

# Heat back at you

Simple reflectors deliver big savings for owners of vintage homes

BY STEVE MAXWELL

**M**aureen Armstrong lives in a large, beautiful, heritage home that's terrific in every way but one.

It was built in the 1930s, and includes hand-quarried limestone on the outside, cinnamon-brown oak trim and wainscoting on the inside, all set down on a lovely tree-covered lot with an east-facing view above the sparkling waters of a wonderful Canadian lake.

This place is gorgeous, except for the heating bills. They're too large to discuss publicly, but that's where an innovative, Canadian-made heat reflector can help.

Like many vintage homes in Canada, Maureen's place is heated by classic oil-fired hot water radiators, and while this system does yield a gentle, comfortable heat, it's also responsible for a tremendous amount of hidden heat loss through the exterior walls.

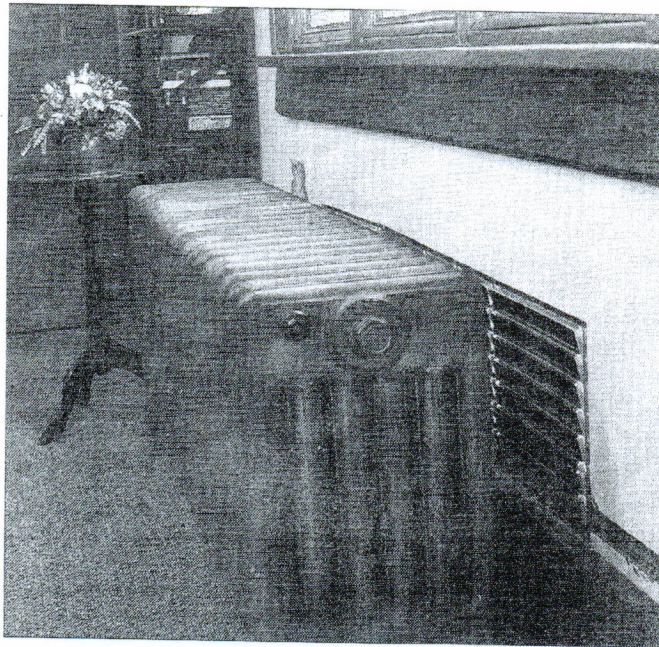
Insulation levels in homes built before the 1980s are low enough that wall surfaces become cold to the touch during harsh, winter weather. This literally draws heat away from the rads before it ever gets to the room.

Reducing this large and unnecessary waste is the reason why Novitherm Heat Reflectors ([www.novitherm.com](http://www.novitherm.com); 1-800-871-0079) were invented almost 30 years ago.

Novitherm reflectors are made of lightweight PVC with a shiny, aluminum coating on the outside face. This reflects more than 90 per cent of the radiant energy back into the room and away from the wall, without actually getting hot to the touch.

The reflectors are one centimetre in depth, and can be installed in spaces as narrow as two centimetres. They sit together for shipping and are anchored to exterior walls using double-sided tape. That's it.

The reflectors last indefinitely (the oldest ones in use



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today were installed in the 1980s, and are still going strong), delivering energy savings of at least 10 per cent, according to results from field trials conducted on multi-residential units. Results with single-family dwellings may be more or less than this.

**When it comes to installation, the only critical issue is sealing.**

Armstrong doesn't consider herself particularly handy, yet she found the Novitherm panels easy to install. They come custom-sized for each particular rad, based on measurements you take yourself and submit with your order.

If any reflectors need cutting, ordinary scissors work perfectly. When it comes to installation, the only critical issue is sealing. In order to perform effectively, the perimeter of each reflector needs to be sealed tightly against the wall. The Novitherm system comes with narrow rolls of double-sided tape that make it easy to succeed.

If your rads are too close to the wall to get your finger down

behind to press the reflectors tightly into place, the kit also comes with a bamboo stick made especially for this job.

To realize the greatest energy savings after installing rad reflectors, you need to turn down your boiler thermostat, not your room thermostat. With the reflectors in place, water will return to your boiler hotter than before, requiring less energy to be added before heading back out into your rooms.

There's no trick to building new homes that use less energy than older structures.

What's more difficult is raising the energy performance of Canada's large stock of existing houses. This requires many different, smaller technical fixes, including heat reflectors and people willing to take the time to put them in place. With volatile oil prices and growing effects of global warming becoming harder to ignore, isn't it time we got serious?

*Steve Maxwell is Canada's award-winning home improvement expert, and technical editor of Canadian Home Workshop magazine. Sign up for his free homeowner newsletter at [www.stevemaxwell.ca](http://www.stevemaxwell.ca).*