

BC Gets Its First ENERGY STAR Rated Home (with Passive House Features, Too!)

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Ross-Chose ENERGY STAR home - green house plans

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The province of British Columbia can now boast that it has its first ENERGY STAR Qualified home, located in Nelson, BC. Magnolia 2300 (as it has been named) is the home of the owners of Mandala Custom Homes, Lars Chose and Rachel Ross.

There are many interesting (and green) features that make this home special. For instance, Ross and Chose rave about the benefits of living in a round home, a concept that is born in part from their interest in the green, slow home movement which stresses creating homes that are healthy, comfortable, and gentle. [Note, however, that it did not take them long to build the house as it is a pre-fab home, though this method ensured their impact on the local environment was minimal.] They describe living in a round structure as feeling embraced by the space, which complements their creative endeavours and feelings of tranquility.



The home is built with 10" thick walls, 3" of Rockwool insulation, and highly efficient windows. And it is heated during the winter using a soapstone hybrid stove made of cast iron, which is extremely clean burning and produces a lot of heat with very little



fuel (especially given the passive nature of the home's design). Plus, it burns for a long time (5 hours), and continues to heat the home for several hours thereafter for comfortable, even heat throughout the day and night.

The 1.5 acre property also features four Mandalas (round buildings). In addition to the house, they have also constructed a 300 square foot round studio, a round garage, and a round greenhouse. And though this home doesn't meet Passive House standards (which would be far more rigorous than ENERGY STAR), it does use passive house design concepts to achieve even greater energy efficiency for heating and cooling.

Many characteristics contributed to this beautiful home's ENERGY STAR Qualification:

- EnerGuide Rating of 84
- High performance building envelope, including R66 ceiling and R34 walls
- Domestic water heating system approximately three times more efficient than a standard system
- Heat recovery ventilator for fresh air with minimal heat loss
- ENERGY STAR qualified products, including windows, doors and lighting
- Plumbed and wired solar-ready
- Grundfos Magna circulator pump
- Radiant floor heating and heat sink
- Daylighting emphasized
- Comfort Wall system (monolithic air barrier)
- Platinum ICF foundation
- Thermal mass for heat storage

All ENERGY STAR Qualification features were verified by a third party. This means that a Certified Energy Advisor did an assessment of the home to test and verify that the home meets ENERGY STAR for New Homes specifications, as well as EnerGuide Rating for New Homes.



Check out their blog if you'd like more information about ENERGY STAR Qualification.

Images: Mandala Custom Homes



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