

NetZero Pathways Report

Please find below additional information for your home on how you can achieve a NetZero or NetZero Ready home. This is designed to complement the EnerGuide Rating System reports you have already received.

We have recommended a pathway to get your home to a NetZero or NetZero Ready level of performance. This pathway includes a stepped approach with the easier upgrades being recommended first. The path below is cumulative, meaning you would have to complete the upgrades mentioned in the previous packages to achieve the final NetZero/NetZero Ready target.



Your detailed path to NetZero/NetZero Ready

	House Components	Your Current Home	Package #1 Good: Easy Upgrades	Package #2 Better: Deep Retrofit	Package #3 Best: NetZero Ready/NetZero
Envelope	Ceiling with Attic Space	2201101000	2201d01000	2201d01000	2201d01000
	Cathedral/Vault/Flat Ceiling	None	None	None	None
	Existing Above Grade Walls	1211401A30	1211401A30	12134J1A30	12134J1A30
	Basement Walls	None	None	None	None
	Under/Above Slab	None	None	None	None
	Windows & Sliding Glass Doors	NetZero Lake trail triple (U-val=1.20, SHGC=0.19)	NetZero Lake trail triple (U-val=1.20, SHGC=0.19)	NetZero Lake trail triple (U-val=1.20, SHGC=0.19)	NetZero Lake trail triple (U-val=1.20, SHGC=0.19)
	Air Tightness	~0.8 @ 50 Pa (Assumed)	~0.8 @ 50 Pa (Assumed)	~0.8 @ 50 Pa (Assumed)	~0.8 @ 50 Pa (Tested)
HVAC	Principle Ventilation	HRV/ERV, kitchen and bathroom exhaust fans	HRV/ERV, kitchen and bathroom exhaust fans	HRV/ERV, kitchen and bathroom exhaust fans	HRV/ERV, kitchen and bathroom exhaust fans
	Space Heating	90% AFUE furnace, ENERGY STAR® certified	90% AFUE furnace, ENERGY STAR® certified	90% AFUE furnace, ENERGY STAR® certified	97% AFUE furnace, ENERGY STAR® certified
	Space Cooling	None	None	None	None
DHW	Domestic Water Heater	2.3 EF heat pump water heater	2.3 EF heat pump water heater	2.3 EF heat pump water heater	2.3 EF heat pump water heater
	Drain Water Heat Recovery	None	None	None	None
Other	Bathroom Faucets	No requirement	No requirement	No requirement	No requirement
	Shower Heads	No requirement	No requirement	No requirement	No requirement
	Appliances	No requirement	No requirement	No requirement	ENERGY STAR® certified
	Lighting	No requirement	No requirement	No requirement	100% CFL or LED
	Energy Monitoring System	No requirement	No requirement	No requirement	Must be installed for NZ ready & NZ
	Renewable Energy	None	None	None	None
	Design Heat Loss (BTU/h)	24,267	19,608	16,528	16,413
	Design Heat Gain (BTU/h)	12,137	11,815	11,393	11,393
	Primary Space Heating	54%	46%	37%	42%
	Secondary Space Heating	0%	0%	0%	0%
	Primary DhW Heating	7%	9%	10%	10%
	Secondary DhW Heating	0%	0%	0%	0%
	Lights & Appliances	36%	43%	50%	46%
	Hrv & Fans	1%	1%	1%	0%
	Space Cooling	0%	0%	0%	0%
	Total Energy Consumption (GJ)	70	59	51	0
	Energy Consumption Reduction (vs. Current Home)	N/A	15%	27%	100%
	Est. GHG Emissions (Tonnes/Year) (Site)	2.1	1.5	1.1	1.0
	Heatloss Comfort Assessment (recommended 7 or lower)	18	15	13	12
	Building Envelope Thermal Performance Improvement (NZ)	N/A	N/A	N/A	55%
	Est. Natural Gas Consumption (GJ)	37.7	27.1	19.0	19.4
	Est. Electricity Consumption (GJ)	32.4	32.2	32.1	0.0
	Est. Natural Gas Consumption (m³)	1,011.5	726.1	510.8	519.6
	Est. Electricity Consumption (kWh)	9,001.3	8,948.9	8,909.2	0.0
	Est. Annual Natural Gas Cost (\$/Year)	\$257	\$184	\$130	\$132
	Est. Annual Electricity Cost (\$/Year)	\$897	\$892	\$888	\$0
	Est. Annual Operating Expenses (\$/Year)	\$1,154	\$1,076	\$1,017	\$132
	Est. Future Cost of Carbon (\$/Year in 2030)	\$357	\$255	\$187	\$170

Notes: Ci = Continuous Insulation. An optimal Heatloss Comfort Assessment value is in the range of 7 or less.

What does 'NetZero' mean?

Generally, Net Zero Homes are defined as homes that produce as much clean energy as they consume annually, using on-site renewable energy systems. Up to 80% more energy efficient than typical new homes, Net Zero Homes are extremely well built with extra insulation, high-performance windows, and excellent airtightness to minimize heating and cooling needs. Appliances, lighting, and mechanical systems are all as energy efficient as possible. See the Canadian Home Builders Association's website for more details about labeling your home as NetZero. A full NetZero home would have the generation of energy whereas a NetZero 'Ready' home may not have the solar generation installed yet.

What else is needed for NetZero Ready?

A requirement for NetZero Ready homes, 'Solar Ready' means that your home has been designed or upgraded to make the addition of solar power much easier. It includes, but is not limited to the following:

- A solar design has been completed for your home to show how much annual energy can be generated
- Your roof trusses have been designed/upgraded to meet the additional loads of solar panels
- A conduit has been installed from the attic/roof to the electrical panel for future wiring
- A space has been provided for the installation of the inverter
- Any wood fireplaces must be removed or replaced

For more details please download Natural Resources Canada's [Solar Ready Guidelines](#).

For more details please visit:

betterhomesottawa.ca/futurehomes

