



Eco-Solar Home Tour 2025

Sunday 15 June, **10 am to 5 pm**

Okotoks NZE Retrofit Home

Tour Day: Sun 15 June

Address: 80112 Highwood Meadows Dr. **Foothills County**

Hosts: Homeowners

Parking: in driveway

Energuide: 15 GJ/yr



What will people see and learn about at your home?

- The process of a Deep energy retrofit on a rural property
- Execution of Passive house interior and exterior design features
- Examples of simplified building envelope and air tightness details and mechanical system strategies.

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

- Exterior wall Larson truss system in a retrofit application
- Interior features of a passive home (simple mechanical system)





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Why is this home on the tour?

House was built in 1930's-40's, we don't know as there's nothing on the title saying when it was built as it was once part of a large horse ranch which was subdivided over 30 years ago. The 850 sq ft home underwent a deep energy retrofit this past year and is 95% complete. The house received a full new wrap of insulation on the exterior walls, roof, and foundation to create a full thermal bridge free building envelope. Above grade walls and roof have 10-16" of dense pack cellulose insulation for optimum performance and low carbon footprint. The foundation was hydrovac'd, waterproofed, and received 8" of foam insulation, salvaged from a commercial roofing project. After that the house was sided with a mix of salvage cedar siding and LP smart side. Furnace and Gas services were removed and replaced with electric resistance heat, a new ERV, and a heat pump hot water tank. The interior of the home has been completely refinished and updated. The home has also received a 6.5KW solar array to offset its annual energy use.



What features save on energy costs?

- Dense pack cellulose insulation R40 in walls, R60 in roof, R40 below grade walls
- Airtightness has been improved from 7.5 ACH to 0.8 ACH
- European tilt and turn wood windows on main floor
- Electric resistance space heat
- heat pump hot water tank
- Panasonic 100CFM ERV
- 6.5KW solar array

