

Memorandum

To: Policymakers, Industry Stakeholders, Indigenous Leaders, and Partners in the Pacific Northwest Hydrogen Ecosystem

From: Pacific NorthWest Economic Region (PNWER)

Date: July 2025

Subject: Context Note - Pacific Northwest Low-Carbon Hydrogen Analysis

The Pacific NorthWest Economic Region (PNWER) is pleased to share the attached report, "Pacific Northwest Low-Carbon Hydrogen Analysis."

This report was developed to provide policymakers, industry stakeholders, Indigenous and Tribal Nations, and regional partners with a comprehensive view of the supply and demand potential for hydrogen in the Pacific Northwest (PNW). It also describes the funding instruments, incentives, and policy frameworks supporting the development and deployment of hydrogen and hydrogen-derived fuels across key jurisdictions.

As with many areas of clean energy policy, the hydrogen landscape is dynamic and subject to evolving political, economic, and regulatory contexts. Since the completion of this report, certain programs and policies captured herein have been modified, suspended, or are under review. Every effort has been made to note status where possible.

While this document represents a point-in-time reference, it offers valuable insights into the structure and range of mechanisms that have been used to stimulate hydrogen market growth and investment across our cross-border region. It is intended to support continued dialogue, inform strategic planning, and enable comparative analysis as both policy frameworks and market conditions evolve.

PNWER encourages all readers to supplement this report with the most current information available through relevant federal, state, provincial, and industry channels.

We hope this report serves as a useful resource as the region collectively explores pathways to build a sustainable, competitive, and integrated hydrogen economy.

Sincerely,



Matt Morrison
President and Chief Executive Officer
Pacific NorthWest Economic Region (PNWER)



Pacific Northwest Low-Carbon Hydrogen Analysis

Assessing hydrogen opportunities for the Pacific Northwest

Executive summary

British Columbia and Washington state have initiated early planning and investments in developing low-carbon hydrogen economies to diversify their domestic clean energy portfolios, accelerate economic growth, and enhance energy system resilience. Both jurisdictions have recognized the potential of hydrogen to decarbonize high greenhouse gas (GHG) emission industries and activities, including the production of ammonia and low-carbon fuels, petroleum refining, energy storage and use in the power sector, heavy-duty on-road transportation, chemical production, and blending into natural gas pipelines.

It is important to note that evolving federal landscapes in both the United States and Canada at the time of this study's publication in summer 2025 may impact hydrogen policies and programs. In recognition of this, the study focuses predominantly on state and provincial commitments to advance low-carbon hydrogen in jurisdictions across the Pacific Northwest (PNW) that are expected to remain consistent. Against this backdrop of uncertainty, however, the global low-carbon hydrogen project pipeline is growing and maturing to more than 1,500 projects worldwide.¹

Leading jurisdictions like British Columbia and Washington State are working to enhance collaboration across international borders to build on existing momentum and competitively position the Pacific Northwest region as a player in a global hydrogen economy. Both jurisdictions recognize the generational opportunities associated with fostering a cross-border hydrogen ecosystem, including economic diversification and growth, First Nation and Tribal partnership, community development, environmental stewardship, and workforce development.

With aligned decarbonization goals and a long history of cross-border collaboration, British Columbia and Washington elected to partner on this first-of-a-kind study to explore how the jurisdictions can collaborate to grow a regional hydrogen economy through new partnerships, policy and regulatory advancements, strategic planning efforts, and pilot projects. Despite the growing volume of hydrogen studies in North America, few existing assessments cut across jurisdictions, let alone an international border.

Leadership from the Pacific NorthWest Economic Region (PNWER), in partnership with British Columbia and Washington State, came together to advance a vision for a thriving and collaborative hydrogen economy. The Pacific Northwest Low-Carbon Hydrogen Analysis identifies cross-border opportunities that would strengthen the region's economies and infrastructure, work to enhance hydrogen affordability in a period of increasing economic volatility, build more effective and equitable partnerships, and further strengthen the Pacific Northwest's position as a hydrogen leader.

¹ [Global hydrogen industry reports \\$75 billion in committed capital but climate targets at stake due to project delays | Hydrogen Council](#) (Accessed June 10, 2025)

Study objectives in support of a cross-border hydrogen economy

The objectives of this study are to determine the potential for cross-border collaboration to promote deployment of low-carbon hydrogen, expand and enhance engagement with industry, Indigenous and Tribal leaders, and identify specific opportunities and policies that will enhance collaboration across the region.

The Pacific Northwest's hydrogen advantage

British Columbia and Washington have shared competitive advantages in growing a hydrogen economy. Each jurisdiction's leadership is underpinned by an ambitious climate plan and hydrogen strategy, and each has established direct and indirect support mechanisms like grants and incentives, regulations, permitting, and investment tax credits. Further, the region benefits from decarbonized electricity grids, large West Coast ports with access to tidewater and proximity to Asian export markets, institutional support for innovation and renewable energy development, and vast technological and industrial expertise across the hydrogen value chain. An extensive jurisdictional scan of supportive policies (discussed in Section 3) demonstrates that critical policies are already in place in both British Columbia and Washington, which provide a strong framework for a robust regional hydrogen economy.

Key recommendations

A consistent theme across the analysis is the recognition that a collaborative and aligned approach to policy and financial mechanisms across jurisdictions may yield greater long-term advantages for innovation and investment in the region. To achieve this, there are numerous actions that can be taken to improve collaboration, harmonization, and support a thriving and equitable low-carbon economy that is greater than the sum of its parts.

This study identified four key recommendations that will help to advance the Pacific Northwest's leadership in deployment of low-carbon hydrogen. These recommendations and associated sub-recommendations are:

1. Share data and coordinate planning of hydrogen projects and programs in the Pacific Northwest.

1.1. Formalize a PNW-focused hydrogen working group or task force bringing together relevant hydrogen associations and organizations to align on strategic initiatives, advocacy, and engagement related to a cross-border hydrogen ecosystem.

1.2. Launch a cross-border coordination effort between relevant agencies in British Columbia and Washington with the goal of summarizing the differences in carbon intensity (CI) methodology and lifecycle assessment (LCA) models to improve the understanding of financial impacts.

1.3. As part of the cross-border working effort, establish a forum, such as a working group or task force, focused on sharing resources that can benefit both jurisdictions. This can include either the early sharing of reports, studies, and analysis or, where practical, broadening the scopes of projects and studies to encompass both jurisdictions.

1.4. Develop a near real-time online database of policy, funding mechanisms, and hydrogen-related projects across the study region that could be relevant to a project proponent. Additional information could also include policies, standards, research and innovation, financial tools, '101' education materials and other relevant market intelligence to the ecosystem.

The objective of the first key recommendation is to support continued alignment, information sharing and collaboration to drive broader hydrogen adoption in the Pacific Northwest. The sub-recommendations would provide specific mechanisms to support the coordination required to achieve this goal.

2. Evaluate opportunities to harmonize policies in ways that facilitate cross-border hydrogen deployment.

2.1 British Columbia to review the requirements for axle configurations and determine a solution that supports hydrogen truck movement across the United States (US) to British Columbia (BC) without compromising safety or other regulatory requirements.

2.2 Create or harmonize funding mechanisms across British Columbia and Washington to execute projects across the international border.

2.3 Conduct further research and develop an understanding of whether a credit trading platform can be established whereby clean fuel producers can generate credits in the PNW, and either trade the physical molecules and/or the environmental attributes.

2.4 Using the recently published Canadian Hydrogen Codes and Standards Roadmap (published in February 2025) as a starting point, identify areas of harmonization required across BC and Washington and develop a roadmap to standardize codes and standards wherever possible.

The intended outcome of this recommendation is to ease the process of doing business across borders without compromising jurisdiction-specific requirements, safety, or markets. The sub-recommendations discuss specific policies and opportunities that have been identified by industry and other partners as near-term priorities for evaluation.

3. Support ways to involve, partner with, and benefit First Nations and Tribes, and communities.

3.1. British Columbia and Washington work with tribal and indigenous leaders to identify ways to support First Nations and Tribes in connecting with one another, industry, and other proponents to explore hydrogen development opportunities.

3.2. British Columbia and Washington work collaboratively with First Nations and Tribes to develop educational resources that are shared across borders to help illustrate how low-

carbon hydrogen can play a role in achieving decarbonization and economic development goals, among other key considerations.

3.3. Government and industry associations determine an approach that guides hydrogen-related investments to support communities by avoiding new burdens and creating benefits. Importantly, these approaches are then shared across British Columbia and Washington to further advance both regions in their common goals.

The intended outcome of the third key recommendation is to ensure actions taken in and across both jurisdictions to advance a regional low-carbon hydrogen market centre and uplift community and indigenous voices, perspectives, and needs. Furthermore, this recommendation aims to meaningfully include Tribes and First Nations as collaborators, partners, and drivers of development in the cross-border hydrogen economy.

4. Advance regional hubs and corridors for aligned hydrogen and synthetic fuel use.

4.1 British Columbia and Washington governments and relevant associations to convene after the release of the Northwest Seaport Alliance Green Shipping Corridor Study to discuss and strategize around policy and other actions that could help advance the regional sustainable maritime fuel supply chain.

4.2 As part of the established working group or strategic task force, and in partnership with supply- and demand-side partners, drive the acceleration of short- and long-term opportunities for hydrogen export and import across the PNW via hydrogen corridors.

4.3 As part of the established working group or strategic task force, determine the key initiatives and areas that the region should focus on, including an implementation plan and roadmap to achieve broader regional results.

The objective of this final recommendation is to encourage government and industry in both jurisdictions to collaborate on existing and new hub and corridor initiatives. In addition, the recommendation promotes the prioritization and implementation of regional hydrogen development initiatives.

While additional steps will likely be necessary to further support low-carbon hydrogen in this region, these recommendations represent critical near-term opportunities to ensure that the strength and effectiveness of the low-carbon hydrogen economy in the Pacific Northwest continues to grow. A complete description of the rationale and importance of these concepts is provided in Section 6 - Recommendations to operationalize a cross-border hydrogen economy.

Scope of the study

The recommendations draw from the policy analysis, Indigenous, industry, and stakeholder input, review of case studies, and related work informing this study. In particular, it includes data and analysis in the following areas.

Industry and partner engagement to explore cross-border opportunities

This study made use of several hydrogen and clean fuels industry events in both Washington and BC which provided real-time insights related to ongoing cross-border collaboration. Hydrogen stakeholders and partners across industry, government, First Nations and Tribal leaders and subject matter experts, academia, and civil society identified several consistent themes to enhance collaboration across the region and the value chain.

Notable themes include the need for greater policy and regulatory ecosystem alignment, coordinated market activation opportunities, enhanced regional communication, and the potential for new cross-border partnerships. Participants spoke to the Pacific Northwest's long history of collaboration on energy-related and other initiatives, as well as the region's existing infrastructure and capabilities that can be leveraged to scale hydrogen production, storage, and use. Barriers such as the misalignment of codes, standards, and regulations across jurisdictions, a disconnect between hydrogen supply and demand, and insufficient funding or other support mechanisms continue to limit the activation of a cross-border hydrogen economy.

First Nations and Tribal leadership highlighted the need to increase hydrogen awareness and education to enable meaningful consultation, ensure indigenous voices are included in the decision-making process and in the development of hydrogen frameworks, foster true collaboration to identify and build partnerships, and strengthen the case for how hydrogen production and adoption could advance First Nation or Tribal economic development and decarbonization goals.

These leaders emphasized the responsibility to produce and use low-carbon hydrogen in a way that advances equity and environmental justice for overburdened and marginalized communities.

Pacific Northwest hydrogen supply and demand outlook analysis

The study's supply and demand analysis is based on publicly available data and includes targeted updates to data based on market conditions, policy developments, and technological advancements. This provided the content for a regional hydrogen supply and demand analysis. Supply and demand trends inform projections about the short-term (2025–2030), mid-term (2030–2040), and long-term (2050) theoretical production capacity and trade opportunities to meet demand so that governments and industry can focus effort and investment on areas of greatest impact.

The analysis identified significant growth projections for hydrogen and hydrogen-derived synthetic fuels in the region. Demand is expected to be strong regionally and, while international demand was not formally assessed, there is a recognized opportunity for hydrogen exports to Asia.

Washington, Oregon, and Idaho are expected to require hydrogen imports to meet demand starting in 2035 and continuing until 2050. Most of the projected hydrogen demand, accounting for more than 85%, is anticipated to be driven by using hydrogen as a feedstock or chemical input. This means that more than 85% of the future demand is expected to come from industrial uses such as refining and chemical manufacturing, ammonia production, and the production of low-carbon fuels where hydrogen is used as a feedstock, such as in the production of sustainable aviation fuel (SAF).

Although not the largest end-use, hydrogen for heavy-duty long-haul trucking and transit buses represents a compelling near-term opportunity to decarbonize the transportation sector while catalyzing regional demand. There is potential for the adoption of fuel cell electric vehicles (FCEVs) on routes and operations that cannot be easily electrified due to their specific payload, range, and operating requirements.

The demand gap in Washington could be filled by additional in-state production or through the import of hydrogen from other jurisdictions. British Columbia and Montana have a modelled potential to produce more hydrogen than is needed locally and, therefore, are nearby potential sources to feed Washington, Oregon, and Idaho.

The modeling emphasizes the importance of the preferences of customers or off-takers. Future policies, domestic production capabilities, and technology readiness may all impact demand, further strengthening the importance of a regional approach to match surplus supply with production deficits.

The transport of hydrogen molecules across borders will be enabled by established infrastructure, cost-competitive delivery methods, and supportive carbon markets. In the short-term, on-road transport presents a viable option for physically moving hydrogen as supply and demand begin to materialize. To achieve large scale hydrogen movement, distribution infrastructure with a larger capacity, such as rail or pipelines, will be beneficial.

A thorough presentation of the supply and demand modeling, including description of methodology and data sources, is presented in Section 4.

Evaluation of mechanisms to trade hydrogen across borders

In addition to relatively complementary regulatory systems and objectives, the geographic proximity of British Columbia and Washington State supports transboundary hydrogen trade. Further, British Columbia's Low Carbon Fuel Standard (LCFS) and Washington's Clean Fuels Standard (CFS) and associated credit markets amplify the investment attractiveness of regional low-carbon hydrogen production and use. Ongoing harmonization of these markets in coordination with other jurisdictions along the West Coast can strengthen their impact on the growing cross-border low-carbon hydrogen market.

Ensuring the environmental integrity of cross-border hydrogen trading involves verifying carbon intensity and production methods, establishing transparency with robust environmental attribute tracking mechanisms, and aligning on technical specifications for codes and standards. Collaboration across the value chain is essential for seamless tracking, while discussions on book-

and-claim accounting may offer flexibility in managing environmental attributes independently of physical hydrogen movement. Further, an understanding of the differences between carbon intensity calculation methodologies will support project proponents when developing or engaging in cross-border opportunities.

Identification of best practices for cross-border collaboration

Collaboration across international borders can help to advance the Pacific Northwest's ambition of transitioning to a low-carbon economy while driving economic development. Understanding best-practice examples of international energy and environmental collaboration, as well as stress-testing specific case studies for the region may prove instructive to the development of new models or approaches to collaboration.

Six examples of successful cross-border collaboration from leading hydrogen jurisdictions, including bilateral agreements across Europe and North America on different energy projects, are provided to showcase what lessons or best practices can advance production, transport, storage, and use. These examples demonstrate that cross-border collaboration has strong potential to be mutually beneficial for participating jurisdictions, despite differing infrastructure and policy. Common successful concepts for cross-border collaboration include aligning goals and interests, as well as sharing research, progress tracking, challenge identification, and solution generation.

The contents of this report and its recommendations are intended to provide critical near-term steps that will enhance the viability and scale of hydrogen production and use in ways that drive toward decarbonization, support environmental justice, and both leverage and strengthen the collaborative relationship that exists between British Columbia and Washington. It is the hope of the study sponsors and partners that this report can serve as a guide as the Pacific Northwest embarks on the next steps to realize that vision.

Recommendations to operationalize a cross-border hydrogen economy

The following recommendations are designed to leverage insights gained through stakeholder engagement, regional supply and demand modeling, and other assessments performed for the Pacific Northwest Low-Carbon Hydrogen Analysis. This study has revealed a deeper understanding of existing policy mechanisms across jurisdictions, perspectives from industry stakeholders and community partners, as well as anticipated future demand deficits and supply needs across the region.

These recommendations aim to support British Columbia and Washington State as well as other key partners across government, industry, rightsholders, and academia in making informed decisions about how to foster ongoing cross-border collaboration and market alignment, as well as highlight opportunities for other practitioners and convenors to bridge coordination and information gaps. The intent is to provide priority recommendations for the hydrogen industry that support cross-border efforts and regional market growth. These focus on four main recommendations with a principle of value creation, economic development, and social and environmental justice.

1. Share data and coordinate planning of hydrogen projects and programs in the Pacific Northwest.
2. Evaluate opportunities to harmonize policies in ways that facilitate cross-border hydrogen deployment.
3. Support ways to involve, partner with, and benefit First Nations, Tribes, and communities.
4. Advance regional hubs and corridors for aligned hydrogen and synthetic fuel use.

These recommendations focus on opportunities that require action or coordination across both jurisdictions. Actions and recommendations that are specific to requirements in British Columbia or Washington individually, such as jurisdiction-specific policy amendments, are not captured. Although these are important actions that underpin the ability for cross-border collaboration, they will continue to be explored by each jurisdiction separately and are not addressed in this report.

Key recommendation 1:
Share data and coordinate planning of hydrogen projects and programs in the Pacific Northwest.

Intended outcome:
Continued alignment, information sharing and collaboration to drive broader hydrogen adoption in the Pacific Northwest.

Observation	Recommendation	Lead party, Collaborators	Industry value
<p>Hydrogen associations have been stood up across the region with some informal touch points, but no formal alignment on mission, goals, or areas of focus exist between them.</p>	<p>1.1 Formalize an industry-led PNW-focused hydrogen working group or task force bringing together relevant hydrogen industry associations and organizations to align on strategic initiatives, advocacy, and engagement related to a cross-border hydrogen ecosystem.</p> <p>This formalized group could then be the driver of recommendations noted within this report.</p>	<p>Industry associations</p> <p>Regional Convenors, Government</p>	<p>Greater coordination exists between key hydrogen associations creates a stronger, more supportive foundation for industry growth.</p> <p>Leveraging shared resources and capacity allows for strategic initiatives with greater impact and reach.</p>
<p>British Columbia and Washington use different methodologies to measure carbon intensity (CI) in their Low Carbon Fuel Standards and different LCA models – GHGenius in BC and GREET in Washington. This can impact the financial viability of project proponents looking to operate across both jurisdictions.</p>	<p>1.2. Launch a cross-border coordination effort between relevant agencies in British Columbia and Washington with the goal of summarizing the differences in CI methodology and LCA models to improve the understanding of financial impacts.</p>	<p>Government</p> <p>Industry; Industry Associations; Academia</p>	<p>Understanding the differences in CI calculations across jurisdictions, including their methodologies and approaches, may support greater transparency, help identify areas where CI improvements can be made, and enhance project financials, ultimately enabling greater cross-border hydrogen trade.</p>
<p>Both British Columbia and Washington State are undertaking various studies and programs that could be expanded in scope to advance the region's goal of developing a hydrogen economy.</p>	<p>1.3. As part of the cross-border working effort, establish a forum, such as a working group or task force, focused on sharing resources that can benefit both jurisdictions. This can include either the early sharing of reports, studies, and analysis or, where practical, broadening the scopes of projects and studies to encompass both jurisdictions.</p> <p>Examples include:</p> <ol style="list-style-type: none"> 1. The recently developed BC Hydrogen Labour Market and Skills Analysis may have been expanded to include Washington. 2. Washington is currently developing an environmental justice toolkit for project proponents. There is potential for BC to also use this toolkit or build from it to make it relevant to the province. 	<p>Government</p> <p>Regional convenors</p>	<p>Decision-makers, industry, and other partners have consistent resources, data, and findings that are contextualized to the broader region that can be utilized to inform strategic action.</p>

<p>There are many different public funding mechanisms available across PNW jurisdictions, each with varying eligibility requirements, timing, and support. In addition, there is no collective regional understanding or documentation of hydrogen projects in development or operation across the region.</p>	<p>1.4 Develop near real-time online databases of policy, funding mechanisms, and hydrogen-related projects across the study region that could be relevant to a project proponent.</p> <p>Additional information could also include policies, standards, research and innovation, financial tools, '101' education materials, and other relevant information to the ecosystem.</p> <p>The database could utilize innovative tools, such as a chatbot feature, to provide users with immediate information about relevant funding opportunities based on key project details.</p>	<p>Public-private partnership</p> <p>Industry Associations; Academia</p>	<p>There is better access to relevant and applicable funding mechanisms across jurisdictions, and the potential for industry users to leverage all available funding in support of regional market growth is enhanced. Hydrogen proponents have access to useful information and can plan and advance their hydrogen development and operational goals. The ability to match hydrogen producers and end-users across borders is improved.</p>
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Key recommendation 2:

Evaluate opportunities to harmonize policies in ways that facilitate cross-border hydrogen deployment.

Intended outcome:

Ease of doing business across borders is enhanced without compromising jurisdiction-specific requirements, safety, or markets.

Observation	Recommendation	Lead party, Collaborators	Industry value
There is an inconsistency in medium- and heavy-duty truck axle requirements, preventing US-based hydrogen trucks from being used in British Columbia.	2.1 British Columbia to review the requirements for axle configurations and determine a solution that supports hydrogen truck movement across the US to BC without compromising safety or other regulatory requirements.	Government Industry; Regional Convenors	In the short-term, truck manufacturers and project proponents require standardization across the US and British Columbia while the industry waits for a manufacturer to develop a 6x4 axle hydrogen FCEV.
Funding is typically only available to project proponents on a jurisdiction-by-jurisdiction basis and cannot be used across both Canada and the United States.	2.2 Create or harmonize funding mechanisms across British Columbia and Washington to execute projects across borders, e.g., one funding mechanism to support a project proponent in installing refueling stations in both British Columbia and Washington.	Government Industry Associations	Project proponents may receive more funding, or funding may be easier to access if it can be harmonized across borders for cross-border specific opportunities.
No current mechanism allows for seamless cross-border hydrogen transactions due to differences in carbon credit markets and CI calculations between BC and Washington.	2.3 Conduct further research and develop an understanding of whether a credit trading platform can be established whereby clean fuel producers can generate credits in the PNW, and either trade the physical molecules and/or the environmental attributes. A global example of this is the European Union Emissions Trading System (EU ETS), where clean fuel producers generate credits by reducing their emissions and sell these credits to other companies who are obligated to buy them under compliance requirements. Explore opportunities to expand and harmonize this platform with other jurisdictions along the West Coast.	Public-Private Partnership Industry; Industry Associations	Hydrogen producers can better leverage cross-border offtake agreements, making projects more financially viable and attractive to investors. The book and claim system allow for the decoupling of hydrogen production and consumption, enabling broader market participation.
There are inconsistencies in codes and standards between BC and Washington across hydrogen production, storage, transportation and end-use.	2.4 Using the recently published Canadian Hydrogen Codes and Standards Roadmap (published in February 2025) as a starting point, identify areas of harmonization required across BC and Washington and develop a roadmap to standardize codes and standards wherever possible.	Government Industry Associations	Further alignment of codes and standards across borders will minimize confusion, potential project delays and non-compliances when designing and deploying hydrogen-related projects.

Key recommendation 3:

Support ways to involve, partner with, and benefit Tribes and First Nations, and communities.

Intended outcomes:

Alignment across the growing regional low-carbon hydrogen market to centre and uplift community and indigenous voices, perspectives, and needs. Tribes and First Nations are not only engaged and consulted as the market grows, but are included as collaborators, partners, and development drivers.

Observation	Recommendation	Lead party, Collaborators	Industry value
<p>Work is progressing in both British Columbia and Washington to share knowledge on hydrogen-related opportunities for First Nations and Tribal communities. Knowing that Indigenous communities in the PNW have borders that are not defined by the 49th parallel, there is an opportunity to collaborate further across BC and Washington.</p>	<p>3.1. British Columbia and Washington work with tribal and indigenous leaders to identify ways to support First Nations and Tribes in connecting with one another, industry, and other proponents to explore hydrogen development opportunities.</p>	<p>Partnership between Government and First Nation/Tribal Convenors</p>	<p>A collaborative and inclusive approach prioritizes the protection of tribal and indigenous sovereignty, builds trust, and creates opportunities for partnership.</p>
<p>In some instances, First Nations and Tribal communities are unsure of the role that low-carbon hydrogen could play in their energy, natural resource, and economic development planning.</p>	<p>3.2. British Columbia and Washington work collaboratively with tribes and tribal-led organizations to develop educational resources that are shared across borders to educate communities on the opportunities that hydrogen presents for their communities.</p> <p>This could also include working with regional tribal-led organizations and convenors to leverage existing venues/initiatives, or launch new ones, where tribal and First Nation leaders and staff can learn, coordinate, and partner on hydrogen-related topics and projects.</p>	<p>Government</p> <p>First Nations and Tribes; Regional Convenors; Industry</p>	<p>Collaboration between Government, Industry, First Nations, and Tribes on regional hydrogen deployment is enhanced.</p> <p>First Nations and Tribes are better equipped with information and resources to decide how they may want to participate in the regional low-carbon hydrogen economy.</p>
<p>British Columbia and Washington are committed to environmental justice and supporting overburdened communities, particularly while also striving for a low-carbon economy.</p>	<p>3.3. Government and industry associations determine an approach that guides hydrogen-related investments to support communities by avoiding new burdens and creating benefits. Importantly, these approaches are then shared across British Columbia and Washington to further advance both regions in their common goals.</p> <p>This could include creating toolkits and guides that project proponents can use to understand how they can drive environmental justice through hydrogen projects, as well as acting as a trusted connector or convener of communities with project proponents.</p>	<p>Government</p> <p>Community-Based Organizations; First Nations and Tribes; Regional Convenors</p>	<p>First Nations, Tribes, and communities are included and heard when projects are established, with collaboratively identified benefits from the projects flowing directly to these groups.</p>

Key recommendation 4:

Advance regional hubs and corridors for aligned hydrogen and synthetic fuel use.

Intended outcomes:

Invest in planning, coordination, and action to meet near-term priorities while laying the groundwork for long-term needs. Focus efforts on the available technology, industry sector uses, policies, and supply and demand capacities on the immediate horizon, and be ready to assess changes in the future and shift focus accordingly.

Observation	Recommendation	Lead party, Collaborators	Industry value
<p>The maritime industry and governments are allocating resources to understand the opportunities and next steps to support decarbonizing marine activities through green cruise corridors.</p>	<p>4.1 British Columbia and Washington governments and relevant associations to convene after the release of the Northwest Seaport Alliance Green Shipping Corridor Study to discuss and strategize around policy and other actions that could help advance the regional sustainable maritime fuel supply chain.</p>	<p>Industry Associations</p> <p>Government; Industry; Regional Convenors</p>	<p>Alignment across the region on where to focus shipping, maritime decarbonization, and hydrogen efforts is enhanced.</p>
<p>Hubs are developing across the PNW, with transportation corridors acting as a key enabler of domestic and international trade between hubs.</p>	<p>4.2. As part of the established working group or strategic task force, and in partnership with supply- and demand-side partners, drive the acceleration of short- and long-term opportunities for hydrogen export and import across the PNW via hydrogen corridors.</p> <p>Use the working group to:</p> <ol style="list-style-type: none"> a) Align relevant stakeholders and community partners, including existing hub leaders, existing working groups and associations on efforts to enable on-road transport. b) Identify opportunities of strategic interest for longer-term hydrogen corridors that may include a consideration of rail or pipeline. 	<p>Public-Private Partnership</p>	<p>Support to accelerate on-road transport of hydrogen is enhanced. Charting a path forward for rail or pipeline opportunities for cross-border transport of hydrogen (particularly large quantities) will help engage project proponents and other relevant stakeholders, and rights holders.</p>
<p>The opportunity for hydrogen and hydrogen-derived fuels to be utilized as an energy source and feedstock is significant across the region, with numerous industries and strategic applications available. Many actions are currently being taken, including conferences, projects, working groups, associations, and other activities across many areas of focus (e.g., end-use application, labour and workforce assessments, codes and standards, etc.). There is a risk that action is diluted through this current approach, rather than focusing on key areas for short-term and long-term action.</p>	<p>4.3 As part of the established working group or strategic task force, determine the key initiatives and areas that the region should focus on, including an implementation plan and roadmap to achieve broader regional results.</p> <p>This would include aligning on a lighthouse project or a project of strategic interest for the broader Pacific Northwest to pursue.</p>	<p>Regional Convenors</p> <p>Government; Industry Associations; Industry; Academia</p>	<p>There is action across various sectors, but a clear and aligned path for focused prioritization across the region has yet to be identified. This alignment will support the investment of funding and resources in areas that will advance the region. This may result in some areas of focus being deprioritized or other areas becoming in focus. As such, communication and alignment with industry will be important.</p>

