



What is a fuel cell?

A fuel cell produces clean, quiet vibration-free heat and power. It can be used to operate everything from power plants and lap tops to vehicles. A fuel cell works like a battery, except you do not have to recharge it.

Fuel cells produce heat and power by combining hydrogen and oxygen. The most economical way to produce hydrogen is to use natural gas.

Why is ATCO Gas involved in the NAIT fuel cell project?

At ATCO Gas, the delivery of safe and reliable natural gas is our business. We own and operate 34,000 kilometers of pipelines throughout Alberta.

Because we deliver energy to Albertans, we are committed to supporting research that explores new and better ways to provide energy.

To ensure that Albertans have access to clean, abundant supplies of energy in the future, we are working in partnership on this \$3.25 million project. The project will explore the feasibility of using fuel cells in a commercial manner to deliver energy to users in the province.

What are the benefits of fuel cells?

- Fuel cells produce very low emissions:
 - 50% fewer green house gases
 - 99% fewer pollutants (NOx, SOx, PM)
- They have the potential to be more efficient in producing power than conventional methods.
- Fuel cells have few moving parts and require minimal maintenance.

What other environmental initiatives is ATCO Gas involved in?

Natural Gas vehicles

- ATCO Gas has the largest fleet in Alberta with 378 vehicles powered by clean natural gas.
- In 2001, ATCO Gas along with Climate Change Central and the Town of Banff launched eMission Banff – a joint venture initiative targeted at reducing greenhouse gas emissions by more than 25 per cent within Banff and along the Banff-Calgary corridor.
- A highlight of the project was the November 2001 opening in Banff of the first publicly accessible Natural Gas Vehicle Refueling Station in a national park.

Voluntary Challenge and Registry (VCR)

- ATCO Gas continues to support the Canadian government's initiative to reduce greenhouse gas emissions levels using voluntary measures.
- ATCO Gas earned "Gold Champion" recognition for their participation in the federally sponsored VCR, which encourages energy efficiency and conservation measures to reduce greenhouse gas emissions.
- ATCO Gas has exceeded the initial commitment to meet 1990 emission levels by 2000. In 2001, our emissions were reduced by about four per cent to lower than 1990 levels.
- Our key reduction action has been the glycol pump replacement program, where existing pumps were exchanged for newer, lower emitting pumps at production well sites.