Passive House is a rigorous, voluntary building standard that is truly energy efficient, comfortable, affordable and reduces the building’s ecological footprint at the same time. Passive House is not a brand name, but a construction concept that can be applied by anyone and that has stood the test of practice.

A Net-Zero home produces as much energy as it consumes. These homes are up to 80% more energy efficient than a home built to conventional standards, and use renewable energy systems to produce the remaining energy they need.

**Prefab Cross Laminated Timber Wall & Roof Assembly**
A robust and more ecological alternative to concrete, pre-assembled for quick assembly

**Summer Sun**
Summer sun is shaded by the overhangs

**Shade Control**
Deep roof overhangs provide shade from hot summer sun, but allows the lower winter sun to help heat house

**Prefabrication**
Strengthening the structural components

**High-Efficiency Lighting**
LED lighting with web-based controls

**Waterless Urinal**
Saves water and less odour

**Summer Sun**
Shaded by the overhangs

**Winter Sun**
Lower winter sun shines in windows and heats home

**Passive House Certified Cat Door**
Fully automatic and tamperproof

**Eliminating Thermal Bridge**
Installing structural thermal break minimizes heat loss and condensation

**Electric Induction Cooktop**
No gas needed

**Energy Efficient Heat Pump Dryer**
Eliminates the need for ducting and a vent, cutting down on penetrations

**Battery Pack**
Stores energy generated from solar panels and provides backup power when grid goes down

**Heat Pump**
Provides heating and cooling with water loop to ERV. Also provides domestic hot water

**Solar Energy Array**
Provides clean energy and reduces grid power consumption

**High-Performance Triple Glazed Windows**
All windows are south facing, which reduces heat loss, increases daylight and passive solar heating

**Energy Recovery Ventilation System**
Improves IAQ, recovers energy and humidity normally lost with ventilation

**Airtight Thermal Envelope**
Special membrane eliminates air leakage and water from coming in, while allowing water vapour to escape

**Super Insulation**
Walls, roof and under-slab insulation have double the R value rating to reduce heating and cooling costs

**Fresh Air**

**Recirculating Range Hood Exhaust**
Won’t create negative pressure a conventional range hood would in a sealed home

**Drain Water Heat Recovery System**
Preheats water to hot water heater, recovering lost energy

**Eliminating Water Use**
Drain water heat recovery

**Electric Induction Cooktop**
No gas needed

**High-Efficiency Wood Stove**
Helps heat during cold winter days

**Passive House Certified Cat Door**
Fully automatic and tamperproof

**Winter Sun**
Shades the overhangs

**Passive House Institute**

**Net-zero Home**
The home is balanced with clean energy and grid power consumption.