



Working together for healthier homes and sustainable communities

GREEN HOME PLANNER

July 7, 2011

REEP is an environmental, charitable organization that has provided home energy evaluations in Waterloo Region since 1999. Over the past twelve years, REEP's Certified Energy Advisors have shown 13,235 homeowners how to save 18,142 tonnes in greenhouse gas emissions and \$4,531,000 annually on their energy bills. Participants have reduced their heat loss by an average of 25% through home retrofits based on our recommendations.

Our goal is for every house to attain a 50% average heat loss reduction. An energy evaluation tells the homeowner WHAT can be done to do to improve a home's energy efficiency, but the homeowner is left with many details of HOW to do those things. Lacking critical information, home renovations get stalled, or focus on the easiest solutions. Providing homeowners with the tools and information to make these critical decisions helps to enable deeper energy retrofits.

Which furnace do I buy?

Which type of insulation should I install?

Who do I call to do the work?

What financial incentives are available?

What options have the best payback, and how much money/energy will each save?

The **Green Home Planner** is the tool to help us get there by answering these questions. It helps prioritize energy upgrades by comparing:

- a) Which upgrades save the most money and energy per dollar spent (i.e. furnace vs. insulation, etc...)
- b) Which product gives the best bang for the buck for a given upgrade (i.e. spray-foam insulation vs. fibreglass batt insulation, etc...), and
- c) Which product has the lowest environmental impact (i.e. climate change, renewability, toxicity)

Using the data from the thousands of homes REEP has evaluated, we have created computer models of sample homes and simulations of each with specific product options and upgrades. The Green Home Planner utilizes this information to provide information and payback analysis on the upgrade choices selected by the user, in a condensed format that is meaningful and easily understood. The Green Home Planner beta is located at: <http://planner.reepgreen.ca>

The information is categorized by Resource Use, Home Heating, Electricity and Appliances, or Water. It also breaks down the usage by fuel type (natural gas, electricity, oil), and reflects the environmental impacts of each selection.

The Green Home Planner acts as a reporting tool at the same time, with users documenting their Action Plan and completed projects. This allows REEP to aggregate the upgrades users have selected, those that were completed, and the amount of energy and other resources saved through these actions. In this way we can assess the impact the Green Home Planner is having on energy conservation and greenhouse gas reductions.

The Green Home Planner is now being tested on homeowners and students who have visited the REEP House. Long term possibilities include use of the tool by renovation contractors, hardware and building supply stores, architects and/or other organizations that would find it a useful tool in working with their customers.

The Green Home Planner is REEP's latest tool to empower sustainable living. Through innovative programs and services, public education, collaborative research and community partnerships, REEP Green Solutions provides the tools and knowledge people need to use energy and water wisely.

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