



Eco-Solar Home Tour 2025

Saturday 14 June, Noon to 5 pm

Varsity NZE Retrofit

Tour Day: Sat 14 June
Address: 3916 Vardell Rd NW
Hosts: Homeowners
Parking: On Street
Energuide Rating: 6 GJ/Year

Summary points why people need to see your home

- Deep retrofit with 6" exterior insulation, triple-pane windows & airtight design for extreme energy efficiency.
- Heat pumps for both heating & hot water—eliminating gas reliance.
- Smart electrical upgrades, including load-sharing for 100-amp service.
- Low-profile solar panels that generate income—70% payback in the first year!

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

- Building envelope - 6" EIFS + triple pane windows + removal of fireplace
- Heat pumps - for hot water and for heating the home
- New electric panel - with load sharing device to manage 100-amp service
- ERV
- Solar panels barely visible- almost an afterthought, but which earn me yearly \$ (in fact, 70% in the first year).





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Why is this home on the tour?

I moved into our family home from Tripoli Libya where homes were well built, keeping heat out. Right away, I knew the walls here were not suitable for the climate. I came to live here again in 2009, after buying the home, and after living in Europe which could take homes off grid for \$20K. The 2011 hail storm gave me a claim on every outside surface. I kept learning about retrofits from Peter Amerongen videos. Finally, when Peter Darlington looked at my home, I knew he was a contractor who knew the insulation job I wanted under the siding, and how to do it. Part of what pushed me was feeling the air move on my face with closed windows. They needed replacing and I knew the order of jobs for a retrofit and why they make sense. I didn't waste any money on anything that was not in line with my desire of net zero. I had no validation among Calgary friends and family, and felt it was a big risk. I basically did the research myself and mustered courage. Peter gave me the nicest work crew and by the time they left, I didn't want them to leave!



What features save on energy costs?

Insulation: when my gas furnace died, in November during covid and working full time at home, I bought extra plug-in heaters and used them while I researched heat pumps. I bought thermometers and checked key areas. At the end of that winter, I felt I really knew my house and I feel very confident in the most important part of reducing energy needs: the building envelope! The basement (not well insulated) and the exterior ensuite wall never fell below 11C during that time! If our street loses power in winter, I will have the warmest safest house because of my walls!!!

What features save on water costs?

- Low flush toilets, six rain barrels.
- No humidifier. (I grew up in a desert, I can accept the dry air).
- Six rain barrels for outside watering.



Other special features

Plans:

EV and high efficiency appliances when replacements are needed.

May need an upgrade to the plug so that I can charge an EV more quickly if needed.