

# Municipal Role in Ontario's Energy Transition

A short update on relevant recent  
Ontario regulatory and policy issues

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# Focus for Session Today

- Introduction (Gaby)
- Overview of recent activity and regulatory activity that have taken place at the Ontario Energy Board and discuss some of the implications for municipal climate action plans and commitments - Mike
- Q&A – all
- Next Steps (Gaby)

Note: This is only a short snapshot of activity. Monitoring and participation of municipalities and organisations/partners that represent municipal energy/emission/consumer needs is essential. Feel free to ask questions on related issues in the Q&A.

# List of Topics

- Ontario Demand Side Management 2023-2025 +
- Integrated Resource Planning
- Enbridge 2024-2028 Rate case
- Energy Transition & Net Zero
- Natural Gas Expansion Program (NGEP) Consultation
- OEB/IESO - RPPAG, DERs, Future of Energy Innovation, Benefit-Cost Framework

# OEB DSM (2023-2025 and beyond)

Ontario Energy Board Decision related to the Next Multi-Year Demand Side Management (DSM) Plan for Enbridge Gas Distribution.

OEB EB-2021-0002 Decision was released publicly by the OEB November 15, 2022 – link <https://www.rds.oeb.ca/CMWebDrawer/Record/761467/File/document>

As Ordered by the OEB, Enbridge filed a copy of the Greener Homes Agreement (Certain DSM incentives enhanced overall incentive levels) – link <https://www.rds.oeb.ca/CMWebDrawer/Record/762132/File/document>

## **What is it and why should a municipality care?**

- Energy Efficiency is the cheapest form of energy in Ontario. For every \$1 spent on energy efficiency, there are approximately \$3 of benefits (plus emissions and health benefits)
- A small fraction of the energy efficiency (per the OEB/IESO Potential Study) are being captured currently with no targeted efforts
- The last DSM Framework expired in 2020 and delays in the process resulted in 2021 and 2022 being roll-overs without any improvements or increased results
- A Five Year DSM Plan requested by Enbridge denied by the OEB. New DSM Framework Issued effective 2023-2025 (3 year approval) with direction that the next plan needs to be significantly better
- Municipalities across Ontario have developed or are developing community energy plans and/or climate action plans. These are directly relevant to the need for more DSM programs
- The Province of Ontario and the OEB have been clear for over a decade that they expect programs (i.e. DSM) to be done in a collaborative manner and in partnership (including IESO/LDC CDM or other programs). Essentially no progress has been made on expanding DSM partnerships or delivery channels between Enbridge, IESO/LDCs and municipalities.

# OEB DSM (2023-2025 and beyond)

## Highlights of 2023-2025 OEB Decision

- Five Year DSM Plan approval requested by Enbridge denied by the OEB. New DSM Framework Issued effective 2023-2025 (3 year approval).
- OEB DSM Stakeholder Advisory Group formed to enhance DSM planning efforts (AMO - Dave Gordon related Amber Crawford as a rep)
- The OEB expects the next plan to be more in line with opportunities (e.g. Ontario DSM Potential Study results) to reduce net natural gas consumption in alignment with Ontario consumer needs for energy efficiency and emission reductions. The OEB expects that Enbridge Gas's next multi-year natural gas conservation plan will result in meaningful natural gas savings each year between 2026 and 2030 (net throughput reductions)
- OEB Decision restricts Enbridge use of DSM funds to promote natural gas and retain customers on the natural gas distribution system. Clarified that DSM incentives must be provided to prospective customers and existing customers, even if they use incentives to leave natural gas (close accounts vs. disconnect).
- The OEB does not approve the Low Carbon Transition Program. The OEB finds that focusing efforts on gas heat pumps, a technology that is not currently commercially available nor as cost-effective as electric heat pumps is not prudent.
- The OEB expects that, at a minimum, the level of natural gas savings from DSM programs during the next multi-year term will be the equivalent of at least 0.6% of sales in 2026, 0.8% of sales in 2027 and 1.0% of sales in each year from 2028 through to the end of 2030, relative to the prior year on a weather normalized basis.
- If you wanted to maximize DSM for Ontario, what would you do?

**OEB-APPROVED ADDITIONAL MEASURE INCENTIVES FOR JOINT RESIDENTIAL WHOLE HOME PROGRAM**

NRCan	NRCan Incentive	EGI Proposed Enhanced Incentive	OEB-Approved Measures	OEB-Approved Incentives for EGI	Total Enhanced Incentive (NRCan + OEB-Approved EGI)
Canada Greener Homes Grant Measures					
<b>Energy Audits</b>			<b>Energy Audits</b>		
ENERGuide Pre & Post Evaluations	\$600	\$0	ENERGuide Pre & Post Evaluations	\$0	\$600
<b>Attic/Cathedral Insulation</b>			<b>Attic/Cathedral Insulation</b>		
Increase attic insulation to at least R50 from less than R12	\$1,800	\$200	Increase attic insulation to at least R50 from less than R12	\$550	\$2,350
Increase attic insulation to at least R50 from greater than R12 up to R25	\$600	\$400	Increase attic insulation to at least R50 from greater than R12 up to R25	\$200	\$800
Increase attic insulation to at least R50 from greater than R25 up to R35	\$250	\$600	Increase attic insulation to at least R50 from greater than R25 up to R35	\$75	\$325
Increase cathedral/flat roof insulation to at least R-28 from R12 or less	\$600	\$400	Increase cathedral/flat roof insulation to at least R-28 from R12 or less	\$200	\$800
Increase cathedral/flat roof insulation to at least R-28 from greater than R12 up to R25	\$250	\$600	Increase cathedral/flat roof insulation to at least R-28 from greater than R12 up to R25	\$75	\$325
Upgrade uninsulated cathedral ceiling/flat roof to at least R20 from R12 or less	\$600	\$400	Upgrade uninsulated cathedral ceiling/flat roof to at least R20 from R12 or less	\$200	\$800
<b>Exterior Wall Insulation</b>			<b>Exterior Wall Insulation</b>		
For adding insulation value of at least greater than R20 for 100% of building	\$5,000	\$2,500	For adding insulation value of at least greater than R20 for 100% of building	\$1,750	\$6,750
For adding insulation value greater than R12 up to R20 to 100% of the building	\$3,800	\$1,700	For adding insulation value greater than R12 up to R20 to 100% of the building	\$1,200	\$5,000
For adding insulation value greater than R7.5 up to R12 for 100% of building	\$3,300	\$1,200	For adding insulation value greater than R7.5 up to R12 for 100% of building	\$1,200	\$4,500
<b>Exposed Floor Insulation</b>			<b>Exposed Floor Insulation</b>		
For adding insulation value of at least R20 for entire exposed area (minimum area of 11 square meters or 120 square feet)	\$350	\$150	For adding insulation value of at least R20 for entire exposed area (minimum area of 11 square meters or 120 square feet)	\$100	\$450
<b>Basement Insulation</b>			<b>Basement Insulation</b>		
For sealing and insulating at least 80% of basement header to a minimum R20	\$240	\$110	For sealing and insulating at least 80% of basement header to a minimum R20	\$85	\$325
For sealing and insulating at least 50% of the entire basement slab by a minimum of R3.5	\$400	\$200	For sealing and insulating at least 50% of the entire basement slab by a minimum of R3.5	\$150	\$550
For adding insulation value greater than R22 to 100% of basement	\$1,500	\$1,000	For adding insulation value greater than R22 to 100% of basement	\$500	\$2,000

NRCan	NRCan Incentive	EGI Proposed Enhanced Incentive	OEB-Approved Measures	OEB-Approved Incentives for EGI	Total Enhanced Incentive (NRCan + OEB-Approved EGI)
Canada Greener Homes Grant Measures					
For adding insulation value of R10 to R22 to 100% of basement	\$1,050	\$450	For adding insulation value of R10 to R22 to 100% of basement	\$350	\$1,400
For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	\$1,300	\$700	For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	\$400	\$1,700
For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	\$1,040	\$460	For adding insulation value of R10 to R22 to 100% of exterior crawl space wall area, including header	\$360	\$1,400
For adding insulation value greater than R24 to 100% of crawl space ceiling	\$800	\$400	For adding insulation value greater than R24 to 100% of crawl space ceiling	\$250	\$1,050
<b>Furnace/Boiler</b>			<b>Furnace/Boiler</b>		
N/A	N/A	N/A	N/A	N/A	N/A
<b>Space Heating Heat Pump</b>			<b>Space Heating Heat Pump</b>		
Install a ground source heat pump – full system.	\$5,000	\$0	Install a ground source heat pump – full system.	\$1,500	\$6,500
Replace a ground source heat pump – heat pump unit only.	\$3,000	\$0	Replace a ground source heat pump – heat pump unit only.	\$1,000	\$4,000
Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system or a variable capacity cold climate air source heat pump (ccASHP) system. The system must be intended to service the entire home.	\$2,500	\$0	Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system or a variable capacity cold climate air source heat pump (ccASHP) system. The system must be intended to service the entire home.	\$750	\$3,250
Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system, intended to service the entire home.	\$4,000	\$0	Install a complete ENERGY STAR certified new or replacement air source heat pump (ASHP) system, intended to service the entire home.	\$1,250	\$5,250
Install a complete new or replacement variable capacity cold climate air source heat pump (ccASHP) system, intended to service the entire home.	\$5,000	\$0	Install a complete new or replacement variable capacity cold climate air source heat pump (ccASHP) system, intended to service the entire home.	\$1,500	\$6,500
<b>Water Heating</b>			<b>Water Heating</b>		
Replace domestic water heater with an ENERGY STAR certified domestic hot water heat pump (DHW-HP)	\$1,000	\$0	Replace domestic water heater with an ENERGY STAR certified domestic hot water heat pump (DHW-HP)	\$300	\$1,300
<b>Windows &amp; Doors</b>			<b>Windows &amp; Doors</b>		
Replace windows or sliding glass doors with ENERGY STAR most efficient models.	\$250	\$0	Replace windows or sliding glass doors with ENERGY STAR most efficient models.	\$75	\$325
Replace windows or sliding glass doors with ENERGY STAR certified models.	\$125	\$0	Replace windows or sliding glass doors with ENERGY STAR certified models.	\$50	\$175
Replace hinged doors, with or without sidelites or transoms with ENERGY STAR certified models.	\$125	\$0	Replace hinged doors, with or without sidelites or transoms with ENERGY STAR certified models.	\$50	\$175

NRCan	NRCan Incentive	EGI Proposed Enhanced Incentive	OEB-Approved Measures	OEB-Approved Incentives for EGI	Total Enhanced Incentive (NRCan + OEB-Approved EGI)
Canada Greener Homes Grant Measures					
<b>Air Sealing</b>			<b>Air Sealing</b>		
Achieve base target	\$550	\$0	Achieve base target	\$175	\$725
Achieve 10% or more above base target	\$810	\$0	Achieve 10% or more above base target	\$240	\$1,050
Achieve 20% or more above base target	\$1,000	\$0	Achieve 20% or more above base target	\$300	\$1,300
<b>Renewable Energy System</b>			<b>Renewable Energy System</b>		
Install solar panels (photovoltaic (PV) system) $\geq$ 1.0 kW	\$1,000 per kW	\$0	N/A	\$0	\$1,000 per kW
<b>Resiliency Measures</b>			<b>Resiliency Measures</b>		
Batteries connected to Photovoltaic systems	\$1,000	\$0	Batteries connected to Photovoltaic systems	\$0	N/A
Roofing Membrane	\$150	\$0	Roofing Membrane	\$0	N/A
Foundation water-proofing	\$875	\$0	Foundation water-proofing	\$0	N/A
Moisture proofing crawl space floor, walls and headers	\$600	\$0	Moisture proofing crawl space floor, walls and headers	\$0	N/A
<b>Thermostat</b>			<b>Thermostat</b>		
Replace a manual thermostat with a programmable thermostat	\$50		Replace a manual thermostat with a programmable thermostat	\$20	\$70
Replace a manual thermostat with a adaptive thermostat (Natural gas heated participants in the Enbridge franchise area are eligible for an enhanced \$75 rebate (or \$125 rebate if Moderate Income eligible), all other participants eligible for \$50 rebate.	\$50	\$75	Replace a manual thermostat with a adaptive thermostat (Natural gas heated participants in the Enbridge franchise area are eligible for an enhanced \$75 rebate (or \$125 rebate if Moderate Income eligible), all other participants eligible for \$50 rebate.	\$75	\$125
<b>Multi Measure Bonus</b>			<b>Multi Measure Bonus</b>		
N/A	\$0		N/A	N/A	N/A



# OEB DSM (2023-2025 and beyond)

## Highlights of 2023-2025 OEB Decision

- Pollution Probe recommended that the OEB require Enbridge Gas to provide a formal municipal support and incentive program to provide funding and support to municipalities for energy and emissions plan implementation where DSM can be leveraged in conjunction with community emissions reduction activities. At a minimum, the program should support one fully allocated staff member at each participating municipality for a minimum period of three-years and ideally longer to provide continuity. Program design should leverage simplicity and best practice and be designed in partnership with relevant stakeholders such as the Clean Air Partnership and Association of Municipalities of Ontario.
- Municipal input via CAP/CAC, municipalities, Pollution Probe and other channels helped the OEB understand the need to increase DSM in alignment with municipal energy and emission plans. OEB acknowledge the merit of programs, partnerships and funding with municipalities. More analysis is required to support this prior to 2025 (e.g. OEB DSM SAG)
- Stakeholders/municipal letters made a big difference to the OEB. Silence is perceived as supporting 'status quo'.
- The OEB recognizes the importance and alignment of municipal energy & emissions plan and the role DSM should play in helping meet those goals.
- These proposals were deferred to the next plan and Enbridge was encouraged to investigate their merit. This will not happen without action now (prior to 2025) and municipal coordination.

See School Energy Coalition Letter to the OEB -  
<https://www.rds.oeb.ca/CMWebDrawer/Record/818604/File/document>

**Re: EB-2021-0002 – Enbridge 2023-25 DSM Plan – Contestability of Next Plan**

We are counsel to the School Energy Coalition (“SEC”), and were active participants in EB-2021-0002.

(You will also be aware that the undersigned is a member of the DSM Stakeholder Advisory Group (“SAG”) and the IRP Working Group, although the subject of this letter is not expected to be within the scope of those two advisory bodies.)

This letter is a followup to the 2023-25 DSM Plan proceeding. We are asking that the OEB explore whether the next DSM Plan can be made contestable, in whole or in part.

Briefly, we would urge the OEB to take the following steps as soon as possible, and well in advance of the next DSM Plan filing by Enbridge, expected to be in late 2024:

- Ascertain, through a request for expressions of interest, or some other process or processes, including direct investigations, what organizations, if any, are willing and able to take on the role of independent, fuel agnostic program administrator of all, or a segment of, DSM programs in Ontario.
- Assuming the response to the first step is strong enough, seek and obtain detailed proposals from qualified and interested organizations to deliver some or all of the DSM programming in Ontario.

The goal would be that, when Enbridge files its next DSM Plan, the OEB will have full visibility into the alternatives available to it in the event that the Commissioners determine it is in the public interest if the DSM Plan would be made contestable, in whole or in part. In essence, the OEB would green light the market to communicate to the OEB what it can do.

# EB-2022-0200 Enbridge Rebasing Proceeding (2024-2028)

## Highlights

- Sets funding and rules for 2024-2028 (and beyond)
- OEB to handle in 203 Phases. Phase 1 Decision is expected by end of 2023.
  - 2024 Annual Amounts (Phase 2 of process determines escalation factors for 2025-2028)
    - 2024 Capital Requested = \$1,470,300,000
    - 2024 Annual O&M = \$1,113,000,000
- Predicated on underlying issues including the Energy Transition and Integrated Resource Planning
  - Should natural gas infrastructure be increased or decreased in the future? Where is the future heading?
- Energy Transition
  - Is occurring, but will not change Enbridge risk over the 2024-2028 period
  - New capital assets are collected from Ontario rate payers over 40-65 years (e.g. 2063-2098 for a pipeline installed today)
  - Gas capital expenditures in 2024-2028 have significant long-term impacts for Ontario
- Integrated Resource Planning
  - Required alternatives to gas pipelines to be considered in the planning process (targeted DSM, supply side options, others)
  - OEB Issued mandatory IRP requirements in 2021 and established an OEB Working Group (AMO represents municipalities)
  - Some stakeholders believe that Enbridge is not in compliance with the OEB requirements (including consultation and pilots)
  - Enbridge has only coordinate with 3 municipalities out of 444 on IRP to-date
  - OEB proceeding on proposal for Parry Sound and Huron pilots.
- Stranded Assets
  - Who should pay for Gas pipeline assets installed now and are stranded before they are fully recovered?
  - Short term vs. Long term thinking, who takes the profit and who pays the costs?

# Sample of Issues / Myths in the Application/Proceeding

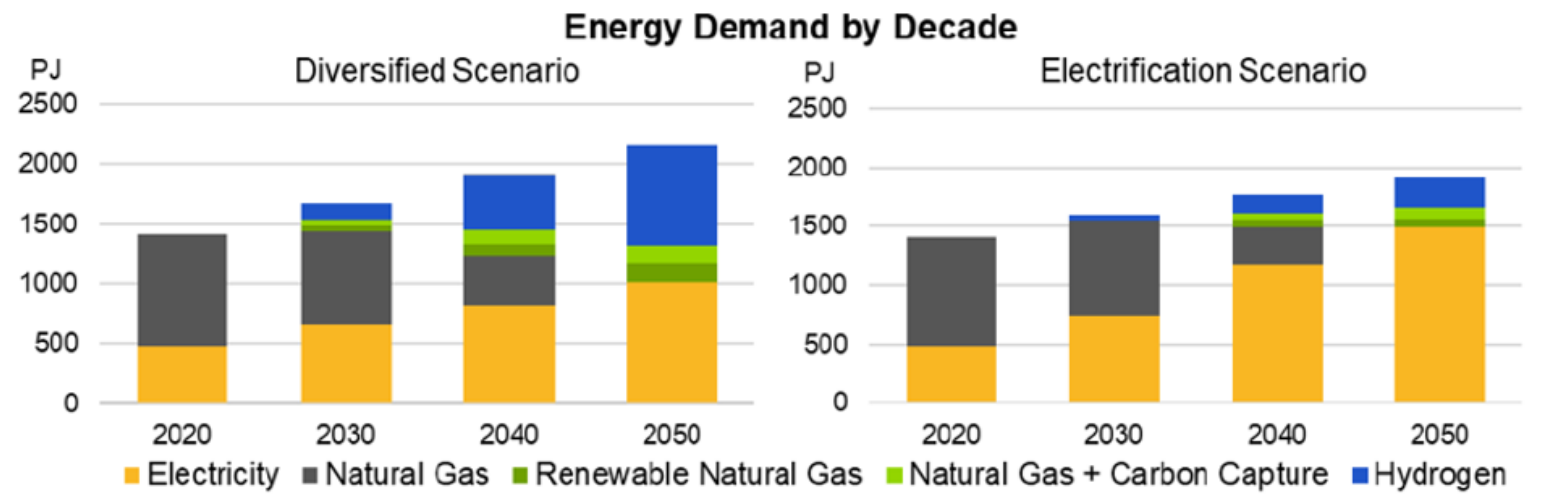
Myth	Reality
The energy transition is something to think about later in the future.	False, it is already under way and the Enbridge Rebasing period is in the heart of the transition period which continues to accelerate. Tomorrow is too late.
The OEB has no authority to consider Energy Transition or Climate Change related issues in this Rebasing proceeding.	Incorrect. The OEB considers these relevant public interest issues in its proceedings. Enbridge has relied on this for applications (e.g. RNG voluntary program, Markham H2 project, etc.). Mandate letters have reinforced the role of the OEB to consider these issues. Ignoring these issues would certainly not be in the public interest.
Enbridge Gas's Energy Transition Plan and Safe Bets are prudent, as they ensure continued progress towards a net-zero future despite current uncertainty.	Enbridge failed to provide a credible Energy Transition plan, objective evidence or proper consideration of Energy Transition in its application. The criteria defined as Enbridge Safe Bets appear to be subjectively constructed in support of increased capital spending and shareholder returns rather than objective or replicable analysis. Assumptions supporting the Guidehouse Net Zero report were incomplete, incorrect, biases and could better be classified as False Hopes, rather than Safe Bets. Even after 2 major revisions and \$140 billion of assumption adjustments, the analysis remains inadequate. The evidence before the OEB indicates that the proposed plan is not prudent and that the Diversified Scenario is neither Net Zero nor least cost.
Hybrid heating, with gas furnaces to supplement ASHPs on cold days, is a promising solution for the purposes of resilience and moderating peak electricity system impacts.	The evidence indicates that a ccASHP can provide the heat required on a peak day for an inefficient pre-1980 home. The electric coil is available for both back-up and supplementary heat if required. Newer more efficient homes require even less heating energy. This shows the value of a coordinated effort to ensure best available information is used and shared. Hybrid-gas systems shut off the ASHP, removing its benefits when overridden.
Enbridge should not carry the risk of stranded assets because that is the way the regulatory compact works.	Incorrect. The regulatory compact does not indicate that rate payers should carry the risk of Stranded Assets. Even Enbridge agreed that risks does not automatically flow to rate payers instead of Enbridge. Aligning the risk of stranded assets with Enbridge is the most effective way to ensure better decision making on capital spending. Currently Enbridge does no risk assessment related to stranded assets in its Capital planning process. The OEB in this proceeding is not approving any specific Capital projects, only a Capital envelope. Enbridge alone will be making the decisions on which Capital investments in 2024 and beyond

# Enbridge Guidehouse Pathways to Net Zero Emissions for Ontario

- Undertaken in 2021 by Enbridge with 2 hired consultant: Posterity Group (underlying modeling to 2036) and Guidehouse (2050 modeling). There was no stakeholdering, partnering or peer review during the analysis, report development.
- Once the initial Guidehouse Report was filed on October 31, 2022 there were a significant amount of errors and gaps identified by stakeholders. Multiple report updates were filed with the OEB as outlined below addressing \$140 billion in errors. No communications to stakeholders on Report errors and changes.
  - Guidehouse Report (version 1) filed October 31, 2022
  - Guidehouse Report (version 2) filed March 17, 2023
  - Guidehouse Report (version 3) filed April 21, 2023

Experts have validated that the Enbridge Diversified Scenario is not actually Net Zero or least cost for Ontario.

(EB-2022-0200 Exhibit 1.10.5.2\_Pathways to Net-Zero Emissions for Ontario\_BLACKLINE\_20230421)



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# With growing energy demand, 'pipes and wires' is the best pathway to net zero in Ontario

This collaborative solution combines electricity and gas systems

The pathway to a clean energy future is often defined by targets to reduce energy demand, increase the supply and use of renewable energy, and phase out fossil fuels.

These goals are right and necessary. But achieving them should not come at the expense of energy reliability, grid resilience, consumer choice and affordability – the key ingredients of a smart energy evolution.

"We need to get the pace of energy transition right," says Michele Harradence, president of Enbridge Gas. "Too slow of a pace means we won't meet our decarbonization goals, but moving too quickly could have significant impacts on our standard of living and on the most vulnerable people in our society."

In Ontario – where close to four million homes and businesses count on natural gas to power their lives and operations, and where strong economic and population growth continue to drive up energy demand – the most effective approach is one that is also pragmatic and realistic: a combination of "pipes and wires."

"This collaborative solution combines electricity and gas systems and implements innovative technologies designed to reduce or capture carbon emissions," explains Malini Girdhar, vice-president, business development and regulatory affairs at Enbridge, which delivers natural gas to about 75 per cent of Ontario consumers, through an extensive pipeline structure stretching out to almost 154,000 kilometres. "The result is optimized energy reliability, more choice and reduced costs for customers, and greater resiliency to extreme weather events – all while achieving the same net-zero goals."

Girdhar's observations are supported by an Enbridge-sponsored analysis by the consultancy Jim Guidehouse, which compared deep electrification against a diversified approach that includes end-use electrification in balance with low- and zero-carbon gases and natural gas paired with carbon capture.



Enbridge is advancing hydrogen as part of a diversified pathway to net zero.

Compared to the electrification pathway, the diversified option was projected to achieve net-zero emissions by 2050 while providing greater reliability and resilience at a lower cost for consumers by reducing new electricity transmission requirements for peak demand.

The study also found that the pipes and wires approach would reduce the cost of replacing home heating systems while offering consumers more heating options, including hybrid heating that uses electricity and gas.

"The study also found that the pipes and wires approach would reduce the cost of replacing home heating systems while offering consumers more heating options, including hybrid heating that uses electricity and gas."

"We wanted to understand the overall feasibility of each approach, based on costs, GHG emission reductions, system reliability and resiliency," says Ms. Girdhar. "With a pipes and wires approach, Ontario can continue to enjoy the advantages of a reliable and affordable energy source delivered through almost 154,000 kilometres of underground pipelines that are shielded from the effects of weather."

A big challenge with deep electrification is the inadequate capacity of today's electricity systems to meet peak power requirements and the intermittent or limited availability of renewable energy sources such as solar and wind.

Thanks to ongoing investments in clean energy technology, Enbridge has the ability to supply increasing amounts of sustainable energy at a lower cost. This includes renewable natural gas – which captures energy from organic matter, ranging from agricultural sources to sewage that would otherwise continue to emit methane gas as they decay – as well as hydrogen.

In addition to funding innovation and expansions in sustainable energy, Enbridge invests more than \$2-billion in Ontario each year to maintain and operate its pipelines, supporting businesses and workers in industries such as steel and equipment leasing.

"Enbridge is the first utility in North America to blend hydrogen, a zero-emission fuel in our natural gas pipelines," says Ms. Girdhar. "We're providing that blend to 3,600 customers and looking to expand that delivery across our system. We're also looking to provide hydrogen to certain customers through dedicated hydrogen pipelines."

This diversified approach also supports industrial sectors and applications such as long-haul transportation that depend on natural gas to provide the affordable energy intensity that electrification can't today, as the markets for alternatives like hydrogen and carbon capture develop.

"Essential to a practical net-zero transition is the realization that the continued use of natural gas must be combined with investment in carbon capture and sequestration," says Ms. Girdhar. "Enbridge is currently working on a carbon sequestration project in Alberta and there's every indication that the province in southwestern Ontario is also suitable for carbon sequestration."

A recent policy paper released by the C.D. Howe Institute underscores the importance of carbon capture technology in meeting net-zero targets, stating that "Canada will need to increase annual rates of CO2 captured and stored permanently by between 12 and 16 times from 2021 levels to hit net-zero 2050 target."



Tomorrow is happening right now.

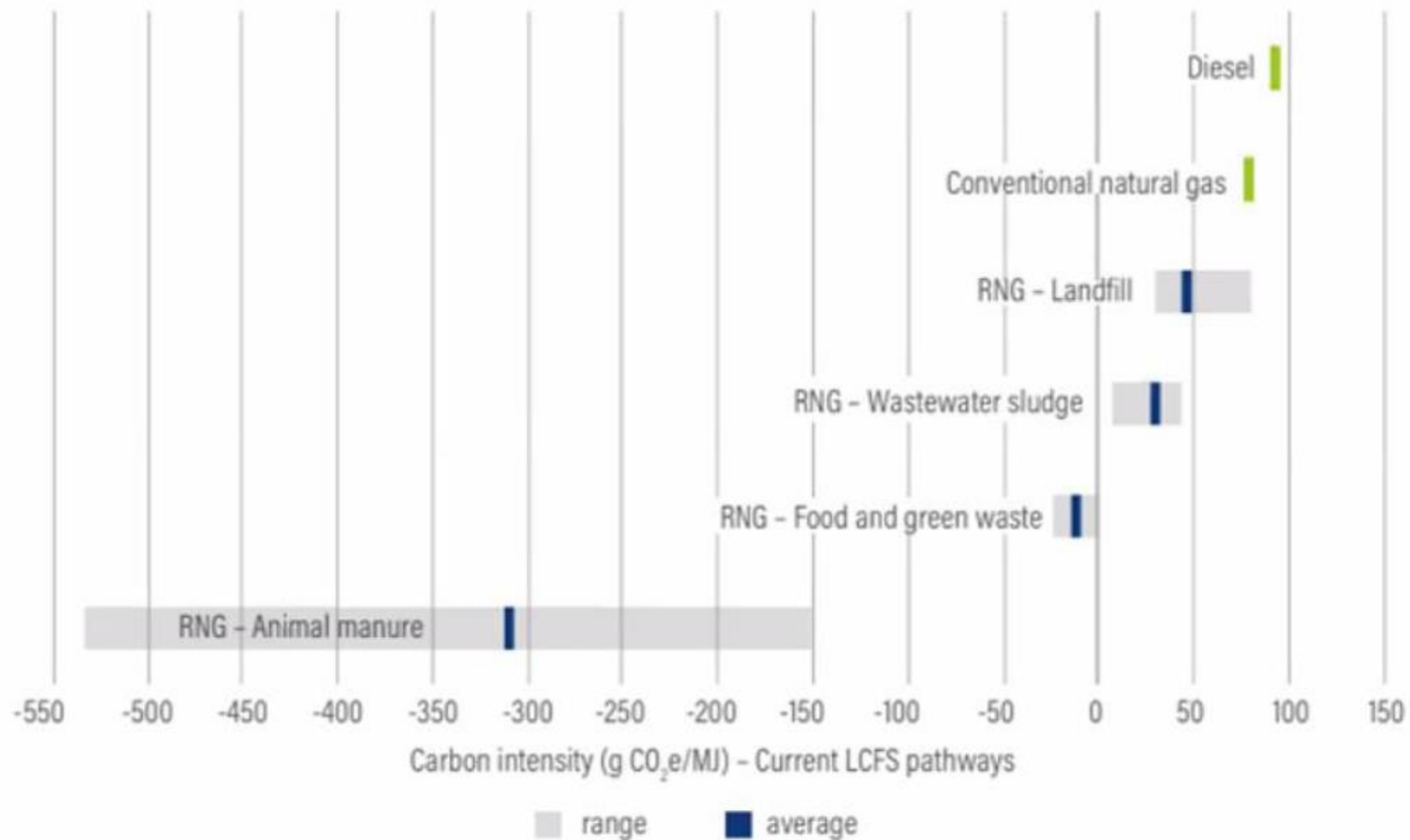
Tomorrow is on.™

Now, more than ever, the world needs safe, secure, sustainable and affordable sources of energy. That's why Enbridge is modernizing our systems and advancing new technologies and lower-carbon solutions like renewable natural gas and hydrogen power. Putting in the work today, we're bridging to a sustainable energy future.

[tomorrowison.com](http://tomorrowison.com)



# RNG: carbon intensity



# Ontario Natural Gas Expansion Program

Ontario launched its first program to help expand natural gas into communities that were underserved, through the Natural Gas Access Loan and the Natural Gas Economic Development Grant in 2015. This policy was continued in 2019 when the government launched the Natural Gas Expansion Program (NGEP) to subsidize the expansion of natural gas infrastructure. NGEP fills the funding gap to make these projects possible. This funding comes from a \$1/month charge on natural gas bills of existing customers.

The Province is considering a Phase 3 for the NGEP and is requesting feedback by December 15, 2023 - [Consultation on the future of natural gas expansion and home heating affordability | Environmental Registry of Ontario](#) (ERO Notice 019-7506)

## **What is it and why should a municipality care?**

- Ontario energy consumer funded grants being allocated to subsidize gas pipeline infrastructure that is uneconomic. Projects costs can cost more than \$70,000 per customer just for the pipelines (not including customer's own cost for space or water heating equipment). Funding could be used for more cost-effective Integrated Resource Plan options that align with municipal energy and emission plans, plus reduce risk of Stranded Assets.
- Energy Efficiency (DSM), Green Homes Grant and other programs are not being marketed to these communities during gas infrastructure project consultation (reducing gas use reduces Profitability Index for the project).
- New gas infrastructure is collected from Ontario rate payers over the next 40-65 years (e.g. 2064-2089). Stranded assets are a barrier to more cost-effective and Net Zero modern options. Incentivizes increases gas use for the next 40-65 years.
- What would you do if you were given \$70,000 to reduce your energy costs?



# Recent Ontario Natural Gas Expansion Program Examples

Project cost per customer based on the Enbridge project information.

Simple incremental rate payer cost related to proposed project (gas pipelines only + \$5,991 per customer for meter, service + customer equipment @ \$5,000)

Does not include Enbridge return on capital or end of life abandonment costs customer renovation or equipment costs, or annual energy operational costs

Two 2023 Examples from NGEP Phase 2:

## Hastings County

Project Initial Capital Cost per customer	\$59,836
NPV of O&M Cost (gas) per customer	\$5,787
NPV of other expenses per customer	\$11,793
<b>Project Cost per customer</b>	<b>\$77,416</b>

## Selwyn Expansion Project

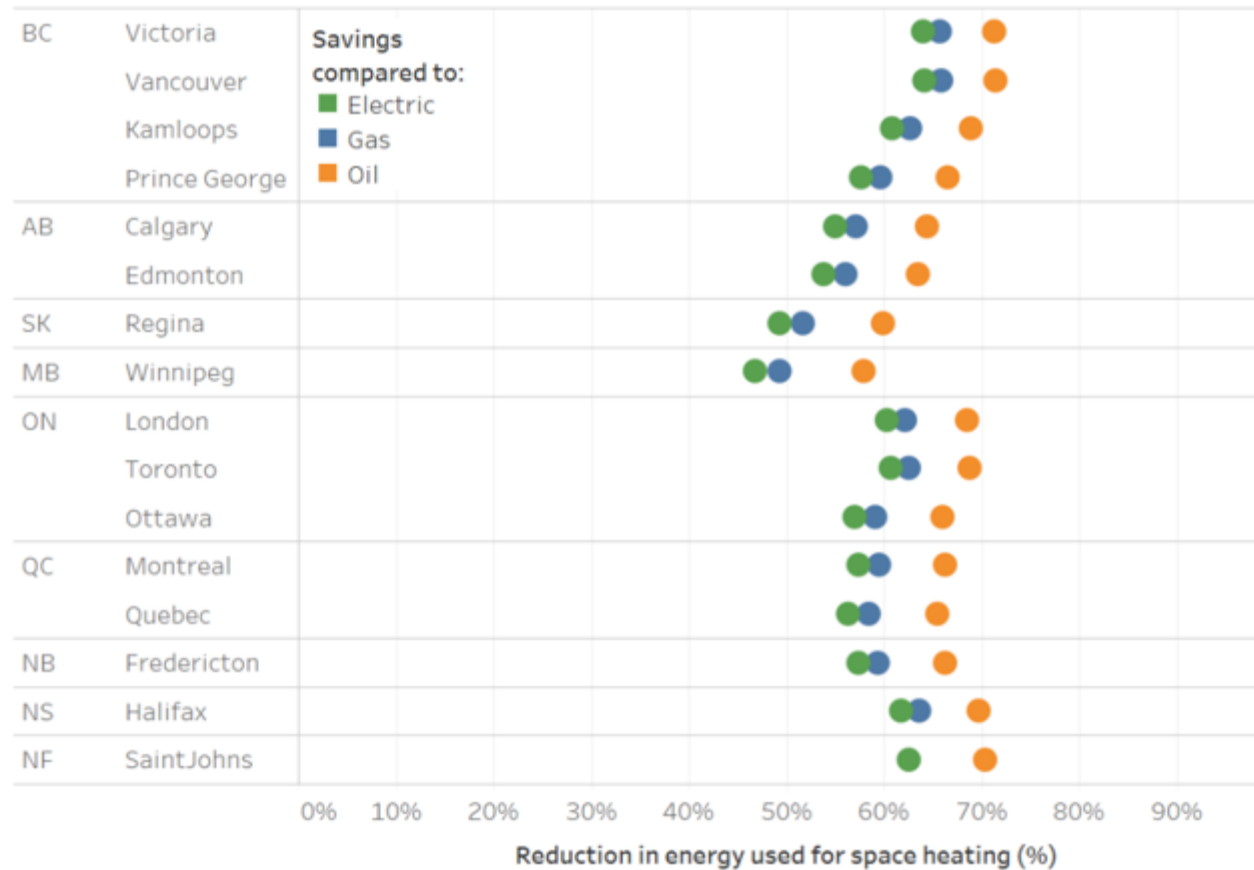
Project Initial Capital Cost per customer	\$51,752
NPV of O&M Cost (gas) per customer	\$3,494
NPV of other expenses per customer	\$22,091
<b>Project Cost per customer</b>	<b>\$77,337</b>

A quick estimate of annual savings for a heat pump against the natural gas alternative (not including AC savings)

Cost element	Estimated Annual
Average ASHP Savings over Natural Gas in Ontario	\$840
Avoided Enbridge Customer Charge (estimated at \$50/month plus including HST)	\$678
<b>Total Annual Savings</b>	<b>\$1440</b>

CanmetENERGY Report - [https://ftp.maps.canada.ca/pub/nrcan\\_rncan/publications/STPublications\\_PublicationsST/329/329701/gid\\_329701.pdf](https://ftp.maps.canada.ca/pub/nrcan_rncan/publications/STPublications_PublicationsST/329/329701/gid_329701.pdf)

Figure 1: Energy Savings (percentage) for a ccASHP compared to natural gas, oil and baseboard electric.



# Ontario Natural Gas Expansion Program

Recent OEB Decisions for three natural gas expansion projects funded through NGEP:

“The OEB has itself recognized the potential customer energy savings associated with the installation of such heat pumps and their favourable impact on lowering the consumption of natural gas. The OEB notes that its decision regarding Enbridge Gas’s DSM program makes Enbridge Gas, in cooperation with the federal government’s Greener Homes Initiative, the principal delivery agent for the incentivized installation of heat pumps.”

“The approval of the Leave to Construct requested in this application does not restrict customers in these communities from obtaining heat pumps either before or after an extension of natural gas service to these communities. Nor does it remove Enbridge Gas’s DSM program responsibilities in these communities.”

“The subsidy or contribution to the expansion of service provided in O. Reg. 24/19 is specific and limited and does not abrogate the general principles of utility cost allocation going forward. As noted in the final submissions of OEB staff, all options will be available to the OEB in the rebasing following the conclusion of the RSP with respect to the appropriate rate treatment of potential capital cost overruns and/or lower than forecast customer attachments/volumes (and associated revenues). Enbridge Gas is not guaranteed total cost recovery if actual capital costs and revenues result in an actual PI below 1.0.

The OEB cannot bind a future panel determining that future application to be made by Enbridge Gas post-RSP. However, the OEB notes that if Enbridge Gas’s estimate of customers likely to take up gas service is correct, existing natural gas customers will have contributed approximately \$15,000 per customer served by the Project to assist in the expansion of gas in these communities. There is a reasonable expectation that such customers will not be called upon to provide a further subsidy to compensate for post-RSP revenue shortfalls.

# Other Initiatives: IRP, RPPAG, DERs, CBA Framework

- The Government of Ontario appointed an Electrification and Energy Transition Panel on April 22, 2022 to provide advice to the Minister of Energy on various issues related to integrated long-term energy planning in Ontario. Once the central policy is developed, further action can be taken to ensure all conservation activities in Ontario are working together to produce the greatest level of energy savings and reductions in greenhouse gas emissions
- OEB (Regional Planning Process Advisory Group) RPPAG Report
  - **Municipal Planning:** As a component of the RPPAG's "General Education on Regional Planning" recommendation, educate municipalities of the importance of providing information in their municipal energy plan (MEP) that indicates how the MEP goals will be achieved, with a focus on those that include aspirational goals (e.g., net zero) which LDCs cannot translate into load forecasts used in the regional planning process without that necessary information. Also produce a brief document to be provided to municipalities that includes a list of the specific information that LDCs need from municipalities to improve the accuracy of their load forecasts.
  - RPPAG Report: <https://www.rds.oeb.ca/CMWebDrawer/Record/736151/File/document>
- Distributed Energy Resources
  - Include Conservation & Demand Management, EV Charging, Batteries, etc.
  - Cost-Benefit Analysis Framework under development by the OEB and expected to be published in 2024.
  - Does not restrict utilities from taking action now and Toronto Hydro is expected to include DER elements in its imminent Rebasing Application.



# Questions?

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