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# Eco-Solar Home Tour 2017

Sunday June 4 2017 Noon to 4 pm

## Langdale NZE Home

Tour Day: Sunday

Address:

Hosts: homeowners

Parking: On Street

Energuide Rating: 93



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

- This house may appear conventional, but we're aiming for NetZero using a variety of strategies
- Strong focus on environmental health with non-toxic building materials and finishes wherever possible

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

- ~R45 offset double-stud walls using dense-packed cellulose insulation; airtight @ ~0.5 air changes per hour
- R60 attic, R36 offset double-stud walls and R20 under-slab spray-foam in basement
- Dettson air-source heat pump with backup electric furnace
- Air-source heat pump hot water tank with drain water heat recovery coil
- 14.6 kW grid-tied, battery-ready SolarEdge system with 55 panels, optimizers, dual inverters
- Venmar energy-efficient heat-recovery ventilator
- LED lighting, Energy Star appliances, induction cooktop
- Stain-resistant carpet and felt underlay free of widespread and toxic PFCs and flame-retardants
- Large triple-paned, low-e, south-facing windows with solar gain glazing
- Low flow showerheads and faucets, dual-flush toilets
- Hardie Plank cement/cellulose siding

### Are there main items that they can't see?

- No gas service to house, saving hundreds of dollars a year just in delivery and administration costs
- Minimal thermal bridging due to offset double-stud walls
  - Low air flow heating system is extra quiet and

prevents temperature swings



Edmonton, Alberta

# Eco-Solar Home Tour -2017

## Langdale NZE Home

### Why is this home on the tour?

We want to showcase this as a typical suburban home that happens to be ultra-efficient, self-sustaining, and non-toxic. We will also add a large organic vegetable garden and composter ASAP to grow as much of our own food as we can. Our goal is to show people that it's not difficult or too expensive if they have the will to do it!

### What features save on energy costs?

- Air-tight building envelope
- R45 walls with minimal thermal bridging
- 14.6 kW solar array
- LED lighting
- Up to 80% heat recovery from interior air and water
- Triple-paned, argon-filled, low-e, Energy Star windows for solar heat gain and heat retention
  - Energy Star appliances



### What features save on water costs?

- Low-flow showers and faucets
- Dual-flush toilets
- Rain barrel

### Are there any other special features you want to highlight?

- non-toxic interior and exterior
- Large planned garden

