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CLIMATE**

Edmonton



*Butterwick*



# Eco-Solar Home Tour 2020

Sunday 7 June, Noon to 4:30 pm

## Woodhaven NZE Home

**Tour Day:** Sunday 7 June

**Address:**

**Hosts:** Dolce Vita Homes  
And Homeowner

**Parking:** on street

**Energuides Rating:** 0 GJ/year

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

It is a Net Zero house which uses high insulation, air sealing, high efficiency equipment, and a renewable energy source.



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

- 3477 ft<sup>2</sup> house, will use 70 GJ and produce 70 GJ a year
- Sealing the building envelope and providing fresh, clean air.
- Reducing heat loss and using renewable energy
- Active radon gas venting
- Operating Cost should be lower and the house should last longer

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

- Solar panels
- Air Source Heat Pump systems for space and water heating
- Drain Water Recovery unit
- Hybrid Electric HWT with extra water storage
- Energystar Appliances

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

- Rigid insulation on walls / frost walls
- Attic framing technique w/ no electrical penetration (no air leaks)
- Underslab insulation
- AeroBarrier air sealing



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## Woodhaven NZE Home

### Why is this home on the tour?

I chose to invest in green technologies because I'm a father of three and grandfather. Living in Alberta is a challenge when trying to be green, but Alberta listens to where you spend your dollars more than any other language. I wanted a heat pump heated and solar generating home with high efficiency systems to conserve energy. Dolce Vita took my original concept and added the technology necessary to build a net zero home. Air source heat pumps, wastewater heat recovery, highly efficient HRV, a solar array, aero barrier sealing, extra insulation, and more makes my home an example for future Albertans. My goal was to have a home that didn't burn hydrocarbons to heat itself, showing my children that their future isn't as bleak as it may appear.



### What features save on energy costs?

- Insulation: R-80 in ceiling, R-34 in walls, R-34 on frost walls, R-10 under basement
- Triple Pane window w/ double Low-E coating and Argon gas filler
- Doors have multi-lock system and windows are casement for better seal
- AeroBarrier air sealing system (aerosol application)
- Thermodrain 6' drain water heat recovery unit
- Non-venting hood fan w/ carbon filter
- Non-venting condensing cloths dryer
- LED Lighting and induction cooktop
- Air source heat pump w/ air handler and back-up heat coil for heating and cooling
- AO Smith air source heat pump water heater
- 42-panel solar PV system (70 GJ/year), 14.91 KW

### What features save on water costs?

- Low flow plumbing fixtures
- Trunk and branch system with recirculation loop for hot water (which is insulated)
- Gravity feed recirculation (no power required) save thousands of gallons of potable water because hot water is available at all top floor plumbing fixtures within seconds

### Other special features

- All electric, zero gas emission
- Steam humidifier
- Active radon gas venting system (w/ Radon Fan)
- 3-zone space heating system
- SmartHome technologies
- Unique attic framing technique that eliminates ceiling penetration