Eco-Solar Home Tour 2025

Saturday 7 June, Noon to 5 pm

Beverly Heights NZE Home

Tour Day: Sat 7 Jun
Address:
Hosts: Homeowners
Parking: On street
Energuide: 0 GJ/yr

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

- Air source heat pump with integrated electric auxiliary heat
- Drain water heat recovery
- hybrid electric hot water heater
- Chimney removed
- Joist header spaces insulated
- Radon mitigation
- Insulated garage with solar
- HRV rough-in

What will people see and learn about at your home?

- Removing the gas line from a moderately insulated and sealed home
- Two solar installations: one on the home installed prior to removing gas, one on the newly built garage bringing the home to net zero
- Electrical considerations: initially we did not upgrade to 200-amp service and we could have electrified our home and maintained 100-amp service. Eventually we did upgrade to 200-amp service so that we would have some flexibility in our system (for instance to allow for a level 2 EV charger.
- We chose a cold climate heat pump with an integrated electric auxiliary heater. We did not need to install any additional electric heat (such as baseboard heaters) or retain our natural gas furnace; it all came as one appliance.

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Why is this home on the tour?

We began renovating our home when we moved in 18 years ago, but it was not with the intent to get to net zero. All of our renovations improved the efficiency of our home, but some choices were not ideal, such as double-pane windows. As a result, we did not believe that our house was a good candidate for a deep energy retrofit. In more recent years, our sense of responsibility to do as much as we could individually to address climate change led us to investigate all possible options for a sustainable, net-zero (no gas line) home. Retrofitting our existing home turned out to be the most affordable, realistic, and sustainable option.

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What features save on energy costs?

- We have replaced and upgraded all the insulation in the house, and worked to seal leaks as best we can over the years, although not to the standard we would if we had initially renovated with the intention of deep energy retrofitting. Most of our home renovations were done 17 years ago; the addition was done 13 years ago.
- The air source heat pump, hot water heat pump, and drain water heat recovery appliances were all chosen to help save on energy costs.
- Removing the gas line entirely eliminated the fixed fees of that bill
- Insulating the joist header spaces
- Prepping for an HRV
- Solar modules get us to net zero
- We insulated the garage

What features save on water costs?

- Drain water heat recovery
- Rainwater tanks collecting from the house and garage
- Re-lined our clay tile sewer pipe and added a backwater valve

Other special features

- We have worked to increase our capacity for food production. We have a “a cold storage and a conservatory” which we have used in the past to house an aquaponics system, and now will be used to grow hydroponic lettuce. We also start plants and grow herbs year-round in the conservatory.
- We have numerous perennial fruit trees, shrubs and plants in our yard: strawberry, raspberry, pear, apple, saskatoon, Evans cherry, Juliet cherry and haskaps.
- We added a radon mitigation system