

## Backgrounder

### ATCO GAS LAUNCHES COMBINED HEAT AND POWER PROJECTS

#### Innovative program reduces GHGs and utility costs for municipal, commercial complexes

##### About the Program

ATCO Gas installs, owns and maintains Combined Heat and Power (CHP) units in qualified facilities to reduce greenhouse gas (GHG) emissions and save costs. It is the first program of its kind in Alberta.

- Ideal for small to medium sized municipal, commercial, institutional and multi-unit residential buildings
- For sites with a minimum consumption of 5,000 GJ in annual natural gas and 500,000 kW/hr a year in electricity
- No upfront capital investment by the building owner
- One third of funding is provided by the Climate Change Emissions Management Corporation (CCEMC)
- Estimated to reduce GHG emissions by about 25,000 tonnes by 2020.

##### CHP Technology

CHP (also known as co-generation) simultaneously generates electricity and heat from natural gas and uses excess energy for space heating.

- Supplements facility's existing system using a natural gas electric generator
- Electrical generation produces heat as a by-product, which is used to warm domestic hot water and serve as the lead space-heating boiler for the building
- Uses lower cost natural gas as a primary fuel source
- Lowers operating costs by achieving 85 per cent overall efficiency
- Reduces GHG emissions using a reciprocating engine
- Best used in facilities with large space-heating needs and year-round hot water loads

##### Collicutt Centre

This 250,000 sq. feet facility will be the first recreation facility in Red Deer to feature the application of CHP technology which will:

- Reduce GHG emissions by 800 tonnes per year
- Provide energy cost savings for the City of Red Deer
- Generate up to 280 kW of electricity
- The CHP system will reduce up to 1,985,000 kWh of electricity from the grid each year

##### Sierras of Tuscany

This senior's condominium will feature the application of CHP technology which will:

- Reduce GHG emissions by 385 tonnes per year
- Provide energy costs savings for the operation of the residence
- Generate up to 168 kW of electricity
- The CHP system will displace up to 1,034,000 kWh of electricity from the grid each year