



Eco-Solar Home Tour 2021

Saturday 19 June, 1:00 to 1:40 pm

The Crossings NZR Home

Tour Day: 19 June 2021
Time: 1:00 to 1:40 pm
Hosts: Homeowners
Energuide Rating: 48 GJ/year



Summary points why people need to see your home

- The home was built for the same cost as a code-built home, using all traditional and readily available building materials
- Average monthly energy cost is about \$120 per month
- All of the home's equipment is low tech and low maintenance

What will people see and learn about at your home?

- High levels of insulation using traditional building materials
- Floor plan designed with passive solar gains in mind
- No geothermal, no air source heat pump, no air conditioning, no problem!

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

- A summary of our energy bills and usage
- Large south facing windows with shade overhangs
- Electric baseboard heaters and electric hot water tank
- Energy efficient appliances
- HRV provides fresh air to the home 24/7

Are there main items that they can't see?

- High levels of insulation in walls, attic, and under basement slab
- Continuous air barrier



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The Crossings NZR Home

Why is this home on the tour?

Our home is on the tour because we want to show that a Net-Zero Ready home does not have to be complicated and can be built without using the latest and greatest and expensive high-tech equipment and materials. Our main motivation in building our home, the way we did, was cost/benefit. When assessing options for technology and materials, if any given aspect of the home did not make economical sense, we did not include it. We also wanted to live in a home that is not demanding of our time in terms of repairs and maintenance. We strove for low maintenance requirements when selecting the technology that went into our home. This meant minimizing the number of moving parts in the home. The Crossings NZR Home demonstrates that a net zero ready home can be built to provide drastically lower energy costs than a code-built home, while providing a quiet, comfortable, and healthy living environment.

What features save on energy costs?

- R40 walls, R90 attic, R12 under basement slab
- Continuous air barrier
- Triple pane windows, argon filled, high R, low E
- South facing windows with shade overhangs
- Heat recovery ventilator (HRV)
- Energy efficient appliances, including an induction range and a ventless dryer
- LED lighting
- No natural gas connection to home
- Electric baseboard heater in each room
- Programmable thermostat with zone heating
- Electric hot water tank with heat traps



What features save on water costs?

- Low flow water fixtures
- Rain garden and fescue grass mix lawn

Are there any other special features you want to highlight?

- 2015 Nissan LEAF and EV charging station in garage
- Circuit monitors
- Rain garden uses water collected from the roof

Any other highlights?

- The home is Net-Zero Ready (no solar array)
- Average energy cost over 4 years is about \$120 per month
- Aside from appliances, there is only one moving mechanical part in the home
- The home provides great sound insulation against the Lethbridge wind
- Wall and attic insulation is made from recycled materials
- EnerGuide Rating of 48 GJ/year versus actual average usage of 35 GJ/year

