

Fort Saskatchewan Operating Centre

ATCO is developing a world-class demonstration space in Fort Saskatchewan, Alberta, supporting technologies utilizing pure and hydrogen-natural gas blends. This allows ATCO and its partners to pilot and demonstrate hydrogen technologies, providing employee training in the operation and maintenance of these emerging concepts. This project aims to positively impact public discourse and awareness of the potential for hydrogen, and support stakeholders, by offering an accessible and safe location for tours hosted by ATCO. The building provides proof-of-concept to display the safety, reliability, and simplicity of hydrogen as a viable pathway to realizing a net-zero GHG emissions future.



RECIPIENT:
**ATCO Gas and
Pipelines Ltd.**



PARTNERS:
**Alberta Innovates
NRCan**



TOTAL BUDGET:
\$1,751,870



AI HCOE FUNDING:
\$875,935



PROJECT DATES:
**JAN 2023 –
DEC 2024**



PROJECT TRL:
**Start: 6
End: 9**

APPLICATION

The Fort Saskatchewan Operating Centre will be used on the market as a testing and demonstration facility to support the commercialization initiatives of clean technology ventures and the rollout of hydrogen solutions for end-use applications in the heating space. ATCO is hopeful that this proof-of-concept will increase market adoption, encourage further innovation, and lead to more successful commercialization endeavors.

ALBERTA INNOVATES CLEAN RESOURCES

CLEAN TECHNOLOGIES

HYDROGEN

PROJECT GOALS

- Accelerate the energy transition and the adoption of hydrogen by demonstrating its safe usage/operation.
- Establish the first 100% hydrogen-heated building in Canada.
- Increase market adoption and acceptance of hydrogen and technologies.
- Demonstrate the abilities of various natural gas appliance to operate effectively on blended gas while fostering the development of pure hydrogen appliances such as BBQs and combined furnace + hot water heaters.
- Assist policy makers and regulatory bodies in developing clear codes and regulations surrounding the use of hydrogen, infrastructure, and appliances.
- Conduct extensive studies on operating characteristics of equipment utilizing varying blends, up to 100% hydrogen for vetted and certified products.
- Provide stakeholders space to observe and participate in operating and servicing of equipment and associated infrastructure.

BENEFITS TO ALBERTA

- Assists with the development of Alberta based clean technology ventures to support commercialization initiatives.
- Market diversification.
- Provides pre-emptive training to Alberta based stakeholders as a key component in the safe advancement and promotion of hydrogen as a clean source of energy.
- Bridge the gap in capable, safe, and reliable hydrogen end-use appliances in Alberta's economy.
- Will allow ATCO to continue developments to utilize existing infrastructure to deliver hydrogen, providing significant economic savings to Albertans.
- In Alberta, the existing primary energy source for heat-based appliances is natural gas, promoting hydrogen appliances through research and successful commercialization will reduce GHG emissions.
- ATCO will engage Alberta's First Nations in pursuit of hydrogen development to foster positive symbiotic projects.



**50 Students
Trained**



**8 New
Products/Services**



4-10 Project Jobs



**4,700 kt/yr Future
GHGs Reduced**



30-50 Future Jobs

CURRENT STATUS

FEB 2023

Hydrogen piping, gas safety system, building control system, and hydrogen service line are underway. Procurement of the materials will start once the design has been finalized. Renovation of the building that will house the demonstration centre has commenced.