

Energy Audit Report

Our adventure at the site of the Adult Day Program began with a walkthrough Energy Assessment by Wendy Smith. From the beginning, our Elders' interests were peaked, and also a little skeptical when they heard talk of possible 'Solar Power'.

They asked, "Is There Enough Sun In Masset?"

Our Energy Audit revealed the usage of solar energy as well as a whole range of energy saving upgrade measures. Which will be discussed in the attached report.



Adding Insulation: The attic was fully insulated with fibre glass batt R40 insulation. Which meets current code. We redistributed insulation in the area to improve heating energy consumption. The soffits of the roof were repaired and fastened.

The crawl space insulation needed to be replaced and redistributed due to shifting of previous batting. Two of the crawl space accesses need to be reconstructed to fit properly, insulated and weather stripped as you would with any other door. The other crawl space at the parking lot side was sealed and closed off to eliminate air leakage.

Thermostat Control: Was relocated to the middle of the hall and offset from the outside wall with a programmable and lockable control panel.



Exit Signs/Lights: All four exit lights had 1-15 watt lamps in each. Which are continuously on which equates to 8760hrs/yr. We replaced all four exit lights with LED fixtures which equates to a savings of 13-25 watt per fixture.



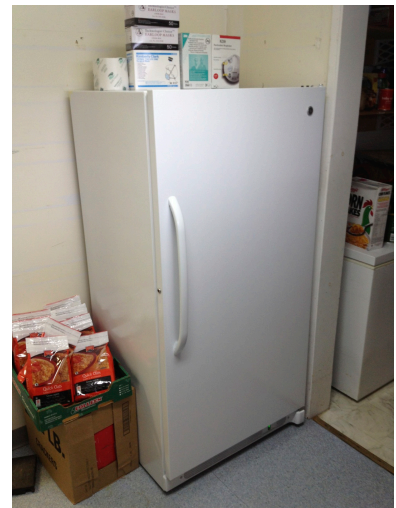
General Lighting: All general lights were two lamp-four foot fluorescent fixtures with T12 standard lamp and ballasts. These were switched to new T-8 fixtures that are self ballasted. Light fixtures in the bathrooms, pantry, laundry room and office space were changed over to motion sensors to maximize energy savings.



New All-Fridge Refrigerator: This new Energy Star rated stand-up all-refrigerator unit replaced two previous refrigerators that were not Energy Star standard and both were in aged conditions.



New Freezer: The new Energy Star stand-up freezer replaced two older floor models as well as the freezer space in the previous refrigerator.



New Dishwasher: The new Energy Star dishwasher replaced the previous dated one.



New Range Stove: This new 6 element propane powered range and two compartment oven replaced the previous electrical unit. This new unit is better equipped to serve the population that utilizes the ADP. This unit proves to be more reliable during unpredicted power outages due to the unique climate of the island.



Our first Birthday Cake in our New Oven

New Range Hood: The range hood was also replaced with an Energy Star unit that is equipped with lights.



Pellet Stove: The new pellet stove replaces the old 'forced air' furnace. This proves to be more energy efficient and reliable due to numerous factors. These being that during the winter during power outages the pellet stove can be augmented with an external generator and still projects heat as well as not using HYDRO for heat but relies on the product pellets made from recycled materials. A secondary gain was discovered that from the direct radiant heat elders have reported feeling increased comfort from joint/arthritis pain.



Solar Panel: An 80 US Gallon Pre-Heat Storage Tank was installed along with 3 Solar Panels. To the right our Elders enjoyed a game of Croquet while our Solar Panels were being installed.



Obstacles to consider:

- purchases made off island prove to be at a heightened expense than to other communities due to costs of transport and shipping.
- Having to locate and retain qualified trades people to run a propane line to new appliances (pellet stove and range/oven). A qualified person had to be flown in from off island.
- Natural occurrences: Since Oct of 2012 Haida Gwaii has experienced two significant earthquake activities. These occurrences had delayed meeting deadlines, obtaining skilled and qualified tradespeople and maintaining program operations during lull times of up grades.



Gains: This process has created meaningful conversations with elders and other members of the public as to what it means to be more energy efficient. They have engaged in questions and seeking out new information that may contribute to ongoing learning and possibly increased efforts to be more efficient in their own homes.

