

Hydrogen HUBS: Pacific Northwest H2 Association

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5/13/2022



Washington State
Department of
Commerce

AGENDA

Welcome

Commerce Director Lisa Brown

Governor Inslee

Legislation Update

Senator Carlyle

Hydrogen Policy & State Energy Strategy

Michael Furze, Energy Division

WA State HUBS Application Process

Chris Green, Office of Economic Development & Competitiveness (OEDC)

HUB Development Principles & Opportunities for input

Stephanie Celt, Energy Division

Projects RFP

Brian Young, OEDC

Washington Policy Context

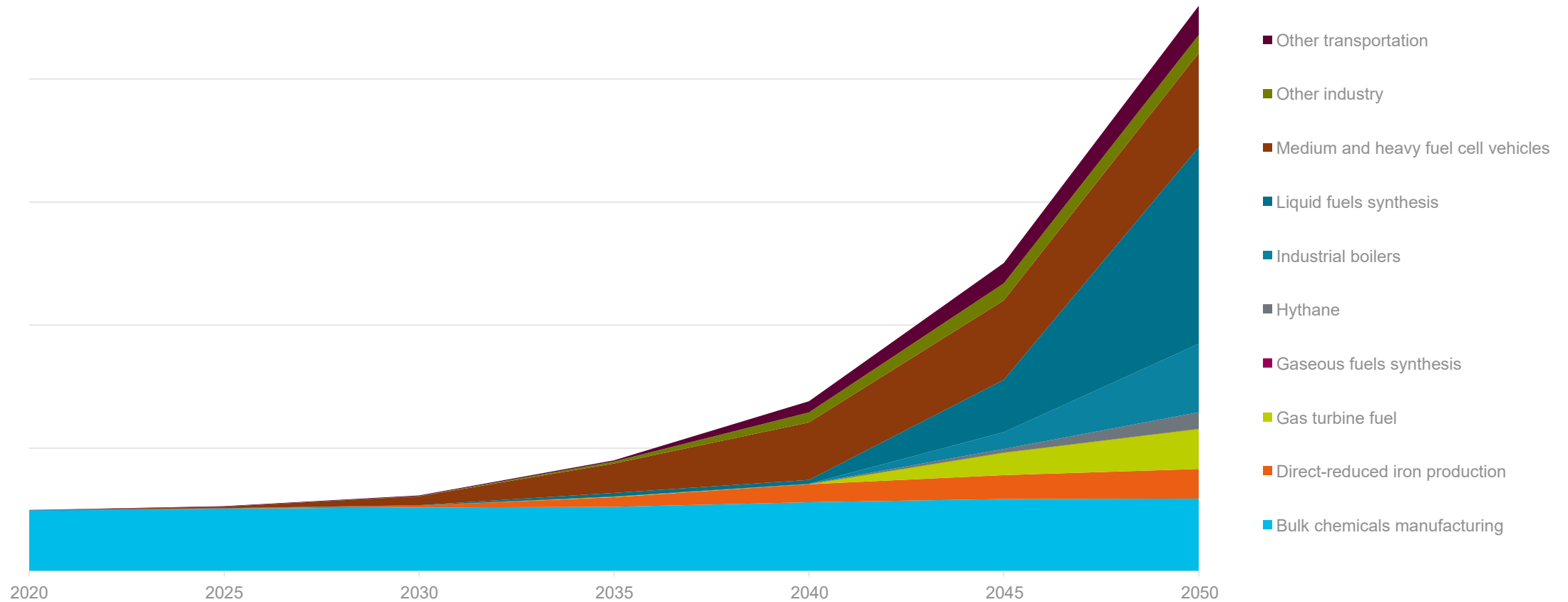
- **Clean Energy Transformation Act**
 - 100% clean electricity standard by 2045
- **Net zero GHG emission limits (by 2050)**
- **Climate Commitment Act**
 - Cap and invest program covering about 75% of emissions
- **HB 1812 Clean energy projects**
- **HB 1988 Clean energy manufacturing incentives**
- **SB 5910 Accelerating Green Electrolytic Hydrogen**
 - Commerce creates the Office of Renewable Fuels
 - New incentives and authorities
- **HEAL Act**
 - Requirements for state agencies to advance environmental justice
- **Labor standards incentives**

Green Hydrogen in the State Energy Strategy

“The deep decarbonization modeling and the state energy strategy identify an important role for clean fuels in every sector of the energy economy. **Green hydrogen is of particular significance**, because it could serve both as a flexible use of electricity when generation exceeds demand and as a feedstock for production of synthetic fuels.” – 2021 State Energy Strategy

- Flexible load for the power system, functions as storage
- Replacement for transportation fuels: marine, aviation, and heavy-duty trucking
- Industrial processes: replace fossil-derived hydrogen, replace fossil fuels for high-temperature processes

H² Uses in the Decarbonized Energy System

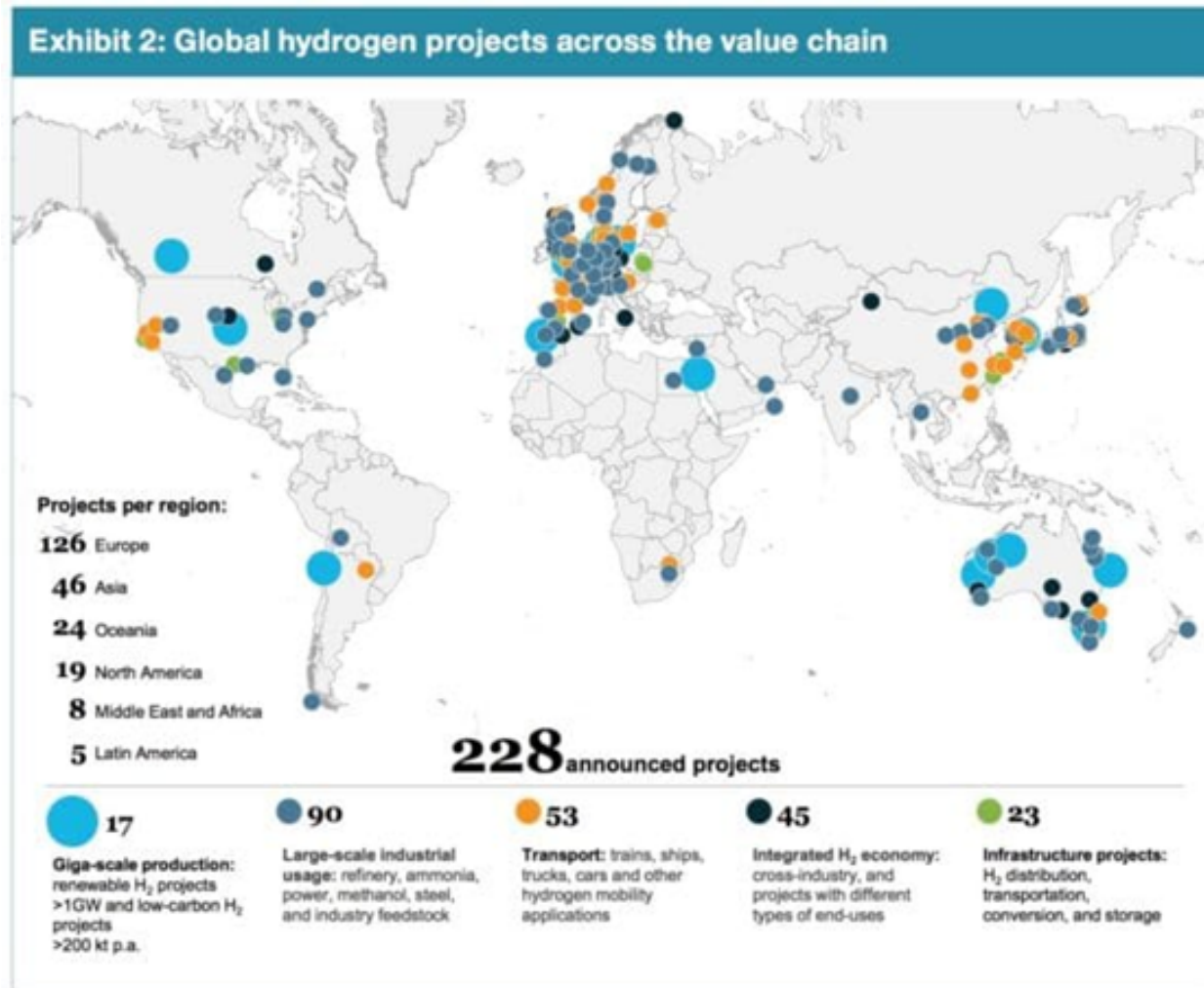


Based on netzeroamerica.princeton.edu, high electrification scenario

H2Hubs key information

- **\$8 billion to at least four hubs**
 - At least one each based on:
 - Green/renewable hydrogen (WA's focus)
 - Natural gas with carbon capture and storage
 - Nuclear
- **5+ year timeline**
 - Phase 1 focused on planning – \$1 million to \$4 million grants, expected fall 2022
 - Phase 2 – \$500 million to \$1 billion, 50% match

Growing global hydrogen industry



Increasing hydrogen investments globally – though few in North America

May grow to compete with/displace fossil fuel use in hard to decarbonize sectors

Washington updates

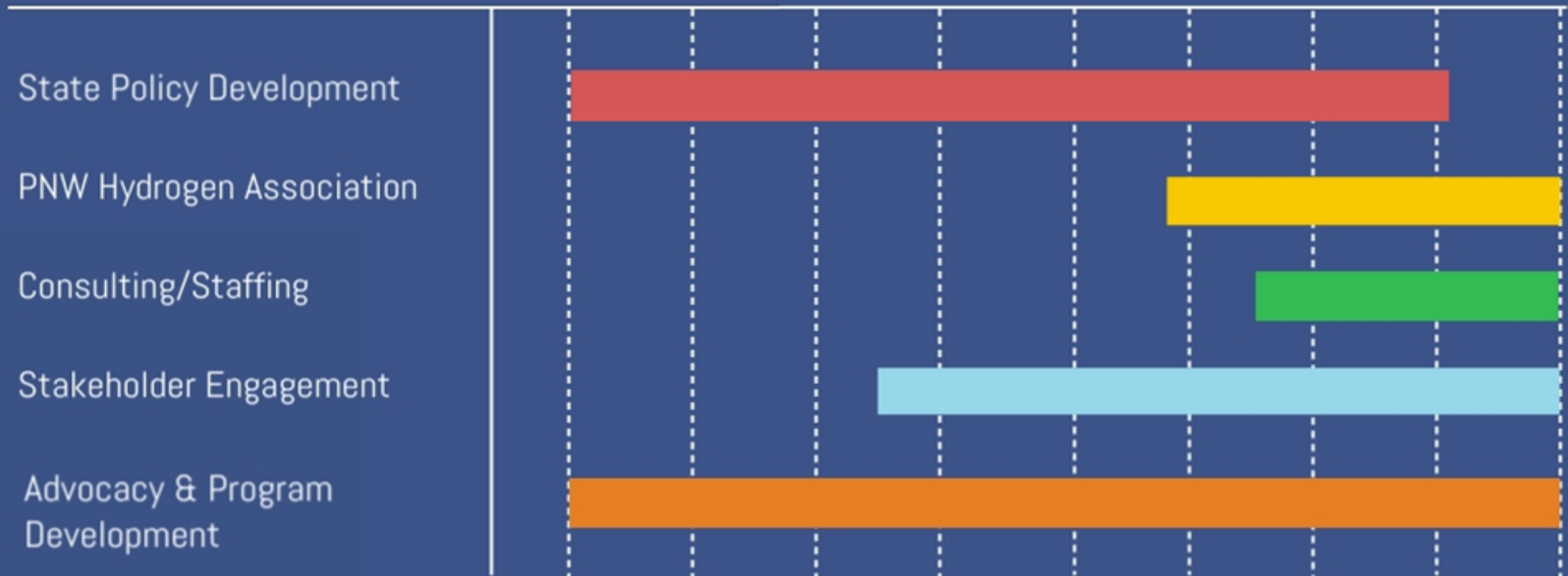
- Governor Inslee letter, request for Commerce to coordinate
- Commerce submitted a reply to DOE Request for Information; coordinated with other WA stakeholders
- Established Pacific Northwest Hydrogen Association--501(c)3
3/31/2022
- Preparing for Draft Notice of Funding Availability from DOE
5/15/2022 – final in Summer

Program Status

Hydrogen Hubs

11/12/21

6/30/22



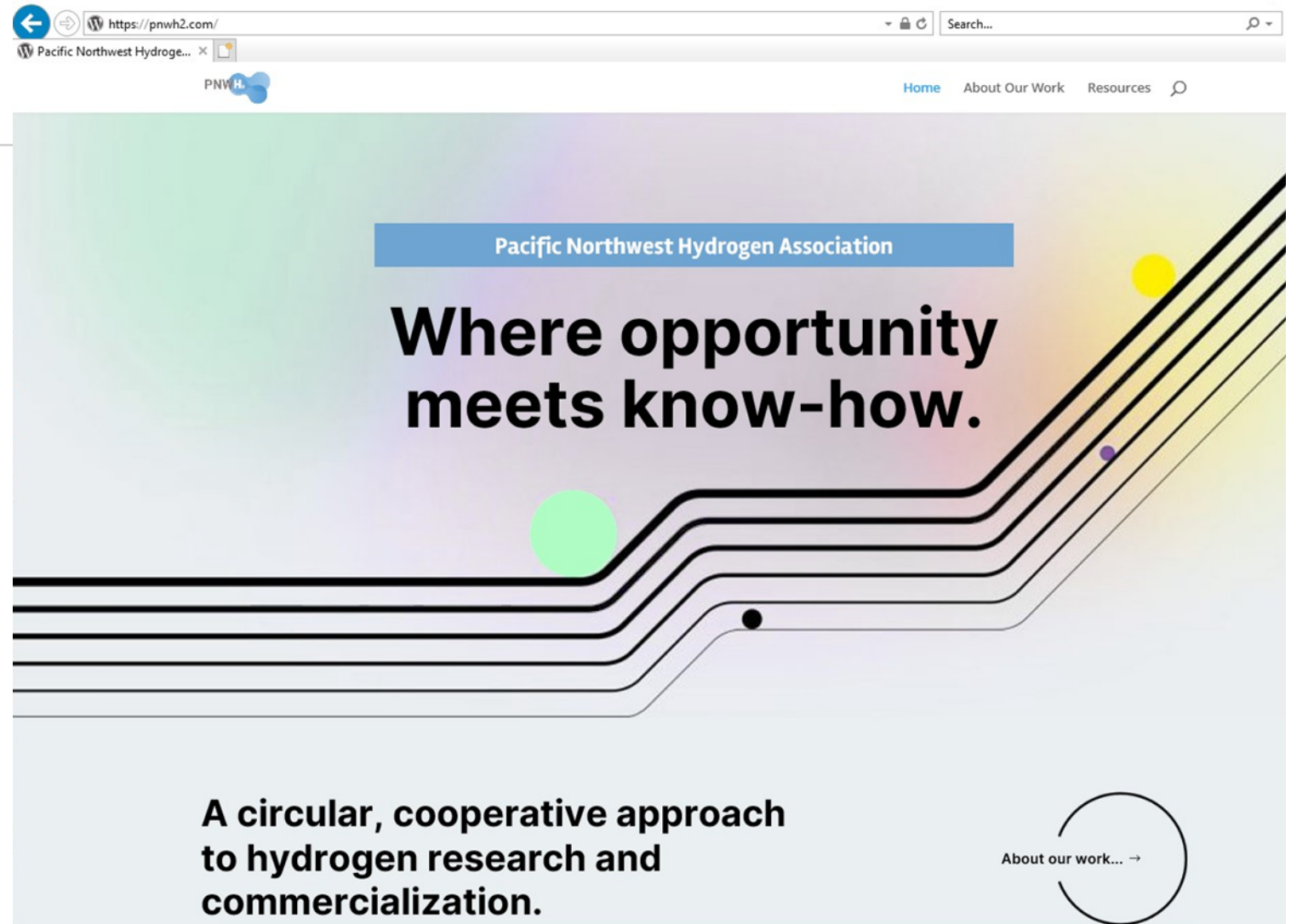
Draft Governance

Law requires PNW Hydrogen Association to be composed of: public project developers, private project developers, manufacturers and end-users, research institutions, academia, government and communities around the state, including tribes, labor, ports and utilities.



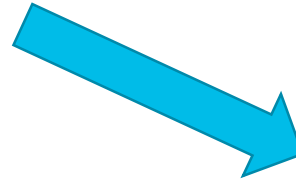
Website

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Critical next steps

- Equity, Environmental & Energy Justice Plan
- Workforce Development and Jobs Plan
- Tribal Engagement – multiple pathways
- Community engagement
- Use of mapping and geospatial tools & data
- Domestic, clean technology manufacturing
- Energy emergency management and planning
- Industry clusters



Justice40 and HEAL Act

40% of overall benefits of certain Federal investments must flow to disadvantaged communities

DOE: “Hub deployment will focus both on reducing harm and increasing benefits to disadvantaged communities”

WA context : alignment with HEAL Act

Opportunities for engagement

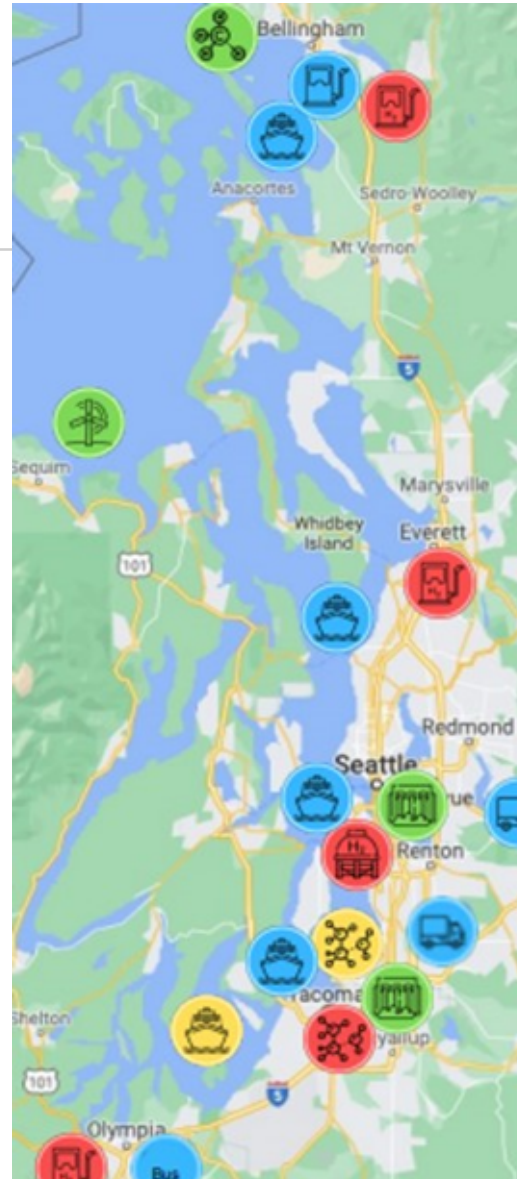
- **Current intentional outreach to engage critical stakeholders**
 - Tribes; Unions; Community and environmental justice organizations; Industry
- **Board and advisory committee(s)**
- **Tribal avenues with PHNA and Commerce, Board**
- **Considering Commerce additional engagement pathways**



Goal – numerous ways for communities to have a voice!

Projects

CHARGE Network
previously identified
projects in the Puget
Sound and Central
Washington areas



Requests for Proposals

- Do you have a Hydrogen Project?
 - Have you already applied to the RFI with our ICAP partner CHARGE?
 - RFP will be released within the next month, please submit proposals.
-
- Brian Young, Governor's ICT Sector Lead

Thank you!

QUESTIONS? Please email Jaclyn Perez, listed below.

Commerce will compile all questions within today's chat and any received via email, and post a FAQ on the PNWH2 Webpage next week.

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