# ecoENERGY Retrofit Grant



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Take advantage of the ecoENERGY Retrofit grant to make your home more energy efficient and help you save money. To qualify, follow these five easy steps:

- 1. Hire a qualified energy advisor to perform an energy evaluation of your home. You can find a list here.
- 2. Select the improvements from your home energy action checklist.
- 3. Implement the recommended energy upgrades within 18 months. For a list of items that the qualified energy advisor can recommend, click here.
- 4. Call your energy advisor to perform your post-retrofit evaluation, to confirm your new energy rating and to submit your application on your behalf.
- 5. Wait for up to 90 days to receive your cheque based on the eligible upgrades performed!

If you have any other questions please read the FAQ included in this document or visit the main ecoENERGY government site at: <a href="http://ecoaction.gc.ca">http://ecoaction.gc.ca</a>

The ecoENERGY Grant is a federal program. You may also be eligible for provincial grants and tax rebates, please visit this website for more information:

http://www.oee.nrcan.gc.ca

### Introduction

#### What is the ecoENERGY Retrofit – Homes program?

On January 21, 2007, the Honourable Gary Lunn, former Minister of Natural Resources, announced a \$220-million ecoENERGY Retrofit program which was launched on April 1, 2007. ecoENERGY Retrofit offers incentives for energy efficiency improvements in homes.

The ecoENERGY Retrofit – Homes program is designed to help homeowners and owners of existing low-rise properties make smart energy retrofit decisions that will result in significant energy savings and a cleaner environment. The first step in participating in the ecoENERGY Retrofit – Homes program is to call for a professional energy assessment provided by an energy advisor certified by Natural Resources Canada (NRCan). The advisor will perform a pre-retrofit assessment of the home and provide you with your own personalized action checklist of upgrades that will reduce your energy consumption.

# How much can homeowners expect to save in terms of annual energy use and greenhouse gas emissions?

The average grant is expected to yield reductions in energy use of approximately 30 percent and greenhouse gas emission reductions of approximately 4 tonnes per house. By implementing the energy retrofit recommendations, a typical homeowner could save \$700 a year on a \$2,000 annual heating bill.

### **Grant eligibility**

#### 1. What types of properties are eligible for a grant?

The ecoENERGY Retrofit – Homes program offers grants to owners of low-rise residential properties defined under Parts 2 and 9 of the National Building Code of Canada. These include single detached and attached homes (e.g. row housing, duplexes and triplexes), small multi-unit residential buildings including some small apartment buildings of three storeys or less built on a maximum footprint area of 600 square metres or less; mobile homes on a permanent foundation and floating homes permanently moored also qualify.

#### 2. Are the grants based on how much I spend for upgrades?

No. The grant is based on the individual upgrades completed. A flat incentive amount has been calculated for each qualifying upgrade, and the upgrades that save the most energy have the highest value. The potential grant is calculated by adding the total incentive amounts of the upgrades recommended in the Energy Efficiency Evaluation Report's action checklist that is presented by your energy advisor. This makes it easier for you to decide which renovations you want to carry out from the action checklist and in which order you would like to complete them. The grant is based on the total amounts for those retrofits you have completed.

### 3. Can I do the work myself and receive a grant?

Yes, provided that you receive a pre-retrofit energy assessment by a qualified energy advisor. To receive a grant, you must obtain a post-retrofit assessment after the upgrades have been carried out. It is important that you keep a copy of the invoices for the materials purchased for the upgrades as you may be asked to

submit a copy to NRCan. Homeowners are responsible for ensuring that they obtain all necessary permits and meet all municipal and provincial requirements.

# 4. I understand there are similar financial assistance programs in myprovince based on the ecoENERGY Retrofit – Homes program. Am I eligible for both the federal and provincial programs?

Yes, many provinces, territories and municipalities offer complementary programs. Follow this link to obtain more information.

# 5. I received a grant under the old EnerGuide for Houses Retrofit Incentive program. Am I eligible to receive another under the new program?

Yes, but only for additional work performed on your home. You will not be eligible for a grant under the new program for the same upgrades covered by the first grant. However, you may apply to the ecoENERGY Retrofit – Homes program if you want to complete further energy efficiency retrofits.

# 6. Does the ecoENERGY Retrofit – Homes program include new retrofit measures and incentives that were not part of the old EnerGuide for Houses Retrofit Incentive program?

Yes, new measures that reduce energy consumption and provide for a cleaner environment have been added. Newly eligible retrofits include the replacement of your cooling equipment with ENERGY STAR® qualified models, the installation of solar hot water heaters, water-saving toilets and grey water heat-recovery systems. These are just a few of the possible upgrades that are covered.

# 7. Is the ecoENERGY Retrofit – Homes program grant taxable on my personal income?

# 8. Can I get the ecoENERGY Retrofit – Homes grant as well as the Home Renovation Tax Credit (HRTC)?

Homeowners participating in the ecoENERGY Retrofit – Homes program are eligible to receive the temporary Home Renovation Tax Credit (HRTC) in addition to the ecoENERGY Retrofit – Homes grant for some of the improvements made. More information on the HRTC is available at http://www.actionplan.gc.ca or by viewing the questions and answers

## **Program Eligibility**

# 9. Do existing homes and multiple unit residential buildings of any age qualify under the ecoENERGY Retrofit – Homes program?

The ecoENERGY Retrofit – Homes program is designed to help reduce greenhouse gas emissions from Canada's existing housing stock. Thus the only restriction on the age of a house is that it must not be a newly built home that has been occupied for less than six months. After a newly built home has been occupied for more than six months, there is no limit to how old a home can be to qualify for the ecoENERGY Retrofit – Homes program. However, houses built before 1985 will benefit the most because they have the potential for more significant energy improvements.

# 10. Are multi-unit residential buildings (MURBs) assessments available in all regions?

Energy advisors qualified to evaluate multi-unit residential buildings (MURBs) are not available in all regions. To find out if there is an energy advisor qualified to evaluate a MURB in your region, go to the Contact an energy advisor page on our website and enter your postal code.

#### 11. I recently built (or am building) a house. Am I eligible for a grant?

The ecoENERGY Retrofit – Homes program does not apply to new construction. A house is considered new construction up to six months after the builder has transferred the house to the homeowner. When a home is built by the owner, it is considered new up to six months following the certificate of completion by the local inspector. You will find information about the Government of Canada's initiatives for newly built homes at www.newhomes.gc.ca.

# 12. Are grants and incentives available for the construction of energy efficient new homes?

There are currently no grants or incentives being offered at the federal level. However, there are several regional grants and incentives available for homebuyers and homebuilders. Check our list of grants and incentives to see if any apply to you. You may also want to consider contacting Home Builder's Associations and Utilities for information on local and regional programs and incentives.

#### 13. I already started my renovations. Can I still apply for a grant?

Unfortunately, all renovations started prior to obtaining a pre-retrofit energy assessment are not eligible for a grant.

All energy-related renovations undertaken after a valid energy assessment has been performed are eligible as long as they are listed in the Eligible Improvements Retrofits table.

### 14. My furnace (or boiler) broke down. Am I still eligible for a grant?

Effective October 15, 2008 until March 30, 2009

Yes, in the case of an emergency furnace replacement (furnace or boiler) during the period noted above, the property owner must call a service organization within three business days of the system replacement to schedule a pre-retrofit assessment, and the assessment must take place within 30 days of the new heating system installation.

In order to qualify for a grant, you must keep sufficient information regarding the older furnace (see eligibility criteria and process below).

Calling a service organization LATER THAN three business days after the heating equipment has been replaced will not be considered for a retrofit grant.

## Eligibility criteria

As a rule, property owners are required to have an ecoENERGY pre-retrofit evaluation performed prior to replacing or installing anything, including heating equipment, if they want that upgrade to become eligible towards a grant.

However, NRCan has an Emergency Furnace Replacement policy specifically to assist property owners who are faced with replacing their heating equipment for health and safety reasons:

- the heating system must have been 'red tagged' or deemed unsafe by the utility, service technician or building inspector; or,
- the furnace cannot be repaired and must be replaced.

#### **Process for qualifying for a grant:**

Please read and follow these instructions carefully.

The existing equipment must be replaced with equipment meeting the requirements listed in the ecoENERGY Retrofit – Homes program Eligible Improvements/Retrofit Table.

In addition, new gas-fired furnaces MUST have an efficiency (AFUE) of 94% or better and oil-fired furnaces MUST have an AFUE of 85% or better to qualify under the emergency heating equipment replacement

A copy of your invoice for the new heating system should include the following information and given to the energy advisor at the time of the pre-retrofit evaluation:

- 1. Supplier's business name, address and phone number
- 2. Date of installation
- 3. Manufacturer's name and model number of heating equipment; and
- 4. The AFUE of the product or a note indicating that it is ENERGY STAR qualified.

The heating contractor must provide you with information about the equipment being removed, and you must give this information to the energy advisor at the time of the pre-retrofit evaluation:

- Fuel type (natural gas, propane or oil)
- Type of system (forced air, hydronic or radiant)
- Type of venting (e.g. chimney, side vent, barometric damper)
- Manufacturer's name and model number of heating equipment
- Rated efficiency, output, input from the nameplate

Last upgrade, if any (e.g. oil burner gun/assembly)

#### 15. My air conditioner broke down. Am I eligible for a grant?

In the case of an air conditioner (window or central system) that has broken down, a pre-retrofit evaluation MUST be performed BEFORE replacing it in order to be eligible for a grant under the program.

#### 16. Are mobile homes eligible?

Yes, mobile homes can participate in the ecoENERGY Retrofit – Homes program provided that they are situated on a permanent foundation and that the property tax roll is in the name of the homeowner.

# 17. If a former school, church or commercial property is converted into a permanent residential property, is it eligible for a retrofit grant?

No, these types of structures are not eligible for a retrofit grant because they were originally built according to a building code which had different requirements and were intended for non residential use. As such they are not low-rise residential properties as defined under Parts 2 and 9 of the National Building Code of Canada.

### 18. Does municipal housing also qualify?

The homes held by municipal social housing agencies can also participate in the ecoENERGY Retrofit – Homes program. Agencies with multiple residential buildings that meet the requirements are eligible for up to \$500,000 over the life of the four-year program ending March 31, 2011.

#### 19. I rent a house, can I participate?

Yes, any rental property that meets the eligibility criteria can participate. Note: It is the property owner who is eligible for the grant; therefore, we suggest that you speak with your landlord.

#### 20. Is Aboriginal housing eligible under the program?

Yes. First Nation, Band Council and Tribal Council housing is eligible under the program. The maximum grant available for one home or multi-unit residential building is \$5,000. Owners of multiple residential buildings are eligible for up to \$500,000 over the life of the four-year program ending March 31, 2011.

#### 21. Why is a high-rise condominium property excluded from the program?

Large buildings, such as high-rise condominiums, fall outside of the scope of the ecoENERGY Retrofit – Homes program and are therefore excluded. Only houses or low-rise residential buildings that have three stories or less and that fall under Part 2 or 9 of the National Building Code are eligible for the program. High-rise buildings perform very differently than low-rise buildings and the energy assessment protocols vary accordingly. High-rise buildings are more complex because of their size, the type of heating, hot water and ventilation systems, the presence of common areas and services (such as elevators), and construction details not found in low-rise buildings (such as depressurization zones for fire control).

# 22. I live in a town home which is managed by a condominium corporation. Am I eligible to participate?

Yes, all low-rise condominium properties that meet the requirements of the eligibility criteria qualify. Therefore, you and your co-owners can participate in

the ecoENERGY Retrofit – Homes program. The grant is paid to the property owner as shown on the tax bill.

#### 23. Is co-op housing eligible?

Co-op housing is a type of ownership and not a building type. If the building meets the eligibility criteria, you and your co-owners are eligible to participate. The grant is paid to the property owner as shown on the tax bill.

#### 24. I own rental properties. Are these eligible?

Yes, both single family homes and multiple-unit low-rise residential buildings held by rental property owners are eligible under the ecoENERGY Retrofit – Homes program provided that they meet the eligibility criteria. Owners of multiple residential buildings are eligible to receive up to \$500,000 over the life of the program ending March 31, 2011.

# 25. I am not a Canadian citizen, but I own rental properties in Canada. Can I participate and receive a grant?

Yes, property owners who are not Canadian citizens can participate in the ecoENERGY Retrofit – Homes program. The property must meet the eligibility criteria and the grant cheque must be mailed to a Canadian location. Owners of multiple residential buildings are eligible for up to \$500,000 over the life of the program ending March 31, 2011.

### 26. When is a recreational property eligible for a retrofit grant?

In order to qualify for a grant, the recreational property must be a fully-serviced four season property, meeting the specific definitions under the National Building

Code, parts 2 and 9. The recreational property does not have to be the primary residence of the owner. Recreational properties, such as cottages, cabins, chalets etc, that do not meet these requirements, are not eligible for a retrofit grant.

27. I own an older mobile home in a trailer park where I rent the land. I have lived in it for several years and I want to know the definition of a fixed foundation to qualify for a grant. It sits on timbers, is skirted and has never been moved.

When the homeowner owns and occupies a mobile home but rents or leases the lot (i.e., mobile home park), the home is eligible for the ecoENERGY Retrofit — Homes program, provided it is on a permanent foundation. A mobile home can be considered permanently fixed if it sits on a foundation of concrete, wood or steel (i.e., a mobile home on wood cribbing with a plywood or vinyl apron would qualify though regional requirements may negate use of aprons); it is structurally complete with entire plumbing, heating and electrical services installed and permanently connected to the appropriate electrical utility service, fuel service, sewer or septic service and water delivery system/service Its towing apparatus and axle must have been removed as per regional requirements.

The mobile home owner must show his or her property tax bill as required for the ecoENERGY Retrofit – Homes program application process.

### 28. Does a floating home qualify under this program?

Yes, floating homes can participate in the ecoENERGY Retrofit – Homes program. Floating homes are homes designed and built to local building codes and typically secured to wharfs where utilities and mooring charges are available (similar to mobile home parks). Floating homes are designed to be occupied year round and for grant purposes, must have a property tax roll number in the name of the homeowner. Floating homes are not boats or house boats, have no engines and are similar in nature to homes and cottages depending on their design.

### **Getting Started**

#### How do I get started?

Your first step is to consider if you are ready to invest in renovations that will save energy and money. Once you are ready, contact a licensed service organization to book an appointment for your energy assessment. Although all renovations started prior to obtaining a pre-retrofit energy assessment are not eligible for a grant, the home must be in such a state (including proper doors, windows, and roof) that the energy advisor can assess the building to make recommendations for improvement.

#### 29. How will I know which upgrades qualify?

A grant depends on individual upgrades completed. The Energy Efficiency Evaluation Report provided by your advisor following your pre-retrofit assessment includes a personalized list of upgrades and the grant amounts you can expect to receive should you carry out the recommended home improvements. In addition, the report will indicate the relative impact the upgrades will have on the home's energy efficiency level.

# 30. How much of a grant will I be entitled to if I complete the recommended retrofits?

The average grant for a single property is expected to be over \$1,000. The maximum grant available for one home or multi-unit residential building is \$5,000. Property owners of multiple residential buildings are eligible for up to \$500,000 over the life of the program ending March 31, 2011.

# 31. Where can I find a service organization that can provide energy assessments?

A full list of licensed service organizations is available on our Contact an Energy Advisor Web page.

#### 32. How do I choose an energy advisor?

In a recent survey, the Ontario Association of Home Inspectors (OAHI) released recommendations to assist homeowners in choosing a certified energy advisor to conduct energy assessments in the home. Here is an excerpt from that survey:

First and foremost, the OAHI recommends contacting two to three licensed service organizations before booking an energy assessment. Secondly, the OAHI recommends the homeowner ask the following questions:

- Are they licensed by Natural Resources Canada to perform assessments to qualify for the ecoENERGY rebates?
- How long will the energy assessment take? Beware of short visits a good assessment should take 1.5-2.5 hours.
- Is there any obligation to purchase products or services from the service organization?
- No, there is no obligation to purchase products or services from the service organization that performs an energy assessment. However, many service organizations have the capacity to provide additional retrofit services, over and above an energy assessment.
- Beyond energy assessments, what else does the organization do to support the environment?
- Do they have experience in emerging energy efficiency technologies, e.g. instantaneous hot water tanks, solar hot water, etc.

 In terms of cost, what does your fee include? The initial D assessment, the D and the E (post retrofit assessment).

"Price should never be the deciding factor when choosing a home energy assessor," said Andrew Dixon, Past President of the Ontario Association of Home Inspectors. "Your home is your most valuable asset and you should compare the level of experience and time spent in your home to ensure you get the most thorough assessment possible."

The OAHI is dedicated to enhancing the technical skills and professional practices of Home Inspectors, and maintaining high professional standards through education and discipline. For more information on the OAHI, please visit www.oahi.com

# 33. Do I have to make any preparations before the energy advisor visits my home?

The energy advisor will need access to every room in the house, in addition to the attic and any crawl spaces that may exist. Please be sure to clear the area around these access points before the energy advisor arrives.

Also ensure that the hatch or door to the attic is not sealed as accessing the attic is an important part of both the first evaluation and the evaluation that is done once retrofits are complete. In addition, please make sure not to use any wood-heating appliances, such as fireplaces or wood stoves, at least 24 hours prior to the evaluation and clean the appliances before the evaluation.

### 34. Do I get an energy rating of my house?

Yes. In addition to the personalized action checklist that is used to calculate the grant, the energy advisor provides the homeowner with an EnerGuide rating and label for the house, before and after renovations. This information is also made available to participating provincial partners that also use the ecoENERGY methodology for their programs. Any personal information that owners provide is protected under the federal Privacy Act.

#### 35. How does the grant application process work?

Following the pre-retrofit evaluation and the implementation of the renovations or upgrades by the homeowner, the homeowner must have a post-retrofit evaluation performed on the home. At the time of the post-retrofit evaluation, the energy advisor completes a grant application form on behalf of the homeowner and presents it for his/her review and signature. A copy of the application form is provided to the homeowner. The energy advisor prepares and sends the electronic house file, which includes data on the house collected during the post-retrofit evaluation, to the service organization whom in turn submits to NRCan. NRCan processes the application and, under normal circumstances, the homeowner receives a cheque within 90 days following the date of the post-retrofit evaluation.

# 36. I live in a province that is offering a provincial grant program. Do I need to apply to my provincial program separately?

Some provincial programs require you to apply separately; some other grant programs are automatically transferred from NRCan to the provincial program administrator. To learn more about what your province, municipality, city or utility provider is providing, talk to your local energy advisor, or follow this link.

### 37. What happens if the service organization that performs my first (preretrofit) energy assessment ceases to deliver the service?

The service organization that performs your first assessment submits your electronic file to NRCan within 30 days from the date of service. If, during the 18-month period after you have received this service, the organization ceases to deliver and you have gone ahead with and completed the recommended upgrades, you could then: 1) call another service organization; and 2) provide them with your file number, your name and address as it appeared on the previous report along with your phone number.

NRCan would then supply this service organization with your electronic file so that you can schedule your follow-up energy assessment.

#### 38. How much time do homeowners have to complete the work?

Starting from the time you receive your pre-retrofit energy assessment, you have 18 months to complete the upgrades and obtain your post-retrofit assessment.

If you are a property owner of Aboriginal housing on a reserve that meets the eligibility criteria, the 18-month time limit is waived in the event of possible delays in getting the necessary materials to the site and in obtaining approvals.

# 39. How does my company become an NRCan-licensed service organization and participate in a Request for Proposal (RFP) process?

To join our roster of NRCan-licensed Service Organizations, please check this web site regularly to view new RFP requests. At this time, we are not accepting any new RFPs.

# 40. I am a professional renovator. Can I deliver the energy assessment service as well as provide my renovation services to my customers?

Unlike the EnerGuide for Houses Retrofit Incentive program, NRCan now permits qualified renovators to obtain a licence to provide the energy assessment service. This change is intended to offer the homeowner a faster service. Of course, it is always at the discretion of the homeowner to make the decision about who will perform the upgrades, and renovators must meet the same stringent requirements as independent service organizations. Please read previous question for more details.

#### 41. How can I become an ecoENERGY Retrofit – Homes energy advisor?

Natural Resources Canada does not train energy advisors. If you're interested in becoming an energy advisor, contact a licensed ecoENERGY Retrofit – Homes service organization. Service organizations are responsible for recruiting and training energy advisors to meet their needs. Please note that in order to be considered as an energy advisor candidate, you must possess and demonstrate, as a minimum, knowledge and skills in areas such as construction practices for existing low-rise housing; energy-efficient renovation practices; residential building materials; residential heating, ventilation and air conditioning systems; building science, including the principles of the "house as a system"; basic arithmetic and geometry; the use of computers, modems, the Internet and e-mail; and good client relations.

You can search for service organizations in your area on our web site.

## **Eligible Products**

42. What are the requirements for low-flush toilets and how can I find the list of qualified products?

Eligible low-flush or dual-flush models must be:

- rated at 6 litres per flush or less
- meet the Los Angeles Supplementary Purchase Specification (shown as SPS on the list); and
- have a flush performance of 350 grams or more.

Here's how you can search for a list of qualified products:

- On the Internet, enter the: www.veritec.ca Web site address
- Select the "Reports" button
- Select ecoENERGY eligible, and 'dowload' the PDF report

Important: Homeowners must keep proof of the make and model number to ensure compliance and show this to the Advisor at the time of the evaluation.

### 43. Do external doors qualify for a retrofit grant?

Yes, providing you replace both the door and the frame with an ENERGY STAR qualified product. Replacing only the door does not qualify for a grant.

For further information on ENERGY STAR certified products, visit: www.energystar.gc.ca.

## 44. Which manufacturers of Drain-Water Heat Recovery Systems are eligible under ecoENERGY Retrofit – Homes?

### **UPDATE**

Currently, drain-water heat recovery systems listed below and manufactured by the following companies are eligible:

- EcoInnovation Technologies Inc. (ECO-GFX)
- WaterCycles Energy Recovery Inc. (Watercycle)

Models with an efficiency ranging from 30 to 42% exclusively:

- EcoInnovation Technologies
- S3-40 (75 mm/ 3 inch drain at 39% steady state)

Models with an efficiency of 42% or greater:

**EcoInnovation Technologies** 

- G3-40 (75 mm/ 3 inch drain at 46% steady state)
- S4-40 (102 mm/ 4 inch drain at 44.7% steady state)
- S3-60 (75 mm/ 3 inch drain at 49% steady state)
- S4-60 (102 mm/ 4 inch drain at 51% steady state)

#### Watercycle

- DX-4048 (102 mm/ 4 inch drain at 44% steady state)
- DX-3058 (75 mm/ 3 inch drain at 42% steady state)

Note that the list of eligible equipment has changed. Eligible systems have been tested by an independent testing facility recognized by Natural Resources Canada. NRCan will also acknowledge the following equipment for all pre-retrofit evaluations performed up to March 31, 2009.

The following drain-water heat recovery systems manufactured by the following companies are eligible until March 31, 2009 as updated test results are still pending.

- EcoInnovation Technologies Inc. (ECO-GFX)
- Watercycles Energy Recovery Inc. (Watercycle)
- Renewability Energy Inc. (PowerPipe)

ReTherm Energy Systems Inc. (ReTherm)

The efficiencies of these systems are categorized as below:

Low-range efficiency models (between 30 - 42%)

- Watercycle HX-3029 and HX-3056
- ReTherm C3-40
- Power Pipe R3-36

Mid-range efficiency models (42% or greater)

- PowerPipe R3-60
- ECO-GFX G3-60

Note: Homemade systems are not eligible for the ecoENERGY Retrofit – Homes grant.

### 45. What are the CSA standards for solar domestic hot water systems?

The standard entitled CAN/CSA-F378-87 Solar Collectors applies to solar collectors. For solar collectors that produce heat, see "Glazed Water Heating Solar Collectors – Flat Plate Collectors" and "Glazed Water Heating Solar Collectors – Evacuated Tube Collectors" sections of the list for eligible systems.

Note: At a future date, system installations will have to be certified as per CAN/CSA-F379.1-88 Solar Domestic Hot Water Systems for packaged systems designed for single-family dwellings; and CAN/CSA-F383-87 Installation Code for Solar Domestic Hot Water Systems for the installation and commissioning of packaged systems for single-family dwellings.

# 46. What is the effective thermal resistance of foil-faced bubble insulation and other similar products recognized by Natural Resources Canada (NRCan) to model homes?

At this time, despite claims made by Canadian manufacturers and salespeople, and unless otherwise proven by a respected third-party testing agency against a recognized standard for the testing of such reflective materials, NRCan recommends the following effective thermal resistance maximum values for foil-faced bubble insulation products or the foil-faced portion of a laminated layer of foam or fibre-based insulation board when modeling them in the simulation software.

- RSI 0.26 (R 1.5) where the bubble layer is between two layers of foil without air spaces in front of the foil.
- RSI 0.53 (R 3) where the bubble layer is between two layers of foil with only one air space in front of the interior facing foil.
- RSI 0.62 (R 3.5) where the bubble layer is between two layers of foil with air spaces in front of the foils.
- RSI 0.62 (R 3.5) where the foil layer is between two clear layers of bubbles acting as air spaces

NRCan does not comment on other characteristics of foil-faced bubble insulation, such as its flexibility, its air/vapour barrier characteristics or its ability to reflect solar radiation in cooling climates. The intent is to provide information on the effective insulation value accepted by NRCan for this type of product, for the purpose of modeling houses under the ecoENERGY Retrofit – Homes program.

# 47. What should I look for in an earth energy system (i.e., GeoExchange™, geothermal, ground- or water-source heat pump)?

The system must meet the CAN/CSA-C448 Design and Installation of Earth Energy Systems standard and it is also recommended that the equipment meet:

- CAN/CSA-C13256-1-01 Water-Source Heat Pumps Testing and Rating for Performance – Part 1: Water-to-Air and Brine-to-Air Heat Pumps or
- CAN/CSA-C13256-2-01 Water-Source Heat Pumps Testing and Rating for Performance – Part 2: Water-to-Water and Brine-to-Water Heat Pumps

IMPORTANT: As of April 1, 2008, all eligible systems must be certified by the Canadian GeoExchange Coalition and therefore, drilled, designed and installed by professional(s) accredited by this coalition. From this date, the "GeoExchange System Certification Form" available from the Coalition will have to be used in replacement of the "CSA 448 Design and Installation Compliance & Commissioning Report".

For more information on earth energy systems including a current list of accredited installers, designers, and drillers, please contact the Canadian GeoExchange Coalition or call 514-807-7559.

# 48. I am considering replacing my windows, doors and skylights. What should I know before I make my decision?

The replacement of windows, doors and skylights with models that are ENERGY STAR qualified are eligible for an ecoENERGY Retrofit Homes grant. Following a pre-retrofit (D) evaluation with a certified energy advisor, the homeowner should visit the ENERGY STAR web site before purchasing any new windows, doors or skylights, to ensure that the new models are qualified for their climate zone.

In order to receive an ecoENERGY grant, proof of ENERGY STAR qualification for the climate zone must be shown to the Energy Advisor during the post-retrofit (E) evaluation of the home. Important: NRCan will ONLY accept one of the following as proof of ENERGY STAR qualification:

The presence of an ENERGY STAR label on all of the replacement windows, doors or skylights indicating that they are ENERGY STAR qualified for the house's climate zone (if the labels are removed by the installer, the homeowner should request them as proof). View sample ENERGY STAR labels.

A copy of an invoice indicating the brand/product name, and the NRCan model reference number or the manufacturer's model code, as well as the climate zone for which the windows, doors or skylights are qualified. With this information, the energy advisor should then consult the ENERGY STAR web site to confirm that they are indeed ENERGY STAR qualified for the home's climate zone.

49. I am replacing a Bow window consisting of 5 window units. Under the ecoENERGY Retrofit – Homes progam, do the windows qualify as 5 separate units or one unit?

Under the current guidelines, one unit of window is defined as one opening in the wall. A large window consisting of multiple panels of glass is counted as one opening in the wall, regardless of how large the window is, or how many units of window is needed to fill the opening. Therefore the Bow window will be counted as one window. The same applies for bay windows.

### **Others**

50. I recently received a notice in the mail from an American company informing me that that my home may be insulated with Zonolite® Attic Insulation and that I may be able to make a property-related claim for this insulation. How has this company obtained my name and address?

The notice you received was sent pursuant to the Notice Program provided in the settlement agreement reached between the Canadian Zonolite® Attic Insulation claimants, their representative counsel and W.R. Grace, the American manufacturer of Zonolite® Attic Insulation, and which was approved by the Ontario Superior Court of Justice.

As explained in the material that you agreed to and signed when you had an evaluation performed on your home, your personal information is protected under the Privacy Act. The data collected during the energy evaluation of the home is provided to Natural Resources Canada (NRCan) for the purpose of statistical analysis and quality assurance, and personal information is used to issue grant cheques. Personal information is only provided to other federal departments, provincial/territorial or municipal governments, or utilities that have an agreement with Natural Resources Canada (NRCan) to offer incentives based on NRCan's programs.

However, on September 30, 2008, the Government of Canada was ordered by the Ontario Superior Court of Justice to disclose personal information (names and addresses) contained in documents and/or databases relevant to the identification of potential Canadian claimants who may have homes that may contain Zonolite® Attic Insulation or vermiculite attic insulation. Consequently, the Government of Canada had to disclose the information obtained under the ecoENERGY Retrofit – Homes program or the former EnerGuide for Houses program to comply with the court order. Although this information is protected under the Privacy Act, the Act permits disclosure where a court orders it.

Please note that only names and addresses were provided. Furthermore, the information was provided to counsel for Canadian Zonolite Attic Insulation claimants and W.R. Grace solely for the purpose of informing potential claimants of the property damage claim process set up by W. R. Grace.

Please be assured that NRCan has taken and continues to take every action necessary to protect personal information collected in the course of the delivery of its programs.

For information on vermiculite insulation that contains amphibole asbestos, read the Health Canada fact sheet entitled It's Your Health – Vermiculite Insulation Containing Amphibole Asbestos, which is available at http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/prod/insulation-isolant-eng.php, or call Health Canada at 1-800-443-0395.

For information on the Zonolite Attic Insulation property damage fund, visit http://www.graceclaims.com/ or call 1-877-465-4817.