



Eco-Solar Home Tour 2024

Sunday 2 June, Noon to 5 pm

Blatchford Energy Centre

Tour Day: Sun 2 Jun
Address:
Hosts: City of Edmonton
Parking: On Street
Energuide Rating: N/A



Summary points why people need to see the Energy Centre

- District Energy Sharing System
- One of North America's largest sustainable communities
- Largest industrial heat pump in operation in Alberta
- Planned to be the largest District Energy Sharing System in North America (at full build out).

What will people see and learn about at the Energy Centre

- Centralized Geothermal (Geoexchange) system
- Extracts heat from 570 boreholes and circulates to the community
- Upgrades from ground temp (~4C) to 10 to 20C before circulation
- Homes extract heat for heating and hot water with a heat pump
- System provides renewable heating, cooling and hot water to the community
- Energy Centre uses a large heat pump to upgrade the thermal energy
- Homes get the benefit of a geothermal system without having to drill boreholes

What are the main things people will see at the Energy Centre

- Community energy center
- The mechanical equipment for the district energy sharing system
- Stormwater pond with geoexchange field underneath

Are there main items that they can't see?

- Solar PV installed on the roof of the energy centre
- Geoexchange system under the stormwater pond





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Blatchford Energy Centre

Why is the Energy Centre on the tour?

Blatchford is an urban community in the heart of Edmonton, designed to be a great neighbourhood for families, a catalyst for transformational land development and a path towards a more resilient future. The project builds from a vision statement approved by Edmonton City Council in 2010: “Blatchford will be home to up to 30,000 Edmontonians living, working and learning in a sustainable community that uses 100 percent renewable energy, is carbon neutral, significantly reduces its ecological footprint, and empowers residents to pursue a range of sustainable lifestyle choices.” The community energy system plays a critical role in working to achieve the vision. Energy Centre One, located in a future civic plaza, contains the highly-efficient centralized system that provides renewable energy for heating, cooling and hot water to homes and buildings in Blatchford.



What features save on energy costs?

- At the community energy centre, energy travels through a highly efficient heat pump that uses 1 unit of electricity to transfer 10 units of heat energy into the system (this is about 10X more efficient than traditional systems)
- The energy centre has been designed with sustainability at its core. The building has its own high-efficiency heating and cooling system that uses district energy, has a high-performance building envelope that reduces heat transfer between the inside of the building and the outdoors, ultra-high performance windows, LED lighting and solar panels
- By implementing the comprehensive Blatchford energy strategy, homes and buildings will emit about 75% fewer greenhouse gas emissions than buildings in a typical neighbourhood



Other Special Features

- Stormwater pond with geotreatment field





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- Attendees are also welcome to tour the community to see various sustainable community design elements, including urban agriculture, low impact development landscaping, street design that promotes walkability, separated bike lanes, etc.