EfficiencyOne

IN THE MATTER OF *The Public Utilities Act,* R.S.N.S. 1989, c.380, as amended.

- and -

IN THE MATTER OF An Application by EfficiencyOne for Approval of the 2023-2025 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.

REBUTTAL EVIDENCE OF EFFICIENCYONE

M10473

DATE FILED

June 10, 2022

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1. INTRODUCTION

EfficiencyOne's ("E1") Application for Approval of the 2023-2025 Supply Agreement for Electricity Efficiency and Conservation Activities, including Evidence of E1 as holder of the Efficiency Nova Scotia franchise, was filed on March 11, 2022. Following responses to Information Requests from E1, evidence was filed on May 20, 2022, by Synapse Energy Economics (Synapse), consultants for the Nova Scotia Utility and Review Board (the "NSUARB" or "Board"), the Small Business Advocate, the Consumer Advocate, the Municipal Electric Utilities, the Industrial Group, the Affordable Energy Coalition, the Ecology Action Centre, and Membertou First Nation. E1 is filing this Evidence in response to the evidence filed by intervenors to date.

2. INVESTMENT ALLOCATION

Small Business Advocate

In testimony on behalf of the Small Business Advocate, John Athas makes the following recommendation:

> *"While I recognize the desire to spread dollars among the rate classes in an even manor [sic], the growth of E1 budgets <u>beyond the current level</u> should not be bound by the 50/50 residential-BNI split target and should focus on maximization of measures and programs that have the highest cost-effectiveness ratios*."[1]

In the course of developing the 2023-2025 DSM Plan (and ultimately the Settlement Plan), E1 focused on developing a balanced DSM plan consistent with the approach taken in the development of E1's NSUARB approved 2020-2022 DSM Plan. This approach focused on providing to the DSM Advisory Group E1's design objectives and draft plan scenarios for review and comment during the scenario development phase. In particular, throughout the course of engagement with the DSM Advisory Group, E1 was transparent in noting that E1's Guiding Principles[2] and the Standardized Filing Framework[3] had informed the design objectives of all modelled scenarios. Both E1's Guiding Principles as well as the Standardized Filing Framework dictate that "*EfficiencyOne will produce DSM Resource Plans that balance multiple aspects of*

[1] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-24, Direct Testimony of John G. Athas. Page 10, lines 4-7.
[2] M10473, Exhibit E-1, EfficiencyOne 2023-2025 DSM Resource Plan Filing, Appendix A EfficiencyOne 2023-2025 DSM Resource Plan, Page 19, Figure 6.
[3] M07543, Efficiency One Application for Approval of 2016-2018 DSM Resource Plan Matter deferred for DSM Advisory Group Collaboration, Board Letter to Efficiency One, September 13, 2016, Page 2, where the Board states, "The Board accepts this Standardized Filing Framework for use in future DSM Resource Plan applications."

DSM for the benefit of customers."[4] The 50/50 investment allocation between the Residential and BNI sectors serves as a starting point in DSM Plan design to ultimately achieve a balanced portfolio.

Concern with the equal investment allocation between Residential and BNI customers was not raised by stakeholders during Settlement Plan development. The Standardized Filing Framework was developed through a collaborative approach recognizing key design principles that stakeholders had agreed must be taken into consideration in the development of future DSM plans. Among the eight (8) design principles was program delivery costs. However, the design requirements also included seven (7) other articulated design principles of equal importance and which included: diversity of program delivery and access to programs by all market sectors and rate classes by addressing barriers to participation. The diverse and underserved communities programs, included in the Settlement Plan, specifically targets this equity and access issue. A targeted focus on "*maximization of measures and programs that have the highest cost-effectiveness ratios*" with lessor regard to the other key DSM plan design principles would be a departure from the Standardized Filing Framework and inconsistent with the consensus nature of the agreement itself.

Additionally, E1 would note that, through the mid-course adjustment process, there presently is flexibility in allocating the investment over the term of a NSUARB approved DSM plan. This flexibility allows investment funds to be directed to and from programs based on performance and market conditions in a continual effort of ensuring that energy efficiency and demand saving targets of an approved DSM plan are achieved.

Finally, E1 would note that proceeding as suggested by the Small Business Advocate would result in specific Settlement Plan programs targeted at low-income and underserved markets being significantly defunded or eliminated – contrary to the design principles used in the Plan development.

In the course of each DSM planning cycle E1 undertakes a full review of the key design principles to be used in the DSM Resource Plan development with the DSMAG. This existing review process does include a consideration of the existing design principles referenced in the "Balanced Plan Approach"[5] including

[4] M07543, 2016-2018 DSM Deferred Matters, Exhibit 3, Executed Revised Consensus Agreement, Appendix 1: Standardized Filing Framework, Section 4.3.1. Balanced Plan Approach, July 22, 2016, Page 10.
[5] Ibid.

program delivery costs. This existing E1 process provides an opportunity for all DSMAG members to propose additional, or alternate, areas of focus in the DSM Resource planning process.

3. LOW-INCOME SAVINGS AND PERFORMANCE

3.1 LOW-INCOME SAVINGS PROJECTIONS

Consumer Advocate

Theodore Love on behalf of the Consumer Advocate stated the following:

> *"Savings projections for low-income customers have not increased significantly between the two plans, due to an 80% drop in savings from the BNI sector offsetting much of the 60% growth in savings projections for the residential sector. It is unclear to me why savings from activity in the BNI sector shows such a significant drop in projected savings*."[6]

Response

The drop in projected low-income savings in the BNI sector for 2023-2025 as compared to the 2020-2022 DSM Plan is a result of the low estimated savings achieved in 2020. Low-income savings projections in the BNI sector were calculated using E1's estimated low-income savings results for 2020. The low-income savings estimated for BNI in 2020 were low, largely due to the impact of COVID-19. As part of its stakeholder engagement process, E1 provided to the DSM Advisory Group a document outlining E1's methodology for estimating low-income savings for the 2023-2025 DSM Plan.

There are no dedicated low-income program components in the BNI sector, thus all low-income impacts are incidental. For BNI program components, E1's current methodology relies on the assumption there are low-income incidental savings for Business Energy Rebates (BER), Custom, and Small Business Energy Solutions (SBES). Savings are assumed for projects in these program components with Housing Nova Scotia as well as a percentage of savings for other rental building projects based on the prevalence of low-income renters.

COVID-19 restrictions significantly impacted low-income housing and apartment building projects in 2020. The low-income savings attributable to BNI in 2020 were minimal at 1% of total savings – BER; 0% of total savings – Custom; and 4% of total savings for SBES respectively. These percentages were applied to the

[6] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-20, Direct Testimony of Theodore M. Love, Page 11, lines 9-12.

total 2023-2025 modelled savings for these program components to calculate the estimate of low-income savings in 2023-2025. Participation in more projects with Housing NS and other rental properties in 2023-2025 could result in a higher percentage of incidental low-income savings for the BNI sector.

3.2 LOW-INCOME SAVINGS TARGETS

Consumer Advocate

In his testimony on behalf of the Consumer Advocate, Theodore Love noted that E1 has, "*struggled to reach low-income savings targets in 2020 and 2021.*"[7]

Response

E1 acknowledges that it has had difficulty meeting savings targets for diverse and underserved communities for these years. In addition to this particular sector being more difficult to reach by its nature, program components with estimated low-income savings were heavily impacted by the COVID-19 pandemic and imposed restrictions. Diverse and underserved communities dedicated programs such as Mi'kmaw Home Energy Efficiency Project (MHEEP) and Affordable Multi-family Housing and Non-Profit Organizations (AMH), as well as non-dedicated programs such as Appliance Retirement, Instant Savings, Efficient Product Installation (EPI), BER, Custom, and SBES were the most significantly impacted by COVID-19 restrictions, as E1 has reported in the course of its quarterly and annual reporting.

With the lifting of general contact and mobility restrictions associated with COVID-19, E1 remains confident of its ability to achieve both the dedicated low-income/underserved market programs energy savings estimates as well as those incidental savings attributed to this sector through remaining E1 programs set out in the Settlement Plan.

3.3 LOW-INCOME PERFORMANCE TARGETS

Synapse

In its evidence on behalf of the Board counsel, Alice Napoleon and Kenji Takahashi of Synapse expressed concern that the focus on investment in the low-income sector, "*may do little to ensure that low-income populations experience the benefits of energy efficiency.*"[8] Synapse recommended that, "*the Board consider*

[7] Ibid., Page 5, line 1.
[8] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-25, Evidence of Alice Napoleon and Kenji Takahashi, Page 5, lines 19-20.

developing and adopting a performance metric related to savings for the low-income segment to ensure that funds are effectively spent and that this population experiences benefits of energy efficiency."[9]

Consumer Advocate

On behalf of the Consumer Advocate, Theodore Love also recommended that, "*the Board specifically establish cumulative first year low-income savings of 39.4 GWh, as a performance target, and not just a performance threshold or metric.*"[10]

Response

E1 agrees that a performance target related to diverse and underserved communities would be appropriate – particularly given the focus on these ratepayer sectors in the Settlement Plan. With the introduction of this enhanced focus through dedicated programs – E1 submits that targeted results with regard to diverse and underserved communities is appropriate.

E1 would note that the proposal of Theodore Love referencing 39.4 GWh includes both targeted diverse and underserved communities programing as well as the energy savings incidental to existing non targeted programs. E1 supports the application of a performance target to targeted diverse and underserved communities on the basis that these programs incorporate targeted and specific measures for these sectors. Incidental savings by their nature are secondary to the specific program focus and should not be included as a performance target whose objective is to assess E1's relative success in program design and implementation.

E1 proposes that the performance target apply only to programs specifically targeted at these sectors which include Affordable Single-family Homes, Affordable Multi-family Housing and Mi'kmaw Home Energy Efficiency Project, in the amount of 15.8 GWh and that incidental performance and savings attributable to low-income in other sectors be maintained as a performance indicator. As with existing performance targets established by the Board, E1 would submit that any E1 performance target applicable to diverse and underserved communities would be deemed met where E1 achieves 90% or greater of the cumulative aggregate annual energy savings applicable to the Affordable Single-family Homes, Affordable Multi-family Housing and Mi'kmaw Home Energy Efficiency Project programs.

[9] Ibid., Page 6, lines 14-17.
[10] Exhibit E-20, Direct Testimony of Theodore M. Love, Page 13, lines 3-4.

4. DEMAND RESPONSE

4.1 BEHAVIOURAL DEMAND RESPONSE PROGRAM UNCERTAINTY

Synapse

In their testimony on behalf of the Board, Alice Napoleon and Kenji Takahashi noted that there is uncertainty surrounding the ability of behavioural Demand Response programs to produce winter peak load reductions.[11]

Response

E1 agrees that there is some uncertainty in the unit impacts for behavioural Demand Response programs, particularly for winter peaking utilities such as NS Power. However, it is E1's position that it is important to recognize that the behavioural Demand Response option is intended to be an add-on to the Energy Efficiency behavioural program component as opposed to a stand-alone offering. This co-delivery will serve to mitigate risks given energy efficiency behaviour programs are already well established in the industry. Furthermore, the costs outlined in the Guidehouse Demand Response roadmap and modelling are the incremental costs of incorporating demand response.[12]

The uncertainty surrounding E1's behavioural Demand Response pathway is further mitigated by the fact that E1 will evaluate and revisit its Behavioural Demand Response results in both the first and second years and make adjustments accordingly under its phased implementation. As examples and based on findings within the three-year Plan period, this could lead to the introduction of new incentives to compensate customers for reducing their load during peak times or adjustments to the participation/unit impacts of Demand Response pathways.

Further reducing the risk associated with Behavioural Demand Response uncertainty is E1's ongoing involvement and participation in the joint E1-NS Power Demand Response Working Group. This Working Group collaboratively explores and designs the Demand Response opportunities to be jointly offered.

[11] Exhibit E-25, Evidence of Alice Napoleon and Kenji Takahashi, Page 5, lines 13-14.
[12] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-1, Appendix A, Attachment 5: Guidehouse Demand Response Roadmap.

4.2 PILOT DEMAND RESPONSE PROGRAM RECOMMENDATION

Synapse

Synapse has also recommended that E1 introduce its behavioural Demand Response program on a smaller pilot scale to first test winter peak effectiveness.[13]

Response

E1 appreciates the intent and logic behind Synapse's recommendation to first introduce a smaller scale pilot of its behavioural Demand Response pathway to ascertain what it is achievable in terms of winter peak savings. Similar approaches were undertaken for E1's existing demands response pilots. With the 2023-2025 DSM Resource Plan, E1 intends to institute a phased development and implementation approach for Demand Response. This, in combination with E1's strategy to annually revisit and adjust Demand Response pathways amid the three-year period, ensures that E1's Demand Response program will achieve many of the same benefits associated with piloting, without suffering from the limitations typical of a pilot approach such as prolonged implementation and reduced scale, effect and benefits.

4.3 RECOMMENDATION TO USE NS POWER'S EV LOAD FORECAST

Synapse

Synapse is recommending that E1 use NS Power's electric vehicle (EV) load forecast to estimate program participation for the EV charging control offer.[14]

Response

E1 supports and agrees with Synapse's recommendation that the most recent available NS Power Load Forecast should be employed for the purpose of EV modelling. E1 wishes to clarify that Guidehouse's response to Synapse IR-34(a), on behalf of E1, erroneously stated that, *"[t]he EV Charging Control enrollment assumptions were sourced from the "Nova Scotia Energy Efficiency and Demand Response Potential Study for 2021-2045"*.[15] This should have read: *"[t]he EV Charging Control enrollment assumptions were sourced from the NS Power 2021 Load Forecast report*."

[13] Exhibit E-25, Evidence of Alice Napoleon and Kenji Takahashi, Page 6, Lines 7–11.
[14] Ibid., Lines 12–13.
[15] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-14, E1(Synapse) RIR-1 to RIR-37, IR-34(a), Page 2.

At the time of filing the 2023-2025 DSM Resource Plan filing, the most recent available Load Forecast was the 2021 Load Forecast, and it was considered accordingly. As outlined in the Guidehouse Demand Response Roadmap, the NS Power 2021 Load Forecast was used for forecasting EVs.[16]

Given E1's phased approach to Demand Response, E1 is not barred from considering/reconsidering the best available information, including the most recent 2022 Load Forecast, prior to actual implementation. For the purposes of future modelling and implementation planning, E1 will incorporate the latest and best available forecast adoption and unit impact estimates. This may include the 2022 Load Forecast, or future Load Forecasts, as well as additional information provided via NS Power's Smart Grid Project and/or other relevant data.

E1 intends to employ the diverse set of Demand Response pathways considered within the modelled Demand Response program in order to facilitate adjustments and achieve overall program performance indicators. To illustrate this point by way of example, if E1 determines behavioural potential is lower than modelled while EV charging potential is higher than modelled, targets and budgets can be adjusted accordingly among the two pathways.

4.4 E1'S ROLE AND VALUE IN DEMAND RESPONSE

Industrial Group

In his testimony on behalf of the Industrial Group, Mark Drazen stated that while Demand Response is a worthwhile venture, it is essentially a rate design matter and should be handled primarily by NS Power.[17] He also observed that the majority of the Demand Response measures proposed offer little peak reduction and that there is uncertainty surrounding the behind-the-meter BTM Battery Control forecast.[18]

Response

E1, as the independent DSM Administrator, has an important role to play in the development and implementation of Demand Response. The ability of customers to shed loads during periods of peak demand through demand response activities is beneficial to the electric system as a whole and can

[16] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-1, Appendix A, Attachment 5: Guidehouse Demand Response Roadmap, Page 15, Page 18 of 58.
[17] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-21, Evidence of Drazen Consulting Group, Inc., Page 12, Lines 2–6.
[18] Ibid., Page 12.

complement existing or proposed DSM programs. Both fall within the legislative mandate of E1 as provided for in the *Public Utilities Act* (Nova Scotia):

79A(b)(iii)

> *"[T]he alteration of the consumption pattern of an end user of electricity that has the effect of reducing demand during Nova Scotia Power Incorporated's periods of highest demand…"*[19]

E1 serves as a collaborator with NS Power for two existing Demand Response pilots and is actively involved in the parties' Demand Response Working Group. This approach will continue for 2023-2025 Demand Response programming. Further, transferring responsibilities from E1 to NS Power only would only shift those costs to NS Power without inducing any savings for ratepayers, while sacrificing the advantages of the collaborative efforts to date.

It is E1's position that Demand Response is more complicated than what has been asserted by the Industrial Group. While rate design is one important consideration, non-rate-based options are a meaningful component of Demand Response programs as well. An approach that employs rate design methodology solely will fail to address a host of demand response/control considerations.

E1 asserts that non-rate-based demand control offers additional elements under the broader program structure, such as installing residential water heater controls or annual customer incentives to encourage adjusting use and control, that are difficult to achieve within a rate design structure. Within its 2019 Potential Study, Navigant Consultants Ltd. (now part of Guidehouse) modelled both rate-based and incentive/event-based Demand Response programs.[20] Incentive/event-based options, including direct load control and BNI curtailment, were found to be cost effective. Further, these Demand Response options were then included within the portfolio selected as part of NS Power's Integrated Resource Plan (IRP).

Event/incentive-based options offer the following benefits:

i. The diversification of the Demand Response portfolio, thereby reducing risk and maximizing customer choice;

[19] *Public Utilities Act*, RSNS 1989, c 380, Section 79A(b)(iii).
[20] M08929, Exhibit N-1, EfficiencyOne (Prepared by Navigant for EfficiencyOne), Nova Scotia Energy Efficiency and Demand Response Potential Study for 2021-2045, August 14, 2019.

ii. Greater adaptability than a rate-based program, thereby allowing quick adjustments to be made and flexibility in offerings and incentivization; and

iii. The technological benefits that permit demand control in situations where rate adjustments would be inefficient (e.g., water heater control).

Similar to the rebuttal evidence offered in response to Synapse's concerns at Section 4.2 and 4.3 above, the phased development and implementation of Demand Response will allow E1 to adjust in cases where the forecast data is speculative but later enhanced. It will also enable E1 to adjust its programs and incentives to promote greater peak savings as the program and measures mature.

In light of ongoing Demand Response collaboration between E1 and NS Power, E1's phased approach to Demand Response implementation, and E1's role as a truly independent and valued Demand Response partner, particularly in Demand Response areas that fall outside of rate design, E1 recommends that its Demand Response portfolio be accepted as proposed within its 2023-2025 DSM Resource Plan.

5. AVOIDED COSTS

Consumer Advocate

In testimony on behalf of the Consumer Advocate, Theodore Love states that the avoided costs used by E1 in calculating the Total Resource Cost (TRC) benefits do not reflect the future energy landscape in Nova Scotia.[21]

Response

E1 agrees with Theodore Love that the avoided costs used by E1 are outdated and no longer reflective of the Nova Scotia energy marketplace.

E1 understands that, as part of NS Power's commitment to the ongoing IRP evergreen process, the avoided costs to be used in the calculation of DSM benefits will be updated to reflect recent, and ongoing, legislative changes. E1 supports this NS Power ongoing process and views it as both appropriate and necessary in the evaluation and development of future DSM plans.

[21] Exhibit E-20, Direct Testimony of Theodore M. Love, Page 15, lines 4-7.

Consumer Advocate

The Consumer Advocate further states that E1 should provide updated cost-effectiveness testing results as part of its next Annual Progress Report.[22]

Response

E1 does not report cost-effectiveness test results as part of its Annual Progress Report, but rather the cost-effectiveness of E1's programs are evaluated as part of Potential Studies and DSM Plans. E1 expects, and supports, that the updated avoided costs developed through NS Power's evergreen IRP process will be available for use in the next Potential Study and in the development of the 2026-2028 DSM Plan.

Small Business Advocate

John Athas, in his evidence on behalf of the Small Business Advocate, stated that as a result of the increase in the importance of decarbonization as an avoided cost, additional consideration should be given to non-carbon generation alongside, or in place of, traditional DSM.[23] John Athas further stated:

> "… *future DSM plans and program design should focus on whether the DSM measure is the lowest, or one of the lower cost, means to reduce carbon production in Nova Scotia. To measure that E1 should move away from or supplement its current avoided costs economic testing to testing the cost of DSM as compared to the equivalent amount of the lower cost non-carbon generation resources that NSPI will have to implement to meet decarbonization objectives. This analysis can be developed within the DSM Advisory Group*."[24]

Response

E1 considers the evaluation of this proposal as appropriate and recommends that it be subject to further review through the DSM Advisory Group.

[22] Ibid., Page 16, lines 2-4.
[23] Exhibit E-24, Direct Testimony of John G. Athas. Page 16, lines 13-16.
[24] Ibid., Page 17, lines 2-8.

6. COST-EFFECTIVENESS TESTING

6.1 MEASURE LEVEL TESTING

Small Business Advocate

John Athas, on behalf of the Small Business Advocate, recommends that measures with TRC test results less than 1.0 should not be included in E1's DSM programs. John Athas further states that, "*the threshold could be set at 0.9 or less to show a preference for energy savings rather than continue a higher consumption of energy that NSPI will have to serve with generation and capacity, which would demonstrate a preference for energy savings at a higher cost instead of additional generation and capacity*.[25]

Response

The Board has previously determined that cost-effectiveness screening conducted at the program, rather than the measure, level is appropriate and provides E1 the flexibility required in developing balanced DSM programs.[26] E1 further submits that this program level screening represents industry best practice and that no change to the current cost-effectiveness screening approach is warranted.[27]

In accordance with Board directive and industry best practices, E1 maintains that the flexibility afforded it through screening at the program level is necessary for the development of a balanced plan, including the ability to incorporate measures in its DSM plans which achieve TRC test results less than 1.0. Adoption of the Small Business Advocate's proposal would result in the exclusion of measures beneficial to the low-income and small business sectors.

6.2 COST-EFFECTIVENESS TESTING METHODOLOGY

Synapse

In testimony on behalf of Counsel to the Board, Alice Napoleon and Kenji Takahashi of Synapse stated that non-electric fuel costs and reduced water costs should not be included in the TRC test, pursuant to the Board Decision in M08888.[28]

[25] Ibid., Page 18, lines 12-15.
[26] M03669, Board Decision, at paras 87-88, June 30, 2011.
[27] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-1, E1 2023-2025 DSM Resource Plan Filing, Appendix E: Evidence of Scott Robinson, Page 12, lines 9-10.
[28] Exhibit E-25, Evidence of Alice Napoleon and Kenji Takahashi, Page 17, lines 7-10.

Synapse further stated in testimony that avoided non-electric fuel costs and reduced water costs should not be included in the Program Administrator Cost ("PAC") test, although exclusion of these avoided costs from TRC testing would result in a test that is skewed, as "[a] *TRC that includes participant costs but does not include participant benefits is inherently unbalanced*."[29] Synapse has made the following recommendation to the Board:

> *"The Board should put more emphasis on the PAC, which should not account for participant costs or participant benefits, and hence is more balanced; or it should launch a process to develop a jurisdiction-specific cost-effectiveness test that reflects the province's policy priorities*."[30]

Response

E1 submits that a broad review of cost-effectiveness testing methodologies may be appropriate at the present time given recent legislative changes, as well as advancement in demand response and electrification initiatives. A thorough assessment of the relative merits of both the PAC test and a jurisdiction-specific test is required to determine the optimal cost-effectiveness testing methodology for Nova Scotia. E1 proposes that this matter be explored further through the DSM Advisory Group in advance of the 2026-2028 DSM Plan.

7. INCENTIVES

7.1 LOW-INCOME AND UNDERSERVED MARKETS

Industrial Group

In testimony submitted on behalf of the Industrial Group, Mark Drazen has stated that E1 is not minimizing the cost of its proposed DSM measures within the 2023-2025 DSM Resource Plan for two primary reasons:

i. E1's policy decision to subsidize DSM programs for low-income and underserved markets; and
ii. E1's decision to over-subsidize DSM measures.[31]

Response

[29] Ibid., Page 17, line 10-12.
[30] Ibid., Page 17, lines 14-20.
[31] Exhibit E-21, Evidence of Drazen Consulting Group, Inc., Page 4, lines 6-9.

Beyond asserting low-income and underserved market subsidies as contributing to the non-minimization of DSM, the Industrial Group does not offer reasons for the Board to reject the abovementioned policy decision. **E1 maintains that an increase in DSM funding dedicated to underserved markets and diverse communities is critical to remove longstanding access barriers and historic inequities. This planning choice has been widely supported to date and indicative of the broader stakeholders' recognition of E1's obligation to deliver DSM in an equitable and non-discriminatory manner.**

7.2 INCENTIVIZATION

Industrial Group

The testimony of the Industrial Group expert stressed that the subsidization levels proposed under the 2023-2025 DSM Resource Plan exceeds what is necessary in some cases and recommended that the Board direct E1 to provide a more transparent and rigorous explanation of its incentivization methodology and analyses.[32] Mark Drazen also stated that subsidies should be no higher than what is required to sell that measure.[33]

Response

The level of incentivization proposed by E1 is the product of a thorough program design process undertaken by E1 that adheres to a Board-approved incentive methodology.

It is E1's position that its incentive methodology is now a settled matter and the Industrial Group, like all stakeholders, was engaged in the process under matter M07544[34]. As directed by the Board in M07544, a comprehensive process ensued and included:

i. E1 retaining CLEAResult to investigate and develop an incentive methodology and implementation plan;
ii. E1's initial filing of its methodology;
iii. Revisiting the filed methodology based on comments and feedback from stakeholders;
iv. Further dedicated discussions with Synapse and the DSMAG;
v. Reaching consensus positions on all outstanding issues with Synapse;

[32] Ibid., Page 15, lines 2–5.
[33] Ibid., Page 6, lines 14–15.
[34] M07544, EfficiencyOne Incentive Setting Methodology Review and Recommendations.

vi. Presenting said consensus positions to the DSMAG[35];

vii. Conducting further revisions to the Incentive Setting Methodology following participant comments from NS Power, the Industrial Group, the Small Business Advocate, and Synapse;

viii. Filing of the Revised Incentive Setting Methodology on May 11, 2017; and

ix. Acceptance by the Board of E1's Revised Incentive Setting Methodology Filing (E-ENS-R-16) on July 18, 2017.

E1's latitude and autonomy to adjust and/or revisit incentives provides necessary flexibility during plan implementation. This flexibility is critical to allow E1 to mitigate incentive-based risks and continuously adapt incentive programming over the course of the Plan period. The methodology established through the work previously undertaken by E1 (MO7544) has been accepted by the NSUARB and represents "best practices" in the area of incentivization.

7.3 PAYBACK ANALYSIS

Industrial Group

In an effort to emphasize that an incentive for a given measure should be no higher than what is required to "sell" that measure, Mark Drazen chose a payback period threshold of 3 years or less to illustrate his point.[36] He notes that if all such payback periods were eliminated from consideration, related costs would fall by about $9 million over the Plan period.[37] The Industrial Group also noted that the question of applying a payback test to incentives is not a new issue and was previously raised during the DSM 2016-2018 Plan process (Matter M06733).[38]

Response

Following M06733, E1 developed and implemented a comprehensive methodology as discussed in section 7.2 of this evidence. It is E1's position that Mark Drazen's payback proposal goes outside the recommendations of CLEAResult[39] in their report and is inconsistent with E1's Board-approved Incentive

[35] M07544, E1 Letter from counsel, dated November 15, 2016.
[36] Exhibit E-21, Evidence of Drazen Consulting Group, Inc., Page 6, lines 14–15.
[37] Ibid., Page 6, lines 16–18.
[38] Ibid., Page 7, lines 25-26.
[39] M07544, Incentive Setting Methodology: CLEAResult Report & EfficiencyOne Implementation Plan, Second Revision, dated May, 11, 2017, Pages 4–5.

Setting Methodology and practices; which notably were developed in consultation with interested parties and stakeholders, including the Industrial Group.

Payback analysis is only one factor considered in assessing incentives, but not all customer groups use simple payback as a means of determining incentive program participation. E1 submits that a comprehensive incentivization methodology must contemplate barriers that go beyond financial considerations. A prime example is a convenience barrier that may significantly impede a customer's willingness to participate for reasons other than financial. While a financial incentive can be helpful in overcoming convenience barriers, the payback period is not the only element to contemplate in determining the suitability of the incentive for a given group.

E1 agrees that short payback periods may, absent other behavioural patterns, suggest lower incentive levels, and this is a consideration within E1's incentive methodology; however, the analysis is more complex. Any incentivization analysis must also acknowledge the well-established DSM program concept of Net Savings Adjustments, through which E1's third-party evaluator estimates the proportion of customers that would have installed the measure without subsidies. E1 is not credited with any savings where the DSM evaluator has determined that the customer decision to install the measure was not attributable to actions of E1, including the incentive provided. E1 submits that given this methodology, it is very much focused on limiting incentive to the lowest level necessary to effect the desired result of measure uptake.

Additionally, the 2023-2025 DSM Resource Plan includes estimates of these adjustments in the form of Net-to-Gross ratios by measure, and associated savings are excluded from the Plan's savings totals. Based on Mark Drazen's evidence, the fact that the 2023-2025 DSM Plan estimates net-to-gross ratios by measure does not appear to have been considered. Had it been considered, the savings predicted based on the removal of all 36-month or less payback period measures would be less.[40]

Mark Drazen stated in his testimony that E1 did not take into account the direct benefit to the customer of reduced bills with the exception of the Custom program.[41] To clarify, E1 does calculate and consider the electricity bill savings and payback periods as part of its incentive setting methodology for programs other

[40] Exhibit E-21, Evidence of Drazen Consulting Group, Inc., Page 6, lines 14–15.
[41] Ibid., Page 5, lines 4-10.

than Custom; however, such values only inform the thresholds that incentives are compared against within the Custom program.

8. MUNICIPAL ELECTRICAL UTILITIES

Within their evidence on behalf of the Berwick Electric Commission, The Riverport Electric Light Commission, The Town of Antigonish, and The Town of Mahone Bay (collectively, the "MEUs"), Al Dominie and Don Regan offered the Board several recommendations to consider.[42]

8.1 RECOMMENDATION #1

The MEUs have recommended that E1 be directed to consider and provide cost benefit information concerning programs targeting the MEUs in the wholesale market in all future DSM plans. Implementation of this recommendation would require that E1 have individual MEU specific avoided costs – something which is presently provided in aggregate only for NS Power.

Although this forward looking recommendation falls outside the scope of the present Application, as part of future DSM Plans, E1 is receptive to working with the MEUs and other stakeholders, where necessary, to consider the cost benefit information requested under Recommendation #1. While this activity has not been performed historically, such efforts could leverage existing E1 analyses and data collection activities and produce cost benefit information more meaningful for a given MEU. However, E1 understands its ability to provide this information to be largely dependent upon access to avoided costs for the MEUs.

8.2 RECOMMENDATION #2

The MEUs have recommended that E1 be granted flexibility in its DSM Plan, and specifically within the overall funding levels, to allow for MEU-specific research, pilot programming and program adaptation.[43] From the perspective of the MEUs, this flexibility is critical toward ensuring the delivery of programs and initiatives that meet the needs of MEU customers over the next three years.[44]

[42] M10473, E1 2023-2025 DSM Plan Application, Exhibit E-23, Evidence of Al Dominie and Don Regan.
[43] Ibid., Page 3.
[44] Ibid., Page 3.

E1 is generally supportive of this proposal and open to working with the MEUs over the course of the next three years. E1 remains committed to working with MEUs to develop and implement cost-effective and collaborative opportunities and strategies that make sense for a given MEU, subject to sufficient resource availability and financial flexibility.

8.3 RECOMMENDATION #3

The MEUs have recommended that MEUs in the wholesale market be permitted to pay all allocated and Board-approved DSM costs directly to E1, subject to the specific allocations, payment requirements and additional direction in the GRA.[45] This recommendation is premised, in part, on the differences between NS Power and the MEUs in the context of DSM and the proposal by the MEUs to work separately with E1 for program design and delivery.

While not opposed to the general concept and reasoning, E1 submits that this recommendation falls outside the scope of the approval of this DSM Plan Application. Consideration of this recommendation would require a full consideration of the applicable statutory and regulatory regime including the *Public Utilities Act*.

9. NEW HOME CONSTRUCTION

Consumer Advocate

In testimony on behalf of the Consumer Advocate, with respect to the residential new home construction program, Theodore Love stated, "*E1 is phasing out the residential new home construction program and only providing support for residential new construction through enabling strategies… it is a mistake to drop financial incentives for new home construction completely, particularly for building shell measures.*"[46]

Response

The residential new home construction program component as originally constructed was not sustainable at this time and was therefore not included in the Settlement Plan. With the removal of heat pump savings, overall savings for this program component dropped by 70-80% and the unit cost increased significantly.

[45] Ibid., Page 4.
[46] Exhibit E-20, Direct Testimony of Theodore M. Love, Page 14, lines 8-11.

The program component was not considered an appropriate and affordable program component within a limited DSM investment level.

The new home construction market is transforming and E1 is required to adapt its offerings to support this changing environment. E1 will continue to support this market through Enabling Strategies, and by continuing to explore and adapt offerings that meet the energy efficiency needs of this market.

10. RESEARCH AND DEVELOPMENT

Synapse

Synapse, in evidence filed on behalf of Board counsel, stated that, "*E1 does not have a plan for specific initiatives for development and research, or estimates for associated energy, demand, or carbon savings*."[47] Synapse further recommended the following:

> "*The Board should require E1 to develop a framework for considering and approving development and research initiatives, projects, and pilots as a condition of approving the proposed budget. The framework should lay out the process, including delineation of roles and responsibilities, for considering and approving development and research activities. It should also specify elements of the study design*."[48]

E1 notes an innovation process, significantly encompassing Synapse's recommendations, was initiated in 2021 and continues to be developed. The general purpose of the initiative is to develop, test, and evaluate the success of new ideas with the objective of achieving long-term organizational goals of E1. The framework process incorporates the following principles:

1. Balance Short-Term and Long-Term Objectives: The innovation process is not limited to activities which will achieve savings within the current year.
2. Establish Corporate Innovation Objectives: Corporate Innovation Objectives are constraints used to guide the selection of projects in the innovation process and provide the innovation process with direction by establishing the topics of strategic importance that will be explored in the coming year.

[47] Exhibit E-25, Evidence of Alice Napoleon and Kenji Takahashi, Page 5, lines 21-23.
[48] Ibid., Page 6, lines 18-23.

3. Establish Innovation Governance Committee: The Innovation Governance Committee is comprised of members of the Executive Leadership Team and provide oversight of the innovation process.
4. Apply Consistent Screening Criteria: Consistent screening criteria are applied to any new idea being assessed as a potential innovation project.
5. Adopt an Iterative Approach to Project Roll-Out: The innovation process has adopted a staged approach in project approval. Each stage has defined goals that must be achieved before projects proceed to the next stage. Upon completion of each stage or phase, the Innovation Governance Committee reviews the findings before the project is approved to move to the next phase.
6. Develop a Corporate Innovation Plan: The Corporate Innovation Plan is intended to provide a medium-term outlook of the types of projects that will be the focus of the innovation process over the next five years.
7. Measure Innovation Success Corporately: Annual innovation goals are included on the Corporate Scorecard.

E1 expects that the innovation process will continue to evolve and incorporate best practices and lessons learned from completed projects.

11. CUSTOMER ENERGY MANAGEMENT

11.1 BEHAVIOURAL PROGRAM COLLABORATION

Consumer Advocate

Within his evidence, Theodore Love observed that coordination between E1 and NS Power's behavioural-based programs has not been addressed in the 2023-2025 DSM Resource Plan, and that it remains unclear whether such coordination or collaboration is anticipated.[49] The Consumer Advocate has stressed that E1's behavioural program and the Customer Energy Management (CEM) system should be coordinated to ensure both reduced costs and time for both E1 and NS Power.

[49] Exhibit E-20, Direct Testimony of Theodore M. Love, Page 13, lines 12–21.

The implication is that the co-existence of E1's residential behavioural program and NS Power's CEM platform gives rise to two primary concerns in light of the programs' intervention-based similarities. The first concern relates to the potential double counting of savings by NS Power, and the second concern is rooted in implementation costs that could be reduced through collaboration and resource sharing.[50]

Response

E1 submits that collaboration with NS Power in CEM would be in the best interests of ratepayers through enhancement of efficiencies between the two behavioural programs and entities. As DSM administrator, E1 has a well-established expertise in the development, administration and delivery of energy efficiency activities.

E1 operates in an environment of stringent DSM evaluation and verification processes which operate to isolate any direct savings attributable to an E1 program offering. E1 submits that this evaluation and verification process will serve to ensure that the Consumer Advocate's concern regarding potential double counting of savings will be appropriately managed and reported within E1's annual evaluation process.

Past discussions between the parties are supportive of the engagement with E1 although no formal agreement has been reached to date on E1's specific role in the operation of the CEM. Such efforts remain ongoing. In the event such efforts remain unresolved, it would be E1's intention to seek direction from the NSUARB as contemplated by the Board's decision in matter M10164.

To ensure stakeholders are kept apprised of the ongoing collaboration between E1 and NS Power, E1 proposes to provide updates to the NSUARB in E1's quarterly reports leading up to the establishment and operation of the E1 behavioural programs and CEM.

Moving forward, E1 remains committed to its collaboration with NS Power in relation to CEM and recognizes the importance of ensuring "*double counting savings from…two similar efforts*", as described by Theodore Love, is avoided in the process. E1 is supportive of sharing knowledge and technical resources relating to the parties' related behavioural programs for the benefit of ratepayers generally.

[50] Ibid., Page 13, lines 21–23.

In conjunction with any potential behavioural program collaboration, E1 would support providing updates through its regular reporting. Beyond the opportunities and benefits that would accompany CEM collaboration, E1 submits that the application of its extant DSM evaluation process, whereby only those savings attributable to DSM programs are considered by E1, already provides the means to mitigate and/or avoid potential issues such as the double counting of savings.