



# Eco-Solar Home Tour 2026

14th June, Sunday Noon to 5 pm

## Belgravia NZE Home



**Tour Day:** 14<sup>th</sup> June, Sunday

**Address:**

**Hosts:** Homeowners

**Parking:** On street

**Energuides Rating:** 0 GJ/yr

### Summary

- All-electric NZE home
- Passive house design
- Super insulation
- Air source heat pump
- Solar



### What are the main things people will see and learn about at your home?

- Passive house design
- Home orientation optimized for pv solar and orienting the south passive house certified windows to provide 29% of the heating energy in a year.
  - Living spaces to south with natural sunlight
  - Service rooms to north
  - Simple geometric shape to reduce surface area and heat loss
  - Passive house levels of air sealing with 0.31 Ach @ 50pa
  - Ultra thick double stud walls with service cavity inside the primary air and vapour barrier, filled with cellulose for R44, with multiple details to reduce thermal bridging.
    - Air source heat pump and HRV.
    - ICF R28 foundation to minimize concrete use and provide R40 insulation including inner insulated service wall





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### Why is this home on the tour?

House designed with passive house principles and energy modelling. Features passive and PV solar, super insulated R44 walls, R40 basement wall, R16.8 sub slab, rR90 attic. Super air sealed with 0.31 Air Changes per hour @ 50 pa. A separate service cavity and outside attic hatch. Passive house windows with majority of glazing facing due south. South roof with PV panels being installed in March 2026 to fully reach net zero. Fully electric home with air source heat pump and HRV for heating and ventilation.

### What features save on energy costs?

- Air sealing
- Super insulation
- Passive house windows
- Air source heat pump & HRV
- Heat pump water heater
- Passive solar gain

### What features save on water costs?

Efficient fixtures, toilets, Drain Water Heat Recovery, rain barrels

### Other special features

- Scandinavian inspired with natural wood features on interior for warmth.
- ICF foundation on house and garage.
- Double stud walls in garage.
- Electric vehicle charger in garage
- South facing yard with garden
- Walkable location next to river valley, LRT. U of A, restaurants.
- Legal basement suite.
- Main floor office with ensuite to act as age in place bedroom.

