



HYDROGEN (H₂)

With its ability to provide energy without carbon, hydrogen presents an exciting opportunity for ATCO, Alberta and the world, and is becoming central to decarbonization plans around the globe. Blending hydrogen into natural gas networks is safe and already happening in places like Europe, Hawaii and Hong Kong.

IS HYDROGEN SAFE?

Yes! As with natural gas, hydrogen can be produced, transported, stored and used safely. Just like natural gas, it must be treated with respect, proper care, and handling.

- H₂ is a colourless, odourless, tasteless, non-toxic and non-poisonous gas
- When burned, it produces only heat and water vapour with no carbon emissions

H₂ POSSIBILITIES

Hydrogen has the potential to play an important role in a cleaner energy future



Gas Network



Industrial Feedstock



Export



Power Generation



Heavy Transport

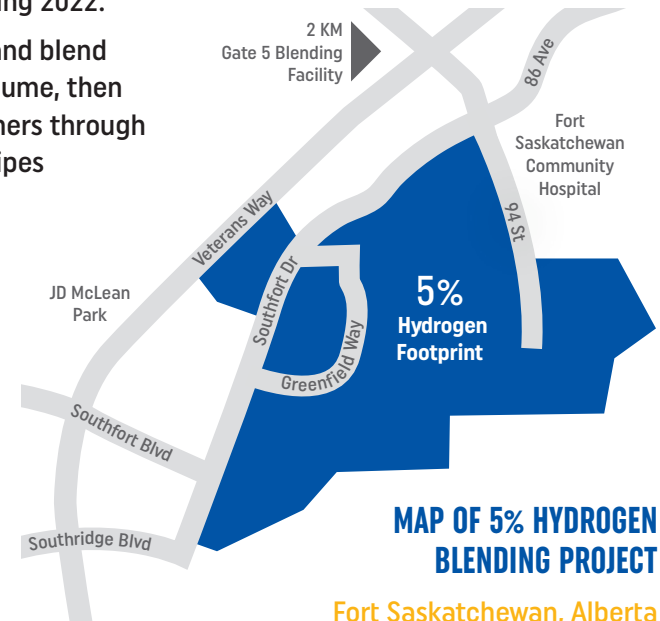


Storage

FORT SASKATCHEWAN HYDROGEN BLENDING

PROJECT OVERVIEW

- Starting in Q3 2022, ATCO will inject a small amount of hydrogen (5%) into a portion of Fort Saskatchewan's natural gas distribution system
- Appliances and piping of all homes and businesses in the project zone will be inspected prior to launch
- About 2,000 customers will be the first in Alberta to use blended hydrogen
- Hydrogen will be produced via electrolysis at ATCO's nearby Gate 5 facility. Some onsite modifications are needed and construction will be on previously developed land, have no impact to the surrounding environment or wildlife, and is expected to be complete in spring 2022.
- ATCO will monitor and blend 5% hydrogen by volume, then deliver it to customers through new and existing pipes



MAP OF 5% HYDROGEN BLENDING PROJECT

Fort Saskatchewan, Alberta



HOW WILL THIS IMPACT MY HOME OR BUSINESS?

- Extensive testing has found that hydrogen blended into natural gas systems at ratios up to 20% does not impact appliances
- There will not be an interruption to your gas supply as we transition from non-blended to blended gas
- There will not be any noticeable change in your gas supply at 5% blended gas. The look, sound, and smell of the gas will remain consistent
- There will be a minor increase in the volume of gas needed throughout the network in order to provide the same amount of heat to homes and businesses. Because customers pay for energy consumed, not volume, there will be no change to your monthly bills

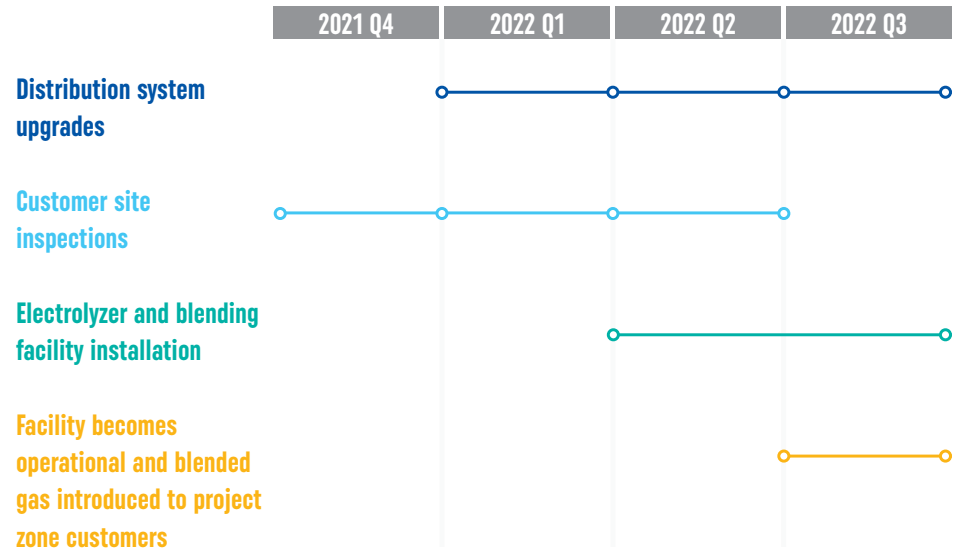
HOME AND BUSINESS INSPECTIONS

ATCO is visiting every home and business in the project zone this spring/summer.

- Customers in the project zone are encouraged to sign up for their inspections when they receive their mailed notifications.
- During the 1-2 hour inspection, an ATCO representative will check and collect information on:
 - Your natural gas appliances
 - The integrity of the natural gas pipe
 - Your meter

NEXT STEPS/TIMELINE

- Continued testing of appliances and system safety for hydrogen blended service
- Continued updating of ATCO's internal processes to maintain safety standards



FOR MORE INFORMATION

- Go to atco.com/hydrogenblending to:
 - Sign-up for periodic email updates
 - Find more project details as they become available
 - View a recording of the virtual Open House (September 29, 2021)
- Send your questions to H2@atco.com