







Pacific Northwest Hydrogen Hub: Decarbonizing hard to abate sectors while building stronger communities in the PNW

Chris Green

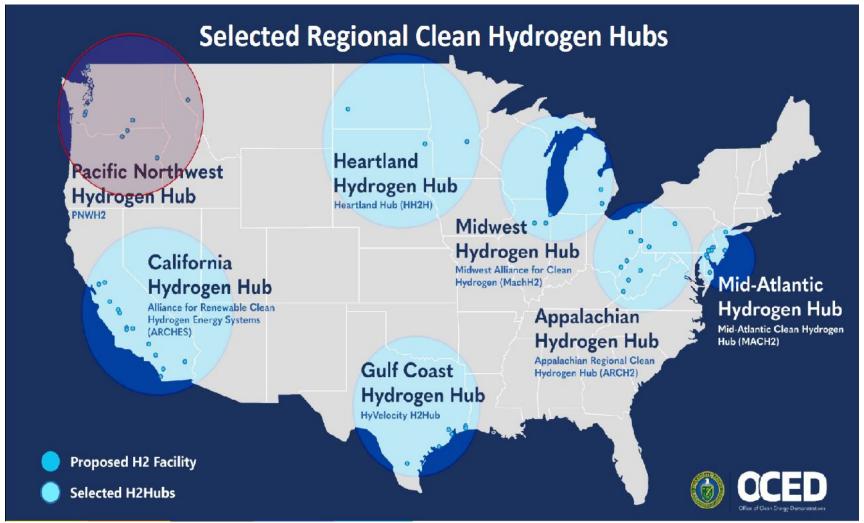
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DOE Hydrogen Program 2024 Annual Merit Review and Peer Evaluation Meeting

AMR Project ID# OCED002



Overview: PNWH2 Hub is located across Washington, Oregon and Montana



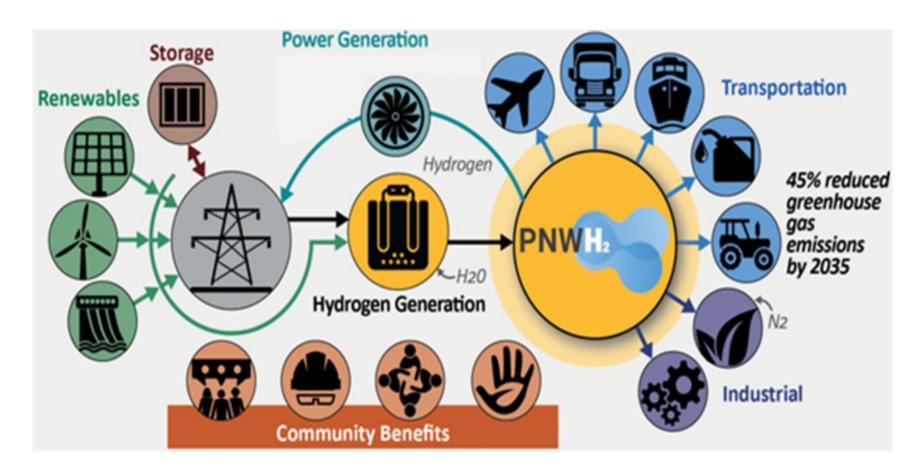


Source: https://www.energy.gov/oced/regional-clean-hydrogen-hubs-selections-award-negotiations

Overview: PNWH2 Hub

Decarbonizing hard to abate sectors while building stronger communities in the PNW

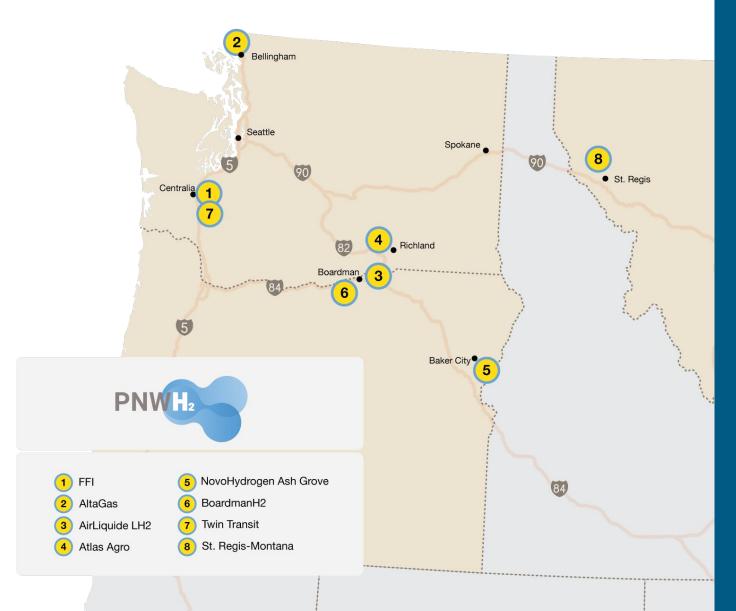
- ☐ 17 Projects
- ☐ 8 Nodes
- □ 3 States
- □ ~400 MT/day H2
- ☐ 100% Green feedstock
- □ >10,000 Jobs
- Revitalizing communities
- 15 Tribes/TribalNations contacted
- ☐ >100 Community letters of support



~400MT/day H2 production



Potential Project Locations



USA Fortescue Future Industries; First Mode; Puget Sound Energy; Amazon; Centralia College

- H2 for clean energy and heavy-duty transportation
- H2 training and workforce development facilities

2. ALA Renewable Energy LLC; HTEC Systems

 H2 production for heavy-duty transportation, refineries, and power generation

3. Air Liquide; NW Seaport Alliance; PACCAR

Liquified H2 for heavy duty transportation

4. Atlas Agro

 H2 for calcium ammonium nitrate fertilizer production

5. NovoHydrogen Holdings LLC

H2 for heavy duty transportation

6. MHI Hydrogen Infrastructure LLC; Williams Field Services Group, LLC; Portland General Electric Company

- H2 for clean electricity generation
- Providing H2 to other parts of Hub for heavy duty transportation

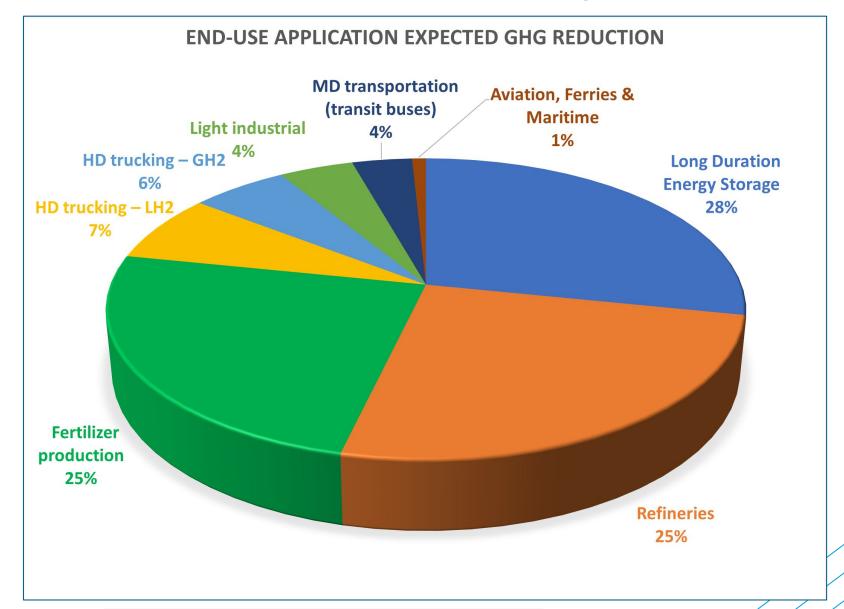
7. Twin Transit

H2 for public transit

St. Regis Solar LLC

H2 for heavy-duty transportation

Impact: Projected Decrease GHG in the PNW by up to 1.3MMT/y





Node 8: St Regis, MT

- Lead: St Regis Solar LLC
- Located near Tribe/Tribal Nation land
- Community: Located in an opportunity zone, potential to reduce legacy pollution, local GHGs and provide other socioeconomic benefits
- Signed MOU with Bunker Hill Mining Corporation in Kellogg, Idaho to help decarbonize mining operations
- Anchor end uses: HD transportation,
- Other end uses: data center, aviation (drones) and long duration energy storage (peaking power)



Photo curtesy of PACCAR



