



Eco-Solar Home Tour 2022

Saturday 11 June, Noon to 5 pm

Macewan NZE Retrofit

4 Elements

www.4Elements.eco



Calgary



SkyFireEnergy
Solar Energy Solutions



GOelectric
VEHICLE CORPORATION



Tour Day: Saturday 11 June

Hosts: Homeowner

Parking: On street

Energuides Rating: 0GJ/yr

Summary:

- We open our home to show people how simple it can be to retrofit a home to Netzero, particularly if the home is going to be undergoing a building envelope renovation.

- Full electrification will save you money and add value and comfort to your home.

What will people see and learn about at your home?

- What efficiency features support your Energuides rating?
- Adding R16 to walls, R40 to ceiling, and triple pane windows
- Heat pumps supplying heating and hot water.
- 15.4kW Solar PV

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

- Highly insulated building exterior retrofit. EIFS adds R16-R48 depending on requirements
- How simple it is to retrofit a home to Netzero
- How comfortable it is to live in. (No noises, no smells, no bugs, no cold spots, fresh air)
- Netzero operates at much lower cost than combustion fuels.

Are there main items that they can't see?

- Everything can be seen since the insulation is on the outside





Eco-Solar Home Tour 2022

Macewan NZE Retrofit

Why is this home on the tour?

When we started designing our home, we were only thinking about a building envelope renovation and adding a double garage. The Eco-Solar tour in Edmonton was part of the inspiration that took our home to Netzero. We want to share with others how easy and rewarding the transition to a fully electric lifestyle can be.



What features save on energy costs?

- Disconnected Natural Gas
- High Efficiency Building Envelope
- Heat pumps providing forced air heating and hot water
- 15.4kW Solar providing Net Positive Energy (supplying Chevy Volt)
- Secure Power Source Inverter (provides direct power in case of grid failure)

What features save on water costs?

- Heat Pump Hot water tank
- Dual Flush Toilets
- Low flow showerheads.

Are there any other special features you want to highlight?

- Air Source Heat pumps (Mitsubishi Zuba for forced air and AO Smith for DHW)
- EIFS exterior retrofit (R16 added to walls)
- Lux triple-pane windows
- HRV
- 200A service upgrade
- PHEV – 2014 Chevy Volt
- Netzero Renovation
- 1 air change every 3 hours
- Garage was designed to accommodate PV

