

SIMILAR SYSTEMS



Blatchford

Edmonton

Several district energy systems have similar characteristics to the proposed Blatchford DESS.

WHISTLER ATHLETES VILLAGE (NOW CHEAKAMUS CROSSING) AMBIENT TEMPERATURE DISTRICT SYSTEM (WHISTLER, BC)

Technology:

- Ambient temperature district energy system
- Powered by sewage heat recovery from nearby Whistler wastewater treatment plant
- Heat pumps in each building provide heating/cooling and domestic hot water

Customers/Service Area:

- 2,200 residential users on 85,000m² of land

Governance:

- Owned by the Resort Municipality of Whistler (RMOW) as a district energy utility

Status:

- In operation since 2008
- Phase 2 will add another 300 residential units to system in the future

More info:

- whistler.ca/sites/default/files/des20presentation.pdf

SOUTHEAST FALSE CREEK (VANCOUVER, BC)

Technology:

- System is powered by wastewater (heat is extracted using heat exchangers)
- Uses central heat pumps to provide high-temperature heat to buildings (for heating and domestic hot water—not cooling)

Customers:

- By 2020, the system will provide energy to approximately 16,000 people
- Development includes 5,000 residential units, grocery stores, a school, community centres and other community buildings

Governance:

- The district energy system is owned and operated by the Neighbourhood Energy Utility (NEU), which was established by the City of Vancouver in 2010

Status:

- In operation since 2010
- Still being expanded with full build-out expected around 2020

More Info:

- vancouver.ca/home-property-development/false-creek-neighbourhood-energy-utility.aspx

GIBSONS GEOEXCHANGE DISTRICT ENERGY UTILITY (GIBSONS, BC)

Technology:

- Ambient temperature district energy system
- Powered entirely by a geo-exchange system

Customers/Service Area:

- System will provide heating and cooling to over 700 residential buildings

Governance:

- Owned by the Town of Gibsons as a district energy utility

Status:

- Phase 1 of the project has been in operation since 2010

More Info:

- gibsons.ca/include/get.php?nodeid=841&format=download

CALGARY INTERNATIONAL AIRPORT – INTERNATIONAL TERMINAL (CALGARY, AB)

Technology:

- Not a district system; a 650 borehole geo-exchange based heating/cooling system

Customers/Service Area:

- The geo-exchange system serves the new international terminal which is 183,500m² in size—the largest expansion ever undertaken at the Calgary Airport

Governance:

- The system is owned by the Calgary Airport

Status:

- Completion of construction is expected by 2016

SURREY CITY ENERGY - GEOEXCHANGE DISTRICT ENERGY SYSTEM (SURREY, BC)

Technology:

- Powered by a 400-borehole geo-exchange system under Surrey City Hall Plaza

Customers/Service Area:

- Serves City Hall and adjacent buildings

Governance:

- Owned and operated by the City's new utility: Surrey City Energy

Status:

- In operation since 2013
- Surrey's first district system
- Will be able to connect to future DE systems in the area

More Info:

- surrey.ca/community/3475.aspx

BALL STATE UNIVERSITY (MUNCIE, IN)

Technology:

- Ambient temperature district system
- 3,600 borehole geo-exchange system

Customers/Service Area:

- Serving 47 University buildings

Governance:

- Owned and operated by the University

Status:

- System has been in operation since 2012

More Info:

- cms.bsu.edu/about/geothermal



WESTHILLS DISTRICT ENERGY SYSTEM (LANGFORD, BC)

Technology:

- Uses an ambient temperature loop
- System gets energy from 212-hole geo-exchange system, as well as waste heat from ice rink refrigeration plants and water treatment plants

Customers/Service Area:

- 210 hectare planned community
- Provides heating and cooling to 6,000 homes on 465,000m² of mixed-use space (upon completion)

Governance:

- Owned and operated by SSL (Sustainable Services Ltd.), a utility service provider established to deliver energy and water services to the Westhills community on behalf of the City of Langford

Status:

- In operation since 2008

More Info:

- ssl-bc.com/energy-service

ALEXANDRA DISTRICT ENERGY UTILITY (RICHMOND, BC)

Technology:

- Ambient temperature district energy
- Powered by 385-borehole geo-exchange system under a city greenway

Customers/Service Area:

- Provides heating and cooling to over 600 residences and a daycare

Governance:

- Owned and operated by the Alexandra District Energy Utility (ADEU): a public utility created by the City of Richmond

Status:

- In operation since 2012
- Currently under expansion: new buildings were connected in 2014 and more are expected in 2015

More Info:

- richmond.ca/sustainability/energysrvs/districtenergy/energyutility.htm

Informational video:

- youtu.be/c_Ahh7VGjCo



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