2022 **M10473**

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF: **THE PUBLIC UTILITIES ACT**

- and -

IN THE MATTER OF: **AN APPLICATION** by **EfficiencyOne** for Approval of Supply Agreement for Electricity Efficiency and Conservation Activities between EfficiencyOne and Nova Scotia Power Inc., the establishment of a final agreement between the parties, and approval of a 2023-2025 Demand Side Management (DSM) Resource Plan.

NON-CONFIDENTIAL INFORMATION REQUESTS

To: **EfficiencyOne**
c/o James R. Gogan
The Breton Law Group
By email: jim@bretonlawgroup.com

From: Synapse Energy Economics, Inc.
Board Counsel Consultant

Responses Due: **Friday, April 29, 2022**

Copies: 1 electronic copy – pdf searchable
4 hard copies

Contact person: **Alice Napoleon**
Principal Associate
Synapse Energy Economics, Inc.
Tel: (617) 453-7041
Fax: (617) 661-0599
E-mail: anapoleon@synapse-energy.com

Issued at Halifax, Nova Scotia, this 14th day of April, 2022

Crystal Henwood
Crystal Henwood, Regulatory Affairs Office/Clerk

Request IR-1: Please refer to p. 10 of the DSM Plan Application, regarding the alignment of the Settlement Plan with the IRP Reference Plan.

a. Why isn't E1 proposing a plan with investment levels as high as the investment levels assumed in the 2020 IRP?

b. Why isn't E1 proposing a plan with investment levels higher than the investment levels assumed in the 2020 IRP, given the recent environmental legislation noted on p. 6-7 of the DSM Plan?

c. Does E1 plan to file proposal(s) during the term of this DSM Plan (2023-2025) related to electrification? How does E1 expect to coordinate issues related to electrification with the DSMAG?

Request IR-2: Please refer to p. 13 of the DSM Plan, where E1 states that "Low-income investment is 17-22% of the total energy efficiency investment. This aligns with 2016 Census data for low-income prevalence in Nova Scotia." Did E1 analyze applying the 17-22% to savings, rather than to investment? If so, please describe the portfolio or portfolios that achieve 17-22% of savings for the low income sector, including characteristics such as total investment, residential and BNI savings and investment split, cost effectiveness, carbon emissions reductions, and average measure life (if known). If not, why not?

Request IR-3: Please refer to p. 15 of the DSM Plan, regarding the Incentive Setting Process. E1 indicates that "The incentive setting methodology is used when adding new measures or changing incentive levels on existing measures to confirm incentive levels fall within an acceptable range." Are incentives for existing measures reassessed periodically? If so, how often? If not, how does E1 know that incentives remain reasonable over time?

Request IR-4: Please refer to p. 17 and Appendix E, the evidence of Scott Robinson, regarding cost effectiveness testing for low-income program components.

a. In E1's opinion, how should low-income program components be handled in cost effectiveness testing? (e.g., exempted from a strict cost effectiveness threshold, assumed to have an adder for assumption about LI NEBs, etc.)

b. In Mr. Robinson's opinion, how should low-income program components be handled in cost effectiveness testing?

Request IR-5: Please refer to p. 17-18, where E1 states that "E1's methodology for cost allocation undervalues the cost-effectiveness of the Settlement Plan at the measure level. E1 applies all costs, both fixed and variable, at all levels of testing including the measure level. Measure and program component level results are rolled up to program level results for screening purposes. In particular, E1 applies administrative costs at the measure level of testing, which is not in accordance with best practices if screening is to be performed at the measure level, as such allocations may not be reflective of the cost to administer such measures. E1 applies costs in this way because the screening level in Nova Scotia is at the program level, not the measure level." Please explain in more detail why program level screening requires E1 to apply all costs at the measure level.

Request IR-6: Over the period of the 2023-2025 Plan, does E1 plan to conduct any studies, including but not limited to potential studies, other than impact evaluations? Please provide an evaluation plan, indicating the type of study (e.g., process evaluation, saturation/baseline, participation, benchmarking, potential), schedule for conducting it, focus (e.g., sector, program, end use), need for the study, and rationale for the proposed timing.

Request IR-7: Please refer to Table 8 on p. 51. Please provide the underlying workbook, in native format with formulas intact, and with sources and assumptions clearly identified.

Request IR-8: Please refer to Table 9 and Table 10 on p. 53-54. Please provide the underlying workbook, in native format with formulas intact, and with sources and assumptions clearly identified.

Request IR-9: Please refer to barriers to program participation for residential and BNI customers listed on p. 55-56 and in Attachment 1, as well as the research described on p. 16-17 of Appendix A. For each barrier, please indicate whether E1 is aware of its presence in the province. If E1 is aware that the barrier exists in Nova Scotia, please describe where E1 has seen the barrier and provide related studies and documentation, if available.

Request IR-10: Please refer to p. 58, regarding the collaboration between E1 and NS Power on two pilot programs for the 2021-2022 timeframe. Please describe the two pilots, including their status and lessons learned to date. If there are any progress reports on these pilots, please provide them.

Request IR-11: Please refer to p. 61, Section 12.1, on the historical rate and bill impact analysis.

a. Please indicate the source of the requirement for E1 to conduct a historical RBIA. If the source is a Board Order or Decision, please provide the Board Order or Decision, or provide the matter number and date.

b. Please describe what E1 would provide if the historical RBIA was only conducted in DSM Plan years rather than every year. Does E1 propose to combine the historical RBIA with the forward looking RBIA, or would each of these be conducted separately? Do any assumptions, methodologies, or inputs vary between the existing historical and forward looking RBIAs that would need to be reconciled if these RBIAs are combined? If so, what assumptions, methodologies, or inputs conflict, and how does E1 propose to reconcile them?

c. Please describe communications that E1 has had with other DSMAG members about the proposal to eliminate the historical RBIA in non-DSM Plan years.

Request IR-12: Please refer to Appendix A. To what extent has early replacement been included in the 2023-2025 Plan? Which programs are designed to achieve early replacement? If E1 proposes to change the emphasis on early retirement from the 2020-2022 programs, please describe how.

Request IR-13: Please refer to Appendix A, table 9 on p. 40 and Table 14, p. 45. Benefit-cost ratios for the Existing Residential component and the residential section as a whole are different. Please provide corrected tables.

Request IR-14: Please refer to Appendix A, Table 23 starting on p. 64, regarding Affordable Housing Agreements.

a. Does E1 have Affordable Housing Agreements in place?

b. Please provide a sample agreement. If a sample is not available, please describe key elements of an agreement.

c. Please describe the process for implementing the agreement, and how it would be enforced.

Request IR-15: Please refer to Appendix A, p. 78-79 regarding the Residential Behaviour component.

a. How will E1 provide energy use feedback? What media will E1 use?

b. How often will E1 provide energy use feedback?

c. Who will receive energy use feedback? Will customers be able to opt-out of receiving the feedback?

d. Please provide a sample communication with detailed energy-use feedback.

e. Please describe assumptions about savings for this component.

Request IR-16: Please provide any agreements with NSPI regarding access to or transfer of AMI data.

Request IR-17: Please refer to Appendix A, p. 80, regarding the Mi'kmaw Home Energy Efficiency Project component. E1 states that "Housing Managers in each community select their participants based on need." Does "need" refer to income, energy expense, energy burden, or some other criteria? Please provide more information on how participants are selected.

Request IR-18: For any of the proposed programs, does the same entity (e.g., a delivery agent or contractor) perform both installation of measures and the quality assurance site visit? If so, please indicate the program and component, and describe how E1 ensures that the measures are installed correctly and will perform as planned.

Request IR-19: Please refer to Appendix A, page 94, regarding marketing strategies. How often does E1 communicate with EPP network members, and in what format (presentations, hands-on trainings, meetings, newsletters, etc.)? Please describe the content of materials and meetings. Also please provide samples of materials provided to the EPP network. To what extent does E1 use this as a platform for communicating about best practices and new technologies?

Request IR-20: Please refer to Appendix A, p. 104, regarding marketing strategies for Custom Incentives. Has E1 asked past participants to assist with promoting the program using word-of-mouth or testimonials? If so, have these strategies been successful? If not, why not?

Request IR-21: Refer to behavioral DR mentioned in Appendix A, page 117. Please describe E1 and NS Power's plan to ensure reliable peak reduction from this program and how E1 and NS Power verify peak load reductions.

Request IR-22: Refer to Appendix A, Section 6.4.2. Marketing & Outreach Strategy, page 119 to 120. When does E1 expect to develop and release its marketing and outreach strategy plan for its demand response program?

Request IR-23: Refer to Appendix A, Section 6.4.3. Quality Assurance, page 120. When does E1 expect to release the quality assurance framework for its DR programs?

Request IR-24: Refer to Appendix A, Attachment 5: Demand Response Roadmap. Please provide the underlying workbook(s) that Guidehouse developed and used to analyze the costs and benefits of various demand response options and to create various analysis results and exhibits provided in Attachment 5. Such analysis results include, but are not limited to, Table 2 and 3 and Figure 3 to 6 in the Executive Summary section and Table 12 and 13 and Figure 14 to Figure 22 in Section 3.

Request IR-25: Refer to page 4 and 5 in Attachment 5 where Guidehouse stated "These costs represent Total Resource Cost (TRC) test costs and therefore do not include customer incentives in the levelized cost calculations." Please explain how Guidehouse developed TRC test costs for the selected DR options and how those costs differ from the customer incentive amounts provided in Section 3.

Request IR-26: Refer to Section 2.1.3 on page 11 in Appendix A, Attachment 5.

a. Please explain why outdoor recreational lighting and general replacement load following are excluded from the analysis of customer count projections and DR options.

b. Please explain why Guidehouse assumes the same distribution for municipal customers as NS Power customers.

Request IR-27: Please refer to Attachment 5, Figure 3 and Table 2 in the Executive Summary section and Figure 14 and Table 12 in Section 3. The cost data in these tables do not match with the cost data in these figures. It appears that labels in the two figures are mislabeled. If this is correct, please provide corrected figures and/or tables.

Request IR-28: Please refer to Attachment 5, Figure 4 and 5 in the Executive Summary Section and Figure 15 and 16 in Section 3. The colors of the bars between the two exhibits in these sections do not match each other. For example, the bar for DLC option is black in Figure 15 and is green in Figure 16. Are the figure labels correct? Please provide corrected figures that use matching colors between these figures based on the type of DR option.

Request IR-29: Please refer to Section 2.1.5, Battery Adoption Projection, on page 17 of Attachment 5.

a. What is Guidehouse's assumption about the share of EV charger types (i.e., Level 1, Level 2, and DC fast charging) for estimating the level of load reductions for this DR option?

b. Please explain how Guidehouse developed the 5 kW battery size.

c. Does the 5 kW battery size represent the EV charger's instantaneous output? If not, why not?

d. What is the basis for the capital cost reduction of 5 percent per year?

e. Please provide the payback acceptance curve and the non-economic adoption adder used to estimate customer adoptions.

Request IR-30: Refer to Attachment 5, Section 3.2.1 Direct Load Control (DLC)-Thermostat (BYOT and DI) and Table 14.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts for Central HP, Baseboard and MSHP.

c. Please explain why the unit impact for Baseboard (0.5 kW/participant) is much lower than the unit impact (1.21 kW/participant).

d. Please explain how Guidehouse and E1 determined the level of incentives per participant for this DR option.

e. What is the administrative cost for this DR option/program?

f. Does E1 estimate energy savings from smart-thermostats that are included as DR options?

Request IR-31: Refer to Attachment 5, Section 3.2.2 Direct Load Control (DLC)-Water Heater (BYOD and DI) and Table 15.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts.

c. Please explain how Guidehouse and E1 determined the level of incentives per participant for this DR option.

d. What is the administrative cost for this DR option/program?

Request IR-32: Refer to Attachment 5, Section 3.2.3 BNI Curtailment Option and Table 16.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts.

c. Please explain how Guidehouse and E1 determined the level of incentives per participant for this DR option/program.

d. What is the administrative cost for this DR option/program?

Request IR-33: Refer to Attachment 5, Section 3.2.4 Critical Peak Pricing (CPP) Option and Table 17.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts.

c. Please explain how Guidehouse and E1 determined the level of incentives per participant for this DR option/program.

d. What is the administrative cost for this DR option/program?

e. How does E1 plan to ensure and verify demand reductions for this DR option?

Request IR-34: Refer to Attachment 5, Section 3.2.5 Electric Vehicle (EV) Charging Control and Table 18.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts.

c. Please explain how Guidehouse and E1 determined the level of incentives per participant for this DR option/program.

d. Is the proposed incentive of $32/kW-year a one-time payment? Or does this represent an ongoing participation incentive where a customer receives this amount each year as long as the customer stays in the program?

e. The proposed incentive is $32/kW-year. However, the TRC levelized cost for this measure is the highest among all DR options at $314.75 according to Table 2 of this document. Please explain this disparity in these cost estimates.

f. What is the administrative cost for this DR option/program?

Request IR-35: Refer to Attachment 5, Section 3.2.6 Behind-the-Meter (BTM) Battery Control and Table 19.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts.

c. Please explain how Guidehouse and E1 determined the level of incentives per participant for this DR option/program.

d. What is the administrative cost for this DR option/program?

Request IR-36: Refer to Attachment 5, Section 3.2.7 Behavioural DR and Table 20.

a. Please provide analyses or studies that support the proposed program enrollment assumptions.

b. Please provide analyses or studies that support the proposed unit impacts.

c. How was the program cost for this DR option developed?

d. How does E1 plan to ensure and verify demand reductions for this DR option?

Request IR-37: Please refer to p. 16-17 of the Evidence of David Hill (Appendix D).

a. Does E1 or Dr. Hill have data on current sales and stocks of conventional and electric vehicles in Nova Scotia? If so, please provide. If not, does E1 plan to study this, and when?

b. Does E1 or Dr. Hill have data on current sales and stocks of space heating equipment by type, including electric resistance, heat pumps, boilers, furnaces, etc., in Nova Scotia? If so, please provide. If not, does E1 plan to study this, and when?