

Enbridge's Perspective

**Incentivize and optimize:
A paradigm shift in rate design**

Context: dual challenge

Ontario example: Enbridge Gas' perspective

Rate design in light of rate harmonization and energy transition

- 2019: Enbridge Gas Distribution and Union Gas amalgamate and become Enbridge Gas Inc.
 - Additional challenge for Enbridge Gas: rate harmonization across service regions.
- Energy transition:
 - Increased levels of energy conservation and electrification are reducing customers' natural gas consumption and (potentially) peak demand. What is an appropriate solution?
- 2024 Cost of Service Rebasing (EB-2022-0200)
 - First opportunity for a comprehensive rate redesign.
 - Rate harmonization evidence consisting of proposals for customer class harmonization and rate design filed with the OEB in Q4 2022.
 - Proposals developed in tandem with Christensen Associates (CEA).

Rate design: considerations

Recovery of fixed delivery costs with fixed charges

If fixed costs are to be recovered by fixed charges, how should these fixed charges be designed?

One charge

1. Monthly fixed charge (same for every general service (GS) customer in the same class)

- Pays for network connection + network capacity.
- Every GS customer in the same class pays the same charge (regardless of how much natural gas they use in total or on peak day).

$$\text{Monthly fixed charge (\$)} = \frac{\text{Total monthly fixed costs (\$)}}{\text{Number of customers}}$$

\$45

Straight fixed variable (SFV)

Two charges

1. Monthly fixed charge (same for every general service (GS) customer in the same class)

- Pays for network connection.

2. Demand charge (different for each GS customer, depending on customer's peak demand)

- Pays for network capacity, which varies for each GS customer based on how much natural gas they use on peak day.

\$28 + demand charge \$17 = \$45

Straight fixed variable with demand (SFVD)

Rate design: considerations

Enbridge Gas preferred approach

- GS customer class harmonization: Small demand and general demand
- Rate design harmonization: two charges
 - Straight fixed variable with demand (SFVD).
- Reasons for SFVD rate design:
 - Provides better price signal of distribution service cost to customers. Neither delivery costs or delivery revenues rise/fall with a change in volumetric consumption.
 - Aligns revenue recovery with the nature of the costs incurred. Fixed costs covered by fixed charges. Helps ensure full cost recovery.
 - Reflects individual choice each customer makes with respect to equipment, thermostat setting, energy efficiency measures, electrification, etc.
 - Results in modest bill impacts across all GS customers (rate harmonization): transition from current rate design vs. SFVD proposal.

Government policy: energy transition

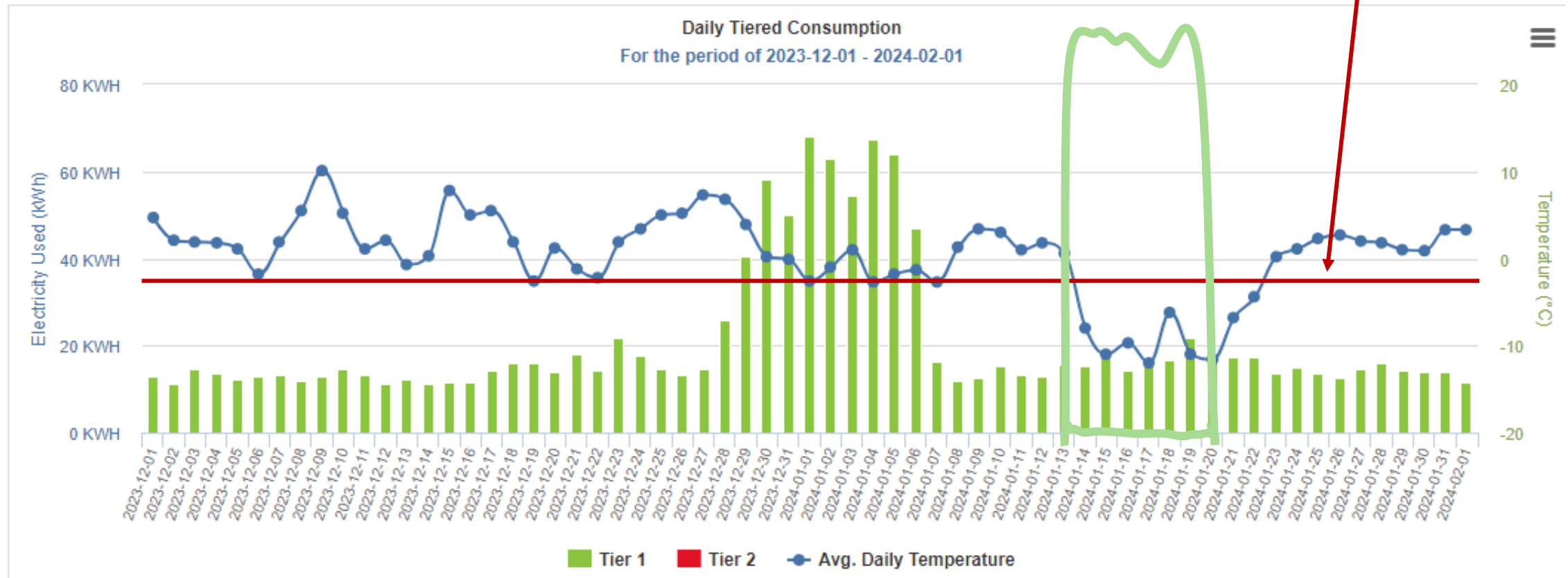
Quebec example: Gazifère's perspective

- Plan for a Greener Economy 2030 (PGE).
- The plan recognizes that 100 percent electrification of space heating would create major winter peak load issues for the power grid (electricity network).
- The plan creates a dual-energy offer for customers that recognizes complementary nature of electricity and natural gas networks (Hydro-Quebec, Energir, and Gazifère).
- The goal: achieve optimal use of energy resources to manage peak consumption and minimize societal costs.
 - “The right energy, in the right place, at the right time, and at the right cost.”

Complementary nature of electricity and natural gas networks

Example: space heating load switched from natural gas (furnace) to electricity (heat pump) and again back to furnace

What is the appropriate temperature threshold at which heat pump defers space heating load back to furnace?



Dual-energy offer

Quebec example: Gazifère's perspective

- The plan ensures that electricity and natural gas networks are kept whole and continue to provide energy to customers when needed.
- Customers enroll in the dual-energy offer (increased electrification of space and water heating) which allows distributors to track their consumption volumes.
- Natural gas distributors are compensated for lost revenues by Hydro-Quebec.
- For a typical residential customer, Gazifère currently recovers 18 percent of its fixed delivery costs through fixed monthly charges and 82 percent through volumetric charges.
- The role of fixed rate design (SFV, SFVD) to support dual-energy offer?

Q&A

