Presented to: the Senate Committee on Energy, the Environment and Natural Resources
Presented by: Terry and Natalie Perry, Trout River Homes Inc.
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Not A New Concept

Mesa Verde (Southwestern Colorado) – 1200 AD
Youtube video credit goes to: Hans-Jörn Eich
Passive House Explained in 90 Seconds
The Peter’s Family

* Peter’s submission included in package documentation
Long River Passive House

- Built in 2014
- 2500 sq. ft.
- > $100/year heat cost
Principles of Passive House

1. Pre-Planning using PHPP software
2. South orientation
3. Super insulated R values
4. High performance passive house certified windows
5. Air tightness
6. High efficient HRV
7. Thermal bridge free construction
1. Pre-Planning using PHPP software
2. South orientation
3. Super insulated

R Values:

- Slab – R 40
- Walls – R 64
- Attic – R 87
4. High performance passive house certified windows and doors
5. Air tightness
6. High efficient HRV
7. Thermal bridge free construction
Benefits of Passive House

- Healthy indoor air quality
- Increased thermal comfort
- Superior sound proofing
- Substantial reduction in energy use
- Sustainable
- Durable and low maintenance
International Passive House Standard Requires:

- Heat demand max 15 kWh/m² .a
- Or Heating load max 10 W/m²
- Primary energy 120kWh/m² .a
- Air tightness 0.6 ACH
Air Tightness of 0.6 Air Changes per Hour

- Long River house tested at 0.23 ACH
Internationally Embraced

Residential

Hospitals

Nursing Homes

Schools
“We feel that our children are more alert and attentive in lessons due to the amount of daylight in classrooms and the fresh air throughout the school. A bonus is that our gas bill was 90% lower in the first year in our new school than it was in the old building.” | Sara Morris, Head Teacher, Oak Meadow Primary School, UK
Incentives For People To Build Passive

- **Partnerships**
  - Federal
  - Provincial
  - Municipalities

- **Programs to create financial support**
  - Home owners
  - Trades persons training
  - Canadian manufacturers
Passive House standard is an integral component for the transition to a low carbon economy and reducing greenhouse gases in the building sector.
Passive House Tour
“Changes can’t happen in the PAST, if we don’t make necessary changes NOW, the FUTURE will be the same as our past.”