

"Yes, it's free. No, there's no catch"

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Agenda

-
- General Enbridge Overview
 - Overview of Enbridge Low Income Programs:
 - Affordable Housing/Multi Residential
 - Home Winterproofing program
 - Novitherm Heat Reflector Panels
 - Questions

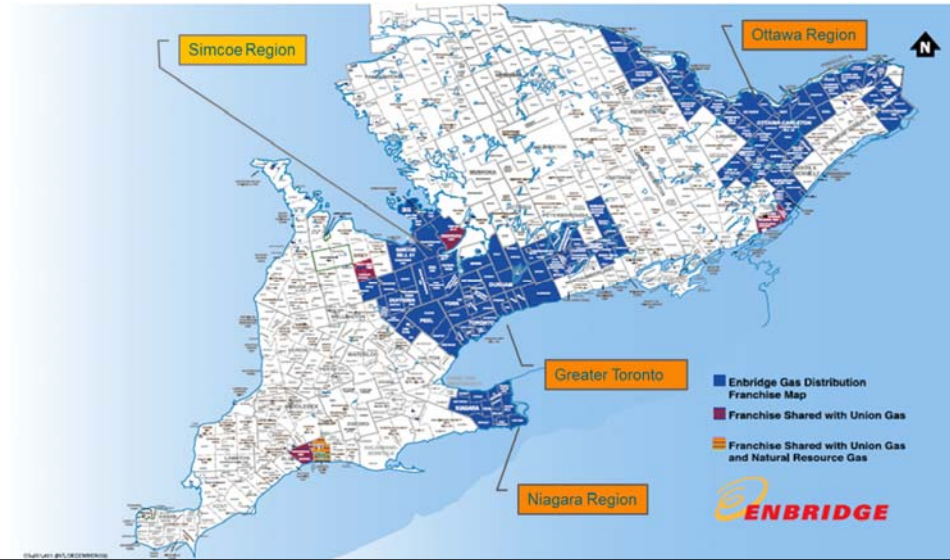


Enbridge Overview

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About Enbridge




Simcoe Region

Ottawa Region

Greater Toronto

Niagara Region

- Enbridge Gas Distribution Franchise Map
- Franchise Shared with Union Gas
- Franchise Shared with Union Gas and Natural Resource Gas



6 Quick Facts About Energy Efficiency At Enbridge Gas Distribution

1. Enbridge Promotes ways to help our customers use natural gas more efficiently through conservation programs know as "DSM"
2. Enbridge is a North American Leader in the design and development of conservation programs
3. Enbridge first launched DSM in 1995
4. From 1995 to 2013 DSM has saved enough natural gas to heat 2.9 million homes for 1 year (8,700,000,000 cubic metres) and save customers over \$2.4 billion
5. DSM efforts contribute towards the Province of Ontario's emission and reduction targets – 16.5 million tons of CO₂ since 1995
6. Enbridge is committed to helping Low Income customer manage their energy bills by offering no cost programs to qualifying participants



Affordable Housing/ Multi-Residential



Free Offers to Multi Residential

2 in-suite retrofit measures available:

- Low Flow Showerheads
1.5 GPM (gallons per minute) or less
Existing showerheads must be >2.5 GPM
- Heat Reflector Panels
Buildings must be heated with Natural Gas
Suites must be heated with hydronic units



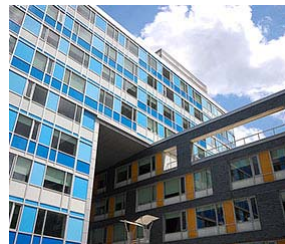
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Program Details - Who's eligible?

Affordable Housing Providers in **Enbridge Service Area:**

- Privately owned Non-Profit Housing
- Municipally owned NPH
- Local Housing Corporations
- Co-operatives
- Assisted Seniors Housing
- Plus more – check with Enbridge to confirm



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Program Details - How it Works?

Showerheads

- Direct Install – Ecofitt Corporation
- Contact Enbridge to confirm eligibility
- Ecofitt will then call to schedule installation and provide application for you to complete
- Ecofitt will require access to all suite to complete installation



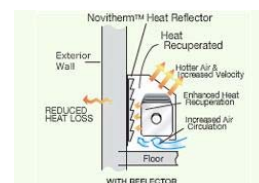
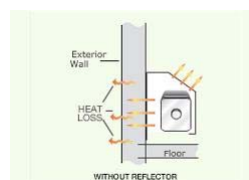
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Program Details - How it Works?

Heat Reflector Panels

- Direct Install – Novitherm Heat Reflectors
- Contact Enbridge to confirm eligibility
- Novitherm will call to schedule a site visit to measure radiators to ensure panels will fit (access to 1 or 2 suites required)
- Following measurement, Novitherm will send offer letters for your signature
- Installation will then be scheduled. Duration is dependent on size of your building



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Program Details - Benefits?

There are many benefits to participating in these programs

- Avoid unnecessary heating costs
- Reduce gas and water consumption
- Improve tenant comfort
- Reduce your environmental impact



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Home Winterproofing Program

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Benefits of Home Winterproofing Program

There are many benefits on how our FREE program helps you:

- Lower energy bills
- Make resident's home more comfortable
- Improve resident's home health
- Contribute to a healthier environment



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Program Details

- Single family homes occupied by Low Income – detached, semis, row housing.
- Community-based organizations contracted to deliver the program:
 - GreenSaver
 - Green Communities (four member groups)
 - EnviroCentre



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Program Details

- Free pre and post home energy audit
- Measures: attic, wall, and basement insulation, air sealing, draft proofing
- Heat reflector panels
- Showerheads, kitchen and bathroom aerators
- Carbon monoxide detectors



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How the Program Works?



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— Heat Reflector Panels

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Buildings built before 1990



25 + years old

Poorly insulated

High energy consumption

Occupant comfort issues

Status of building envelope

State of the Heating system



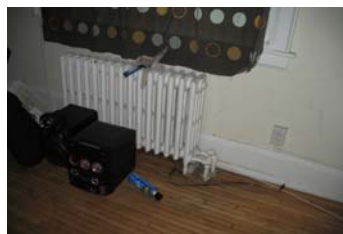
Heated with a hot water (steam) system



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HEAT REFLECTORS

ENBRIDGE

Using radiators to distribute heat



NOVITHERM™
HEAT REFLECTORS

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Using radiators to distribute heat



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Convectors ...baseboard convectors



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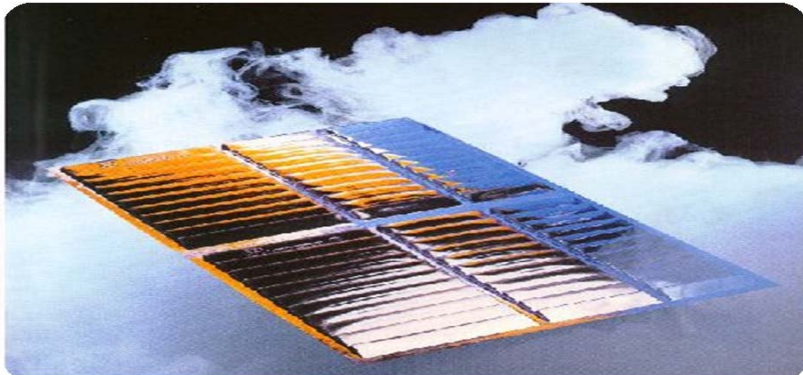
Convectors ...inset and cabinet convectors



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Thermal Comfort AND Savings

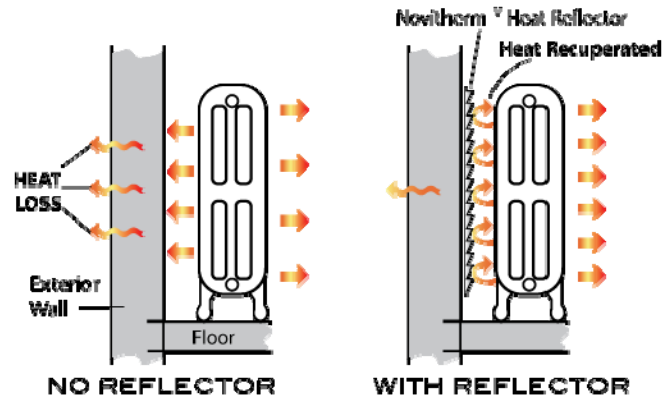


NOVITHERM™ HEAT REFLECTORS

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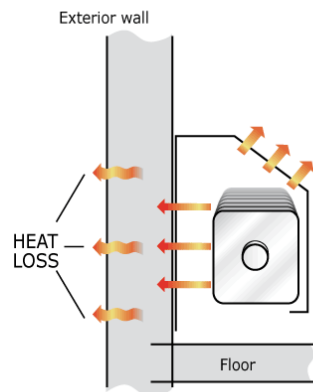
How do Heat Reflectors Work?



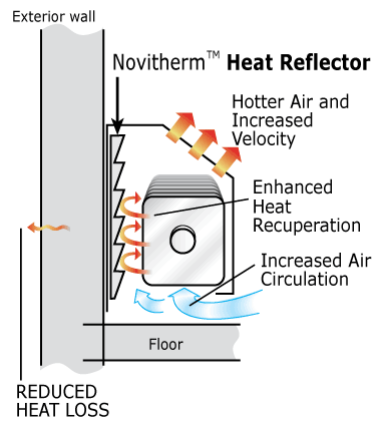
NOVITHERM™
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NO REFLECTOR



WITH REFLECTOR



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THE NOVITHERM PROCESS

CUSTOM SIZE AND INSTALL HEAT REFLECTORS;



THE NOVITHERM PROCESS

HEAT GAIN – IMPROVED COMFORT



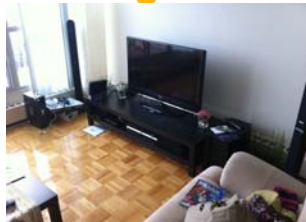
Convectors ...



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HEAT REFLECTORS

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Challenges ...



Seniors apartments often require help to move items like sofas;
Electronics need to be moved by the tenant;
Often apartments will be very crowded, and
There may not be much room to work, but
the end result is very positive ...



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HEAT REFLECTORS

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Challenges ...



Heavily painted convectors – there will be paint chipping when we open the covers.

Or, we may find something blocking the cover removal as the patio ledge shown below...



THE NOVITHERM PROCESS

CLEANING LOOSE DEBRIS & DIRT = IMPROVED AIR QUALITY



THE NOVITHERM PROCESS






THE NOVITHERM PROCESS



NOVITHERM™ HEAT REFLECTORS

- **IMPROVE THERMAL COMFORT**
by increased heat gain into the room through reflected radiation and improved convection
- **REDUCE HEATING COSTS**
improved thermal comfort allows lower water temperature;
faster warm up with Novitherm Heat Reflectors
reduced heat loss through the exterior wall behind the heating unit.



4 Floors
78 Suites
Combination of baseboard convectors and radiators.

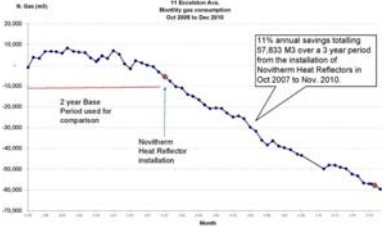
Novitherm Heat Reflector Case Study for Briarlane Rental Property Management

Reduced heating consumption by 11%
Simple payback of 1.1 yrs

11 Eccleston Dr.
Toronto



Project Objective – Energy Conservation – single measure:
Install Novitherm Heat Reflectors behind convectors to:

- Reduce natural gas consumption and costs
- Improve comfort levels for tenants
- Improve indoor air quality by cleaning debris out of heating fins
- Adjust boiler controls to balance increased heat output from heating units



Results: (based on CuSum Analysis Oct 2005 thru Dec 2010)

Regression Model
 Dependent Variable Nat. Gas
 Independent Variable Heat DD
 Slope ... 35.543 m³/16C HDD
 Intercept ... 133 m³/day
 R² ... 0.921



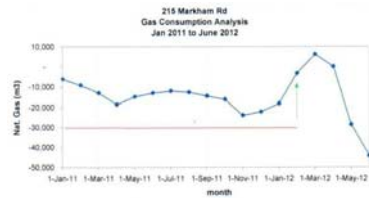
17 floors
193 suites
Baseboard convector heating units

Novitherm Heat Reflector Case Study

**Reduced heating consumption by 11%
Simple payback of 3.3 yrs**

215 Markham Road
Scarborough

Project Objective – Energy Conservation – single measure:
Install Novitherm Heat Reflectors into baseboard convectors to:
Reduce natural gas consumption and costs
Improve comfort levels for tenants
Improve indoor air quality by cleaning debris out of heating fins
Decrease design hot water temperature and adjust boiler controls



Results: (based on CuSum Analysis
Jan 2011 thru Jun 2012)

Regression Model

Dependent Variable Nat. Gas
Independent Variabl Heat DD
Slope ... 120.867 m³ /14C HDD
Intercept ... 455 m³ /day
R² ... 0.951



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