

## Thompson and Innis get chance to try out hydrogen-powered car

By Bill Rea

The presence of hydrogen could cause a lot of concern for some people.

That's been demonstrated locally, with the worries some people have that Canadian Tire is seeking a site plan amendment to the massive distribution facility that's going in Bolton to allow for the production and storage of hydrogen on the site.

The plan is to use the hydrogen internally, to operate equipment.

But there's a case to be made that it might not be dangerous at all, and could well be the way of the future, when it comes to operating devices like automobiles.

A hydrogen-powered Hyundai Tucson was at Town Hall in Caledon East last Thursday, and Mayor Allan Thompson and Councillor Jennifer Innis got the chance to try it out.

Both said they were impressed.

Chad Heard, senior manager of public relations with Hyundai, said it takes about three to four minute to fill the pressure delivery system to about 10,000 psi.

According to material he provided, hydrogen is pumped into the cell through a flow plate. It runs into a platinum catalyst that causes a chemical reaction that splits hydrogen molecules into positive ions and negative electrons. There's a polymer electrolyte membrane that only allows the ions to pass. The electrons are forced along an external circuit creating an electrical current that powers the vehicle, similar to the way water is diverted in a river to rotate a power wheel.

Another catalyst causes the electrons and ions to combine with oxygen that has been pumped into the cell, and the result is water.

Heard said these cars are ready for mass production, although they are not for sale yet. They are only available for lease. He said the company wants the cars back after three years so the engineers can take them apart and evaluate how they've performed.

The cars produce no emissions, he said.

Heard added there are fueling facilities in Mississauga, Brampton and Markham.

The car, when filled with hydrogen, is good for about 426 kilometres, Heard added.

Thompson pointed out there are already hydrogen powered trucks on the highways.

‘What we're trying to do is make the impacts better on our community,’ he commented.

‘To me, it's the wave of the future,’ he added. ‘We shouldn't be afraid of it.’

Thompson added the hydrogen facility intended for the Canadian Tire development will be used to fuel internal vehicles and equipment.

He also said there are cars of this nature in British Columbia, although the fueling infrastructure is not yet in place.

‘Ontario's moving quite slow in this,’ he observed.



Chad Heard, senior manager of public relations with Hyundai, was giving Mayor Allan Thompson and Councillor Jennifer Innis a look under the hood of this hydrogen-powered Hyundai Tucson. Photo by Bill Rea



Councillor Jennifer Innis got a turn at the wheel of a hydrogen-powered car last Thursday.