



# Eco-Solar Home Tour 2025

Saturday 7 June, Noon to 5 pm

## Riverdale Geothermal Home



**Tour Day:** Sat 7 Jun

**Address:**

**Hosts:** Homeowners

**Parking:** On street

**Energuide:** Will be 0 with solar (which won't be finished by the tour date)



### Summary points why people need to see your home

- Geothermal heating & cooling – See how a ground-source heat pump was installed with minimal yard disruption.
- Net-zero energy home – Powered by solar and geothermal, with no natural gas needed.
- Efficient retrofitting – Learn how geothermal works for homes where deep energy upgrades aren't practical.
- Sustainable living – Features a thriving garden, efficient water use, and smart home design.

### What will people see and learn about at your home?

They will see:

- Posters showing Urban Geo Exchange's 5' x 12' cute as a button drilling rig
- Ground source heat pump and flow centre,
- Air source heat pump water heater.
- The (mostly) restored back yard and planted garden with the well and connection pit locations and directional drilling paths.

They will learn:

- That there are many ways to get to net zero with existing houses
- That geothermal can be a viable path to net zero for homes where a deep envelope upgrade doesn't make sense
- That it possible to install geothermal on existing houses without turning the yard into WW1 battlefield.





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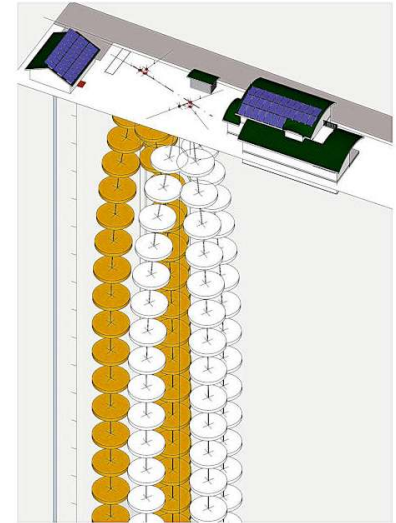
### Why is this home on the tour?

This duplex was on the tour in 2000 -before net zero was a thing- when it was featured as a very energy efficient home-. With R 22eff walls, R 50 Roof, R4.5eff Triple glazed, low E argon filled fibreglass windows, 1.5 ACH50, and R20 eff basement walls, the upside from a major envelope upgrade was just too small to make sense of the huge cost to redo an exterior in excellent shape. An air source heat pump would have needed a bigger electric back up for temperatures below -20C and the electrical service would have need to be upgraded. The solution was a geothermal system installed in a way that minimized disruption. And a 20KW solar PV installation to power both units, the garage and a plug-in hybrid.



### What features save on energy costs?

We started with an already fairly energy efficient home. The new ground source heat pumps, the air source heat pump water heater, replacement high-efficient ERVs, slightly improved attic insulation, and some remedial air sealing to lower our energy needs enough that that we can meet all our needs with solar. And ask the gas company to come and get their meter.



### What features save on water costs?

Efficient fixtures, Toilets, Drain Water Heat Recovery, Rain barrels.

### Other special features

We have a big garden and a cold room that stores carrots until April. It was important to us to get the geo project done without losing a season.

