

My Home Retrofit / Heat Pump Journey – Part 5



Summary: The final energy audit was the last step before the paperwork for the **Canada Greener Homes** application and the **Better Homes Kingston** grant could be issued.

The total grant was \$21K of a total \$48K. Better Homes Kingston lets you put the balance after the grant portion as an interest free loan on your property taxes.

Unfortunately, the Better Homes Kingston program is currently closed awaiting a restart. The Canada Greener Homes loan and some provincial grant programs are still operating.

Conclusion: My main motivation for the upgrades was environmental. The house is now more comfortable, cheaper to operate and has a higher resale value. I am pleased with the outcome. **Note:** I expected higher savings over the years as the cost of natural gas increased with the staged increases in the consumer carbon tax – but that is now a thing of the past.

Energy Audit Summaries

Before

ENERGUIDE

Rating: 131 gigajoules per year (GJ/year)

Heated floor area: 278.1 m² (2993.4 ft²)

Rated energy intensity: 0.47 GJ/m²/year

Evaluated by: Jaymi Armitage

Quality assured by: GCC-Sustainable Kingston

File number: 11K4D00616

Data collected: April 27, 2022

Year built: 1974

**52%
Reduction!**

After

ENERGUIDE

Rating: 63 gigajoules per year (GJ/year)

Heated floor area: 278.1 m² (2993.4 ft²)

Rated energy intensity: 0.23 GJ/m²/year

Evaluated by: Gabriel Nadeau

Quality assured by: Green Communities Canada

File number: 111KE99857

Data collected: November 18, 2024

Year built: 1974

HOW YOUR RATING IS CALCULATED:

- | | |
|---|----------------------|
| I. Rated annual energy consumption | 131 GJ/year |
| II. Minus renewable energy contribution | - 0 GJ/year |
| Equals your EnerGuide rating | <u>= 131 GJ/year</u> |

I. Your rated annual energy consumption is the total amount of energy your house would use in a year based on the EnerGuide Rating System standard operating conditions. For your house, this includes 37.6 GJ of passive solar gain.

Energy Sources	Rated Consumption (GJ/year)	Equivalent Units (per year)	Greenhouse Gas Emissions (tonnes/year)
Natural gas	92	2477 m ³	4.7
Electricity	39	10717 kWh	0.4
Total	131		5.1

HOW YOUR RATING IS CALCULATED:

- | | |
|---|---------------------|
| I. Rated annual energy consumption | 63 GJ/year |
| II. Minus renewable energy contribution | - 0 GJ/year |
| Equals your EnerGuide rating | <u>= 63 GJ/year</u> |

I. Your rated annual energy consumption is the total amount of energy your house would use in a year based on the EnerGuide Rating System standard operating conditions. For your house, this includes 35.78 GJ of passive solar gain.

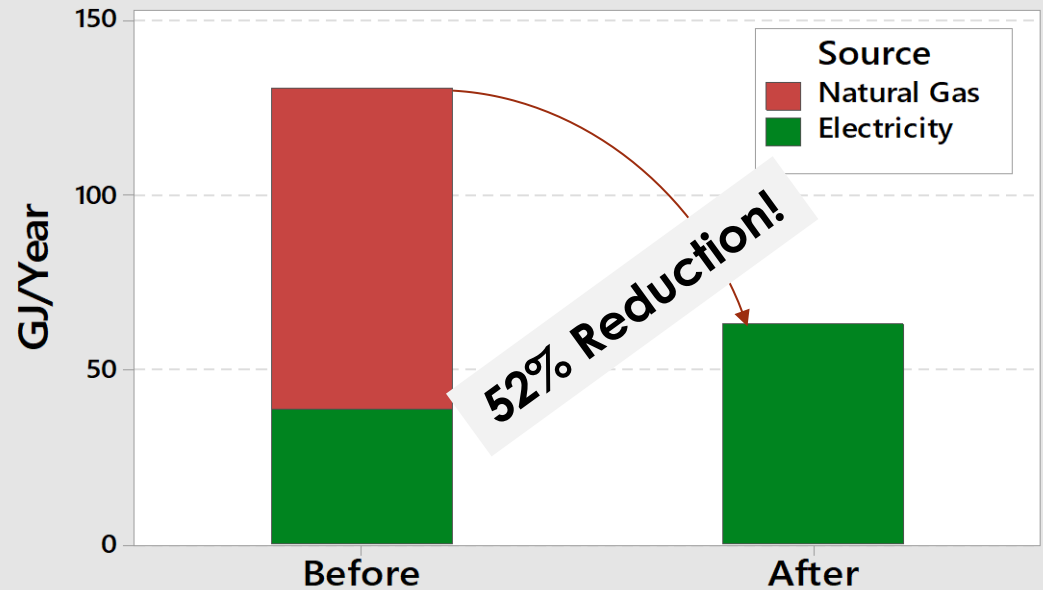
Energy Sources	Rated Consumption (GJ/year)	Equivalent Units (per year)	Greenhouse Gas Emissions (tonnes/year)
Electricity	63	17593 kWh	0.6
Total	63		0.6

**88%
Reduction!**

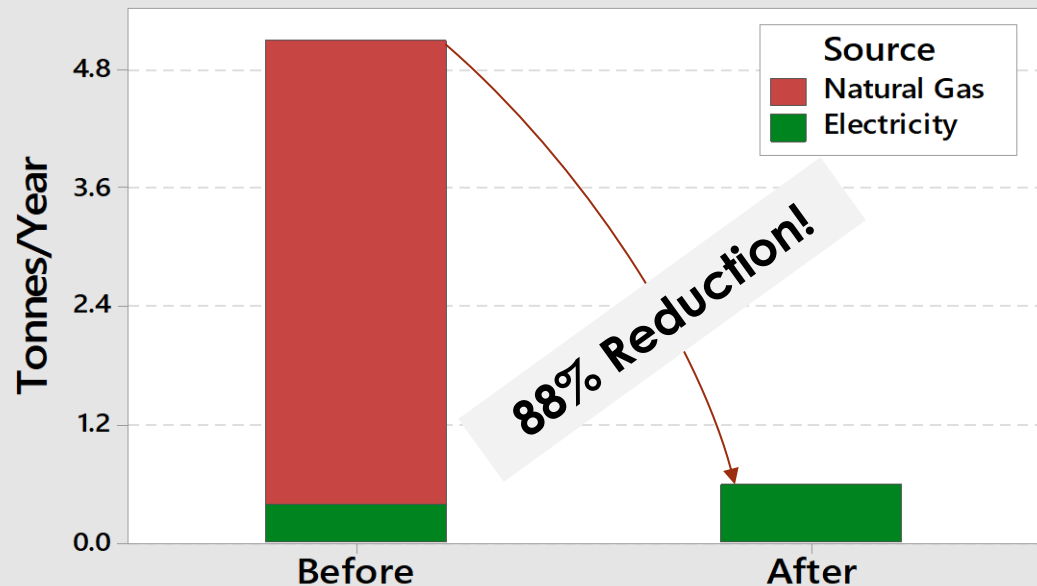
The
upgrade
made a
very big
difference!!



Rated Energy Consumption Before / After Upgrades

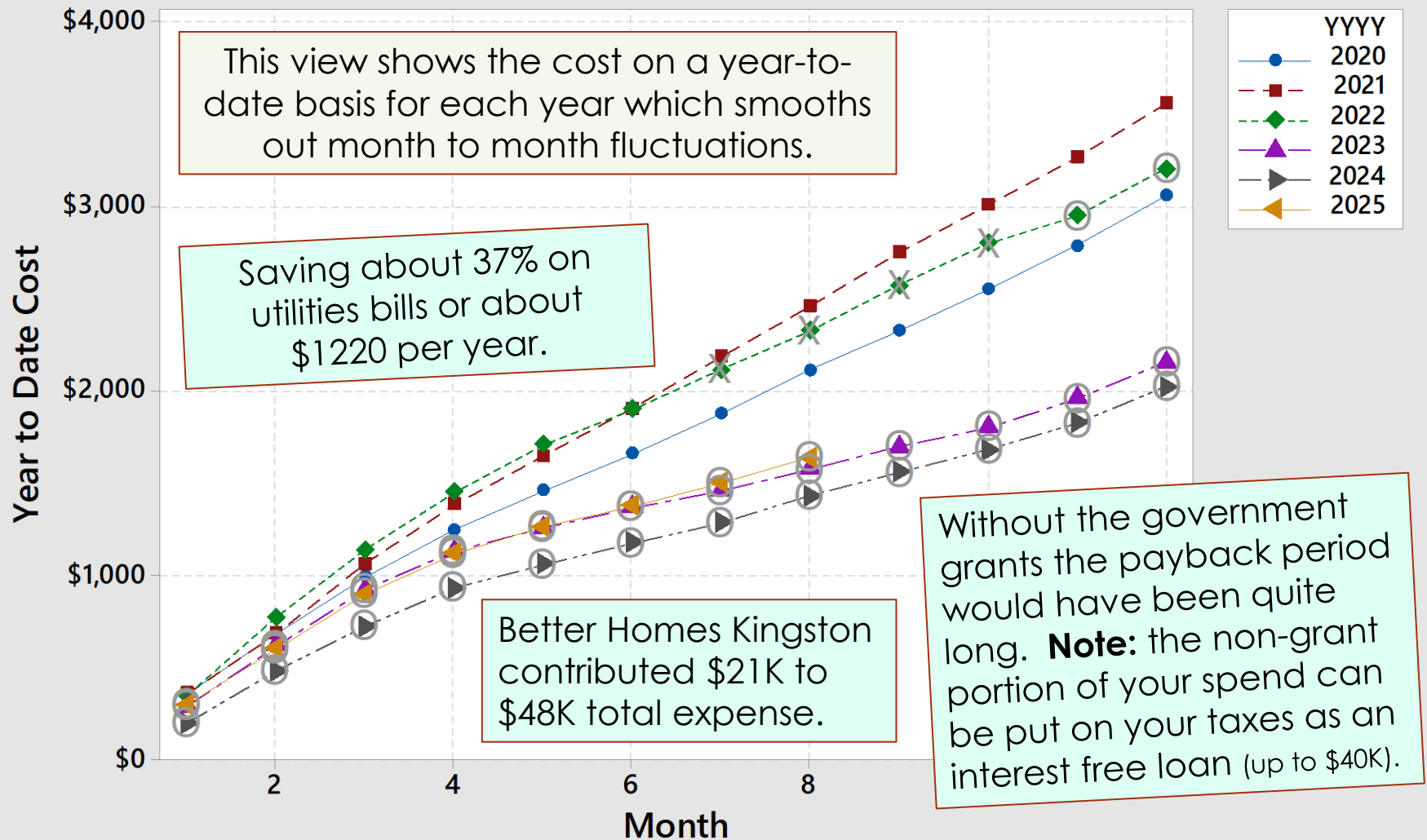


Greenhouse Gas Emissions Before / After Upgrades



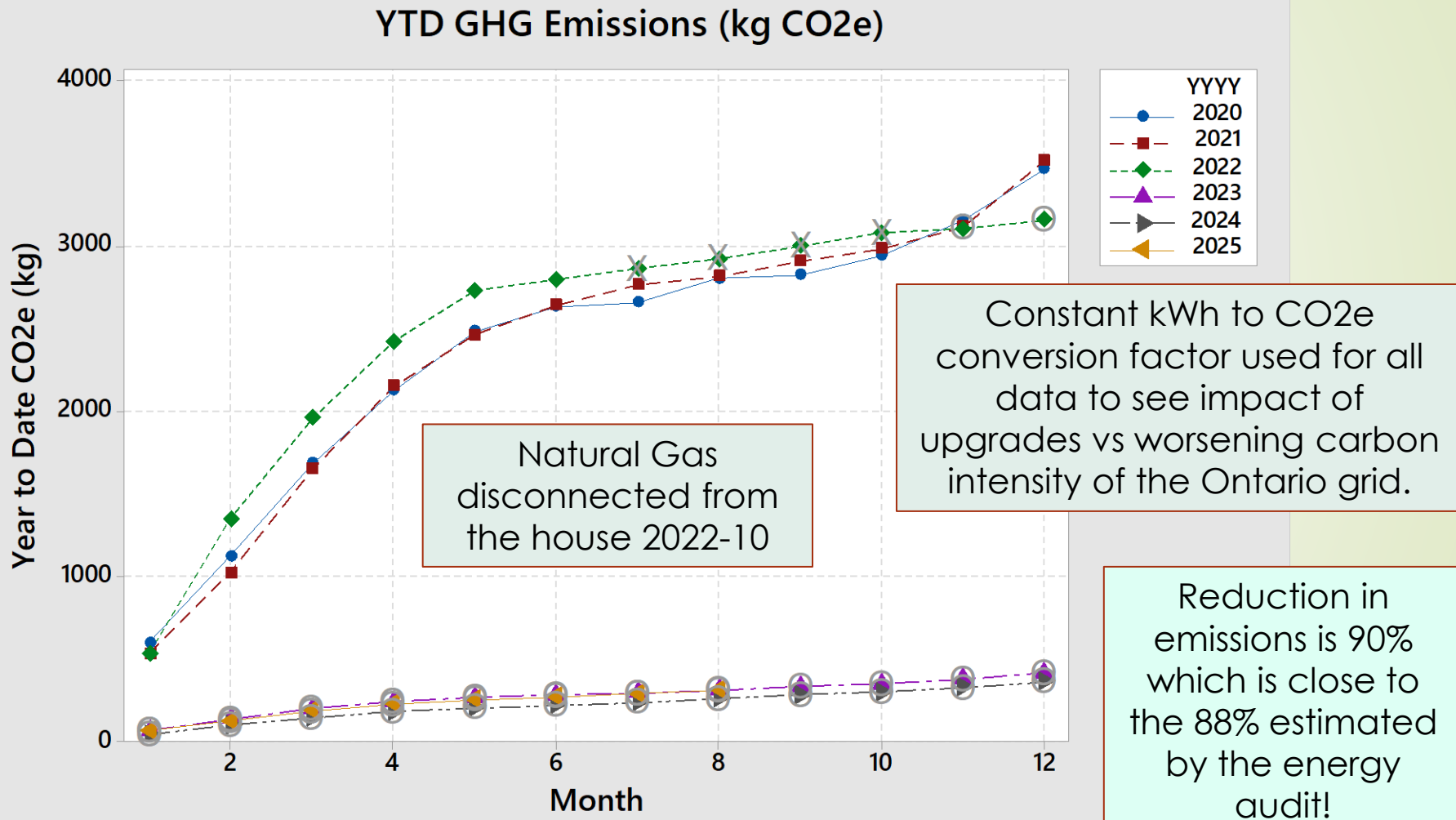
Cost Savings – slow payback

YTD Cost of Utilities + Service Plans



Plot Symbols with X's are during transition, those circled are after biggest upgrades

Emissions (GHG = Greenhouse Gas) from: **Natural Gas + Electricity**



Plot Symbols with X's are during transition, those circled are after biggest upgrades