry connections	<ul style="list-style-type: none"> • Communication around the outcomes of research and pilot projects, best practices, and the complexity of using different fuels • Need to collaborate at regional, provincial, federal, and international levels, both within existing networks, and through the establishment or expansion of new networks • Need for continued and ongoing communication from the port authority outward, as well as within the port community and across stakeholders • Opportunity to collaborate and coordinate within the port community to learn from technology testing and negotiate with suppliers • Importance of joining global initiatives to stay at the forefront of technology innovation, share knowledge, build capacity and maintain a competitive advantage
Enabling policy and funding	<ul style="list-style-type: none"> • Importance of having policies and programs that clearly align with the plan objectives will be critical for success and provide flexibility for industry. Misalignment could result in unclear market signals, potentially hindering investment in initiatives aimed at rapidly reducing emissions.

What we heard: Key considerations	
	<ul style="list-style-type: none"> • The BC Low Carbon Fuel Standard has a crucial role to play in driving adoption of cleaner fuels and reducing emissions • There is also a concern that improperly formulated policies or regulations might inadvertently lead to delays or create unnecessary barriers • Lack of standardization of shore power and the need for regulation • Merits of incentives to foster action with less complexity compared to strict mandates • The importance of regulation to complement incentives, and the importance of careful consideration and clear communication to ensure awareness and active engagement from all stakeholders
Safety standards and code development	<ul style="list-style-type: none"> • It will be essential to establish accompanying safety standards and codes as new fuels are being explored for use at the port. This is particularly relevant to emerging marine fuels, such as methanol and ammonia but also includes non-marine fuels for terminal operations, such as hydrogen

What we heard: Topics specific to stakeholder groups

Although many of the topics above were discussed to various degrees at each engagement session, some sessions spoke more frequently, or in greater detail about particular topics of interest. Table 2 highlights these nuances.

Table 2. Topics of interest by organization types

Types	Specific topics of greatest interest
Terminal operators and tenants	<ul style="list-style-type: none"> • Electricity infrastructure planning in coordination with utilities • Need for more pilot project opportunities, port authority can take a lead role • Electrification and green hydrogen are the leading zero emission options for terminal operations • Significant interest in renewable drop-in fuels in the short term • Cost-sharing strategies for infrastructure investment • Need support for financial analysis and return on investment information • Need for more opportunities for knowledge sharing and exchange • Improved collaboration will be essential to success • Find space for storage and distribution of low emission fuels, e.g., renewable diesel, hydrogen • New policies or regulations need to align with equipment lifecycle planning

<p>Ocean-going carriers</p>	<ul style="list-style-type: none"> • Access to shore power is an important near and long-term strategy • Explore how a soft mandate can increase the rate of shore power connections • Interest in green corridors, but wanting improved coordination and clarification with all levels of government and with other ports • Significant focus on testing and deploying green methanol in the near to mid-term • Potential for green ammonia over the mid to longer term, still needs more testing and safety assessment • Interest in investigating opportunities for green bonds with banks • Some interest in access to renewable drop-in fuels in the near-term, e.g., renewable natural gas, renewable oil
<p>Harbour vessel operators</p>	<ul style="list-style-type: none"> • Support shore-side infrastructure planning, including BC Hydro coordination • Electrification is already happening with support tugs • Interest in technology studies and pilots of new technologies • Need for specialized training for operating electric tugs • Need for independent locations for tugs to fuel with alternative fuels • Interest in increasing short sea shipping for efficient goods movement • Opportunities for improving operational efficiencies, particularly in towing fleet that will take longer to adopt electric or zero-carbon fuels • Interest in biofuels, methanol and hydrogen blends for fleet that isn't suitable to electrification in near term
<p>Railways</p>	<ul style="list-style-type: none"> • Need for transitional solutions in hard-to-decarbonize sector • Need reliable supply of biofuels and renewable diesel as well as supporting infrastructure and to explore delivery mechanisms, e.g., direct fuel from trucks, on-site storage, railcar delivery • Provide opportunities to pilot and demonstrate biofuel and hydrogen, including fueling infrastructure • Implement measures to streamline both application process and review stages, e.g., BC Low Carbon Fuel Standard • More analysis of challenges and capabilities of battery electric options, hydrogen fuel cell options, and integration • Need for policies that promote adoption of clean fuel without imposing additional costs • Introduce programs that accelerate locomotive upgrades to higher-tier engines as a near-term solution • Keep air pollution in mind in addition to greenhouse gases when evaluating new fuels and technologies such as biofuels, and consider co-benefits

In parallel to the CAQAP engagement process, the port authority continues to engage the trucking industry on environmental policies for this sector.

Detailed engagement input

For more details about what we heard to date, please refer to the appendices, which outline all of the engagements that have happened, summarize key input received in those engagements, and provide detailed notes captured during sessions. If you'd like a copy of the appendices, please email climateandairqualityactionplan@portvancouver.com.

Next steps

Engagement was completed in the winter of 2024 with stakeholders and Indigenous groups. The port authority is using the information provided to begin drafting the CAQAP and will continue this work through the fall of 2024, with opportunities for input by stakeholders and Indigenous groups.