



International Partnership
for Hydrogen and Fuel Cells
in the Economy

Canada Update

43rd IPHE Steering Committee Meeting

10-11 June 2025

Santiago, Chile



Announcements / New Initiatives *Canada*

Policies

Hydrogen Codes & Standards Roadmap (January 2025)

- Identifies existing gaps in C&S along hydrogen value chain and
- Proposes actions address gaps in the short- and medium-term—implementation ongoing

Collaborations

Halifax-Hamburg Green Shipping Corridor

- Port collaboration to enable trans-Atlantic hydrogen trade
- Investment in port infrastructure through Transport Canada's Green Shipping Corridor Program

Canada-Netherlands Hydrogen Pipeline Technical Workshop

- Knowledge exchange on repurposing NG infra for H2 and testing pipeline material for H2 service

Funding

Fall Economic Statement (December 2024) proposes **inclusion of methane pyrolysis** as eligible production pathway under Clean Hydrogen Investment Tax Credit

- Provides between 15% and 40% in refundable tax credit based in carbon intensity
- Proposal needs to be enacted through legislative process
- Government will continue to review eligibility for other low-carbon production pathways

H2 Global Bilateral Funding Window

- Canada and Germany are working to launch 400M EUR funding window to support trans-Atlantic hydrogen trade
- Proposed auction design currently under review



Announcements / New Initiatives *Canada*

Research & Development, Demonstration and/or Deployment Activities

Advancing Hydrogen Production Methods



Methane pyrolysis—commercialization efforts advancing for new pyrolysis technologies, including new commercial scale plant



Negative-emission hydrogen—feasibility study to support development of production facility using forestry waste and gasification technology with carbon capture & storage

Accelerating Hydrogen in Mobility



Heavy duty—new bus deployments, hydrogen as a fuel for heavy duty municipal fleets, deployments of dual fuel technologies



Personal vehicles—expansion of refueling network in British Columbia



Airports & Aviation—aviation pilots and adoption of hydrogen in airport heavy equipment (e.g., sweepers)



Rail—new operational refueling stations supporting 6 hydrogen powered trains



Ports—hydrogen in heavy equipment (e.g., cranes)

Supporting the Hydrogen Workforce



Launch of new **Centre for Hydrogen Innovation, Workforce Development and Outreach** (University of Alberta)



Advancement of **Hydrogen Training Program** in Newfoundland (College of the North Atlantic)



Examples of Lessons Learned and Impact *Canada*

| Program initiative, policy, regulation or mandate | Lessons Learned/Outcomes |
|---|--|
| Clean Hydrogen Investment Tax Credit | <ul style="list-style-type: none"> • Industry have raised challenges with technology approach of ITC on production pathways and transportation vectors—agnostic approaches may be more amenable for the emerging sector • Need for alignment on carbon intensity requirements to reduce regulatory burdens |
| Indigenous Equity Involvement and Benefit Sharing | <ul style="list-style-type: none"> • Development of a new sector presents opportunity to advance economic reconciliation by supporting Indigenous equity ownership and benefits sharing in clean energy projects • The number of major natural resource and energy projects with potential for Indigenous equity participation is anticipated to grow significantly—hydrogen projects in Canada advancing with strong Indigenous support and involvement • Ensuring Indigenous partners can fully benefit from projects requires fair access to affordable capital that meets their unique needs • Canada has committed 36M over three years, starting in 2024-25, to renew support for the Strategic Partnerships Initiatives' Clean Energy program to promote Indigenous participation in clean growth opportunities |



Canada – Profile June 2025

Status of Deployments



Low-carbon H2 production capacity:
12,000 TPA



Potential to **grow by 1.5 Mtpa** with projects under construction
Additional 5 Mtpa in early-stage pipeline (>90 projects)



Emphasis on projects with strong fundamentals as market matures

Leading Government Initiatives



Building the **foundation for hydrogen economy**:

- ✓ Expansion of the Clean Hydrogen ITC
- ✓ Emphasis on regulatory efficiencies—principle of “one project, one review”



Exploring **additional support mechanisms**:

- ✓ H2 Global Bilateral Window
- ✓ Contracts for Difference

Deployment Projections

Domestic projects targeting **strategic, high impact uses**:

- Transportation (32% of pre-FID domestic projects)
- Electricity services (14%)
- Industrial end uses (10%)
- Blending (6%)

Many (14%) taking a **hub approach targeting diverse local end users** (often industrial and transportation uses)

Goals or Focus Areas



De-risking projects



Advancing hubs & corridors



Developing codes & standards



Enhancing hydrogen awareness

Funding

> CAD116M in federal funding for hydrogen and fuel cell projects since November 2024

Thank you



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