



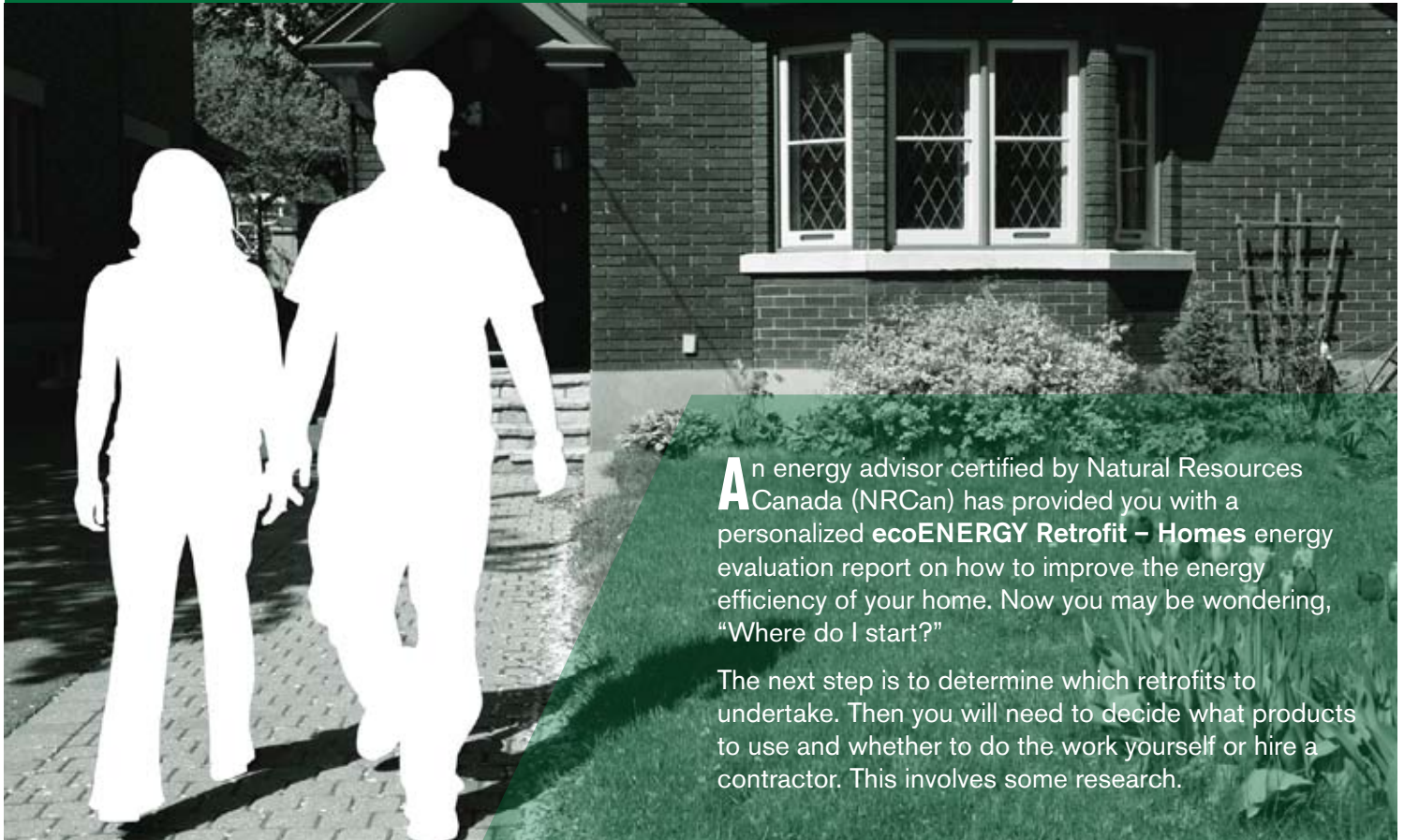
Natural Resources  
Canada

Ressources naturelles  
Canada



**ecoENERGY**  
an ecoACTION initiative

## Planning energy efficiency renovations for your home



An energy advisor certified by Natural Resources Canada (NRCan) has provided you with a personalized **ecoENERGY Retrofit – Homes** energy evaluation report on how to improve the energy efficiency of your home. Now you may be wondering, “Where do I start?”

The next step is to determine which retrofits to undertake. Then you will need to decide what products to use and whether to do the work yourself or hire a contractor. This involves some research.

### DO YOUR RESEARCH

The Government of Canada does not endorse specific products or contractors and accepts no liability in the selection of materials, products and contractors or for the performance of work. As with any home renovation, the homeowner is responsible. When the energy advisor returns to your home to perform the post-retrofit evaluation after you have completed your energy efficiency renovations, he or she will verify the renovations only for the purpose of the ecoENERGY Retrofit – Homes program, such as grant eligibility. The energy evaluation service is not a home inspection, and the energy advisor is not responsible for verifying if the renovations or products meet relevant building codes, standards or legislation.

Check with your local municipal office and building inspector prior to starting retrofit work. Depending on the

type of renovation, you may also need a building permit and utility permits.

You and the companies that you select are responsible for verifying the quality and safety of the products and services used. All products and services must meet relevant building codes and standards. If a building permit is not required or issued, and thus a building inspector does not verify that all products and installations meet relevant building codes and standards, it is the responsibility of whoever is doing the work to be aware of and follow these requirements.

### CHOOSING A PRODUCT

Get the facts about the product you intend to use and find out about the proper installation techniques. Compare the advantages, limitations and intended use of different products. Products may have a stamp or mark indicating

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that they comply with Canadian product standards. If they do not, they may have an evaluation number issued by the Canadian Construction Materials Centre ([nrc-cnrc.gc.ca/eng/services/irc/ccmc.html](http://nrc-cnrc.gc.ca/eng/services/irc/ccmc.html)). You can also contact your local municipal office to verify if the products you plan on using are acceptable in your jurisdiction.



Manufacturers, suppliers and contractors should be able to provide you with specific information about their products or the products they use. They should also be able to advise you on any health and safety issues, such as indoor air quality and fire safety, and the measures they will take to reduce risks. Ask for a Material Safety Data Sheet (MSDS) that lists the hazardous ingredients, safety information and emergency measures related to specific products. An MSDS is required for certain industrial and chemical products used in the workplace like paint, caulking and cleaners. An MSDS is not required for manufactured items (e.g. insulation) or consumer products, but may be available.

Manufacturers and suppliers are responsible for making sure that the products that they sell comply with Canadian legislation. If you are concerned about the safety of a particular product, find out if the product is prohibited or regulated under the *Hazardous Products Act* (HPA); other relevant federal, provincial or territorial legislation; or municipal by-laws.

For example, as of the date of publication of this document (March 2010), one type of insulation product is prohibited and two others are regulated under the HPA:

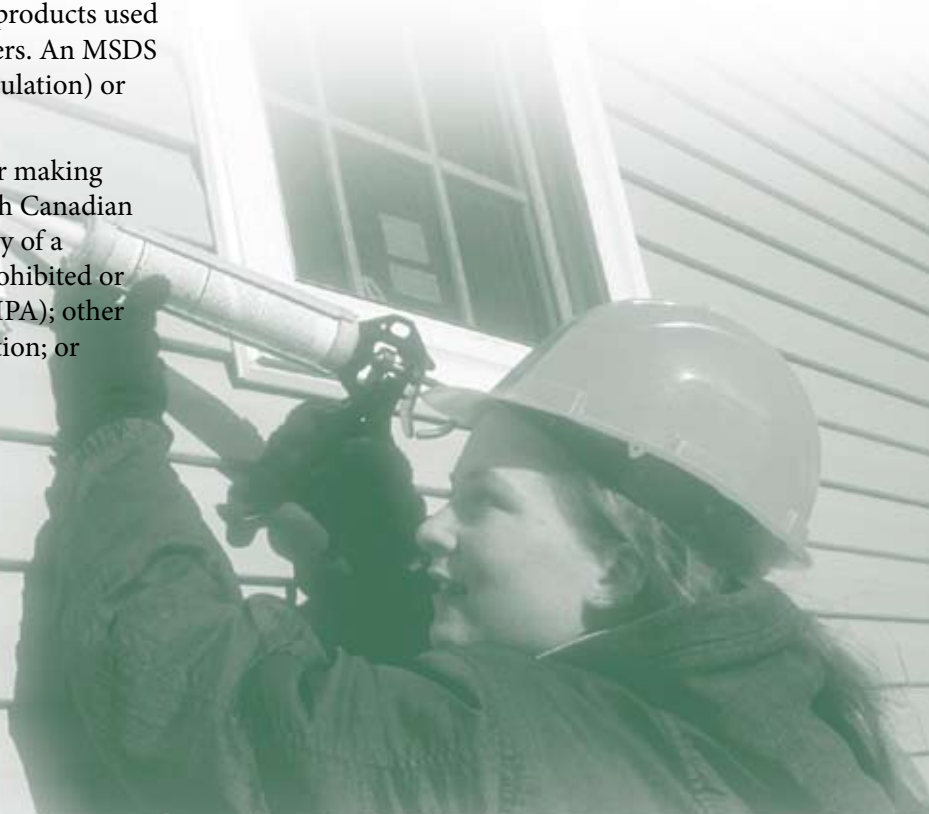
#### PROHIBITED

- Urea formaldehyde-based foam insulation (UFFI) foamed in place: (1980). This includes insulation products that are available in the USA that are urea-formaldehyde-based and are installed via a foaming process.

#### REGULATED

- Cellulose fibre insulation: (1979). Although this is an effective insulation material that is commonly used, it must meet certain performance standards with respect to flammability, among other things.
- Asbestos: (various requirements between 1980 and 1989). Among other requirements, a product composed entirely of asbestos cannot be sold as a consumer product; asbestos products applied by spraying must have asbestos fibres encapsulated within a binder during spraying and cannot become friable after drying.

For more information on the HPA and for clarification on the above requirements, contact the Health Canada Consumer Product Safety Office nearest you. Refer to [healthcanada.gc.ca/cps-contact](http://healthcanada.gc.ca/cps-contact), call 1-866-662-0666 or send an e-mail to [cps-spc@hc-sc.gc.ca](mailto:cps-spc@hc-sc.gc.ca).







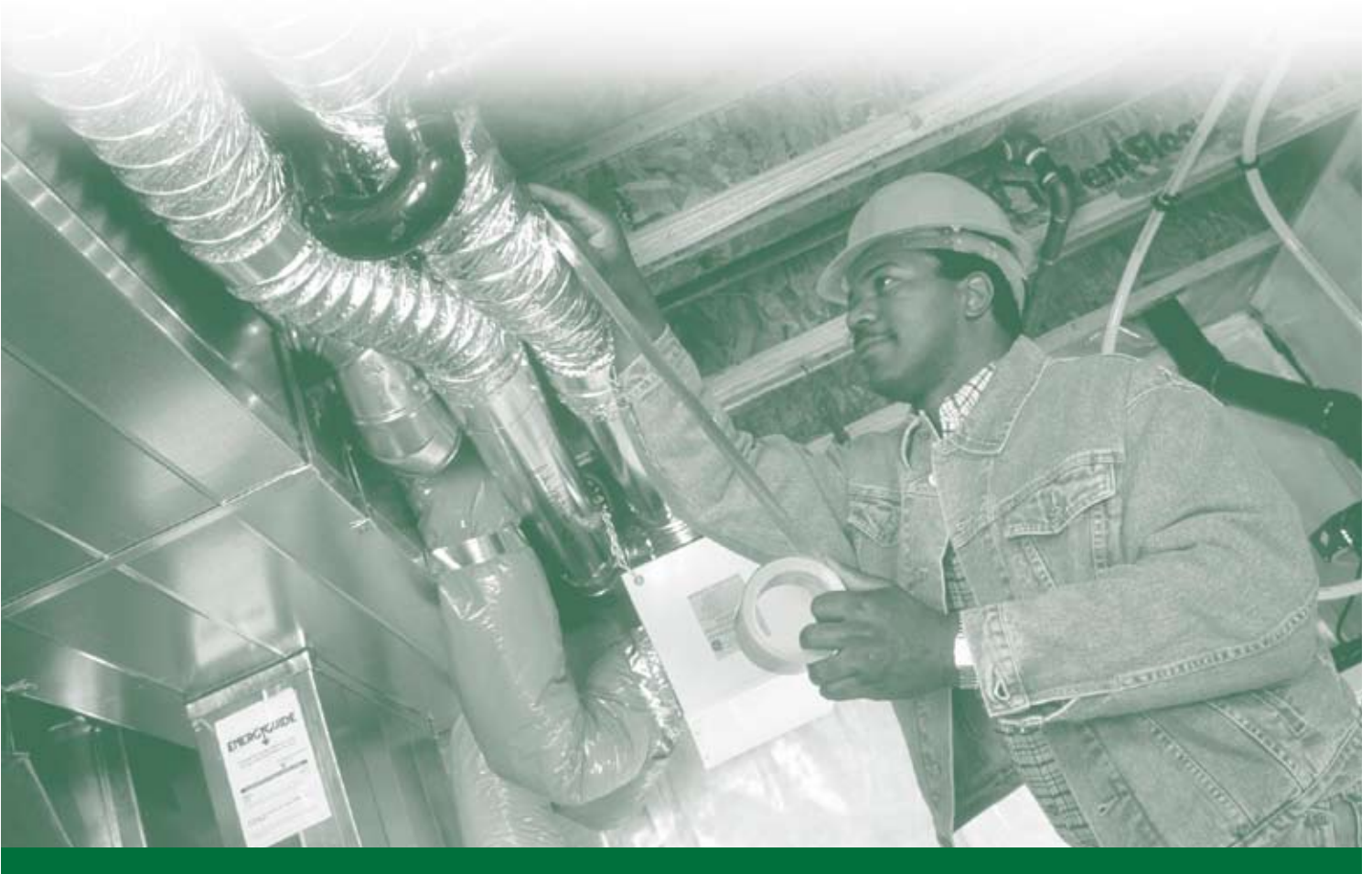
## DOING THE WORK YOURSELF

If you decide to do it yourself, do not forget about health and safety. Be careful when working with tools and products and follow the manufacturer's safety information/directions for use. Also, wear appropriate protective equipment and clothing. You should also take steps to protect the rest of the house from dust, debris and contaminants that could pose a problem for others. Find out about the necessary precautions to take before working in areas that contain vermin, vermin droppings, mould, lead, asbestos, vermiculite insulation that may contain amphibole asbestos or other hazardous products.

## HIRING A CONTRACTOR

If you decide to hire a contractor, ask for quotes in writing and insist on a written contract before you have any work done. Contractors are responsible for complying with local bylaws and relevant provincial, territorial and federal legislation and guidelines. Ask your contractor questions such as the following:

- How can I be sure that the product you are recommending meets the applicable federal and/or provincial or territorial legislation?
- Can I see the MSDS for this product (if applicable)?
- Will the product be installed according to the manufacturer's guidelines? Are the workers trained in these procedures? What steps will you take to protect me and my family during and after the renovation?
- Will the retrofit work comply with municipal by-laws as well as any provincial, territorial and/or federal legislation and utility requirements?
- What challenges as a contractor have you had working with this product? Do you foresee any problems installing this in our home?
- May I contact your references?



## ENERGY EFFICIENCY PAYS!



Proper research and planning before undertaking energy efficiency retrofits in your home will help you reap many benefits for you for years to come. For further information, see the list below. Good luck with your energy efficiency retrofit!

### FOR MORE INFORMATION

- To learn about home renovations, refer to the Canada Mortgage and Housing Corporation (CMHC) *About Your House* series of fact sheets at [cmhc-schl.gc.ca/en/co/co\\_001.cfm](http://cmhc-schl.gc.ca/en/co/co_001.cfm) or call 1-800-668-2642 to order a copy.
  - To learn more about renovating your home for energy efficiency, refer to the NRCAN publication entitled *Keeping the Heat In*, available online at [oee.nrcan.gc.ca/retrofit/homes/keeping](http://oee.nrcan.gc.ca/retrofit/homes/keeping) or call 1-800-387-2000 to order a copy.
  - To learn more about products prohibited or regulated under the *Hazardous Products Act*, refer to [hc-sc.gc.ca/cps-spc/pubs/indust/reference\\_guide-consultation\\_rapid/index-eng.php](http://hc-sc.gc.ca/cps-spc/pubs/indust/reference_guide-consultation_rapid/index-eng.php).
  - To learn more about MSDSs, refer to the CMHC fact sheet entitled *How to Read a Material Safety Data Sheet* (MSDS) at [cmhc-schl.gc.ca/en/co/maho/gemare/gemare\\_012.cfm](http://cmhc-schl.gc.ca/en/co/maho/gemare/gemare_012.cfm) or call 1-800-668-2642 to order a copy.
  - For general information about various insulation, air-barrier and vapour-barrier materials, refer to Chapter 2 of the NRCAN publication entitled *Keeping the Heat In* or the CMHC *About Your House* fact sheet entitled *Insulating Your House* at [cmhc-schl.gc.ca/en/co/maho/enefcosa/enefcosa\\_002.cfm](http://cmhc-schl.gc.ca/en/co/maho/enefcosa/enefcosa_002.cfm).
- For more information on health and safety considerations when renovating your home, refer to Chapter 2 of the NRCAN publication entitled *Keeping the Heat In*.
  - For information on reducing your exposure to hazardous products in the home, such as lead, asbestos and mould, refer to the CMHC *About Your House* series of fact sheets.
  - For more information about indoor air quality and tips for healthy indoor air, refer to the Health Canada Web site at [hc-sc.gc.ca/ewh-semt/air/in/index-eng.php](http://hc-sc.gc.ca/ewh-semt/air/in/index-eng.php).
  - For information on vermiculite insulation that may contain amphibole asbestos, refer to the Health Canada publication entitled *It's Your Health – Vermiculite Insulation Containing Amphibole Asbestos* at [hc-sc.gc.ca/hl-vs/iyh-vsv/prod/insulation-isolant-eng.php](http://hc-sc.gc.ca/hl-vs/iyh-vsv/prod/insulation-isolant-eng.php) or call 1-866-225-0709 to order a copy.
  - For more information on the safety of manmade vitreous fibres (such as glass and mineral wool insulation), refer to the Health Canada Web site at [hc-sc.gc.ca/hl-vs/iyh-vsv/prod/vitre-eng.php](http://hc-sc.gc.ca/hl-vs/iyh-vsv/prod/vitre-eng.php).
  - To learn more about hiring a contractor, refer to the CMHC fact sheet entitled *Hiring a Contractor* at [cmhc-schl.gc.ca/en/co/renoho/refash/refash\\_009.cfm](http://cmhc-schl.gc.ca/en/co/renoho/refash/refash_009.cfm) or call 1-800-668-2642 to order a copy.



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