Canadian Hydrogen Association | Association Canadienne de L'hydrogène

Pre-Budget Submission to the Department of Finance Canada

On Behalf of the Canadian Hydrogen Association

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EXECUTIVE SUMMARY

The Canadian Hydrogen Association (CHA), as the national voice of Canada's hydrogen sector, represents the full hydrogen value chain in Canada—including producers, technology developers, infrastructure providers, and end users—working to advance hydrogen as a cornerstone of Canada's clean energy transition and industrial strategy. Looking forward, the CHA sees a pivotal moment for Canada to realize its objective of becoming a clean and conventional energy superpower with hydrogen providing a clear competitive edge in the fast-growing clean energy economy.

At a time when the United States is reducing its decarbonization efforts, Canada has a time-limited strategic window to strengthen its leadership position and carve out a distinct advantage in the global energy transition. With abundant low-carbon energy resources, a strong industrial base, and growing international demand for clean fuels, Canada is well-positioned to become a global hub for hydrogen innovation, production, and export. Significant progress has already been made—most notably through the Clean Hydrogen Investment Tax Credit and early investments in infrastructure and large-scale projects. However, to maintain momentum and fully seize this leadership opportunity, Canada must take decisive action in Budget 2025.

To meet our climate objectives and unlock the full economic potential of hydrogen, Budget 2025 must deliver targeted investments and policy enhancements that de-risk deployment, modernize regulatory frameworks, and strengthen domestic capabilities. Accordingly, the CHA recommends the Government of Canada include the following priorities in Budget 2025:

1. **Integrate Hydrogen and Its Derivatives Within Canada's Economic, Industrial, and Export Strategies —** Position hydrogen and its derivatives as essential to achieving Canada's climate, industrial, and energy security goals. This means embedding hydrogen in federal net-zero, infrastructure, innovation, critical minerals, defence, trade, and workforce development strategies so it is treated as a national economic asset, not just an environmental solution. Key departments in a whole-of-government approach should include Employment and Social Development Canada, Environment and Climate Change Canada, Finance Canada, Innovation, Science and Economic Development, Natural Resources Canada, and Transport Canada.

2. **Strengthen Investment Tax Credits —** Fix regional inequities and broaden eligibility within investment tax credits so all provinces and all low-carbon production pathways can access higher incentive levels. This will level the playing field, encourage technology adoption across the value chain, and accelerate deployment of low-carbon hydrogen.

3. **Drive Investment and Rapid Deployment in Canada's Hydrogen Economy —** Unlock the next wave of investment by increasing grant and program funding, streamlining approvals, introducing Buy Canadian incentives, and closing the cost gap between grey and low-carbon

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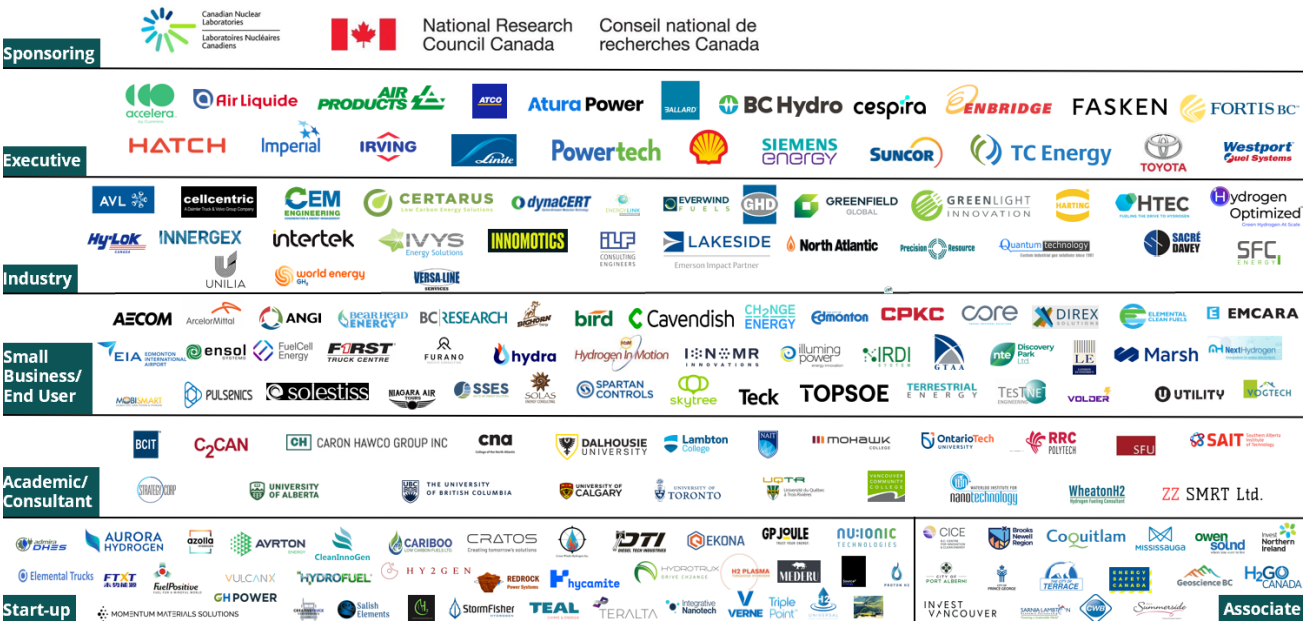
hydrogen. These actions will further decarbonize Canada's existing 3-million-tonne hydrogen market while opening new applications in transport, marine, and industrial heating. Current federal programs such as the Strategic Innovation Fund (SIF) and Clean Fuels Fund (CFF) have supported project proponents, but greater alignment with industry needs could unlock stronger results; future funding must account for the high upfront costs of clean hydrogen projects.

4. **Build Out Hydrogen Infrastructure for Transportation, Power, Marine, and Derivative Fuels —** Invest in the full supply chain, including refueling stations, power generation, and derivative fuel delivery. This will connect production to end users, reduce emissions in freight, shipping, and off-grid communities, and strengthen Canada's export readiness.

5. **Ensure Long-Term Market Stability —** Expand and execute on international hydrogen agreements, such as the Canada-Germany Hydrogen Alliance through the launch of the Canada-Germany H2Global auction, and lock in predictable carbon pricing and regulatory frameworks. These actions will give investors the certainty to commit capital while ensuring taxpayer-supported projects grow Canada's manufacturing base and secure our position in global hydrogen supply chains.

Together, these measures will enable Canada to scale clean hydrogen deployment, drive economic growth, and ensure we remain at the forefront of global clean energy innovation. The CHA and its members stand ready to collaborate with government to deliver on this vision.

Our members



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INTRODUCTION

The Canadian Hydrogen Association (CHA) is pleased to submit its recommendations for consideration in the development of Budget 2025. Representing Canada's hydrogen value chain—from production and distribution to technology, equipment, and end-use applications—the CHA is committed to advancing hydrogen as a driver of industrial decarbonization, economic growth and job creation, and securing our national resilience at a time of continued trade and wider economic uncertainty.

Canada has made commendable progress in recent years to support hydrogen deployment, notably through the launch of the Hydrogen Strategy for Canada, the introduction of the Clean Hydrogen Investment Tax Credit and investments under the Strategic Innovation Fund. However, the pace of global hydrogen development is accelerating, and Canada must ensure that its financial support and wider policy tools are responsive, coordinated, and investment-ready. Budget 2025 presents a pivotal opportunity to cement hydrogen's role not only in achieving Canada's decarbonization targets but also in advancing Canada's long-term industrial strategy, infrastructure modernization, and export capability. Doing so will help drive economic growth and prosperity in every region of the country.

This submission outlines five key recommendations to enhance Canada's hydrogen competitiveness while supporting government objectives across job creation and economic growth, climate, innovation, infrastructure, energy security, and trade.

CANADA'S STRATEGIC OPPORTUNITY IN HYDROGEN

Canada is home to abundant renewable and low-carbon energy resources, a skilled workforce, robust industrial infrastructure, and strategic access to key global markets. These strengths provide an unparalleled foundation for Canada to become a leading global producer, user, and exporter of low-carbon hydrogen and its derivatives, such as ammonia, e-methane, e-methanol, renewable diesel, and sustainable aviation fuel (SAF). As a foundational input to these fuels, hydrogen must be produced at scale to secure Canada's competitiveness. Even when produced using more emissions-intensive pathways, hydrogen still delivers significant emissions reductions compared to fossil fuels, positioning it not only as a decarbonization tool but also as a key driver of Canada's broader clean growth strategy.

According to federal modelling, Canada's clean hydrogen sector could generate up to $50 billion in annual revenue by 2050 and support more than 350,000 jobs across the value chain—including production, infrastructure, technology, and end-use applications. Moreover, hydrogen is also projected to help reduce Canada's greenhouse gas emissions by up to 190 megatonnes (Mt) cumulatively between now and mid-century, making it a critical pillar of the national climate strategy.

In 2023, the federal government introduced the Clean Hydrogen Investment Tax Credit, providing a refundable tax credit of up to 40 percent for eligible clean hydrogen production projects. These financial incentive tools have helped Canadian companies, such as EverWind Fuels, deploy the most advanced hydrogen projects in North America. In tandem with the Clean Fuels Fund, Net Zero Accelerator, and support for major projects such as Air Products' hydrogen complex in Alberta and HTEC's transportation ecosystem in British Columbia, these initiatives have demonstrated a clear policy intent to support hydrogen innovation and infrastructure.

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Yet Canada now faces mounting financial pressures that threaten the pace and scale of hydrogen deployment. Without timely enhancements to Canada's hydrogen policy architecture, we risk undercutting project viability and delaying investment.

To seize the full economic and environmental potential of hydrogen—and ensure Canada remains competitive amidst global trade uncertainties—Budget 2025 must deliver targeted policy and investment measures that remove key barriers and accelerate deployment.

CHA RECOMMENDATIONS FOR BUDGET 2025

1. Integrate Hydrogen and Its Derivatives Within Canada's Economic, Industrial, and Export Strategies

Hydrogen must be recognized as a multi-dimensional enabler of Canadian policy objectives—not only as a climate solution, but as a strategic asset for infrastructure, innovation, critical minerals development, energy security, and trade. To ensure the strategic integration of hydrogen into key federal priorities, the Government of Canada should:

- **Advance Canada's export strategy for hydrogen and derivatives —** Position hydrogen and its derivatives as central to Canada's trade diversification agenda. This includes targeting priority markets such as Europe and Asia, ensuring export infrastructure meets global specifications, and developing long-term market access strategies that secure Canada's place as a reliable supplier of clean fuels.

- **Boost trade promotion capacity —** Increase the resources and mandate of Global Affairs Canada, Export Development Canada, Invest in Canada, and the Trade Commissioner Service to aggressively promote Canadian hydrogen technologies abroad. Stronger international promotion will help Canadian firms secure contracts, expand market share, and integrate into high-value segments of the global hydrogen supply chain.

- **Embed hydrogen in national infrastructure planning —** Ensure that hydrogen production plants, storage terminals, refueling and blending facilities, pipelines, ports, rail connections, and power infrastructure are eligible and prioritized under the federal nation-building infrastructure agenda. Doing so will create the backbone needed for large-scale and localized domestic use as well as export.

- **Fully integrate hydrogen into Canada's net-zero strategy —** Facilitate the deployment of hydrogen as a decarbonization tool in hard-to-abate sectors such as heavy transport, steel and cement production, chemical and fertilizer manufacturing, as well as refineries, oil & gas operations, marine shipping, transportation, forestry (specifically pulp operations), and district heating. Deployment should prioritize the most cost-effective sectors in terms of emission reductions, particularly when supplies of low-carbon hydrogen are limited. This sector-wide approach will ensure hydrogen plays its full role in achieving emissions targets.

- **Align hydrogen policy with Canada's Critical Minerals Strategy —** Use hydrogen to decarbonize the critical minerals value chain, from extraction and processing to manufacturing. Embedding

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hydrogen throughout the value chain will strengthen Canada's profile as a low-carbon supplier of critical minerals, reduce production emissions, and enhance the competitiveness of domestic critical mineral supply chains.

- **Integrate hydrogen and derivative fuels into defence energy strategy —** Incorporate hydrogen technologies into Canada's defence energy strategy for use in logistics, mobile and back-up power, and fuel security. This will enhance operational resilience while reducing the military's carbon footprint.

- **Incorporate hydrogen into the Canada's Greening Government Strategy** — Support the greening of federal buildings and facilities by blending hydrogen into natural gas procurement contracts. Federal adoption will create an early demand signal, demonstrate leadership in decarbonizing government operations, and help scale hydrogen adoption across provinces.

- **Advance national training and re-skilling initiatives —** Integrate hydrogen workforce development into existing federal employment and training programs to equip Canadians with the skills needed for hydrogen production, infrastructure, and end-use applications. A skilled workforce will be essential to scale projects, strengthen domestic supply chains, and capture global market opportunities.

A whole-of-government approach will ensure hydrogen delivers maximum environmental, industrial, and geopolitical value to Canada and Canadians.

2. Strengthen Investment Tax Credits

Canada's investment tax credits are among the most important tools for accelerating clean hydrogen deployment. Targeted reforms to the Clean Hydrogen Investment Tax Credit (CH-ITC), the Carbon Capture, Utilization, and Storage Investment Tax Credit (CCUS-ITC), and the Clean Technology Investment Tax Credit (CT-ITC) are essential to ensure they are equitable, technology-neutral, and fully supportive of Canada's clean energy ambitions. To ensure that investment tax credits facilitate continued investments in hydrogen, the Government of Canada should:

- **Reform carbon intensity (CI) methodologies to ensure provincial equity —** Amend the CH-ITC legislation to remove or significantly reduce the role of provincial grid carbon intensity in determining eligibility for all support tiers. The current structure favours some provinces while penalizing others, limiting the ability of projects in markets like British Columbia, Ontario, Quebec to access available incentives. This change would ensure equitable treatment and promote investment across all regions.

- **Adopt technology-neutral, emissions-based eligibility —** Ensure that all low-carbon hydrogen production pathways are eligible under the CH-ITC. This should explicitly include steam methane reformation with CCUS and auto-thermal reforming, as well as emerging pathways such as methane pyrolysis, which can produce clean hydrogen with solid carbon byproducts and lower water demand.

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- **Expand the CH-ITC to include all clean fuel production equipment —** Broaden eligibility to cover hydrogen derivative conversion equipment (e.g., ammonia, methanol, synthetic fuels), enabling hydrogen production support equipment (e.g., air separation units and hydrogen turbines), as well as essential midstream infrastructure (e.g., hydrogen pipelines, compression equipment, liquefaction, and storage systems). This would unlock capital deployment across Canada, encourage technology adoption in both emerging and mature projects, and strengthen clean fuel supply chains.

- **Allow use of Renewable Energy Certificates (RECs) under the CH-ITC —** Amend the CH-ITC to permit unbundled RECs as proof of renewable electricity use, with eligibility retroactive to 2017. This would reduce complexity and cost compared to the current requirement for Power Purchase Agreements (PPAs), which often create unnecessary barriers.

- **Enable carbon utilization for fuels under the CCUS-ITC —** Expand CCUS-ITC eligibility to include carbon capture systems used in hydrogen production and the transformation of CO_2 into clean fuels and e-fuels (e.g., e-methanol, e-SAF). Recognizing carbon utilization pathways alongside sequestration would align with international best practices and better support the integration of clean hydrogen into Canada's fuel mix.

- **Extend CT-ITC coverage** — Broaden the credit to include downstream assets such as liquefaction plants, compression facilities, distribution networks, storage systems, and marine bunkering infrastructure. This will encourage investment in critical infrastructure that connects production to end users, both domestically and internationally.

- **Streamline administration and provide timely guidance —** Reduce complexity in application and compliance processes, and issue clear, timely guidance to improve planning certainty and project execution.

These reforms would remove regional inequities, broaden participation, and ensure that the CH-ITC, CCUS-ITC, and CT-ITC work together to drive large-scale and localized investment across Canada.

3. Drive Investment and Rapid Deployment in Canada's Hydrogen Economy

Canada already has a large and steady hydrogen market—about 3 million tonnes annually—consisting primarily of grey hydrogen for hard-to-abate sectors. There exists significant opportunity to advance decarbonization via cost-competitive low-carbon hydrogen production (both large-scale and localized) while fostering new domestic applications. To facilitate near-term deployment of hydrogen infrastructure, the Government of Canada should:

- **Expand and target funding programs —** Increase funding under the Strategic Innovation Fund, Clean Fuels Fund, and Canada Growth Fund for hydrogen production, storage, export infrastructure, and end-use projects. Directing funding toward shovel-ready and high-impact projects will accelerate emissions reductions, job creation, and domestic supply chain growth.

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- **Support first-of-kind and hub-scale projects —** Provide targeted grants for technology demonstration, large-scale deployment, and facilities serving domestic and export markets. Early support for these projects will help de-risk private investment and establish regional centres of excellence.

- **Develop market-based cost-gap tools —** Collaborate with provinces, industry, and the Canada Growth Fund on instruments like offtake guarantees, contracts for differences, and price-support mechanisms. These tools will help bridge the cost gap between grey and low-carbon hydrogen, making clean projects financially viable in the near term.

- **Establish "Buy Canadian" incentives —** Promote domestic business by offering incremental value in taxpayer investments, which will strengthen our manufacturing base, including electrolysis, storage, fuel cell technologies, and related components and materials.

By removing financial and administrative barriers, Canada can decarbonize its existing hydrogen market and accelerate adoption in new—and hard-to-abate—sectors.

4. Build Out Hydrogen Infrastructure for Transportation, Power, Marine, and Derivative Fuels

Hydrogen is a vital clean fuel for heavy-duty transport, marine shipping, off-grid and remote power, and industrial applications. Canada has an opportunity to expand infrastructure to meet both domestic and global demand. To unlock this potential and connect production with end users across the economy, the Government of Canada should:

- **Reinstate and expand the Hydrogen for Mobility program** — Provide renewed funding and support for refueling stations, vehicle deployment, and fleet conversions, including marine transport applications. This will build the physical backbone for hydrogen adoption in freight, transit, and shipping, ensuring fuel availability where it's needed most.

- **Deploy hydrogen for power applications** — Support the installation of turbine and fuel cell systems in remote communities, mining operations, military bases, low-emission zones, and EV charging hubs where grid access is limited or prohibitively expensive. These applications will reduce diesel reliance, lower energy costs over time, and improve energy security.

- **Deploy mobile refueling solutions** — Support near-term deployment of mobile refueling technology to expand hydrogen availability more quickly than permanent refueling stations. Facilities like the Azolla Hydrogen system in Edmonton demonstrate how mobile refueling can accelerate adoption while permanent infrastructure is built out.

- **Facilitate fleet conversions with hydrogen–diesel blends** — Provide targeted support for dual-fuel conversions that allow existing trucking fleets to use hydrogen–diesel blends. This cost-effective pathway will accelerate hydrogen uptake, reduce emissions, and build early demand pull for hydrogen supply while supporting the necessary infrastructure within strategic corridors.

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- **Address delivery barriers under the Output Based Pricing System (OBPS)** — Amend regulations to enable the use of existing energy infrastructure (e.g., natural gas pipelines) to transport hydrogen derivatives such as e-methane and ensure compliance frameworks recognize equivalent emissions reductions. This will lower infrastructure costs and accelerate fuel delivery to customers.

- **Coordinate national hubs and corridors** — Partner with provinces, municipalities, and industry to develop hydrogen hubs and mobility corridors, marine shipping routes, and trucking hubs. Strategic coordination will optimize infrastructure placement, enhance regional connectivity, and enable cross-border trade opportunities. The CHA welcomes the opportunity to formally partner with the Government of Canada to coordinate regional hydrogen activities.

Expanding infrastructure beyond transport to power and marine sectors will open new markets, reduce emissions, and build investor confidence.

5. Ensure Long-Term Market Stability

Attracting capital at scale requires predictable policies and a stable regulatory environment. Certainty in carbon pricing, clean fuel regulations, and harmonized standards will reduce investor risk while ensuring benefits flow to Canadian workers, manufacturers, and communities. Expanding international alliances and aligning frameworks across provinces and global markets will further strengthen competitiveness and secure long-term offtake opportunities. To ensure Canada secures investment, builds a resilient domestic supply chain, and strengthens its position as a global hydrogen leader, the Government of Canada should:

- **Expand and execute on international hydrogen agreements —** Advance initiatives such as the Canada–Germany Hydrogen Alliance through the launch of the Canada–Germany H2Global auction, and pursue similar partnerships in other key jurisdictions. Coupled with predictable carbon pricing and regulatory frameworks, these agreements will help secure long-term offtake, reduce market risk, and position Canada as a reliable global supplier of clean hydrogen and its derivatives.

- **Guarantee carbon price stability under the federal OBPS —** Establish a clear, durable carbon price trajectory (ideally to 2040) to give investors confidence in future market conditions. Long-term certainty will reduce investment risk, support project financing, and signal Canada's commitment to decarbonization.

- **Maintain and strengthen the Clean Fuel Regulations (CFR) —** Ensure long-term policy certainty and durability of the CFR to give investors confidence in compliance-driven demand for clean fuels, while broadening eligibility to explicitly include hydrogen and its derivatives, enhancing credit values for low carbon intensity fuels

- **Expedite development of hydrogen codes and standards —** Accelerate the development and amendment of codes and standards—and their alignment across all provinces—in close collaboration with provincial and territorial regulators, as well as organizations such as the

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Canadian Standards Association (CSA) and the International Standards Organization (ISO). Faster alignment on safety and technical standards will reduce regulatory bottlenecks, improve investor confidence, and ensure timely deployment of hydrogen technologies.

By locking in stable market conditions and enabling Canadian companies to benefit directly from the clean energy transition, Canada can become both a global hydrogen supplier and a clean technology leader.

CONCLUSION

The time to act is now. With strategic investments, smart policy design, and public-private collaboration, hydrogen can power Canada's clean energy transition and unlock a new era of sustainable industrial growth. Budget 2025 offers a decisive opportunity to solidify Canada as a global hydrogen leader while securing the Government of Canada's goal of becoming a clean and conventional energy superpower.

The Canadian Hydrogen Association and our members stand ready to work with the Government of Canada to realize this vision. We welcome the opportunity to engage further on the recommendations set forth in this submission.

Best Regards,

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