# Integrated Resource Planning

2025/2026 Webinar

ENBRIDGE

# Land Acknowledgement

The land we gather on today has been inhabited by and cared for by people Indigenous to Turtle Island since time immemorial.

We recognize and respect the historic connection to and harmonious stewardship by the Indigenous peoples over this shared land and, as such, we have a responsibility to preserve and care for the land, learn from the original inhabitants and move forward together in the spirit of healing, reconciliation and partnership.

# Safety message

## Carbon monoxide monitors: your first line of defense this winter

- Carbon monoxide (CO) is invisible, and exposure can be life-threatening.
- As heating systems run longer in cold weather, the risk rises.
- Test your CO alarms today—your safety depends on it.
- Enbridge Gas has  more CO safety tips on its website at **enbridgegas.com/ontario/safety/carbon-monoxide.**

*As of January 1, 2026, in Ontario, CO alarms will be required adjacent to each sleeping area and on every level of the home.*

https://www.ontario.ca/page/carbon-monoxide-safety

# Agenda

- What is Integrated Resource Planning (IRP)?
- IRP assessment process and update
- Update on pilot projects
- How to stay involved
- Q&A

# Integrated Resource Planning

Integrated Resource Planning (IRP) is an enhanced planning strategy and process.[1]

Enbridge Gas evaluates traditional facility and non-pipeline alternatives, including a potential combination of these alternatives, to meeting natural gas system needs.

Consideration is given to safety, cost-effectiveness, and the ability of alternative solutions to meet customer demands reliably.

[1] IRP Framework was published by the OEB on July 22, 2021.

# IRP alternatives (IRPAs)

IRP alternatives can include:

- Demand side alternatives:
  - Enhanced Targeted Energy Efficiency (ETEE) programs.
  - Demand Response programs.
- Supply-side alternatives:
  - Compressed natural gas (CNG).
  - Adding supply through upstream deliveries.



Alternatives can be implemented individually or in combination to meet the system need safely, reliably, and cost-effectively and within the required timeframe.

# Engagement through IRP process

## System planning

**Stakeholders: Municipal staff, Local Distribution Companies (LDC), Independent Electricity System Operators (IESO) and Large Volume Contract Customers (LVCC)**

Determine adjustment factors based on information requests.

## IRP assessment

**Initiate assessment process**

Conduct initial, binary and technical screening, followed by technical and economic evaluation.

**Stakeholders: Municipal staff, council, LDCs, IESO, local customers and community**

Inform stakeholders of potential IRPAs and gather feedback to refine the development of a potential IRP plan.

## IRP plan application

**IRP plan submission to Ontario Energy Board (OEB) for approval**

## IRP plan engagement

**Stakeholders: Municipal staff, council, local community**

Engage community stakeholders to find synergies in programs and outreach, to support and drive participation.

# IRP assessment

2026 Asset Management Plan Addendum

# IRP assessment process

Enbridge Gas uses a four-step IRP assessment process to determine the best approach to meet system needs:

1. Identification of constraints
2. Binary and technical screening criteria (pass/fail)
3. Two-stage evaluation process
   - Technical evaluation
   - Economic evaluation
4. Periodic review

This approach allows Enbridge Gas to focus on investments where there is a reasonable expectation that a proposed IRP project could efficiently and economically meet the system need.

# Two-stage evaluation

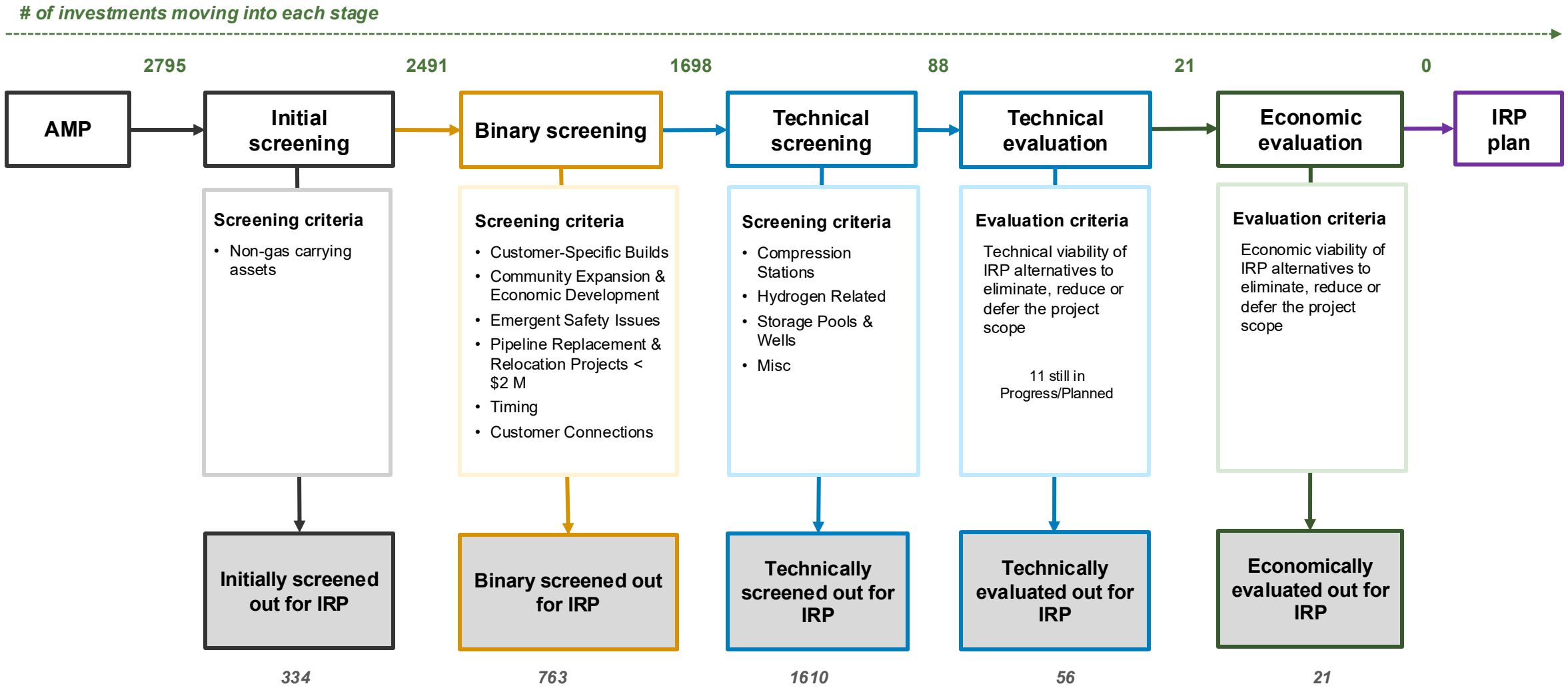
## Technical evaluation

- Assess technical potential of IRP alternatives in reducing peak demand and the degree to which it can meet the system need.
- The review of technical potential includes assessment on the following IRP alternatives:
  - Supply side – CNG
  - Supply side – Market-based solutions
  - Demand side – ETEE (general service)
  - Demand side – ETEE (contract customers)
- The impact of the IRP alternative(s) on the baseline facility alternative is then assessed to determine the remaining scope (i.e. elimination, deferral or reduction).

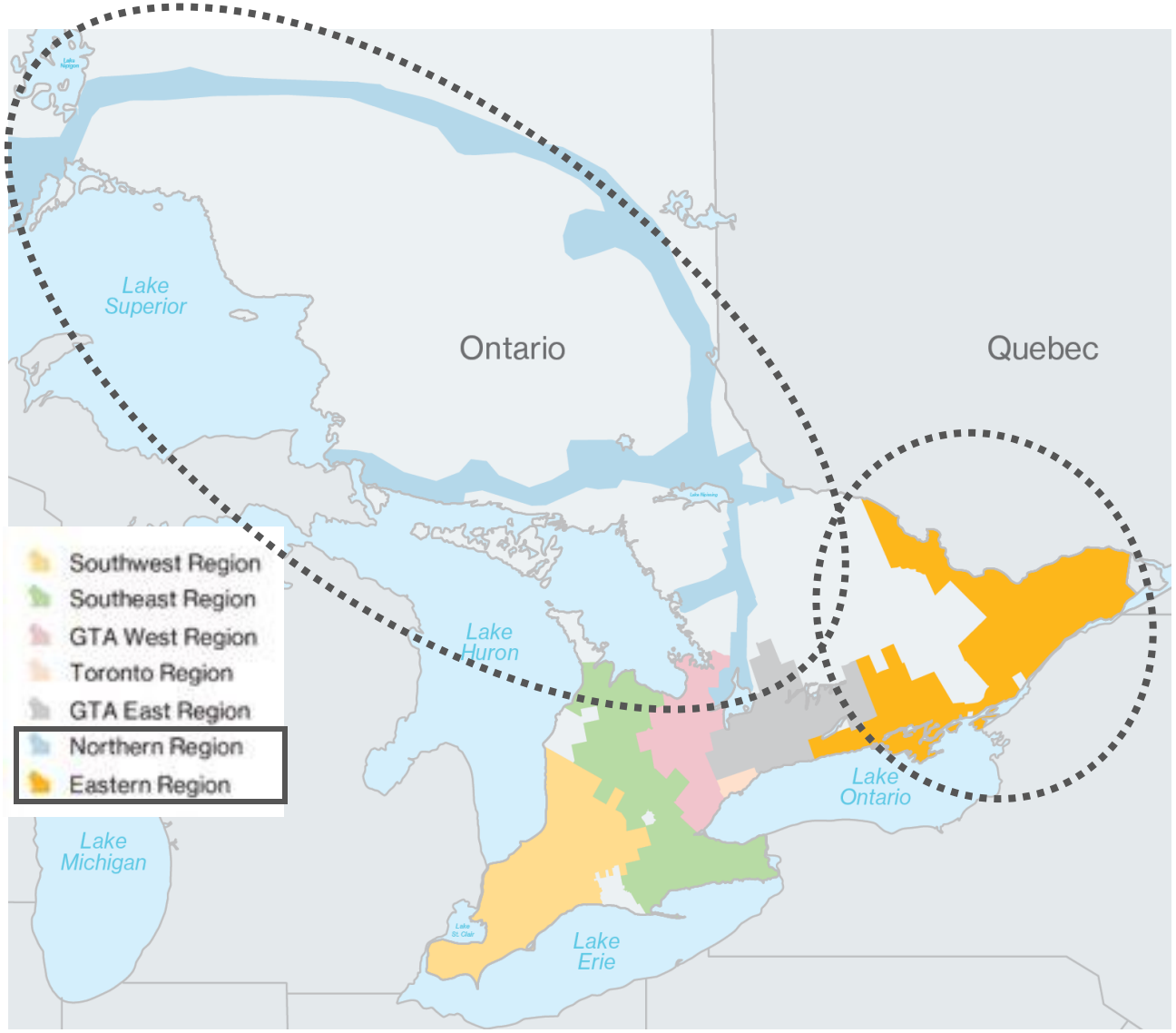
## Economic evaluation

- Assess economic potential of IRP alternatives by comparing against the baseline facility alternative.
- A 3-phase Enhanced Discounted Cash Flow (DCF+) test is utilized, that considers the cost and benefits from three perspectives:
  - Phase 1: utility/ratepayer
  - Phase 2: customers in the project area
  - Phase 3: societal perspective
- A focus on rate impacts, as identified in Phase 1 of the DCF+ test.
- Other factors may also be considered to inform the selection (i.e. bill impacts, underlying demand, Phase 2 and 3 impacts).

# Summary of 2026 Asset Management Plan (AMP) Addendum



# Regional overview: Northern and Eastern




**The Northern and Eastern regions currently have:**

- Seven investments in the Growth Asset Class and two investments in the Distribution Pipe Asset Class passed the technical evaluation stage of the IRP Assessment Process.
- This corresponds to $13.5M of the 2025 - 2034 capital forecast.
- All have been economically evaluated.

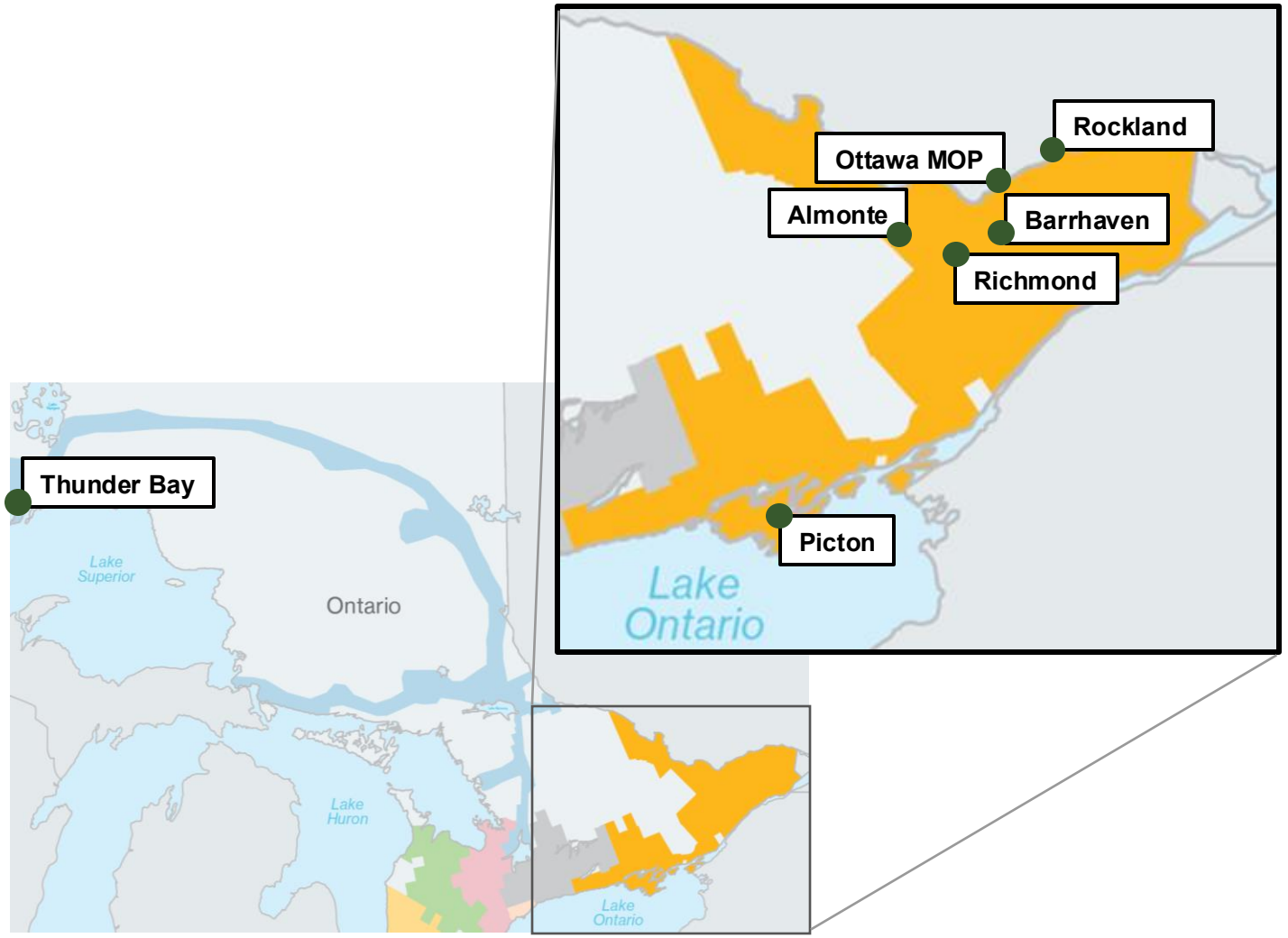
# Key projects: Northern and Eastern

## Growth driven investments

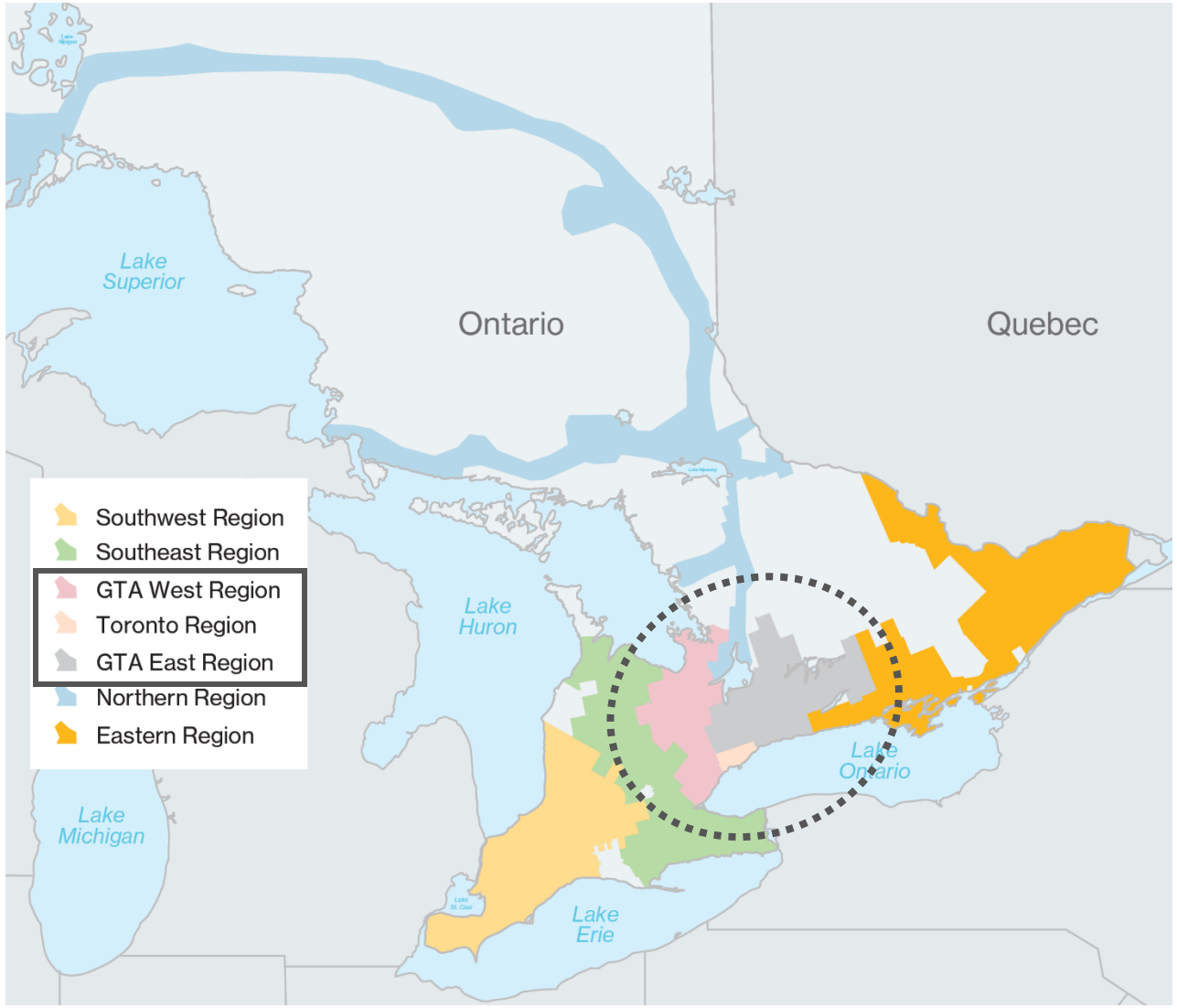
- Almonte [$1.76M]
- Picton [$1.54M]
- Rockland [$1.33M]
- Richmond [$0.37M]
- Barrhaven [$1.27M]
- Ottawa MOP Upgrade (2 investments) [$0.05M]

## Non-growth driven investment

- Thunder Bay (2 investments) [$7.22M]



# Regional overview: Toronto, GTA East and West




**The Toronto, GTA East and West Regions currently have:**

- Three investments in the Growth Asset Class that passed the technical evaluation stage of the IRP Assessment Process.
- This corresponds to $3.7M of the 2025 – 2034 capital forecast.
- All have been economically evaluated.

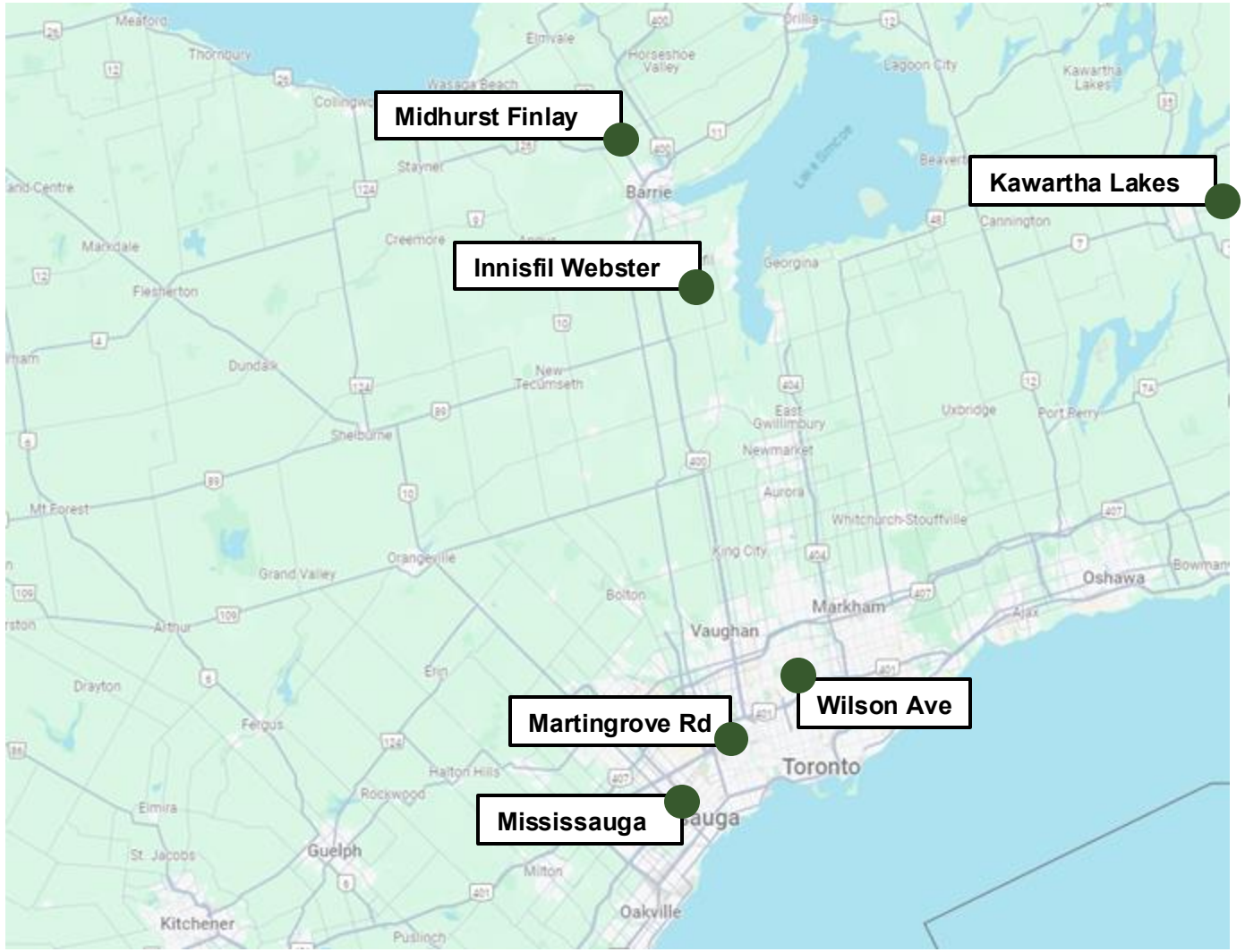
# Key projects: Toronto, GTA East and West Region

## Growth driven investments

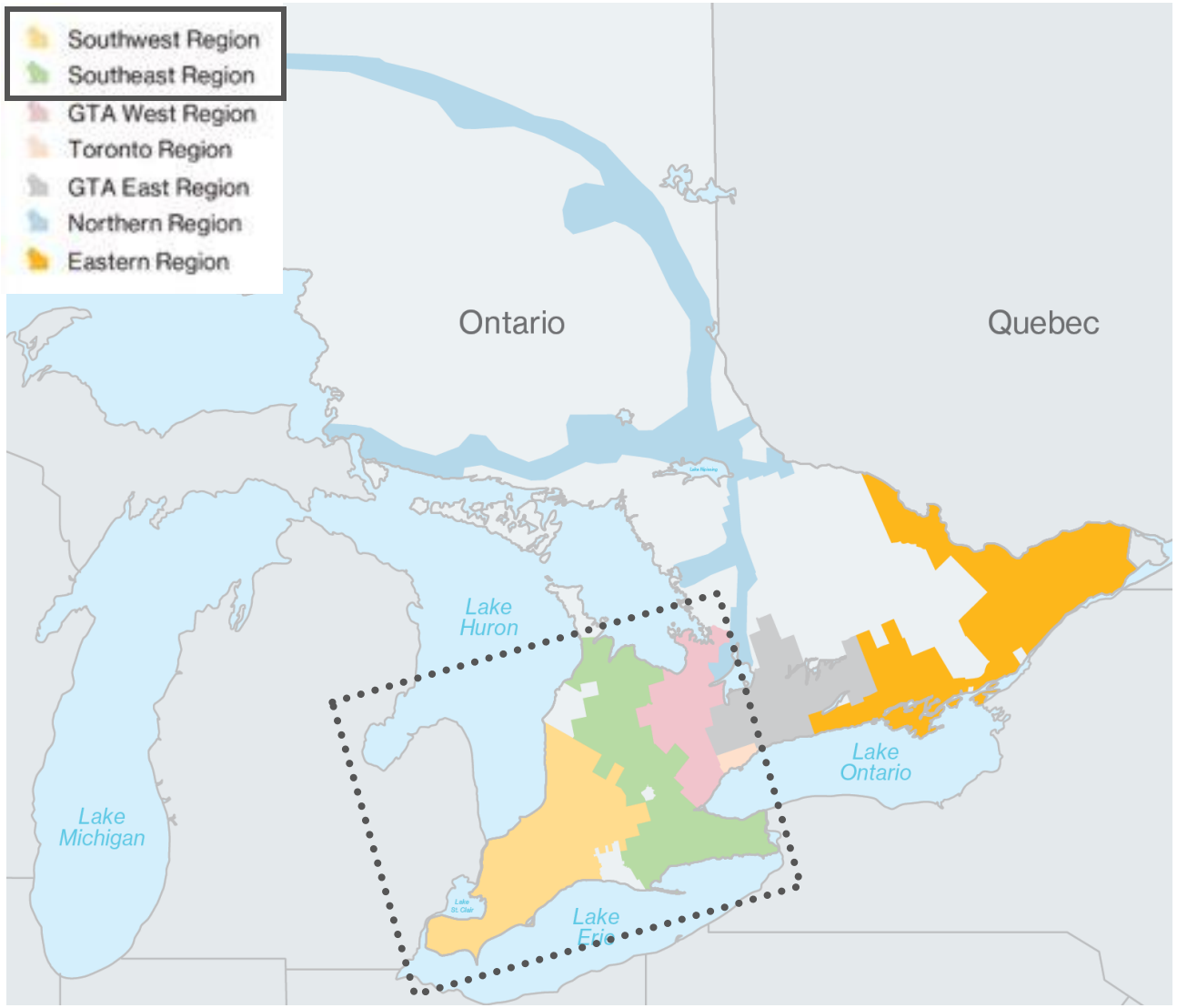
- Innisfil Webster [$1.77M]
- Kawartha Lakes [$1.44M]
- Midhurst Finlay [$0.5M]

## Non-growth driven investments

- Wilson Avenue Replacement [$85.2M]
- Martingrove Road Replacement [$25.9M]



# Regional overview: Southeast and Southwest




**The Southeast and Southwest regions currently have:**

- Five investments in the Growth Asset Class and four investments in the Distribution Pipe Asset Class that passed the technical evaluation stage of the IRP Assessment Process.
- Corresponds to $15.1M of the 2025 - 2034 capital forecast.
- All have been economically evaluated.

# Key projects: Southwest and Southeast Regions

## Growth driven investments

- Breslau Highway 7 [$2.34M]
- London Station [$1.92M]
- Niagara Rexinger [$0.5M]
- Listowel Livingstone [$0.34M]
- Amherstburg Station [$0.08M]

## Non-growth driven investments

- Brantford (4 investments) [$9.9M]
- Port Stanley [$15.5M]

# What we've learned so far

1. Growth projects
   - Demand forecast is showing sustained levels of growth. IRP alternatives, like CNG, are most effective when deferring a system need beyond an apex point, where the demand peaks and declines.
   - Base IRP alternative implementation costs relative to the facility alternative cost is high and has resulted in IRP alternatives not being economic.
2. Pipe replacement projects
   - Scope of alternative is centered around downsizing the pipe (or portion of the pipe).
   - Limited technical potential even through maximizing peak hour reduction of a 5-year ETEE program to achieve downsize.
   - Minimal cost savings achieved from downsizing, further limiting the economic viability of IRP alternatives.

Based on evaluations completed to date, there has been limited IRP potential for investments and traditional facility solutions remain the more cost-effective option.

# IRP pilots update

Southern Lake Huron & System Pruning Pilots

# Southern Lake Huron IRP pilot

The recently launched Sarnia Saves pilot is testing new programs in the Sarnia area to help homes and businesses save energy, which leads to a reduced gas demand.

The pilot includes geo-targeted local engagement and marketing efforts, enhanced incentives and turnkey installation to support energy-saving projects.

## Why we're doing this?

- To understand Enhanced Targeted Energy Efficiency (ETEE) and Demand Response (DR) program impacts on peak gas demand.
- To understand the design, deployment and evaluation of ETEE and DR programs.

**Approved pilot budget:** Up to $14.2M.

**Pilot timeline:** Runs from 2025 to end of 2026.


**Map of Southern Lake Huron pilot area**

Southern Lake Huron IRP pilot

# Residential programs highlights

## Enhanced Targeted Energy Efficiency (ETEE)

- Homeowners can get up to $15,000 in up front, full-cost coverage rebates for a suite of energy efficient upgrades.
- Direct installation of upgrades available through a program-approved contractor.

**Upgrade multiple areas of your home**

Comfort in every corner of your home.

**What's included**

| | |
|---|---|
| Home energy assessments | Free |
| Insulation (attic, basement and more) | Free |
| Draft proofing | Free |
| Windows, doors, skylights and sliding doors | Up to $100† |
| Heat pump water heaters | Up to $500 |

† per rough opening

See details

**Upgrade your heat pump**

Energy-efficient heating and cooling on us.

**What's included**

| | |
|---|---|
| Electric cold climate air source heat pumps | Free |
| Electric ground source heat pumps | Free |
| Home energy assessment | Not required |

See details

**Upgrade your attic**

Enjoy consistent temperatures year round.

**What's included**

| | |
|---|---|
| Attic insulation | Free |
| Cathedral ceiling/flat roof insulation | Free |
| Home energy assessment | Not required |

See details

## Demand Response (DR)

- Offer will be launched Q1 2026.
- Incents customers to allow their smart thermostat to be controlled by 1-2 degrees during DR events.

Southern Lake Huron IRP pilot

# Commercial and industrial program highlights

- Businesses can get up to $100,000 in up-front, full-cost coverage rebates for energy efficient upgrades.
- Direct installation of upgrades available through a program-approved contractor.

**Eligible equipment**

| Space heating and hot water |
|---|
| Air curtains (shipping and pedestrian doors) |
| Dock door seals |
| Condensing make-up air units |
| Ozone laundry |
| **Ventilation** |
| Destratification fans |
| Demand control kitchen ventilation |
| Demand control ventilation |
| Heat and energy recovery ventilator (including Multi-Unit Residential Building in-suite) |

**Receive up to**
**100%**
**of project costs**

- Custom equipment qualifies for higher incentive amounts based on estimated natural gas savings of $2.00/$m^3$, up to $250,000 for general businesses and $500,000 for institutional and industrial businesses

# Evaluating peak gas demand

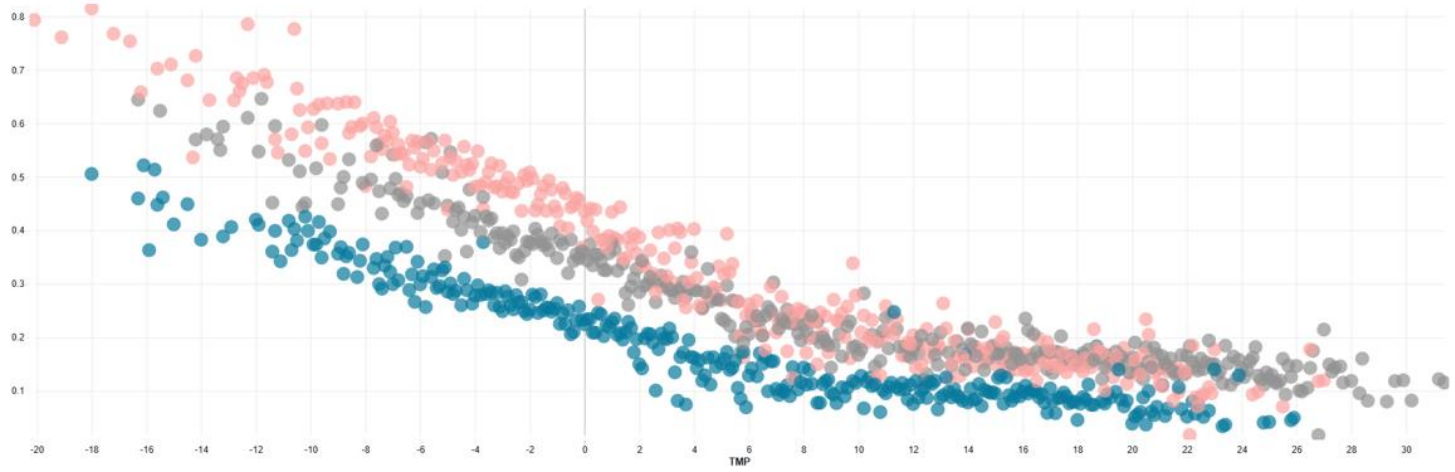
To understand the impact on peak gas demand, we're collecting detailed data on gas usage in the pilot area.

## What we're doing:

- Hourly data is being measured and collected for over 20,000 homes and businesses in the pilot area.
- Encoder Receiver Transmitters (ERTs) are in place collecting hourly baseline data on many residential and small commercial customers.
- Custom hourly metering has been set up for some commercial / industrial customers who have expressed interest in participating in the pilot.

## Why it matters:

- Hourly data will allow detailed analysis on the impact of ETEE measures on peak demand before and after installation, as well as the effects of DR events.



# What we're learning from the pilot

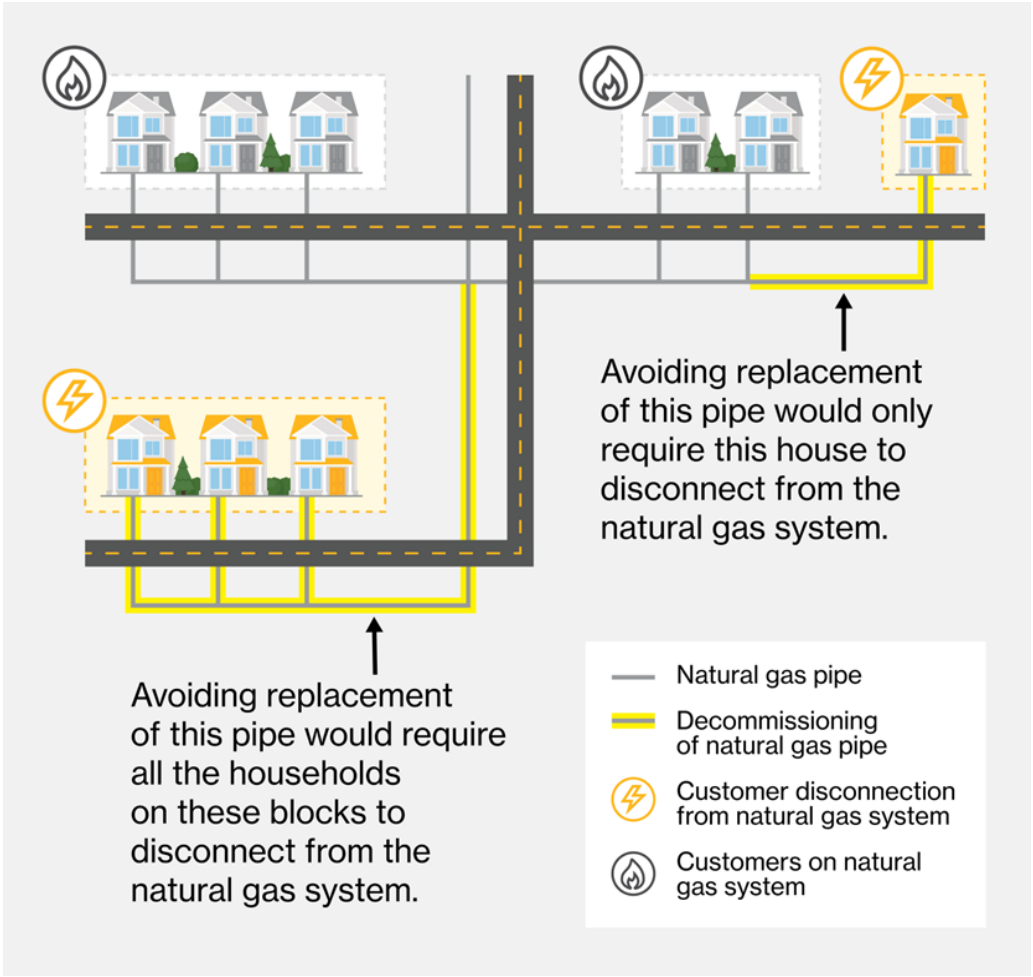
Expected insights and learnings from the SLH Pilot:

| | |
|---|---|
| **Program design** | • What is an effective demand-side IRPA design (i.e., measures offered, approach to market, resources and timelines required, marketing)? |
| **Participation** | • What participation uptake can be expected from a similar roll-out? |
| **Costs** | • What does it cost to deliver these programs? |
| **Peak hour** | • What peak hour impact can we expect for different types of customers and different measures? What measures lead to the most peak demand savings? |

**These insights will help inform assessment of demand side-alternatives in the future, such as modelled assumptions on technical and economic potential.**

# System Pruning IRP pilot

- Enbridge Gas is conducting a pilot to test the concept of system pruning on system renewal capital.
- System pruning is the strategic decommissioning of a portion of the natural gas system identified as requiring future investment in its natural gas infrastructure.
  - All customers served by that pipeline system must be willing to disconnect from the pipeline system.
  - This could be achieved by incentivizing existing customers to replace their gas equipment with non-gas equipment.
- Enbridge Gas worked with the IRP technical working group to develop the approach for the pilot (Q2 2025).



# System Pruning IRP pilot

We're exploring whether some customers would choose to disconnect from the natural gas system as an alternative to repairs or replacements required on existing infrastructure.

**Scope of the pilot (proposed in Approach):**

- Individual customers: ~10 individual customer services scheduled for replacement.
- Street level: < 10 customers on a main scheduled for replacement.

**Pilot budget:** up to $5M.

**Pilot timeline:**

- Approach development Q4 2024 – Q2 2025.
- Implementation Q4 2025 – Q4 2026.

**What we want to learn:**

- Customer perspectives on converting off natural gas.
- Customer response to the offer and the extent to which customers can be incented to disconnect.
- How much it costs to convert.
- How local utilities are engaged and what information should be shared/collected.
- The effectiveness of program delivery approaches.
- Transferability of the learnings from the pilot to broader applications in the future.

# How it works

- A small group of customers have been identified for this pilot at the end of gas mains and with services that will require investments in coming years.
- These identified customers have received a pre-screening form to indicate their level of interest in the pilot offer. Engagement is done by invitation only.
- These responses will inform the selection of the customers eligible to participate in the pilot.
- Participation is voluntary - customers have a choice and no one will be required to change their natural gas service.

**If selected and customer chooses to participate, Enbridge Gas will:**

- ❑ Replace all natural gas appliances
- ❑ Install new, efficient non-gas versions with warranty
- ❑ Include a comprehensive energy assessment
- ❑ Work with a trusted professional contractor
- ❑ Provide guidance to address your needs and questions

**Examples of common natural gas appliances and their non-natural gas replacements.**

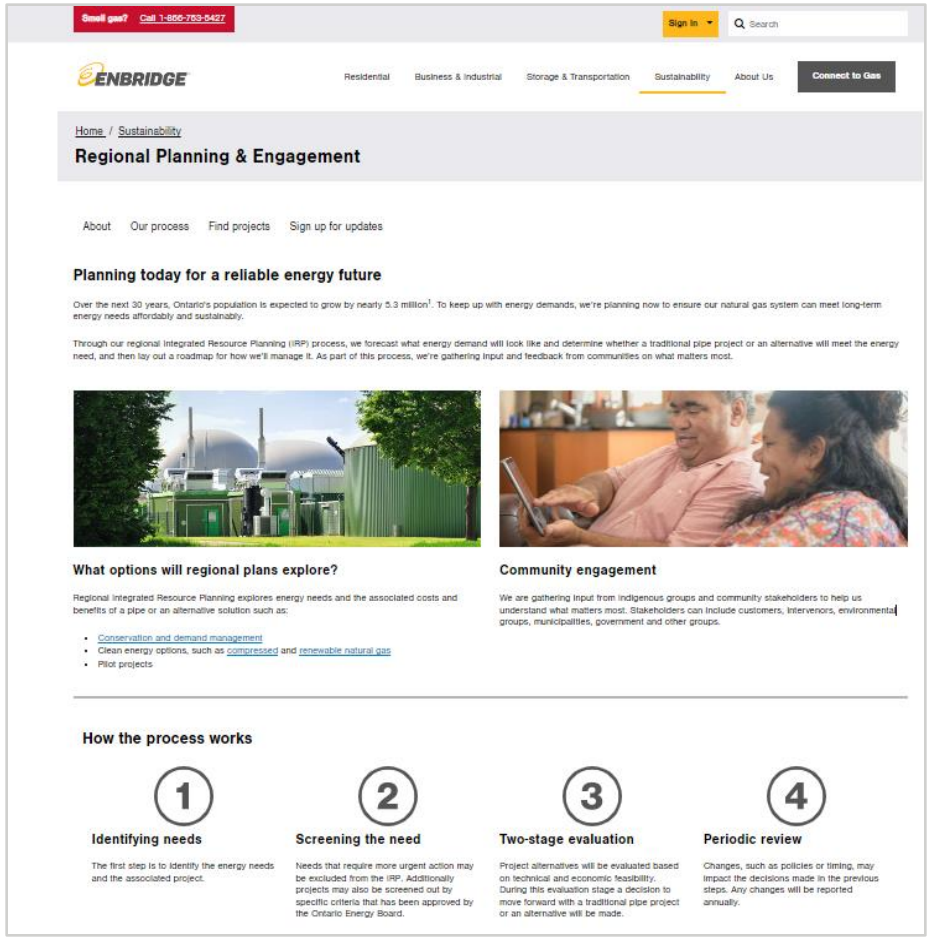
| Natural gas appliances | Popular replacements |
|---|---|
| Furnace | Electric heat pump |
| Range | Electric range |
| Water heater | Electric heat pump water heater |
| Fireplace | Electric fireplace |
| BBQ | Propane BBQ |

# How to stay involved

## Visit our Regional Planning webpage to:

- Find out about upcoming stakeholder events / webinars.
- Register for events.

Contact us at IRP@enbridge.com for any questions.




https://www.enbridgegas.com/ontario/regional-planning-engagement

https://engagewithus.oeb.ca/irp

# Q&A

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# Thank you

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