

ENBRIDGE GAS INC.

First Tracks Consulting Service In. Answers to  
Interrogatories from Building Owners and Managers Association (BOMA)

**Exhibit I.8.EGI.BOMA.1**

Ref: Enbridge Reply Evidence, Section 3.4.3.1. Lifecycle vs. Annual Savings for Resource Acquisition Scorecards pages 50-52

The evidence states agreement with “both Optimal and EFG that the most important objectives achieved by Enbridge’s portfolio align better with lifecycle savings than they do with annual savings” and “I am not opposed to lifecycle savings metrics in principle. However, I believe that Enbridge’s recommendation for annual savings in this proceeding is reasonable and I recommend that the OEB approve it.”

For the commercial sector, does Mr. Weaver agree that, for either annual or lifecycle savings, verification of actual savings at the meter should be applied wherever practical to do so?

**Response:**

The scope of my evidence in Section 3 of my report is limited to responding to recommendations made by Optimal Energy and Energy Futures Group regarding performance incentives. Selecting the appropriate evaluation methods for specific programs was beyond the scope of my evidence. However, I provide the following comments:

Evaluators need to balance multiple objectives in selecting the best approach for estimating annual and lifecycle savings for an individual program or measure.

Savings can almost never be measured as “actual savings at the meter”. While post-implementation conditions can sometimes be measured at the meter, the counterfactual conditions that would have occurred in the absence of the program cannot ever be measures at the meter. Therefore, evaluators must estimate counterfactuals through methods such as: measuring pre-installation conditions for the same customer; measuring pre- and post-installation conditions for control groups of other customers; using simulation models; applying appropriate engineering algorithms; or other methods. All of these methods require the evaluator to adjust data collected for the counterfactual proxies to normalize for differences between the proxy and the actual participant, e.g., for changes in weather, economic conditions, operations, etc.

Also, measuring consumption “at the meter” often does not provide the best information for estimating savings, especially if usage and savings are a small fraction of total metered usage. In these situations, better estimates of savings can be developed by measuring other key metrics at the end use such as equipment capacity, equipment efficiency, operating hours, temperature, etc.

Finally, evaluators must consider population sizes of program participants, as well as the costs and resources required for equipment and analysis in selecting the best approach for estimating savings.

### **Exhibit I.8.EGI.BOMA.2**

Mr. Weaver’s evidence goes on to state “On the other hand, I do have a practical concern with evaluation issues around measuring lifecycle savings. Converting from annual to lifecycle savings requires two calculations:

- One is a calculation multiplying annual savings by the equipment life. While this is straightforward, the data supporting equipment lives are poorly documented and rarely developed through actual measurements. This poses evaluation risks to Enbridge, when evaluators assign measure lives shorter than those Enbridge used to forecast lifecycle savings in its plan.
- Second, is a more complicated calculation of adjusting baselines for measures — like building insulation—with initial savings that change over time as underlying equipment— furnaces, in the insulation example—degrades or gets replaced with new, more efficient units. These calculations are far from straightforward and represent substantial evaluation risks to Enbridge when evaluators change assumptions from those Enbridge used to establish performance metrics.

Again, just for the commercial sector, does Mr. Weaver agree that monitoring actual savings at the meter over multiple years, as is contemplated in Enbridge’s Performance Program, can simplify and reduce risks in program evaluation?

### **Response:**

No. My statement addresses the assumptions and calculations used to apply measure lives and adjusted baselines in setting lifecycle savings targets and then evaluate against those targets. I think measuring savings over multiple years will complicate and add risks to program evaluation, especially given the issues I raise in response to Exhibit I.8.EGI.BOMA.1.

**Exhibit I.8.EGI.BOMA.3**

Ref: Enbridge Reply Evidence, Section 3.4.3.2. Participation vs. Savings Metrics for Multi Year Scorecards pages 52-53

The evidence recommends participation metrics on the basis of enabling early-stage activities like “validating new technology performance and economics; training contractors to be able to support installations and maintenance; building market awareness with trade allies, consumers, and other market actors; and working with code officials.” It goes on to state “These activities are not intended to generate large energy savings in the near term, but instead represent investments that bear fruit in future portfolios. Enbridge’s proposed participation metrics rightly focus on the early market building activities that indicate early-stage success.

For the proposed Pay for Performance Program for commercial buildings:

1. Does Mr. Weaver agree that the activities referenced do not apply?
2. Does Mr. Weaver agree that the magnitude of projected gas savings and the requirement to meet the province’s emissions reduction targets create some urgency to proceed with this initiative expeditiously rather than wait for “future portfolios”?
3. Would Mr. Weaver support a hybrid metric weighted towards savings?

**Response:**

1. My comments addressed market transformation programs in general. Because this offering involves new technology and business processes for helping schools and other commercial building owners identify and execute strategies to capture operational savings, it is my understanding that at least some of these strategies apply to the Pay for Performance program.
2. The scope of my evidence in Section 3 of my report is limited to responding to recommendations made by Optimal Energy and Energy Futures Group regarding performance incentives. Commenting on the size and speed of individual program offerings is beyond the scope of my evidence. However, I believe that Enbridge should invest in established offerings that can provide savings in the near term, and also invest in innovation to produce new offerings and measures that will grow to produce additional savings in the mid and long term. Both will be needed to contribute to meeting Ontario’s emissions reduction targets. For example, in the December 1, 2020 letter outlining a Post-2020 Natural Gas Demand Side Management Framework, the OEB defines that one objectives of gas DSM is to support “technology development and market adoption of new and lower-carbon alternatives to enable longer term energy efficiency and carbon reductions.”

3. For the Whole Building Pay for Performance program offering, Enbridge has proposed a hybrid metric that includes a mix of savings and participation. For the other programs, I believe that the participation metrics identified by Enbridge are the best metrics for tracking success of these offerings.

**Exhibit I.8.EGI.BOMA.4**

Ref: Enbridge Reply Evidence, Sections 3.4.1.3. Multi Year Components page 48 and 3.5.2.1 Performance Incentive Components page 58

Mr. Weaver's evidence in 3.5.2.1 recommends "Reject EFG recommendation to shift focus of Low Carbon Transition program away from gas heat pumps" while in 3.4.1.3 states "evaluating the merits of those [Multiyear] offerings is beyond the scope of my evidence in this proceeding."

Is Mr. Weaver recommending the gas heat pump initiative or just the Long-Term Scorecard for any Low Carbon Transition Program?

**Response:**

In Section 3.4.1.3 of my report, I state:

"Obviously, if the OEB accepts EFG's recommendations and eliminates some offerings, those components should also be eliminated. However, evaluating the merits of those offerings is beyond the scope of my evidence in this proceeding.

In my compromise proposal, I assume the OEB approves these offerings, and so I maintain the Multi Year components as proposed by Enbridge."

If other parties recommend changing the Low Carbon Transition Program to a different offering, it is their responsibility to characterize how that change should be addressed in the performance incentive mechanism.