



Eco-Solar Home Tour 2024

Saturday 1 June, Noon to 5 pm

Highlands NZE Retrofit Home

Tour Day: Sat 1 June

Address:

Hosts: Homeowners

Parking: on street

Energuide: 173 → 0

GJ/yr



Why people need to see your home

- Energiespong-style NZE retrofit of a 1.5 storey 1950s home.
- We still have our laundry chute!

What will people see and learn about at your home?

- That deep energy retrofits can be completed on older homes
- That you do not need to have a natural gas furnace in Alberta

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

- Very thick walls and deep windowsills for the cat
- Enough solar to be net zero
- Eco-Side siding
- A new porch

Are there main items that they can't see?

- Insulation is important - but safely tucked away in the walls!
- The new wall panels (with lots of insulation) were built off-site, and then lifted into place by crane.
- Also dug down to the footings and insulated the basement from the outside.

Why is this home on the tour?





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Canada has a target to be net zero by 2050, but we have so much inefficient housing stock today that this can only be achieved by retrofitting buildings to be more energy efficient. As a family we wanted to do something that would reduce our GHG emissions directly, but also take on a project that could be replicated on other people's homes. This is the first single-detached home in Canada to be renovated using the Dutch Energiesprong method. This method includes scanning the home, fabricating insulated panels off-site, and installing them in just a few days. Hopefully everyone who comes to see our home will be able to envision a similar retrofit for their house too.



What features save on energy costs?

- Re-insulation of the home
 - Prefabricated exterior wrap wall insulation R-37
 - Additional roof insulation R-65
 - Excavated basement walls and added R-28
- Airtight 1.1 Air Changes per Hour and Heat Recovery Ventilator
- Triple pane efficient windows ~R4.5
- Passive solar gain through 5 windows on the south side of the house.
- 3 Ton Air-source Heat Pump (ASHP) with 8 kW electric boost
- Heat Pump Hot Water Heater
- Heat Pump Dryer
- Already had LED lighting throughout the house
- Induction stove
- 16 kW solar PV (expanded from 7.4 kW)

What features save on water costs?

- Low flow kitchen and bathroom sink and shower head
- 12-year-old still avoids baths

Other special features

- Eco-Side siding by KWP
 - Low carbon footprint

