



FREQUENTLY ASKED QUESTIONS

What is Ecological Homes?

Ecological Homes is an Alberta-based company that produces affordable, ready-to-assemble, environmentally friendly, and energy efficient home packages. Our home packages are designed to be affordable to build and economical to operate without compromising quality and durability.

How energy efficient is this home?

The initial home design is designed to achieve an Energuide rating of over 80—meaning that the house will be highly energy efficient. Very few new houses meet this efficiency standard.

What are the main ecological features of this home?

In addition to achieving high energy efficiency, this home package also includes a number of eco-friendly materials and systems. The shell of the home will be constructed with structural insulated panels (SIPs) which will reduce waste on the job site. The siding and roofing will consist of eco-friendly materials that meet LEED standards. The doors and windows will meet or exceed Energy Star® ratings for Canada Zone C. The heating and ventilation system will be highly energy efficient and will enhance indoor air quality. The home was designed for superior energy efficiency and environmental sustainability.

What is meant by “super insulated”?

The "R" value of an Ecological Home will exceed the Canadian Energy Star rating. The wall insulation rating will be a minimum of R28 and the ceiling will be R60.

What are the passive solar features of this home?

Well-designed homes can derive a significant amount of heat energy directly from the sun—the largest energy source available.

Ecological Homes will utilize direct solar energy through a variety of design features including:

- The length of the building is south-facing to maximize sun exposure
- Large, numerous south-facing windows with efficient solar absorption properties and with overhangs to reduce high summer sun exposure while allowing low winter sun
- High-performance windows will capture the sun's radiant energy while minimizing thermal heat loss
- The number of east, west and north windows are limited to reduce energy loss
- The home is super-insulated to capture and hold solar energy
- The rooms are oriented south to north to maximize solar thermal absorption and all living areas and bedrooms have south-facing windows

- Constant ventilation will help to distribute solar energy evenly throughout the house
- Strong scissor-truss joists will support concrete floors to hold more thermal energy
- Double-layer gyproc wallboard can be added to further increase thermal mass
- The home is “Solar Ready” with design and rough-ins for solar energy panels

What is meant by “Solar Ready”?

“Solar Ready” is a standard for residential “active” solar energy installation developed by the Canadian Solar Industries Association. The standard includes guidelines for roof orientation, size, slope, loading, and utility rough-ins that allow for easier installation of solar thermal and solar electric panels in the future.

What is LEED?

LEED is the acronym for Leadership in Energy and Environmental Design and it is administered by the Canadian Green Building Council. LEED for Homes® is an international green building rating system designed specifically for residential buildings. LEED was developed to promote the transformation of the mainstream home building industry toward more sustainable practices.

What are the requirements of LEED?

The LEED for Homes® rating system measures the overall performance of a home in eight different categories. These categories address energy efficiency, efficient use of environmentally efficient materials, indoor air quality, water efficient practices, and responsible home ownership.

How do home buyers obtain LEED certification for the home?

Home buyers will be wholly responsible for seeking LEED for Homes® certification. Purchasers can contact Enervision directly to register to seek LEED certification for their new home. Homeowners will be wholly responsible for following and meeting the LEED home construction criteria. Ecological Homes Inc. assumes no liability for the LEED for Homes® certification.

What’s included in the basic home package?

The basic home package will include the building shell made of super-insulated structural insulated panels, windows, exterior doors, joists, beams, siding, roofing, decking, soffit, rain gutters and spouts, fasteners and other items required to complete the building shell, frame and exterior. A high-efficiency furnace, on-demand hot water heater and heat recovery ventilator will be included in the package. The basic package will also be “Solar Ready®” with rough-ins to accept solar thermal and solar electricity (photovoltaic) roof panels.

What is not included in the basic home package?

The basic package will not include a foundation, basement or any interior finishings including plumbing and plumbing fixtures, electrical system and electrical fixtures. The package options will include an optional structural insulated panel basement, matching garage, solar hot water and electrical panels, high-efficiency fireplace and central cooling, and a rainwater recovery system. Optional eco-friendly interior packages will be available that include cabinets, flooring, millwork, doors, plumbing and lighting fixtures.

What is meant by ready-to-assemble?

Ecological Homes will utilize panelized construction to simplify the building process. Instead of standard stick-frame construction, our home packages include structural insulated panels (SIPs) that are readily assembled on a house foundation. SIPs provide superior insulation since they consist of air-tight rigid foam (expanded polystyrene) that is sandwiched between sheathings of structural oriented strand board (OSB).

SIP assembly is quicker and less labour-intensive than stick-frame construction. SIPs are manufactured with precise cut-outs for doors and windows to accelerate assembly and create a very tight fit. SIPs create a very tight, well-insulated, strong and durable home that is designed for superior performance in our northern climate.

Can anyone build this home package?

We recommend that owner-builders have considerable experience with home construction or renovations. If possible, it is advisable that a journeyman carpenter supervise construction. Home purchasers have the option of building all or a portion of the home and can subcontract any component for which they require assistance such as heating, plumbing, electrical, panel assembly, roofing, siding, windows, doors, etc. The building shell can be assembled by the suppliers of the structural insulated panels.

How will this home package reduce labour?

The Ecological Homes package offers the following labour-saving advantages:

- Simplified panelized construction using structural insulated panels that are much quicker to install than traditional stick frame home.
- Simple, elegant, uncomplicated design
- Pre-fabricated roof and floor trusses
- Open-web floor trusses that simplify electrical wiring, plumbing and heating installation.

How do I obtain more information about Ecological Homes?

Please visit our website at www.ecologicalhomes.ca for more information about our company and the features of our ready-to-assemble home packages.