



Enbridge Gas Commercial Custom Program ABAS Limited-Time Offer

Definitions

Building Automation Systems (BAS) are centralized control systems or computerized hubs where a building's critical systems are scheduled, adjusted, and monitored automatically. BAS uses both software and hardware to monitor building systems—such as heating, ventilation, and air conditioning (HVAC), mechanical, water, and lighting systems—to ensure maximum efficiency and reduce energy use and costs. A wide selection of BAS is available today; these measures vary in complexity and are customized for each building and situation.

For Enbridge Gas purposes, Advanced Building Automation Systems (ABAS) are defined as a group of measures or improvements to existing BAS solutions and are intended to generate incremental energy savings. ABAS measures are highly variable in nature, so no specific sensors or technologies will be required by Enbridge Gas for inclusion in the ABAS Limited-Time Offer (the 'ABAS LTO').

Incentives & Savings

- Enbridge Gas customers participating in the ABAS LTO are eligible for an enhanced incentive of \$0.30 per m³ for natural gas saved. This is 50% higher than the standard incentive of \$0.20 per m³ available through the Commercial Custom Retrofit Program.
- Natural gas savings will be calculated one year after ABAS implementation based on metered gas savings, as described in Appendix A.
- The ABAS LTO cannot be combined with any other Enbridge Gas incentive offer.
- ABAS LTO incentives are available on a first come, first served basis. Enbridge Gas reserves the right to amend or terminate ABAS LTO at any time without notice.
- All ABAS LTO projects will be paid in 2022 or 2023. Projects that yield zero or negative natural gas savings will not receive an incentive payment.

Eligibility

All sites must be pre-approved by Enbridge Gas to qualify for the ABAS LTO. Your building may be eligible to participate in the ABAS LTO if it meets the following criteria:

- Commercial Enbridge Gas customer, excluding L-UG Commercial Contrax accounts.
- Building consumes natural gas on an annual basis.
- Building must be occupied with the present use for at least one year prior to participation. Not available to new construction buildings.
- Occupancy and building use are not expected to substantively change for the 12-month monitoring period after ABAS measures have been implemented.
- No major capital upgrades that impact natural gas consumption are planned for the 12-month monitoring period.

- Whole-building daily natural gas consumption data is required during the 12-month monitoring period. Building must have an Automatic Meter Reader (AMR), which captures daily interval natural gas consumption data—such as a Metretek metre—installed prior to the monitoring period. Pulse data collected from Enbridge Gas meter are recommended. If building does not have an AMR, this must be installed at the expense of the Business Partner or Customer prior to ABAS installation.
- The Customer or Business Partner must make a capital investment in ABAS measures. In other words, the installation of physical equipment (sensors, controls, actuators, etc.) is required. No-cost operational improvements do not qualify.

Upgrade Scenario

Upgrading from BAS to ABAS: These projects are in scope for the LTO. Requirements and incentives described in this document apply. This scenario involves projects where a BAS has already been installed at the site, but a Business Partner believes that installing additional sensors (including Smart Thermostat integration), controls, or actuators could yield incremental energy savings.

*Note: Upgrading from no BAS to BAS/ABAS: These projects are out of scope for the LTO. Please work with your Energy Solutions Advisor to follow the traditional Commercial Custom path.

Timeline

ABAS measures must be installed by **Feb. 28, 2022** to qualify for the ABAS LTO. One full year of natural gas consumption data after ABAS implementation (known as the ‘monitoring period’) must be collected before savings can be verified and incentives can be calculated. If savings are realized, incentive cheques will be disbursed within typical incentive payment timelines.

Application Requirements

- Business Partner or Customer must complete ABAS Technical Input Sheet (required) and Complex Ventilation Project Questionnaire (if applicable) for Enbridge Gas pre-approval.
- After sites are pre-approved, Energy Solutions Advisor will provide an Assurance Letter to each Business Partner, outlining approved building sites and incentive rates.
- Throughout the one-year monitoring period (post-ABAS implementation), Customer must track atypical events (including emergency and unplanned equipment replacement) that may affect natural gas consumption using an Energy Event Log. This must be shared with your Energy Solutions Advisor within one month after the reference period ends.

Appendix A

Regression Methodology for Commercial ABAS Custom Measures

This is a synopsis of the regression methodology that will be used to determine the natural gas savings for ABAS measures installed in 2021/2022 through the Commercial Custom offering.

A statistical regression analysis will be performed for each participant comparing their natural gas consumption during a baseline period and monitoring period. The baseline period is defined as the period prior to implementation of ABAS measures, while the monitoring period is the period after implementation.

The analysis for both the baseline and monitoring periods uses actual meter reading data. For the baseline period, daily or monthly consumption is used depending on the availability of data. Generally, daily data is used for participants with Automatic Meter Readers (AMRs) while monthly data is used for participants without AMRs. For the monitoring period, daily data is used. Participants without an AMR must have one installed prior to the monitoring period.

A statistical analysis of gas consumption to outdoor weather is developed for the participant's baseline and monitoring periods by establishing a linear regression of actual consumption to heating degree days (HDDs).

To ensure consistency of results across all participants, the following are requirements of the regression:

- **R-Squared Value (R^2) equal to or greater than 0.80**
- **F-Value equal to or greater than 120**
- **Baseline and monitoring periods of 365 days:** There is some consideration given to this variable. It is not uncommon for sites to have several days of missing or corrupt data over the course of a 2-year analysis period. This data is removed where evident. For these cases, an equal number of days are added to the end of the analysis period to provide a full 365 days of data.
- **Balance Point temperature to maximize R^2 :** The purpose of the Balance Point temperature adjustment is to provide an optimal correlation of weather-dependent data to gas consumption. The Balance Point temperature, between 12C and 23C, is selected to produce the highest R^2 value for the linear regression. This is done separately for the baseline and monitoring periods.

Normalization of the baseline and monitoring period gas consumption is completed by applying the HDDs in a "normal" year to the respective linear regression equations. The HDDs during a "normal" year are determined using the Canadian Weather for Engineering Calculation (CWEC) data from Environment Canada. The CWEC HDDs are adjusted based on the Balance Point temperature for the respective baseline or monitoring periods.

The Commercial Custom natural gas savings for ABAS measures is the annual normalized baseline period gas consumption minus the annual normalized monitoring period gas consumption.