



Eco-Solar Home Tour 2024

Sunday 2 June, Noon to 5 pm

Prince Charles Retrofit

Tour Day: Sun 2 June
Address:
Hosts: Homeowners
Parking: On street
Energuide Rating: 71 GJ/yr



Summary points why people need to see your home

- Stage one of multi-stage energy retrofit
- No/low interest financing and rebate programs combined to help pay for the retrofit

What will people see and learn about at your home?

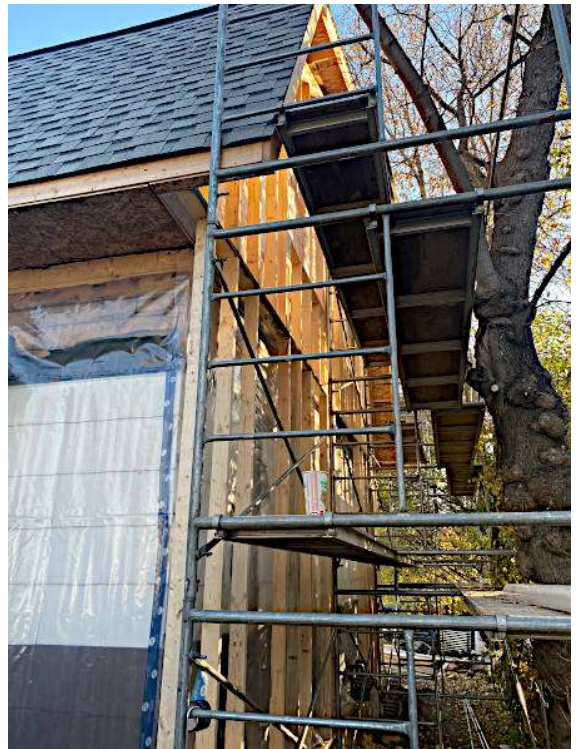
- Building envelope upgrade to 1948 semi-bungalow
- Air sealing and insulation added to entire exterior of home
- Roof shape changed to improve energy performance and usable space of second storey

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

- Updated roof shape/second storey
- New triple pane windows
- Heat recovery ventilator (HRV)
- Photos documenting the building envelope retrofit

Are there main items that they can't see?

- Exterior air sealing
- Exterior foundation, wall, and roof insulation





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Why is this home on the tour?

We purchased our 1948 semi-bungalow in 2012 and completed some upgrades over the past 10 years, but the house was still energy inefficient. To meet the GHG reduction targets required to avoid significant climate impacts, all existing buildings (including homes) need to reach net zero emissions. So, we began our journey to transform our old house into a net zero home, using available financing and rebate programs. Stage one of the renovation plan is complete; improving the building envelope to reduce energy consumption before replacing heating technologies and adding renewable energy generation. We replaced (and changed the shape) of the second storey roof, wrapped the entire exterior of the house (foundation, main walls, and roof) in air sealing material, added rigid foam insulation to the foundation, a wooden structure and blown-in insulation to the exterior of the main walls, and blown-in insulation to the new roof structure.



What features save on energy costs?

- Insulation: roof – blown-in cellulose (R64), walls – 8” of structure and blown-in cellulose added to exterior (R41), foundation – 4” type 1 EPS insulation added to exterior (R18).
- Air tightness: 10mil poly vapour barrier added to exterior of foundation, main walls & roof, resulting in 1.85 ACH at 50 pascals. HRV added.
- Windows: triple pane, low e, argon windows.
- Source of heat: high-efficiency natural gas furnace
- Water heating: high-efficiency power-vented natural gas hot water tank
- Laundry lines indoors and out (clothes dryer used about twice per year)
- New roof constructed to support solar PV, and conduit installed to make the house solar ready.

Other special features

- Waste reduction during renovation: reused siding, saved old windows to use in sheds and garden, saved shelving from closets for reuse, saved insulation for reuse.
- Backyard composting, large vegetable garden, berry patches (raspberries, saskatoons, haskap, sour cherries, blueberries), native flower pollinator garden.
- Increased electrical service to 200Amp to prepare for future transition to electrical space and water heating and addition of an electric vehicle.

Affordability

- Worked with contractor to keep costs as low as possible.
- Accessed no or low-interest financing from the Canada Greener Homes loan program and the Edmonton Clean Energy Improvement Program and rebates from the Canada Greener Homes grant and Edmonton Home Energy Retrofit Accelerator programs to help pay for the renovations.

