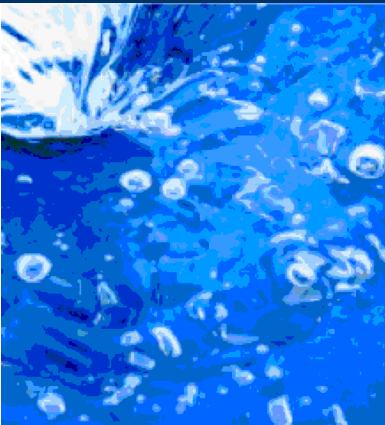


# The GFX™ Heat Xchanger & Water Heater Booster



[www.eefund.qc.ca](http://www.eefund.qc.ca)



Energy Efficiency Fund  
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## New energy savings potential

Drain water resulting from the use of showers, dishwashers, clothes laundering and other uses possesses a significant quantity of energy that goes straight down the drain.

That much of this energy is recoverable is reflected in the Energuide/R-2000 Rating ([www.gfxtechnology.com/R-2000.pdf](http://www.gfxtechnology.com/R-2000.pdf)) for a drain water heat recovery system using a GFX™ Heat eXchanger. This rating was set after extensive testing by the Canadian Centre for Housing Technology (CCHT).

## What is a GFX?

The GFX drain water heat recovery system is composed of a section of copper drainpipe around which one or several copper tubes are coiled. Metal-to-metal contact prevents cross-contamination with high heat transfer. As incoming cold water flows up a GFX's coil it absorbs heat from hot drain water films falling down the inside surface of its drain pipe before arriving at the water heater and fixtures. For example, a Model G3-60 or S4-60 GFX can pre-heat city water from 9° C to 25° C with hot shower-drain water entering at 35° C.

As a result, water heaters require less energy to heat cold water and can supply hot water for longer periods. In fact, a GFX can triple the First Hour Rating (FHR) of a 50-gallon electric water heater and more than triple that of a gas heater; reducing the chances of running out of hot water. A GFX system can double the shower-capacity of tankless heaters and significantly increase the capacity of solar and heat pump water heaters.

The system has a life expectancy of from 30 to 50 years and requires no maintenance.

## In what types of buildings should a GFX be installed?

A conventional GFX system is best suited for buildings in which many showers rather than baths are taken; especially those with water heating systems having difficulty meeting demand. The GFX-STAR™ system is able to recover substantial energy from all sources of hot wastewater, but presently has no Energuide/R-2000 Rating.

### Types of buildings

Multi-unit residential buildings  
Colleges and Universities •  
Schools Hospitals • Rest homes  
Fire/police stations • Prisons  
Sports centres • Arenas • Restaurants  
Meat processing plants • Textile industries  
Paper mills • Etc

## What water uses allow for recovery of drain water heat?

All uses from which the thermal energy of liquids can be recovered.

### Showers

Laundering clothes, dishwashing, washing of parts and equipment

Purging of boilers

Sterilization and cooling steam condensate

Pre-cooling ice-machine makeup

## How is a GFX installed?

A residential GFX is installed using two no-hub drain connectors and two copper coil connectors as illustrated in the installation video @

[www.gfxtechnology.com/Ins-Video.html](http://www.gfxtechnology.com/Ins-Video.html)

## What is GFX's Savings to Investment Ratio (SIR)<sup>1</sup>?

Given its long life, a GFX's SIR is far greater than any ENERGY STAR appliance and can pay for itself in 1 to 5 years depending on hot water usage. Its Canadian SIR is close to that for Maine, USA; adjusted for Quebec's lower electric and gas rates. (See

[www.gfxtechnology.com/Maine-SIR.pdf](http://www.gfxtechnology.com/Maine-SIR.pdf))

## Where can you purchase a GFX?

The GFX Store @

[www.gfxtechnology.com](http://www.gfxtechnology.com)

For technical assistance, call  
631-758-6271

Fax: 631 730-3918

Email: [gfx-ch@msn.com](mailto:gfx-ch@msn.com)

For further information, contact the Energy Efficiency Fund  
Montreal area:

(514) 529-2216

Elsewhere in Quebec:

1 866 529-2216

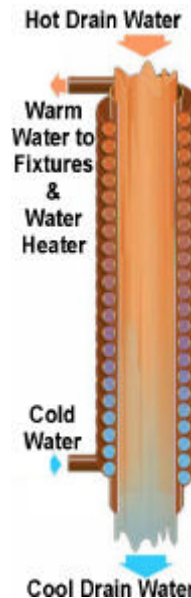
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1. SIR is based on the value of the lifetime savings versus installed cost. GFX's Present Value Factor (PVF)<sup>2</sup> is 15.7 years. It's simple Payback (1<sup>st</sup> year savings divided by installed cost) can be a few years depending on energy cost, usage and Energy Fund incentive. Its

**SIR = 15.7/Payback**

2.  $PVF = 20 * (1 - (1/1.05)^{Life\ Years}) = 15.7$  for 30 year life, 5% discount rate.





## Energy Efficient Renovation Program

# Renovate and Receive \$1 per Cubic Metre of Natural Gas Saved!



[www.eefund.qc.ca](http://www.eefund.qc.ca)



The mission of the Energy Efficiency Fund is to create and implement innovative programs for natural gas users on the Gaz Métro natural gas network.

### Are you planning on renovating?

The Energy Efficiency Fund will pay you \$1 per cubic metre of natural gas saved. You can undertake the renovations yourself or hire a contractor.

### Are you eligible for this program?

To qualify for this program, you must:

- be the owner of a detached residence heated with natural gas and be a Gaz Métro customer;
- have completed the two studies required by the Energy Efficiency Evaluation Service for *EnerGuide for Homes*\*.

### What measures are admissible?\*

Some of the measures eligible for financial assistance are:

Insulation of the sub-roof
Caulking and sealing
Insulation of walls
Insulation of basement foundations
Installation of drain water heat recovery system(s) (Power-Pipe™)
Window replacement†
Installation of vented air heat recovery systems
Installation of a system to pre-heat fresh air (Solarwall™)

\*\* The upgrading of natural gas appliances does not fall under admissible measures as this is already subsidized by Gaz Métro. The same applies for energy substitution and other subsidies already received from the EEF.

† The Energy Efficiency Fund will offset the cost difference between a conventional window and a high energy efficiency ENERGY STAR® window (or equivalent).

### How to obtain the rebate

Send us the duly completed application form provided for this purpose.

To receive the application form, consult the [www.eefund.qc.ca](http://www.eefund.qc.ca) website or give us your name and mailing address either by email or telephone. A copy of the application form will be mailed to you shortly.

### The *EnerGuide for Houses*\* energy efficiency analysis is:

- An energy efficiency analysis conducted by an independent consultant, including a blower door test, recommendations of work to be carried out and the *EnerGuide* rating for your house;
- A second visit when renovations have been completed to determine the new *EnerGuide* rating for your house.

Moreover, home owners who make energy efficient renovations based upon the recommendations of an *EnerGuide for Houses* consultant can qualify for a subsidy from Natural Resources Canada.

Worth \$300, the *EnerGuide for Houses* evaluation service is offered by the Agence de l'efficacité énergétique du Québec for only \$149.95.

**Get informed!** The Energy Efficiency Fund offers Gaz Métro customers a \$50 rebate applicable for the first energy efficiency analysis.



\* *EnerGuide for Houses* is an official trademark of Natural Resources Canada. Used under license.

### Energy Efficiency Fund

11717 du Havre, Montréal, Québec H2K 2X3

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Program subject to changes without notice.