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Edmonton



Butterwick



SkyFire Energy
Solar Energy Systems



Eco-Solar Home Tour 2020

Sunday 7 June, 10 am to 4:30 pm

Drayton Valley NZE Retrofit Home

Tour Day: Sunday 7 June
Address: Drayton Valley
Hosts: Homeowner
Parking: On street
Energuide Rating: 0 GJ/year



What will people see and learn about at your home?

- How to super insulate existing and new buildings from grade level to the roof with straw bales, which absorbs more greenhouse gas than is required to plant, harvest, and transport.
- The fire resistance of a straw bale insulation envelope
- The sound reduction from exterior noise
- The importance of using local materials and local craftsmanship in our buildings

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

- Energy efficiency improvements that can modernize a home for the future
- Insulation, HRV System, Domestic hot water system





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Drayton Valley NZE Retrofit Home

Why is this home on the tour?

Between 1955 – 1985 there were 108 million homes built in North America. The majority of these homes are structurally sound, however, the insulation, plumbing and electrical need to be updated to current building codes. This show home is a 1963 bungalow, which has been insulated on the exterior with a new patented straw bale process (R50), with new windows, doors and roof (R60). The interior has been completely exposed and rejuvenated to building code. The insulation levels support a net-zero building with 8.5KWH solar array on the roof.



What features save on energy costs?

- Super insulated walls and ceiling
- Every room controlled by a separate thermostat
- Triple glazed windows
- Sub surface preheat pipe for the Heat Recovery Ventilation System intake

What features save on water costs?

- The domestic hot water system has a main storage tank which raises the water from ground temperature to room temperature with no external heating
- The water is then drawn from the tank to supply the on demand hot water heaters at each kitchen sink and bathroom

Are there any other special features you want to highlight?

- 200 amp electric service
- Barrier free bathroom off the bedroom
- All the doors on the main floor are wheel chair accessible
- Large double garage with 220 volt electric vehicle charging point
- 850 sq.ft. 2 bedroom legal suite in the basement

