



Eco-Solar Home Tour 2018

Saturday 2 June 2018 Noon to 4:30 pm

Bonnie Doon CHP Office

Tour Day: Saturday

Address:

Hosts: Effect Homes

Parking: On Street

Energuide Rating:



Summary why people need to see your site

- Deep energy retrofit of an office building
- Self-sufficient from the electrical grid
 - No electrical connection or electrical utility fees
- Reduction in greenhouse gas emissions
- Micro Combined Heat Power (mCHP) for winter electricity
- Photovoltaic (PV) array for summer electricity
- Battery bank for energy storage
- See how it all fits together in this construction tour

What will people see and learn about at your site?

- Off the electrical grid in an urban setting
- Site based energy generation
 - Photovoltaic (PV) array
 - Micro Combined Heat Power (mCHP) system
- Use of natural gas and alternative energy (PV Array) to greatly reduce greenhouse gas emissions

What are the main things people will see at your site?

- Solar PV system on roof
- Battery storage for the electrical energy
- Innovative heating system (Micro Combined Heat Power unit)

Are there main items that they can't see?

- No connection to electrical grid
- Extremely well insulated building envelope

Edmonton



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ATCO



SkyFire Energy
Solar Energy Systems





Edmonton, Alberta

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Why is this site on the tour?

This office deep energy retrofit showcases an alternate way to greatly reduce greenhouse gas emissions while being free of the electrical grid. Participants will be able to see the mechanical system, solar PV system and battery storage which



make it possible. This building uses a Combined Heat Power unit which provides the heat energy needed for the building. Electrical energy is the bi-product of its operation which is also captured and used. To further reduce emissions the building envelope is extremely well insulated and virtually air tight. This renovation is scheduled to be completed in fall 2018 so participants will be able to see the inner working of the system in this construction tour. This type of retrofit can also be done on residential homes.

What features save on energy costs?

- No electrical utility fees
- Simultaneous production of heat and electricity

Are there any other special features you want to highlight?

- Balanced use of natural gas and alternative energy (solar PV array) result in fewer greenhouse gas emissions
- This CHP system is a viable alternative to furnace replacement in both residential and office settings