





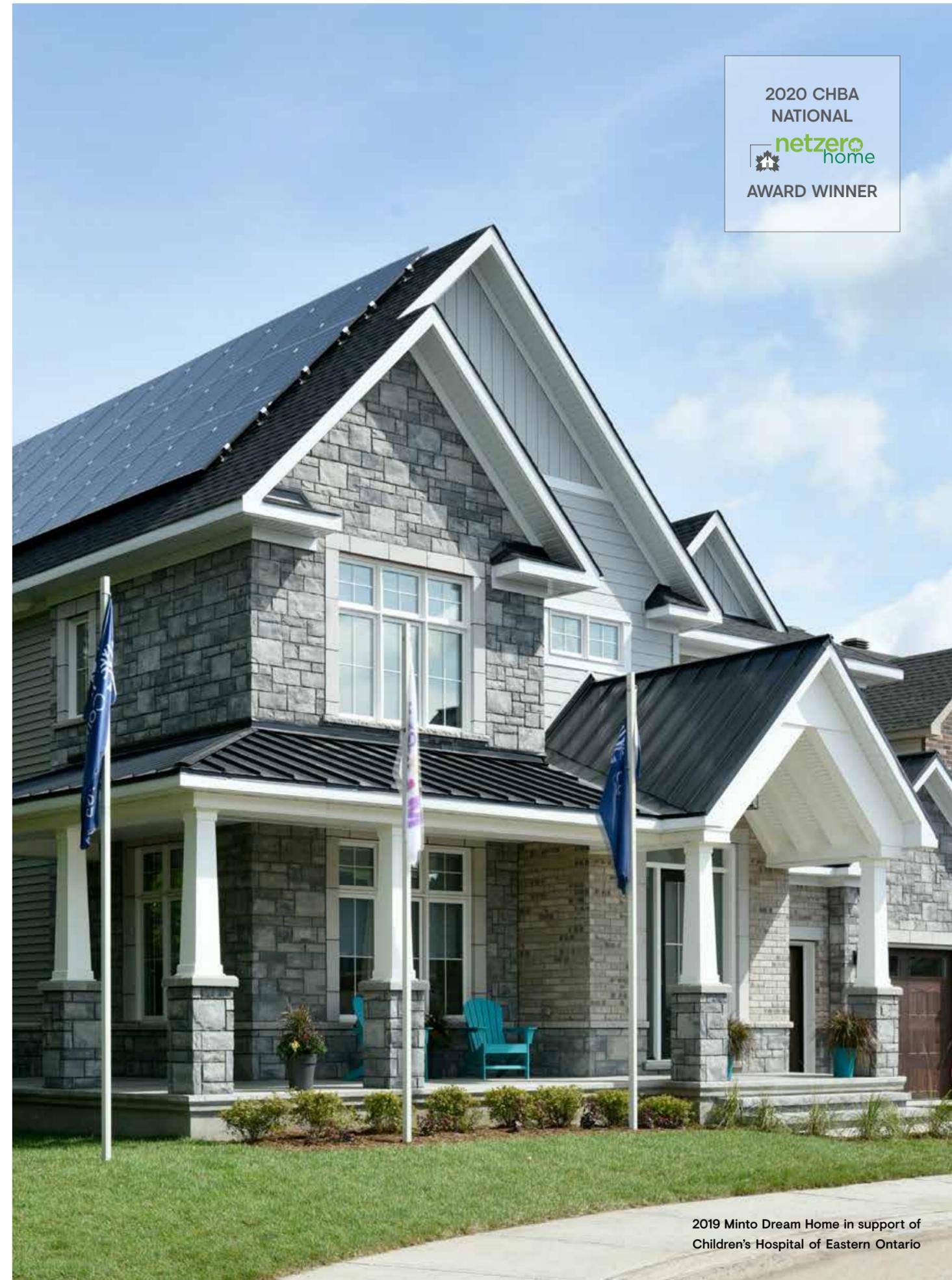
Union Village combines comfort, long-term value, health, and community into one exceptional new neighbourhood.

The second phase at Union Village presents the unique opportunity to upgrade any 36', 43' or 50' model to a Net Zero energy home. Discover a home at the forefront of luxury and sustainability, offering exceptional energy performance, the ultimate in comfort, and a better way to live.



## VALUE. COMFORT. SUSTAINABILITY. THE FOUNDATION OF A BETTER HOME.

When you upgrade to a Net Zero home at Union Village, you're selecting a home ready for the future. Make the intelligent choice, then sit back and enjoy a home built for a healthier lifestyle. Value, comfort, and sustainability in every detail.



2020 CHBA  
NATIONAL  
  
AWARD WINNER

2019 Minto Dream Home in support of  
Children's Hospital of Eastern Ontario

## UPGRADE TO A MORE COMFORTABLE LIFESTYLE.

The introduction of Net Zero homes at Union Village takes an exceptional product and makes it even better. Upgrade your single family home to Net Zero and enjoy a luxury home with enhanced comfort, performance and cost savings.

### ENHANCED COMFORT PACKAGE

The Enhanced Comfort Package provides more comfortable living from the day you move in.

#### FEATURES INCLUDE:

- Foundation: 10"
- Foundation Walls: 2" (R10) rigid continuous insulation outboard of 2x4" studs @ 24" on centre w/ R22 batt insulation
- Stud Walls: 2" (R10) rigid continuous insulation outboard of 2x6" studs @ 24" on centre w/ R22 batt insulation
- Basement Slab: 2" (R10) rigid insulation under the slab
- Exposed Floors: R40 spray foam
- Windows: Triple Pane (u-value 1.2/shgc:.4)
- Air Tightness: 1.0 air changes per hour (tested)
- Zoned HVAC: 2 zones



### ENHANCED PERFORMANCE PACKAGE NET ZERO READY

Upgrade to the Enhanced Performance Package and achieve a Net Zero Ready home that is 50% more energy efficient than a standard home.

#### ENHANCED COMFORT PACKAGE

#### PLUS:

- Ventilation: Energy Recovery Ventilator 67% @ 0°C
- Furnace: Dual Fuel 96% AFUE
- Cooling: Dual Fuel ASHP 7.83 HSPF (Zone 5) 21 SEER
- Domestic Hot Water: Condensing tank 0.97 EF
- Drain Water Heat Recovery: 72" copper pipe, 53.7% eff on min. 2 showers
- Energy Monitor
- Net Zero Ready certification

ENHANCED PERFORMANCE PACKAGE  
+ SOLAR PV PACKAGE  
= Net Zero (with Net Zero certification)

### SOLAR PV PACKAGE\*

Upgrade with a Solar PV Package to generate free and clean energy from the sun on your roof.

#### SOLAR PV PACKAGE\*

- Solar PV panels
- Inverter
- Net energy meter

\*Full details will be provided at the Design Centre during the purchasers' appointment. Subject to change without notice. E.&O.E.



## WHY UPGRADE TO NET ZERO?



### VALUE

Generates as much energy as it consumes over the course of a year.

Protects you from future increases in energy prices.

Built to higher standards than conventional new homes, with high performance windows and better insulated walls and roof.

### COMFORT

Delivers exceptional comfort all year round with even temperatures throughout the house.

A quieter home where outside noise such as traffic, lawnmowers and barking dogs is virtually eliminated.

### SUSTAINABILITY

Minimize the environmental footprint of your household by reducing energy demand and producing energy with renewable energy technology.

Preserve natural resources for future generations with water-saving fixtures and appliances.

When it comes to buying a new home, there are a lot of terms related to energy savings and sustainability.

## ENERGY STAR® FOR NEW HOMES vs. NET ZERO READY vs. NET ZERO: WHAT DO THEY ALL MEAN?



### STANDARD HOME

The standard home is built according to the Ontario Building Code (OBC). These regulations establish the minimum standards for health, safety, resource conservation, environmental integrity, and accessibility.

This is the baseline for new development in Ontario.

### ENERGY STAR® HOME

ENERGY STAR® is a recognized symbol for energy efficiency.

ENERGY STAR® for new homes use, on average, **20% less energy than a standard home** (roughly the equivalent of running a refrigerator for 10 years\*). This is achieved through features like more insulation, improved air tightness, energy efficient doors and windows, and better mechanical equipment.

### NET ZERO READY HOME

A Net Zero Ready home sits at the forefront of luxury and sustainability and is **50% more energy-efficient than a standard home**.

This is achieved by taking the level of insulation and air tightness, and the efficiency of the windows and mechanical equipment to an even higher level of performance. A Net Zero Ready home is built with the infrastructure in place so that, as renewable energy systems like solar become more affordable and more efficient, your home is ready to adapt for the future.

### NET ZERO HOME

**A Net Zero home generates as much energy as it uses over the course of a year.\*\***

The same high-quality standards of construction and design as Net Zero Ready, provide exceptional efficiency, with the addition of solar panels for renewable energy. Every part of the home works together to provide a comfortable, quality, stress-free lifestyle.

\*source - <https://www.nrcan.gc.ca/energy-efficiency/energy-star-canada/about-energy-star-canada/energy-star-announcements/energy-star-certified-homes/5057>  
 \*\*based on a calculated estimate of how much energy the home will generate. May vary based on homeowner consumption.



Check out all the features that contribute to a more efficient, more comfortable, and more sustainable home at Union Village.

### NET ZERO READY FEATURES

- 1 More insulation in exposed floors, walls, and under the basement slab **ensuring a more comfortable and consistent temperature throughout the home**
- 2 Air tight building envelope with Aerobarrier technology keeping an even **temperature throughout with no drafts or cold spots**
- 3 Triple-pane windows **resulting in less heat loss and a quieter home**
- 4 Efficient HVAC systems and Air-Source Heat Pumps **providing fresh air and more efficient heating and cooling**
- 5 Multi-zone HVAC system, including zoned thermostats **allowing you to set different temperatures for each zone in the house**
- 6 High performance toilets, faucets, and showerheads **saving thousands of litres of water each year**
- 7 ENERGY STAR® Certified appliances to **significantly reduce your electricity bills**
- 8 100% high efficiency LED lighting for **lower electricity costs**
- 9 Energy Monitor showing how much energy your home is using, **making it easy to monitor and manage your consumption. It will also monitor how much energy your solar panels are generating if you upgrade to Net Zero**

### NET ZERO FEATURES

- 10 Solar panels to generate **clean, renewable energy**
- 11 Inverter to help **convert solar energy into energy that your home can use**
- 12 Net energy meter replaces the conventional hydro meter and **measures both the energy drawn from and sent to the power grid**

# DIVE INTO THE DETAILS.

Here's a look at some of the specific construction features found in each level of design.

FEATURE	STANDARD HOME	ENERGY STAR®	NET ZERO AND NET ZERO READY	WHY IT MATTERS
<b>BUILDING ENVELOPE</b>				
<b>Foundation Wall Thickness</b>	8"	9"	10"	Thicker foundation supports a thicker wall assembly for better insulation.
<b>Insulation - Foundation Wall</b>	R20 blanket	R20 blanket (or effective R21.1)	R10 (2") rigid continuous insulation + 2x4 @ 24"o.c. studs with R22 batt	Increased insulation results in a more comfortable temperature throughout the home, from the partially-finished basement to the living areas over unheated spaces like the garage.
<b>Insulation - Under Slab</b>	-	-	R10 (2") rigid continuous insulation under slab and at slab break	
<b>Insulation - Exterior Wall</b>	2x6 @ 16" o.c. studs with R22 batt	2x6 @ 16" o.c. studs with R22 batt + R5 (1") rigid continuous insulation on exterior of studs	2x6 @ 16" o.c. studs with R22 batt and R10 (2") rigid continuous insulation on exterior of studs	
<b>Insulation - Exposed Floor</b>	R31	R31	R40 spray foam	
<b>Windows and Doors</b>	Double Pane	Double Pane	Triple Pane	Triple-pane windows result in better thermal performance, more consistent temperatures, and a quieter home.
<b>Air Tightness</b>	3 ACH assumed	2.5 ACH proven by testing	1.0 ACH proven by testing and delivered with Aerobarrier	The highest level of air tightness is achieved using Aerobarrier, a breakthrough air sealing technology, this means better thermal comfort and less heat loss, resulting in lower energy bills.



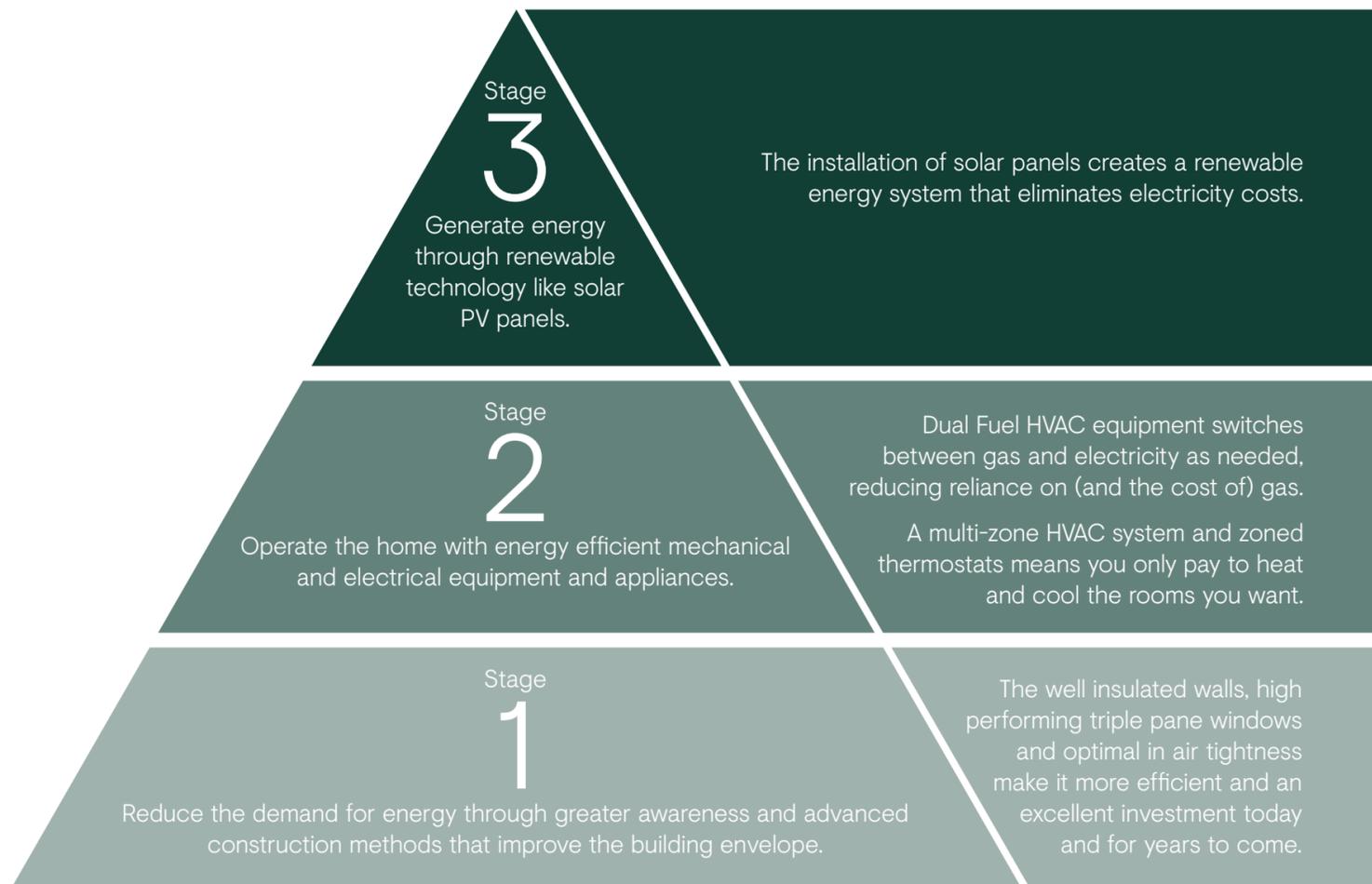
FEATURE	STANDARD HOME	ENERGY STAR®	NET ZERO AND NET ZERO READY	WHY IT MATTERS
<b>MECHANICAL</b>				
<b>Zoned HVAC</b>	-	-	2 zones	A variable speed HVAC system provides separate heating/cooling/ventilation to two different zones in the house, reducing energy waste and improving comfort.
<b>Ventilation</b>	75% HRV	75% HRV	65% ERV, ENERGY STAR® qualified	The HRV in standard and ENERGY STAR® homes retains heating and cooling, while the ERV in Net Zero and Net Zero Ready homes retains heating, cooling, and humidity.
<b>Furnace</b>	Min AFUE 96%	Min AFUE 96%	Dual Fuel AFUE 96% Furnace	The dual fuel system can run on both gas and electricity and alternates between the two fuel sources to maximize comfort and efficiency; AFUE measures the efficiency.
<b>Space Cooling</b>	13 SEER	14.5 SEER	Dual Fuel ASHP 7.83 HSPF (Zone 5) 21 SEER	The dual fuel system can run on both gas and electricity and alternates between the two fuel sources to maximize comfort and efficiency; the air source heat pump offers more efficient heating and cooling.
<b>Domestic Hot Water</b>	Hot water heater 0.80EF	Condensing tank 0.8EF	Condensing tank 0.97EF	A higher EF means a more energy efficient water heater that costs less to operate.
<b>Drain Water Heat Recovery</b>	42% on min. 2 showers	42% on min. 2 showers	53.7% eff on min. 2 showers	Increased efficiency captures lost heat from hot water going down the drain, using it to preheat cold water entering the water heater.



FEATURE	STANDARD HOME	ENERGY STAR®	NET ZERO AND NET ZERO READY	WHY IT MATTERS
<b>ELECTRICAL</b>				
<b>Lighting</b>	-	100% LED	100% LED	LED lights use at least 75% less energy, and last 25 times longer, than old-school incandescent.
<b>Appliances</b>	-	ENERGY STAR® Certified appliances Refrigerator, Dishwasher and Clothes Washer	ENERGY STAR® Certified appliances Refrigerator, Dishwasher and Clothes Washer	ENERGY STAR® certified appliances use 10-50% less energy and will significantly reduce your electricity bills.
<b>Electrical Panel</b>	100 Amp	100 Amp	200 Amp	Increased capacity on the electrical panel supports the installation of future solar panels.
<b>Solar Panel Ready</b>	-	-	Roof trusses with 5 pounds per square foot additional loading capacity, empty metal conduit, and space for the inverter	Stronger roof trusses support a higher load for the installation of future solar panels; capped empty metal conduit running from the attic to the electrical panel, house the connecting cables.

# EXCEPTIONAL VALUE.

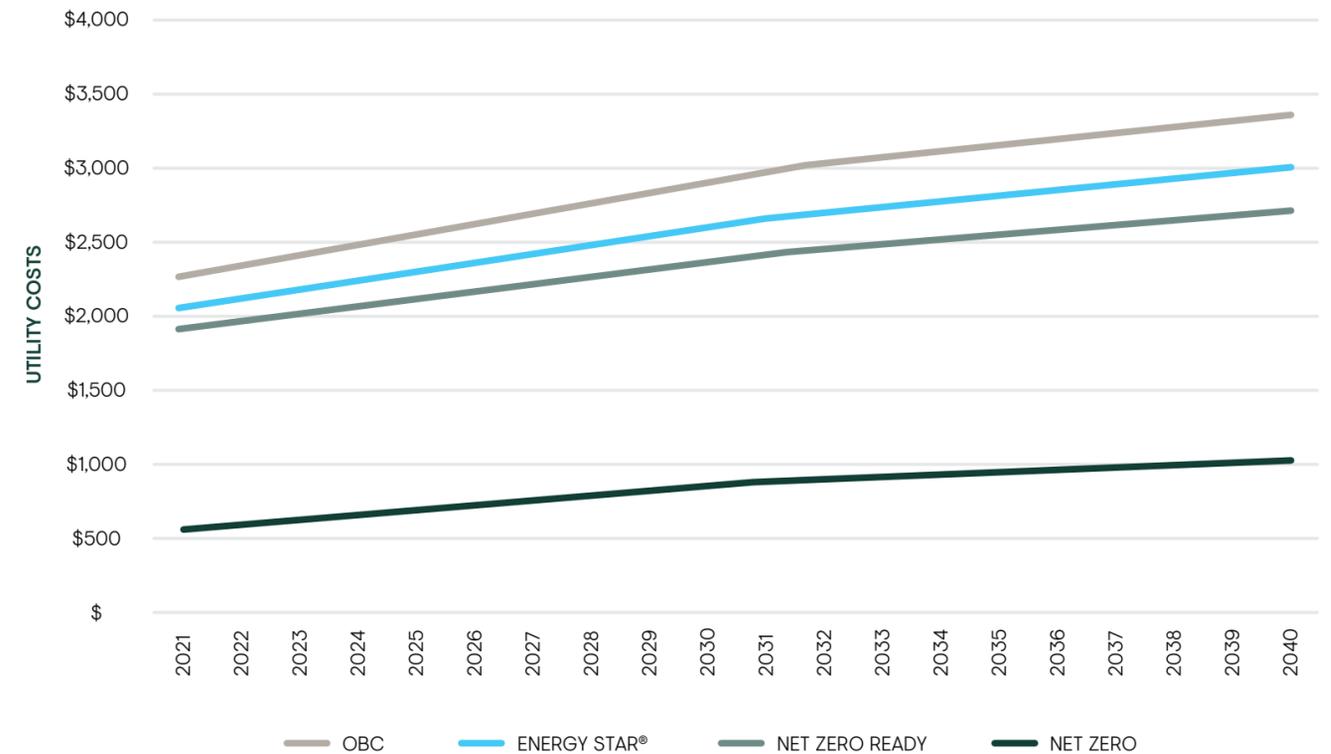
A Net Zero Ready home is up to 50% more energy efficient than a home built to conventional standards. Greater energy efficiency equals lower utility bills. In fact, with a Net Zero home your utility bills will fall to an all-time low, and stay low all year round. How?



## ENERGY HIERARCHY

The energy hierarchy is an effective approach to delivering more sustainable homes: reduce energy use before seeking to meet the demand with renewable sources.

## 20 YEAR PROJECTED ANNUAL UTILITY COSTS



Annual utility rate changes used to show annual operational energy costs between 2021 and 2040 are estimates.

With Net Zero you're protected from future increases in energy prices, making it a smart investment today and a valuable proposition long term. Huge savings today. Future-proofed for tomorrow.

Here's an example of the savings you can achieve with a Net Zero Ready and Net Zero home.

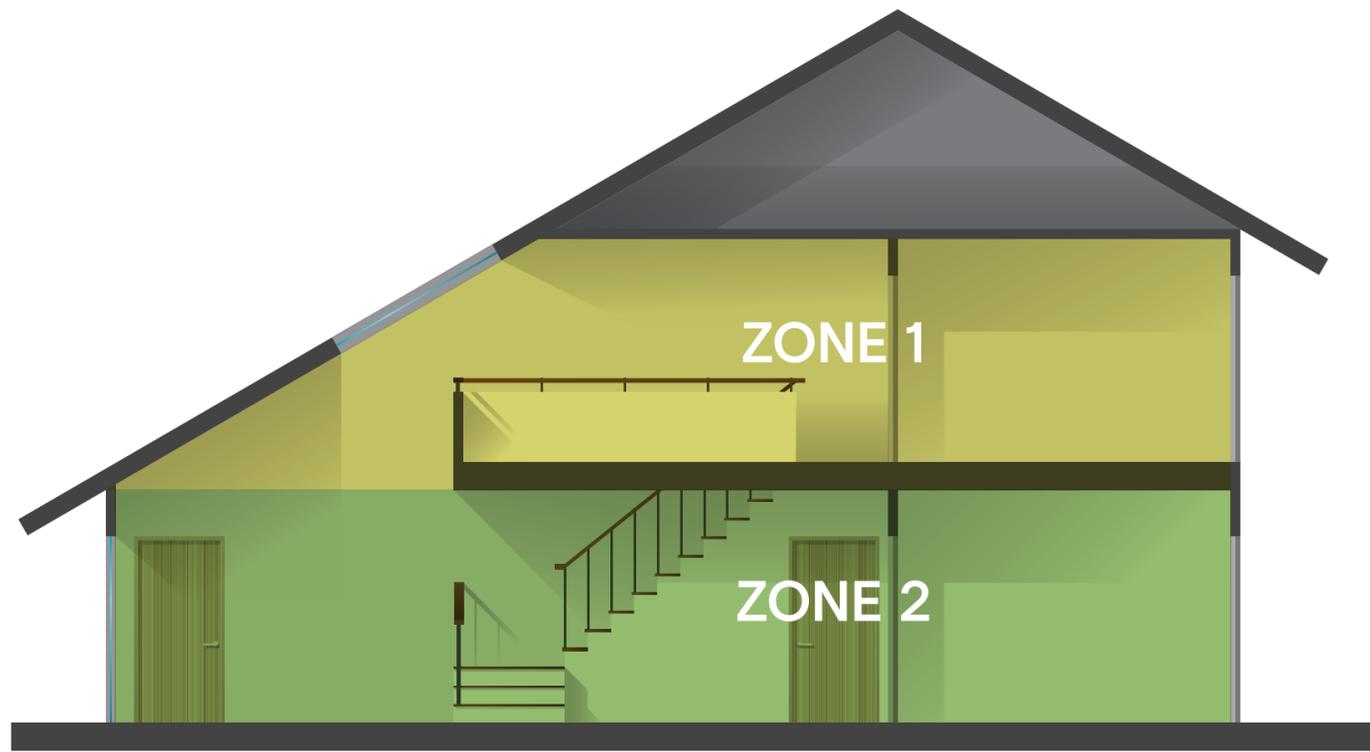
## ANNUAL UTILITY COSTS

UTILITY	STANDARD HOME	ENERGY STAR®	NET ZERO READY	NET ZERO
Gas	\$900	\$712	\$543	\$340
Hydro	\$1,350	\$1,346	\$1,370	\$0
Total	\$2,250	\$2,058	\$1,913	\$340
<b>TOTAL SAVINGS per year over a standard home</b>		<b>\$192</b>	<b>\$337</b>	<b>\$1910</b>

Figures for utility costs and savings do not include administrative fees, and are based on estimates arrived at through energy modeling and 2021 utility rates. These estimates are not indicative of real-life actual results and do not represent the performance of the home as-operated by the occupants. Actual as-operated energy costs will vary substantially from these estimates due to personal lifestyle, selection of fixed or non-fixed appliances, annual weather variation, energy distribution charges and unpredictable energy rate/cost changes. Hydro costs for a Net Zero home will vary over the year with usage from the grid anticipated during winter months and generation from the solar panels sent to the grid anticipated during summer months. Subject to change without notice. E.&O.E.

## MULTIPLE ZONES, GREATER COMFORT.

A Net Zero home at Union Village features an advanced zoned HVAC system, where different areas can be heated and cooled independently, creating a more comfortable living experience, every day. Enjoy total control, with maximum comfort in every room in the house.



### BETTER COMFORT

A zoned HVAC system delivers heating and cooling directly to each zone in your home.



### BETTER TEMPERATURE CONTROL

With a smart thermostat, you control the temperature within each zone.



### GREATER UTILITY SAVINGS

Reduced energy usage saves you money every month on your utility bills.



## THE PEOPLE BEHIND THE MOVEMENT

Since 1943, the Canadian Home Builders' Association (CHBA) has been “the voice of Canada’s residential construction industry.” Representing one of the largest industry sectors in Canada, the membership is made up of some 9,000 companies – including home builders, renovators, land developers, trade contractors, product and material manufacturers, building product suppliers, lending institutions, insurance providers, and service professionals. CHBA is leading the way for Net Zero with the Net Zero Energy Housing Council (NZE), supporting industry innovation with the goal of meeting the energy efficient housing aspirations of Canadians.

Visit [chba.ca/nzc](https://chba.ca/nzc) to learn more.



# GLOSSARY

Here's a handy guide to some of the more technical terms.

**AEROBARRIER ENVELOPE SEALING** – an aerosol sealant that fills all gaps less than ½-inch, resulting in an airtight building, better thermal comfort, and lower energy bills.

**ANNUALIZED FUEL UTILIZATION EFFICIENCY (AFUE)** – a measure of furnace heating efficiency. The higher the AFUE rating, the more efficient the furnace.

**AIR SOURCE HEAT PUMP (ASHP)** – provides efficient cooling for your home, delivering 1.5 to 3 times more cooling energy than the electrical energy it consumes.

**DUEL FUEL** – a furnace that can run on both gas and electricity and alternates between the two fuel sources to maximize comfort and efficiency.

**ENERGY METER** – shows how much energy the solar panels are generating versus how much energy your home is using.

**ENERGY STAR® FOR NEW HOMES** – a recognized symbol for energy efficiency, resulting in homes that use, on average, 20% less energy than a standard home.

**ENERGY RECOVERY VENTILATOR (ERV)** – exchanges indoor air for outdoor air, capturing the heat and humidity from the discharged air and returning it to the incoming air, reducing energy requirements and saving money on electricity bills. ERV also works in the summer, to pass the cold air inside the home being exhausted, to the warm air being brought in.

**HEAT RECOVERY VENTILATOR (HRV)** – exchanges indoor air for outdoor air. It uses the heat in stale exhaust air to preheat incoming fresh air, reducing the energy required to bring outside air up to ambient room temperature, and saving money on heating bills. HRV also works in the summer, to pass the cold air inside the home being exhausted, to the warm air being brought in.

**HEATING VENTILATION AND AIR CONDITIONING (HVAC)** – this system provides thermal comfort (in other words, it keeps you warm and cozy in the winter and cool and fresh in the summer) and good indoor air quality.

**LED LIGHTING** – Light Emitting Diode technology that produces light up to 90% more efficiently than incandescent light bulbs and lasts up to 25 times longer.

**MULTI-ZONE THERMOSTAT** – allows individual zones to be heated or cooled to a specific temperature, at a specific time of day.

**NET ENERGY METER** – measures the energy drawn from the grid and the excess energy delivered back to the grid, generated from the renewable energy system, and calculates the “net” difference.

**NET ZERO** – a system of building where a home produces as much (if not more) energy as it consumes throughout the course of the year.

**NET ZERO READY** – a home with the infrastructure in place to become Net Zero, purchasers just need to install the solar panels. A Net Zero Ready home is 50% more energy-efficient than a standard home.

**ROOF TRUSSES** – a structural framework that provides support for the roof; in a Net Zero Ready home, the trusses are stronger, designed to withstand the increased load from solar panels.

**SEER** – the Seasonal Energy Efficiency Ratio measures air conditioning and heat pump cooling efficiency.

**SOLAR PV (PHOTOVOLTAIC) PANELS** – a collection of cells arranged in a grid-like pattern that absorb the sun's rays and convert them into electricity.

**STANDARD HOME** – a home built to Ontario Building Code (OBC) standards.

**TRIPLE-PANE WINDOWS** – windows consisting of three sheets of glass, providing a better insulating barrier, allowing less heat to escape, and reducing outside noise.

