



Community update

Canadian Tire hydrogen generating pilot project

July 2016



Jennifer Innis
Regional Councillor
Ward 3 and 4



Nick deBoer
Area Councillor
Ward 3 and 4

When we first learned that an application may be coming forward to include a hydrogen cell at the Canadian Tire facility in Bolton, we did our homework, we did our research and we did a site visit to learn more about it first-hand. We know that Canadian Tire's hydrogen generating pilot project has been toured by the Minister of Environment and Climate Change, Glen Murray, who acknowledged it as innovative clean technology. We met openly with Caledon's Fire Chief and asked many of the same questions our residents are asking. Further, when Canadian Tire offered a tour of the Brampton plant to all members of Council, we took advantage of the opportunity so we could share the facts with Caledon residents.

Hydrogen is safe

- Hydrogen is as safe as, or even safer than, other flammable fuels such as gasoline or natural gas.
- Hydrogen doesn't create any emissions when used in a fuel cell.
- Companies that manufacture hydrogen and fuel cell products and build hydrogen stations continue to be validated through safety tests.
- Hydrogen has been safely produced, stored, transported, and used in large amounts in industry.
- Hydrogen production is not new. In fact, Canada is one of the world's largest producers and users of hydrogen.

Source: *Canadian Hydrogen and Fuel Cell Association*
chfca.ca

On-site production

A hydrogen production system is planned in a designated fenced area on the site, and in separate building and equipment cabinets, outside of the distribution centre. Hydrogen will be piped to the fuel dispensers inside the distribution centre and drivers will pull up to refuel their forklifts, similar to how we fuel cars at gas stations. Canadian Tire is not the first retailer to use hydrogen to power heavy equipment, but they are Canada's first retailer to produce hydrogen onsite. This allows the company to produce fuel on

demand, which eliminates the need to store it in large quantities, and reduces the number of fuel trucks going in and out of the Distribution Centre.

The planning process

The original Site Plan Application for the Canadian Tire facility was approved on July 18, 2013. This was provided following the approval of a Minister's Zoning Order (Ontario Regulation 210/13) by the Province of Ontario. In advance of the approval of the Zoning Order, the Town completed extensive public engagement connected with associated Official Plan Amendment and Zoning By-law Amendment applications filed for the property.

The original Plan that was approved identified a location for a hydrogen storage/fueling station. No production of hydrogen was proposed at that time. On June 26, 2016, the Town received an amended application. This application proposes a new location for the hydrogen fueling station to the north of the building.

It is the Town's understanding from Canadian Tire that this station will include production for use entirely on-site. All components connected with the fueling station, both storage and production, are subject to TSSA (Technical Standards & Safety Authority) approval.

About TSSA

TSSA is the regulatory body for all distribution, storage and dispensing of fuel. TSSA, apart from other regulatory responsibilities assigned to it by the Ontario Technical Standards and Safety Act, is the Authority Having Jurisdiction (AHJ) for Fuels Safety Program. Hydrogen, along with other fuels, falls under this program. TSSA enforces gaseous Fuels Safety via two Ontario Regulations: O.Reg. 212/01 Gaseous Fuels, and O.Reg. 214/01 Compressed Gas. Hydrogen fuel safety is enforced via verification of compliance against the Canadian Hydrogen Installation Code (CHIC) that is a National Standard of Canada.

TSSA has already ruled that both Canadian Tire Brampton and Bolton hydrogen systems fall under O.Reg. 214/01. In order to operate a fueling station under O.Reg. 214/01, the station owner must obtain a licence from TSSA which is a three-stage process: first Engineering Approval, next a High Pressure Test, and finally the Final Inspection. After compliance has been verified, TSSA issues an Ontario Fuels Safety Licence for a fueling station that must be renewed on an annual basis.



Community update

Canadian Tire hydrogen generating pilot project

July 2016



Jennifer Innis
Regional Councillor
Ward 3 and 4

Nick deBoer
Area Councillor
Ward 3 and 4

Frequently asked questions

As a resident, can I look at the Canadian Tire plans?

Yes. Any member of the public is welcome to visit Town Hall during business hours and request to view the plans and other documentation filed with the application.

The processing of a Site Plan Application, in accordance with the requirements of the Planning Act, does not require public notice, posting of signs or public mail out, or a public meeting. However, Town Hall is open from 8:30-4:30 Monday to Friday, and no appointment is necessary.

Did the amendment to Canadian Tire's application require Council approval?

No, an amendment to the application did not require Council approval. But, as is standard process for any site plan application amendment, Canadian Tire's application will be reviewed by industry experts/regulatory bodies, in addition to the usual approvals, such as Caledon Fire and our planning professionals.

Can I speak with someone from TSSA ?

Yes. You are welcome to contact Oscar Alonso at 416.734.3353 and/or Brigid Gillis 416.734.3442. Both are Professional Engineers in the TSSA Fuels Safety Program.

You can also call 1-877-682-TSSA (8772). Customer Service advisors are available from 8-5 Monday to Friday (excluding major holidays).

When will the Canadian Tire Bolton distribution centre open?

It is set to open in 2017.

Why does Canadian Tire want to produce hydrogen?

The company is expanding on its pilot project of producing clean hydrogen energy to replace lead acid batteries and power heavy equipment at its Distribution Centres. The intent is to use hydrogen fuel cells to power forklifts for use at the Distribution Centre. Canadian Tire has been recognized as a leader in hydrogen generation and use by the Hydrogen Business Council.

Has anything "bad" happened at the Brampton location?

No. There have been zero incidents at the Brampton distribution centre. Hydrogen production and use on the same site is not new in Canada.

What's the next step in this process?

At this stage in the process, the application will go through the usual approvals, such as fire, building and planning.

Independent of the site amendment application, there is also a TSSA review of the hydrogen system design for engineering approval.

Learn more

Fact sheets, Q&As and an education video are posted at caledon.ca/canadiantire

You can also contact Canadian Tire and the TSSA directly:

Canadian Tire: boltondc@cantire.com

TSSA: customerservices@tssa.org

To continue receiving updates, contact Councillor Jennifer Innis and/or Councillor Nick DeBoer at 905.584.2272 x. 4156 or jennifer.innis@caledon.ca