



April 27, 2017

Doreen Friis
Regulatory Affairs Officer/Clerk of the Board
Nova Scotia Utility and Review Board
3rd Floor
1601 Lower Water Street Halifax, Nova Scotia B3J 3S3

RE: M07964: E-ENS-R-17 - EfficiencyOne - 2016 DSM Evaluation Reports and 2017 Annual Progress Reports

Dear Ms. Friis:

As expert consultant to Board Counsel of the Nova Scotia Utility and Review Board, Synapse Energy Economics (Synapse) respectfully submits the following comments on Efficiency Nova Scotia's (ENS) 2017 DSM Annual Progress Report, filed on March 31, 2017.

Overall, Synapse is pleased with the improvements in the Progress Report. We appreciate the addition of key metrics, such as participation and lifetime savings, in accordance with the DSM Resource Plan Template. We look forward to continued improvement in the methods and assumptions used to calculate participation estimates, participation rates and lifetime savings estimates in future reports.

While we appreciate the effort ENS has put into developing this much-improved report, we do have several questions that follow. These questions are aimed at clarifying some of the details in the report.

1. In Table 1: 2016 Planned Savings, Mid-Course Adjustments, and Actual Results on Page 1, the calculated measure life for Residential Efficient Product Rebates in the 2016 Mid-Course Adjustment (using lifetime savings divided by annual savings) is approximately 10 years. The calculated measure life for the same program in the 2016 Actuals is approximately 15 years. Please explain the cause of the measure life increase in this program between plan and actuals.
2. The title of Table 2 on Page 3 mentions participation rates, but a rate is not calculated. Is there a plan to include a rate in the future? What is the timeframe for developing participation rates (i.e., unique participants / all customers)?
3. On Page 7, ENS indicates that LED sales were a primary cause of an increase in savings for the Instant Savings program. What portion of savings (annual and lifetime) from the Instant Savings program are from LED lamps? What portion of Efficient Product Rebates savings (annual and lifetime) are from LED lamps? What portion of total portfolio savings are from LEDs?

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4. On Page 10, please clarify the program changes that were made to HEA in late 2015 to drive improvements.
 5. On Page 11, please elaborate on how the addition of ductless mini split heat pumps drove participation in the Green Heat Program. How interested are customers in this new technology? Has there been a potential study on this opportunity? Are heat pumps cost effective?
 6. On page 13, passive house is mentioned as a component to new construction. Has any consideration been given to zero net energy as well?
 7. Page 14, regarding the On-Site Energy Manager (OEM) initiative:
 - a) Has ENS measured the energy savings impact of the having an energy manager on-site?
 - b) Is the energy manager cost effective?
 - c) Besides reduced project incentives, how are OEM services paid for?
 - d) How long does the energy manager stay on each site?
 - e) Is there overlap in participants between the SEM program and the OEM initiative, and between the EMIS program and OEM initiative?
 - f) Is ENS planning an evaluation of the OEM initiative?
 8. Page 24 states that low-income Nova Scotians are assumed to be 10 percent as likely to participate as the general population and that this assumption may be revised in the future as ENS further refines its methodology for calculating low-income participation rates relative to the general population. What will the process and timing be for refining this methodology?
 9. Page 24: Does ENS pay for the appliance replacements that are delivered through the HomeWarming service? What share of HomeWarming participants receive appliance replacements?
 10. In Table 9 on Page 24, it appears that low-income participation in the New Home Construction programs is assumed to be zero. Please explain this assumption.

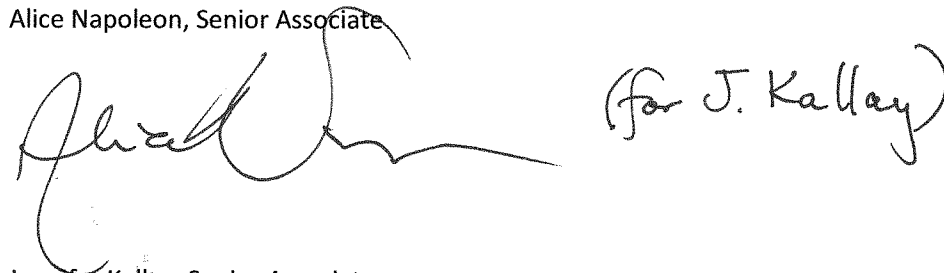
We also note that this year's results appear to be more heavily skewed towards rebates, including for LED lighting measures. We emphasize the continued importance of a comprehensive approach to energy efficiency (e.g., reflected in the Existing Residential, Small Business Energy Solutions, and Custom Incentive programs) that goes beyond rebates. We also note that the lighting market is rapidly transforming, and efforts within this three-year planning period (i.e., through 2018) will be needed to provide the foundation to successfully transition to other types of measures in the next three-year plan.

These comments represent our expert opinion on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Alice Napoleon", with a long horizontal flourish extending to the right.

Alice Napoleon, Senior Associate

A handwritten signature in black ink, appearing to read "Jennifer Kallay", with a long horizontal flourish extending to the right. To the right of the signature, the text "(for J. Kallay)" is written in a similar cursive hand.

Jennifer Kallay, Senior Associate