



Calgary Downtown District Energy Centre



District energy provides heating through a network of underground insulated pipes and is more efficient than traditional heating systems which have separate boiler systems built into every building.

The Calgary Downtown District Energy Centre project involves the development of a heat generation facility; located in the downtown core at 9th Avenue and 4th Street S.E. The first phase of the development can provide heating to up to 10 million square feet of new or existing residential and commercial buildings. The overall project is a key development in the East Village located in Calgary's downtown core.

The centrally located Downtown District Energy Centre and distribution system can service buildings in Calgary's downtown core. Recently, The City of Calgary Municipal Building switched from an aging conventional boiler system to purchasing its heating load from the Calgary Downtown District Energy Centre (March 2010).





Thermal Distribution System (TDS) being installed on 4th Street SE

What is District Energy?

District energy involves the generation and distribution of thermal energy at the community level instead of on a building-specific basis. It consists of one or more centralized heating generation plants interconnected with a network of underground pipes that distribute hot water to the customers.

Who can use District Energy?

District energy can meet the needs of a wide range of end users. Examples of typical district energy customers include but are not limited to the following:

- Institutional and government facilities
- Medium to high density commercial and residential developments
- Food and agriculture facilities
- Medical and emergency facilities
- Finance and IT facilities
- Industrial, energy and defence facilities



Construction underway on the Calgary Downtown District Energy Centre

What are the benefits of District Energy?

- Thermal energy at a lower cost because of capital and higher operating efficiency advantages
- Shared access to larger scale heating equipment that operates more efficiently, thus reducing environmental impacts
- A cost-effective alternative to capital investment that would be required to install or upgrade in-house conventional boiler systems
- Building operating and maintenance cost savings
- Energy cost stability and predictability over the life of the contract
- Requires only 5% of the building space conventional boiler rooms would occupy

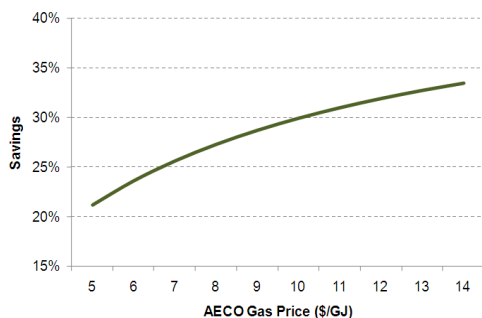


Energy Transfer Station (ETS) at The City of Calgary Municipal Complex (pictured above). The ETS has a significantly reduced space requirement when compared with conventional boiler rooms.

What are the economic savings of District Energy?

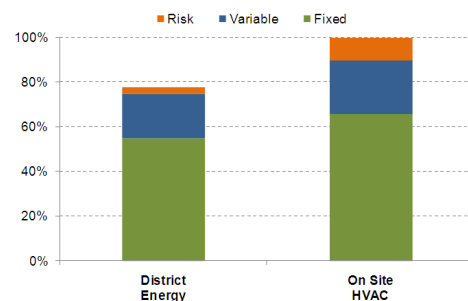
There are many economic savings that district energy customers can enjoy. For instance, capital costs for the installation of new conventional boiler systems are no longer required and building owners will save on operation and maintenance. Similarly, there are gas consumption savings over time. District energy offers increased efficiency and in periods of high gas prices, this could translate to significant cost savings.

Energy Savings as Gas Prices Increase*



*Please note, calculations are based on average commercial heating loads

Comparing Costs of District Energy and Conventional HVAC Systems*



Considering District Energy?

To help you decide if district energy is right for your business we offer the following services:

- An initial assessment of your existing building or planned development
- In-depth feasibility study and commercial valuation
- Preparation of an in-depth business case that can be presented to your management team
- Custom presentations as required

Please call ENMAX Energy at 403-514-2075 or email districtenergy@enmax.com.

ENMAX has established a 20-year plan for the Calgary Downtown District Energy Centre which includes additions to the existing facility.



Kettles Wind Farm, Pincher Creek, AB

The Calgary Downtown District Energy Centre Project is funded in partnership with the Governments of Canada and Alberta, and The City of Calgary. The project was made possible through the Canada-Alberta Municipal Rural Infrastructure Fund (CAMRIF). CAMRIF is a partnership among the federal, provincial and municipal governments. Over the programs' life, CAMRIF has directed \$321 million in federal, provincial and municipal funding to enhance municipal infrastructure and improve Albertans' quality of life through investments that protect the environment and support long-term economic growth. For further information on CAMRIF, visit camrif.ca

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