

Hydrogen in Ontario- Learn & Mix

Hydrogen Business Council of Canada

Brad Chittick, P.Eng.
President & CEO

Bio and Credentials

Brad Chittick, B.E.Sc., P.Eng.

- ▶ **Formerly the AVP of Supply Chain Facilities & Maintenance for Canadian Tire Corporation.**
- ▶ **My career spans over 36 years in various engineering, operations and project management positions.**
- ▶ **I've managed the operation of a 1.4 million square foot distribution centre in Brampton, Ontario.**
- ▶ **I lead a project team that designed, built and successfully implemented a 1.5 million square foot DC in the Greater Montreal area, CTC's largest distribution centre.**
- ▶ **I was the initiator, sponsor and Senior Leader of a battery to hydrogen fuel cell conversion project that also built an on-site hydrogen electrolyser station.**



I am an end user.

Hydrogen Business Council of Canada

- ▶ The Hydrogen Business Council (HBC) of Canada is a like-minded community dedicated to bringing knowledge and opportunities to the minds and hands of those who can apply and realize the benefits of hydrogen technology in their work and their lives.
- ▶ Climate change is at the heart of our initiative. We see the potential of hydrogen-enabled energy to be an integral part of a climate change solution if it is supported with a robust infrastructure. To achieve this, a practical and scalable pathway for sustainability needs to include informed planning and investment in a strategic H₂ infrastructure that can serve growing end-user demands.
- ▶ In our view, the types of opportunities that fit with an Ontario context include: clean personal and public transportation, material handling and consumer goods delivery, grid-scale energy storage, distributed energy systems, and community energy initiatives.
- ▶ We have engaged community participants to setting longer term strategic objectives and plans.

Our Value Proposition

- ▶ **Building a community of H2 energy system users**
- ▶ **Support businesses and communities to adopt H2 energy systems**
 - ▶ Provide business case expertise and solution support
 - ▶ Education and community outreach
- ▶ **Advocate H2 as a climate change solution**
- ▶ **Advocate infrastructure development on behalf of a community of end users**
- ▶ **Host regular information forums and seminars to provide the community with an ongoing opportunity to learn and discuss**
- ▶ **Education & Outreach to the user community and public**

Our Value Proposition

- ▶ **Build partnerships with other climate change motivated organizations**
 - ▶ Partners in Project Green
 - ▶ Energy Storage Ontario
 - ▶ Plug & Drive
 - ▶ Canadian Hydrogen Fuel Cell Association

We've made an impact already!

- ▶ Hosted a highly successful 'Hydrogen for a Sustainable Toronto' forum
 - ▶ Over 110 attendees
 - ▶ Ride and Drive Hyundai and Toyota HFCEV's
 - ▶ Industrial forklift HFC demonstration



We've made an impact already!

- ▶ **Provided formal 'user perspective' input and commentary to:**
 - ▶ **Ontario's Climate Change Mitigation and Low Carbon Economy Act**
 - ▶ **Ontario's Electric and Hydrogen Vehicle Advancement Program (EHVAP)**
- ▶ **Working with a community education institution to develop a sustainable mobility exhibit and public outreach program.**

And today we host another informative event

You will hear from:

- ❖ **Jon Dogterom**, Managing Director Cleantech, Advanced Energy Centre. MaRS
- ❖ **Matt Fairlie**, CEO of Next Hydrogen
- ❖ **Linda Klaamas**, President, Tech K. O.
- ❖ **Ry Smith**, CEO of Change Energy
- ❖ **Graham Noyes**, Director of Low Carbon Fuel Coalition California
- ❖ **James Nowlan**, Manager, Global Air Issues, Ontario Ministry of Environment and Climate Change
- ❖ **Dr. Brant Peppley**, Queens RMC Fuel Cell Research Centre
- ❖ **Alex Betancur**, Project Manager, Hydrogenics
- ❖ **Arthur Potts**, MPP for Toronto Beaches and PA for Ministry of Environment - Climate Change