

# Payback Analysis

## For Your Home's High Efficiency Heating System

### STEP 1

#### How much do you spend on heating per year?

- 1) There are two ways you spend money on gas: non-heating costs and heating costs. To determine your total savings from a high efficiency heating system, you need to isolate the heating-only gas cost. To do that, start with the non-heating months.

What you typically spend on gas per month that is not heating-related:

**Non-Heating Costs** = gas stoves, dryers, water heaters

**Heating Costs** = furnace, boiler

**8 Heating Months** = January through May, October through December

**4 Non-Heating Months** = June through September

**AFUE** = Annual Fuel Utilization Efficiency (%)

What is the sum of your gas bills for non-heating months?

June + July + August + September = \$     A    

\$     FROM A     ÷ 4 months = \$     B     average monthly non-heating cost

Next, estimate the total monthly non-heating cost over the 8 month period that you heat your home:

\$     FROM B     x 8 Heating Months = \$     C     non-heating gas costs during the 8 heating months

What is the sum of your gas bills over the Heating Months?

January - May + October - December = \$     D    

- 2) Finally, subtract the non-heating gas cost from what you spend on heating over the 8 Heating Months of the year:

\$     FROM D     - \$     FROM C     = \$     E     This is your yearly heating cost

### STEP 2

#### What are the yearly savings from upgrading to a high efficiency heating system?

- 1) Calculate your total savings from upgrading to the new unit.

- Your current furnace's efficiency level is (AFUE % in decimals):
- The replacement unit's efficiency level is (AFUE % in decimals):
- The potential yearly savings from upgrading to a high efficiency furnace is:

0.     F    

0.     G    

\$     FROM E     x [ 1 -     FROM F     ÷     FROM G     ]  
= \$     H     estimated savings per year

## How long will it take to achieve a full return on my investment (also known as the payback time)?

- 1) The cost of upgrading from a standard efficiency unit to a high efficiency unit (incremental cost) is:

\$ \_\_\_\_\_ = incremental cost  
(ask your contractor)

- 2) The amount of time it will take to achieve a full return on your investment if you install a high efficiency furnace is:

Ask your contractor about rebates and tax credits that may apply

\$ **FROM I** \_\_\_\_\_ - \$ \_\_\_\_\_ (sum of any rebates, discounts and/or tax credits)  
 ÷ \$ **FROM H** \_\_\_\_\_ = \_\_\_\_\_ years it takes to recover your investment

- 3) The estimated lifetime for a high efficiency furnace is 20 years. To determine your savings:

\$ **FROM H** \_\_\_\_\_ x 20 years = \$ \_\_\_\_\_ estimated lifetime savings

## Chicagoland Natural Gas Savings Program

High efficiency furnace rebates are now available for customers of Peoples Gas and North Shore Gas!

\$450/home in rebates for 94% AFUE or above  
 \$350/home in rebates for 92-93% AFUE

Talk to your contractor to learn more about how you can claim your rebate today!

## Bonus! 2009-2010 Economic Stimulus Package Tax Credits

If you purchase a gas furnace that is 95% AFUE or above, you can claim a federal tax credit of up to \$1,500 or 30% of the installed cost!

For more information on how to claim tax credits and qualifying equipment, visit ENERGY STAR's website at: [www.energstar.gov/taxcredits](http://www.energstar.gov/taxcredits)