

2023 Energy Efficiency Program

Financing Net-Zero Incentive Workshop

May 30, 2023



George Hantzis and Jacky Lau
Commercial Energy Solutions

Net Zero 2050: Path to Success

Energy powers our vehicles, warms our homes and helps produce the goods we use every day. Addressing these three largest sources of emissions through a diversified energy system is the most cost-effective and resilient way to achieve net zero.

Energy sources

Transition to renewables.

A mix of renewable power, renewable natural gas and hydrogen for clean and reliable energy.

Transportation

Switch to lower-emission sources.

Electrification of light-duty vehicles.

Compressed and renewable natural gas and hydrogen for hard-to-electrify heavy transport.

Building heating and cooling

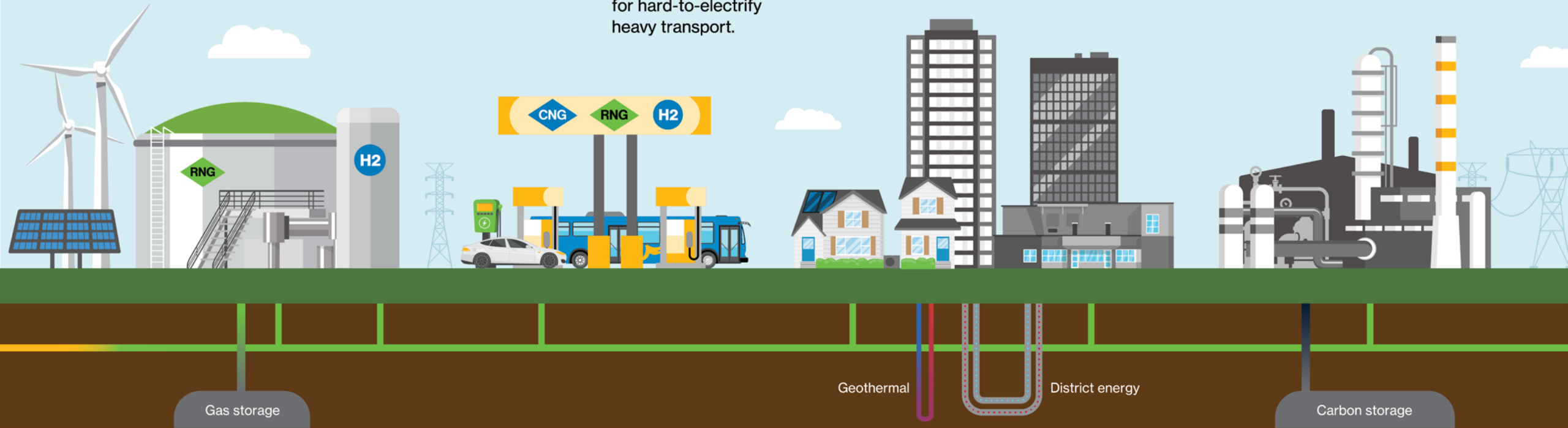
Adopt high-efficiency technologies.

Energy conservation, heat pumps, hybrid heating, geothermal, district energy and green fuels for clean and reliable heat.

Industrial processes

Advance innovative technologies.

Energy conservation, hydrogen and carbon capture for processes that can't easily be electrified.



Enbridge is advancing reliable and cost-effective solutions for Ontario's net-zero energy future

Conservation



- Helping homes, business and industry use less energy through conservation programs.

Renewable gases



Advancing the transition to renewable gases:

- Hydrogen
- Renewable natural gas
- RNG programs and hydrogen blending

Clean energy technologies



For fleets and heavy transport that can't be practically electrified:

- CNG
- RNG
- Hydrogen



For reliable, cost-effective and sustainable heat:

- Hybrid heating
- Geothermal
- CHP
- Solar PV
- Waste heat recovery



For energy-intensive processes that can't be electrified:

- Clean and low-emission gases
- Carbon capture and storage

Conservation is a key pillar to reach net zero

- For many, net zero is a multi-decade journey involving a phased approach.
- Energy conservation is an integral step, allowing you to **directly reduce greenhouse gas (GHG) emissions while saving on operating costs.**
- Reducing energy demand enables the electric grid to handle growing overall demand as electrification evolves.



Join countless others to save on cost and reduce emissions

Conserving energy since 1995

In the past 5 years alone, we have

Aided
5.7K
customers just like you

Enabled
150M
m³ of natural gas saved
per year

Realized
282K
tonnes of GHG (CO₂e)
reduction per year

Given out
48M
in incentives

Contributed to
2.8B
lifetime m³ of natural gas
saved

Equivalent removal of
61,500
cars off the road

Join countless others to save on cost and reduce emissions

Lower costs, upgrade with confidence

- Revised program. Same great team.
- If you have a project in mind, we've seen it before.
- Complimentary expertise to identify opportunities, calculate ROI, build business case.
- Program is available across Ontario.

Energy Solutions Advisors

**Let our
experts help
you uncover
savings**

With incentives for equipment upgrades and energy assessments, we've helped thousands of customers drive down costs and improve the energy efficiency of their buildings. Will you be next?



We make the process easy!

Support from start to finish



1. Complimentary consultation

- Contact us at energyservices@enbridge.com or 1-866-844-9994.



2. Incentive application

- We fill it in for you based on your project.



3. Project validation

- We'll confirm your final project details after implementation.



4. Incentive payment

- Receive your cheque in 4 – 6 weeks.

Equipment eligible for fixed incentives

1 **Air curtain**
(\$200 – \$8,750 per unit)

2 **Condensing make-up air**
(based on CFM, \$750 – \$14,000 per unit)

3 **Demand control kitchen ventilation**
(\$1,200 – \$9,000 per unit)

4 **Demand control ventilation**
(\$500 per unit)

5 **Destratification fan**
(\$1,000 per unit)

6 **Dock door seal**
(\$650 – \$1,650 per unit)

7 **Energy recovery ventilator**
(based on CFM, \$200 – \$8,000 per unit)

8 **Heat recovery ventilator**
(based on CFM, \$200 – \$5,000 per unit)

9 **Ozone laundry**
(\$0.04/lb., up to \$15,000 per unit)



Ozone laundry limited-time offer:
Purchase by Sept. 30, 2023 and get
up to 75 percent of project costs
covered.

Up to 50 percent of project costs, to a maximum of \$100,000/project.

Commercial Custom Retrofit program

① Year-round offer

For upgrades with no fixed incentive:

\$0.25/m³ natural gas saved (**up 25 percent** from 2022)

Up to 50 percent of energy efficiency upgrade costs, to a maximum of \$100,000/project

Energy assessments and meters:

Up to 50 percent of eligible costs, to a maximum of \$10,000/site*, if recommended by an Enbridge Gas advisor.

* Maximum depends on annual gas consumption at site.

② Limited-time offers

Contact us today to secure bonus incentives.

Custom boiler project

\$0.40/m³ for condensing boilers and controls

\$0.30/m³ for high efficiency boilers and controls

Up to 75 percent of energy efficiency upgrade costs, to a maximum of \$100,000/project

Commit by June 30 and implement by Oct. 31 to qualify.

Industrial Custom Retrofit program

① Manufacturing projects

For upgrades with no fixed incentive:

\$0.20/m³ for the first 50,000 m³ saved

\$0.10/m³ beyond 50,000 m³

Up to 50 percent of energy efficiency upgrade costs, to a maximum of \$200,000/project

Energy assessment and meter incentives
also available to industrial customers

② Agricultural projects

\$0.10/m³ natural gas saved

Up to 50 percent of energy efficiency upgrade costs, to a maximum of \$200,000/project

Limited-time offer for ag retrofit

\$0.20/m³ if commissioned by July 1

\$0.15/m³ if commissioned by Aug. 19

Up to 75 percent of energy efficiency upgrade costs, to a maximum of \$100,000/project

Conserve energy on your net-zero journey



- Electrification is one way to get to net zero, but it can be cost-prohibitive on both capital and operating fronts.
- **Energy conservation** is an integral part of a phased approach to net zero, allowing you to **reduce GHG emissions now and save on operating costs.**

In addition to energy efficiency incentives, Enbridge offers solutions for renewable gas (e.g. H₂, RNG) and clean energy technologies (e.g. hybrid heating, geothermal), which may be part of your plan to net zero.

Conserve energy on your net-zero journey

Contact us as early as possible in your planning. We can help you:



Assess options from a holistic cost/benefit perspective

- We offer audit/study incentives, if scope is reviewed and approved by an Enbridge Gas advisor.



Qualify your project for energy efficiency incentives

- Enbridge Gas incentive can be stacked with SOE incentives, if applicable.
- To qualify, our support and incentives must have helped you decide to pursue the project.

Q&A

Contact us at energyservices@enbridge.com or call us at 1-866-844-9994

Breakout Session: Case Studies

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Commercial Custom Program Case study #1: Boiler retrofit



Problem statement and background

- Community centre of 48,000 sq. ft.
- One indoor ice rink, two multi-purpose room, one indoor track
- Existing equipment: two atmospheric boilers, two air handling units, one roof-top unit
- Equipment is controlled by building automation system (BAS)
- Existing boilers have reached end of life and will need to be replaced



Commercial Custom Program Case study #1: Boiler retrofit



Elements of consideration?

- Like-for-like replacement, high efficiency option, condensing option
- Controls upgrade
- Temperature setbacks
- Boiler pumping sequence improvements
- Cost and incentives



Commercial Custom Program Case study #1: Boiler retrofit



- Total annual building consumption: 124k m³/year
 - Space heating boiler consumes 74k m³/year
 - DHW and ice rink flooding boiler consumes 20k m³/year
 - Other: 30k m³/year

Selected solution

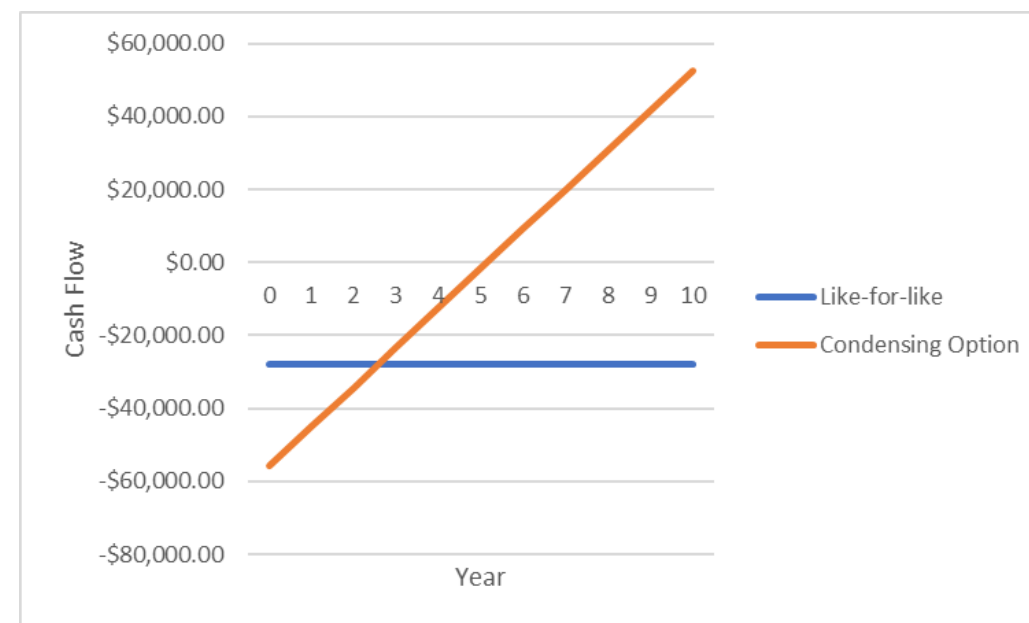
- Upgrade to 2 condensing boilers at 95 percent efficiency
- Add setbacks, controls and pumping upgrades
- Annual gas savings of 23 percent (29k m³/year)
 - Reduced space heating consumption is 48k m³/year
 - Reduced non-seasonal consumption is 16k m³/year



Commercial Custom Program Case study #1: Boiler retrofit



	Like-for-like	Condensing option (selected)
Project cost	\$28,000	\$67,000
Incentive	\$0	\$11,187
Gas bill savings	\$0	\$10,822/year
Simple payback	N/A	5.16 years (boiler useful life \approx 25 years)
CO₂ e reduction	N/A	54.8 tonnes/year



Custom incentives based on annual gas savings x \$0.40/m³ (limited-time offer)

Commercial Custom Program Case study #2: Ventilation upgrade

Problem statement and background

- Surface water treatment plant
 - Garage facility of over 20,000 sq. ft.
- Garage is intermittently occupied
- Make-up air (MUA) unit and exhaust fan runs 24/7
- Positive pressure created by MUA unit in excess of ASHRAE guidelines (supply > exhaust by 5,000 cfm)
 - Odour transfer from the garage to adjacent space
- Exhaust fans were intended to operate based on CO detection but currently runs 24/7



Commercial Custom Program Case study #2: Ventilation upgrade

Elements of consideration?

- Add variable frequency drives (VFDs) to the exhaust and MUA to modulate based on occupancy
- Reduction of CFM flow to ASHRAE requirements
- Temperature setbacks



Commercial Custom Program Case study #2: Ventilation upgrade



Selected solution

- Establish the existing CFM flow of the MUA units
- Devise operational schedule based on building occupancy
- Calculate the ASHRAE required CFM
- Calculate the resulting CFM based on schedule optimization and ASHRAE requirements

	EXISTING			Proposed				
	Max CFM	Damper	Actual CFM	Comments	Proposed	Hours/week	Proposed CFM	
MAU 1008-01	5,591		2,952		2,651	168	2,651	
MAU 2008-01	19,541		19,550	CO Mode (1hr / weekday)	5,340	5	698	
				Occupied Mode (11 hours / weekday)	1,646	55		
				Unoccupied Mode (12 hours/weekday + 24hrs/ day over weekday)	-	108		
MAU 3008-01	6,616	100%	6,616	No Change	6,616	168	6,616	
MAU 4008-01	2,649	75%	1,986	No Change	1,986	168	1,986	
MAU 4008-02	8,152	100%	8,152	No Change	8,152	168	8,152	
			39,256				20,103	
							Total CFM Reduction	51%

Commercial Custom Program Case study #2: Ventilation upgrade



Selected solution

Project cost	\$101,500
Incentive	\$34,241
Gas bill savings	\$50,530/year
Electric savings	32,675 kWh/year
Simple Payback	1.25 years
CO₂e reduction	256 tonnes/year



Custom incentives based on estimated annual natural gas savings x \$0.25/m³