

FORT SASKATCHEWAN HYDROGEN BLENDING PROJECT

Project Overview

ATCO began delivering a blend of 5 per cent hydrogen (H₂) into a portion of Fort Saskatchewan's natural gas distribution system in October 2022. About 2,100 customers became the first in Alberta to use hydrogen blended natural gas. Using an electrolyzer, the H₂ needed for the project will ultimately be produced onsite at ATCO's Gate 5 facility. While delivery of the electrolyzer has been delayed, ATCO continues to source a temporary supply of H₂ from the vicinity. However, due to supply chain and other issues, a consistent supply cannot be guaranteed, and customers may therefore receive anywhere from 0 – 5% blended gas for a time.

An exciting opportunity for ATCO, Alberta, and the world

With its ability to provide energy without carbon, hydrogen is becoming central to the decarbonization plans of many advanced economies worldwide such as Australia, Germany, Japan, South Korea, etc. In particular, projects blending H₂ with natural gas are already happening in locations like Europe, Hawaii (10 – 15% H₂), Ontario (~2% H₂) and Australia, where ATCO's Clean Energy Innovation Park is generating hydrogen energy using solar power and [delivering a 2-5% cent blend](#) through the existing gas network.

What Changes?

Extensive testing has found that ATCO's planned H₂ blend rates do not impact end use appliances or existing piping material. There will not be any noticeable change in the gas supply at the proposed blend rates. The look, sound, and smell of the gas will remain consistent. ATCO has conducted detailed assessments and determined that the existing gas code, CSA B149.1, is appropriate for blends up to 25%.

Carbon Monoxide (CO) detection devices which contain electrochemical sensors have a cross-sensitivity to hydrogen gas. This means that a hydrogen blended gas leak can result in a false CO alarm and in some cases damaged sensors in residential CO detectors and personal gas detection devices equipped with CO detection capabilities. If a CO detection device is exposed to hydrogen, ATCO recommends replacement of the device or ensuring that the CO sensors are functioning properly prior to continued use. ATCO is available for assistance for CO related occurrences via the Customer Assistance Centre at 310-5678.

ATCO completed a customer engagement program within the project footprint in Spring of 2022. As a part of that program, homes and businesses within the footprint now have tags at their meter set and stickers on their appliances to identify them as receiving hydrogen blended gas.

Questions?

Visit our website using the QR Code:

Email: H2@atco.com

Call: 310-5678



The ATCO logo, featuring the letters "ATCO" in a bold, white, sans-serif font, positioned above a thick, horizontal yellow bar.