About Enbridge Inc.

Enbridge Inc. is a leading North American energy infrastructure company. Life takes energy and Enbridge exists to fuel people's quality of life. We safely and reliably deliver the energy people need and want. Our core businesses include Liquids Pipelines, which transports approximately 25 percent of the crude oil produced in North America; Gas Transmission and Midstream, which transports about 19% percent of the natural gas consumed in the U.S.; Gas Distribution and Storage, which serves approximately 3.8 million retail customers in Ontario and Quebec; and Power Operations. Together, our renewable energy projects (either operating or under construction) have the capacity to generate 2000 MW of net renewable power in North America and Europe.

Our regulated utility, Enbridge Gas Inc. ("Enbridge Gas"), is Canada's largest natural gas storage, transmission and distribution company based in Ontario with a more than 170-year history of providing safe and reliable service to customers and heats over 75 percent of Ontario homes. Enbridge Gas Inc. was formed on January 1, 2019 with the amalgamation of Enbridge Gas Distribution and Union Gas.

Enbridge Gas is recognized as a leader in energy efficiency and conservation. Since 1995, Enbridge Gas has been delivering natural gas conservation programming to assist customers to reduce gas consumption and lower energy bills. These programs serve Enbridge Gas' residential, commercial and industrial customers by reducing their natural gas consumption through energy efficient equipment choices and energy conservation practices. Funding for these programs are recovered from the natural gas ratepayers.

Natural gas conservation programs in Ontario have had tremendous value, with customers saving almost $3 for every dollar invested, allowing customers to lower their residential bills and businesses to become more competitive[1]. Between 1995 and 2019[2], Enbridge Gas' energy efficiency programs reduced customer consumption by 30 billion cubic metres of natural gas, which is enough natural gas savings to serve nearly 12.5 million homes[3] for one year. These gas savings have resulted in a reduction of 56.2 million[4] tonnes of greenhouse gas emissions, roughly equal to removing 12.2 million cars from the road for one year[5] .

Background and Overview

The Green Button solution was initially created to address the needs associated with managing the increased amount of data received by smart meters of electricity customers. Enbridge Gas continues to investigate ways to incorporate natural gas consumption as part of the solution. In addition to its Ontario led participation in the Green Button Initiative several years ago, Enbridge Gas also joined the Green Button Alliance, a U.S. based non-profit organization whose mission is to foster the development,

[1] Environmental Commissioner of Ontario Annual Energy Conservation Report 2016/2017, Chapter 5. Natural Gas Conservation, p. 57.
[2] 2019 spending and results are unaudited and subject to change.
[3] Assumes a residential customer using 2,400 m3 per year to heat their home and water.
[4] Assumes 1.875kg of CO2e are emitted for each m3 gas that is consumed.
[5] Assumes the average passenger vehicle produces 4.6 tonnes of CO_2 per year.
https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle

compliance, and wide-spread adoption of the Green Button standard across the electricity, natural gas, and water markets in the U.S. and Canada.

Green Button will provide Enbridge Gas customers with access to customer energy usage data in an easy-to-understand and data driven platform, providing consumers the ability to review their data, share their own energy, use information and manage their electricity and natural gas consumption with application developers and solution providers.

Green Button Implementation Considerations

Enbridge Gas does not provide interval-based consumption information the way electric utilities do. For the majority of Enbridge Gas customers, gas meters are read once every two months and customers are billed monthly. Notwithstanding, through Green Button, consumers can still leverage bi-monthly data points that can assist with understanding their energy usage and help inform energy management decisions.

Using 2019 estimates, the implementation of Green Button will require an upfront set-up cost of approximately $5 million. There are also estimated recurring annual maintenance and operational costs of $2 million.

- As the Green Button costs are to be recovered through rates, regulations should specifically establish that costs associated with the implementation and ongoing operation and maintenance of the Green Button program be treated as a cost pass-through to customers.

It is proposed that electricity and natural gas utilities have two years to implement download my data (DMD) and connect my data (CMD) from the date that the Green Button regulation is enacted. As part of Enbridge Gas' amalgamation, it is currently in the process of integrating legacy utility Customer Information Systems (CIS) with completion anticipated between March 2021 and September 2021. Enbridge Gas could only implement the Green Button initiatives after the CIS integration is completed, with the Green Button initiatives taking approximately 18 months following the CIS integration.

- As Ontario's de facto natural gas distributor, this timeline which could be up to Q2 2023 should be factored in Green Button's implementation planning and execution.

Risks and Benefits of Green Button Implementation

As a technology based solution, we recognize certain risks to both the customer and the utility including accuracy, robust technology tools, confidentiality and privacy of customer data and information sharing protocols are key issues that must be addressed for successful implementation. For Enbridge Gas, Green Button will be embedded in portals - inappropriate use by third parties introduces IT security and brand risks to the utility. Operationally, an increase in customer inquiries such questions about Green Button, about the third parties, etc., can be reasonably expected.

Enbridge Gas currently offers customers the option to download up to two years of their usage data; however, customers could realize increased benefits resulting from having access to a consolidated view of their energy usage (electric, gas, water). Granting third-parties access to actual energy usage data can be used to provide tailored energy efficiency programs and targeted solutions (in lieu of using estimated or modeled usage data), and Energy Managers to benchmark, monitor building performance and target

energy efficiency opportunities for one or several buildings. Green Button can drive greater engagement between the utility and its customers, improve energy literacy and increase uptake of energy efficiency products, programs and services to the benefit of Ontario's economy.

Enabling Performance-Based Programming

As a leader in demand-side management and energy conservation program delivery, Enbridge collaborates with governments to help further energy conservation policies. Having been part of notable government initiatives such as Natural Resource Canada's Portfolio Manager and the Ontario Ministry of Energy's Energy and Water Reporting and Benchmarking and the Green Button Initiative, Enbridge Gas leverages these to build its own performance-based programming portfolio using the standardized tools and protocols from these types of initiatives. Examples of these Enbridge Gas programs include *My Home Health Record* for residential customers, and *Run It Right* and *Comprehensive Energy Management* programs for businesses. These programs are premised on allowing the customers the ability to receive, understand, and make data driven energy management decisions.

Advanced Metering Infrastructure (AMI)

As Ontario's energy landscape evolves to become more integrated and sophisticated with technological advancements unlocking access to more granular and real-time customer consumption data for both electricity and natural gas, there will be an increased need to measure peak period demand activity in support of integrated resource planning initiatives and in order to fully understand and optimize energy system infrastructure. Currently in Canada, the ultrasonic meters that would support natural gas AMI are being reviewed by Measurement Canada. Once approved, these meters would also need to undergo testing by Enbridge Gas measurement experts before they can be proposed for deployment within Enbridge Gas's franchise area. Enbridge Gas anticipates that ultrasonic meters will receive Measurement Canada approval at some point in mid to late 2021. Enbridge Gas will continue to assess the feasibility of an AMI implementation and may be in a position to propose an AMI advancement strategy to the Ontario Energy Board as soon as 2022.

By investing in AMI, Enbridge Gas could vastly improve the granularity of the customer consumption data that it gathers, allowing for more precise real time customer energy usage data, forecasts of natural gas system requirements, associated energy savings, higher quality monitoring and reporting on the effectiveness of energy efficiency and integrated resource planning alternatives.

Conclusion

We appreciate having this forum to be able to provide our comments above focusing on our considerations, the risks and benefits, enabling performance-based programming and AMI. If you have any questions or require additional information please contact Nicole Gruythuyzen, Government Affairs Senior Advisor (nicole.gruythuyzen@enbridge.com).