NET ZERO RENOVATION PILOT HOME

SOLARHOMESING



Renovator

Peter Darlington, Solar Homes Inc.

Service **Organization**

Enervision

Energy Advisor Cooper Le, 4 Elements Integrated Design LTD.

Net Zero Pilot Home

Calgary, AB (Climate Zone 6)



*Before renovations 167_{GJ/YR}

produces more energy it uses annually! *Best energy performance

*This house



NET ZERO RENOVATIONS PILOT HOME POST-RENOVATION DETAILS

BUILDING ENCLOSURE

Windows:

Lux Windows & Glass, Triple Glazed Low-E

R16 EPS, R12 Batt

Ceiling:

R60 Blown

Foundation:

R20 Batt

Envelope:

35% better than NRCan referance house

Airtightness (ACH @ 50 Pa):

Pre-reno 4.55 → Post-Reno 1.27

MECHANICALS

Fuel Source:

All-Electric

Heating & Cooling:

Mitsubishi ASHP & Electric Furnace

Water Heating:

Electric heat pump

Ventilation:

Nu-Air HRV

RENEWABLE FNFRGY

PV System:

15.6 kW Hanwha & CanSolar array

Energy Monitor:

Neurio





Testimonial

"I started planning a fairly typical renovation and stumbled across an article that was talking about net zero. It was like a lightbulb went off; I realized... I could generate all my own energy for the rest of my life. Not only is it cost-effective, but the home is more comfortable: yearround spring fresh air, consistent temperatures everywhere, no bugs, no outside noises, and virtually no energy bills for the home and [electric] car!"