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Delivered by Email

Crystal Henwood
Regulatory Affairs Officer/Clerk
Nova Scotia Energy Board
3rd Floor, 1601 Lower Water Street
PO Box 1692, Unit "M"
Halifax NS B3J 3S3

Dear Ms. Henwood:

Re: M12249 - EfficiencyOne - 2026 DSM Extension Application

These submissions are filed on behalf of the Industrial Group.

E1's application is a direct response to the legislative amendment of the *Public Utilities Act*, RSNS 1989, c 380 ("**PUA**") to extend the term of the existing 2023-2025 DSM Plan by one additional year to December 31, 2026, and the prescribed DSM investment amount of \$63,750,000. E1 has now applied for an Order approving its targets for the 2026 DSM year and amendments to the 2023-2025 DSM Agreement to incorporate the legislative changes and its targets. Additionally, E1 has requested that it be exempted from complying with the following Board directives until the next five-year plan:

(e) To provide specific justification, on an individual basis, for each measure that fails cost-effectiveness testing in future resource plan applications; and

(f) To include payback information in its measure level tables in future applications for the approval of resource plans and provide additional information about the other factors that E1 has considered in concluding that the proposed incentive level for the measure is appropriate for measures where the payback period is three years or less.¹

The Industrial Group recognizes that the specific investment for the 2026 DSM has been prescribed by the legislation. However, the Board must still consider whether the proposed Plan is in the best interest of ratepayers and should determine the reasonableness of the programs and measures proposed, the allocation of spending, the cost-effectiveness of the Plan, and the way E1 manages its spending throughout the Plan period. It is worth noting that regardless that the 2026 DSM Plan represents an increase in funding for DSM programming, the proposed savings targets for the year are reduced.

¹ *EfficiencyOne (E1) Re, [2022 NSUARB 137](#), at para 197.*

OVERVIEW OF THE APPLICATION

Energy and demand savings targets

E1 proposes the following targets to correlate to the 2026 spend:

- (a) incremental annual net energy savings: 116 GWh.
- (b) incremental annual net demand savings: 18.9 MW.
- (c) total available capacity from demand response: 16.3 MW.
- (d) incremental annual net energy savings from dedicated low-income and equity programs: 4.0 GWh.

Because the legislation extends the existing DSM Plan, it results in revised performance targets for the extended 2023-2026 DSM period:

- (a) incremental annual net energy savings: 528.7 GWh.
- (b) incremental annual net demand savings: 97.7 MW.
- (c) total available capacity from demand response: 16.3 MW.
- (d) incremental annual net energy savings from dedicated low-income and equity programs: 19.8 GWh.

The total investment amount over all four years is \$236.8 million.

Program Design

The 2026 plan is largely an extension of the existing three-year plan which E1 states was developed based on concepts of equity, accessibility and transparency.

The single change to the design objectives for 2026 was a reduction in the percentage investment for low-income inequity to a stated range of 15-20% - down from 21% in the 2023-2025 DSM Plan but significantly up from the approximate 8% in earlier plans. E1 states this change was made "to account for updated census data showing the percentage of low-income Nova Scotians had reduced from 17.2% to 14.9%."²

Rate Class Expenditures

Below are the planned rate class expenditures for 2026:³

² Exhibit E-1, Evidence, page 5, line 19-21.

³ Exhibit E-1, Evidence, page 6.

Table 2: 2026 DSM Extension Rate Class Expenditures

Rate Class	2026 (\$ million)
Residential/Charitable (2,3,4)	33.9
Small General (10)	3.1
General Demand (11)	17.0
Large General (12)	1.6
Small Industrial (21)	1.4
Medium Industrial (22)	2.4
Large Industrial (23,25)	3.9
Municipal (24)	0.5
Unmetered (999)	0.0
Total	63.75

E1 states that in developing the 2026 rate class spending estimates it used the actual results from 2022-2024 and in response to the Board's direction, took "notice of the concerns raised by the Industrial Group and be prepared to address them".⁴

Programs

There are no new programs contemplated under the 2026 DSM Extension Plan. The three residential energy efficiency programs are: (1) residential efficient product rebates; (2) existing residential; and (3) new residential (the new home construction program component was retired at the end of 2023).

The three existing Business, Non-Profit and Industrial ("**BNI**") energy efficiency programs are: (1) BNI efficient product rebates; (2) custom incentives; and (3) direct installation.

The demand response programs are also proposed to continue.

Cost-Effectiveness Testing

E1 states that it has applied the current Board-approved cost-effectiveness test to the 2026 DSM Plan i.e., the Total Resource Cost ("**TRC**") test. This test compares the cost of program design and delivery with NSPI's avoided costs (energy cost, capacity, transmission and distribution, and carbon). It also offers the Program Administrator Cost ("**PAC**") test as a comparator "for informational purposes only".⁵

⁴ Exhibit E-1, Evidence, page 6, lines 11-12.

⁵ Exhibit E-1, Evidence, Appendix B, page 22, line 3.

Updates to Avoided Cost Calculation

E1 incorporated the IRP results from the 2022 IRP Evergreen Process into its avoided cost calculation for the 2026 DSM Extension. These avoided costs were provided by NSPI in August 2024. E1 flagged that the avoided costs of carbon are now embedded in the avoided costs of energy for 2026; carbon costs have not been provided by NSPI as a separate input.

2026 DSM PROGRAMMING CHANGES

On the residential side, E1 ended appliance retirement on January 8, 2025, as delivery costs were rising, savings were declining as units being retired were newer and more efficient already. In addition, starting in 2025, E1 provided year-round set rebates on all qualifying products for its “instant savings” program component due to the adoption of an LED baseline in early 2025. These rebates will continue in 2026 in place of seasonal campaigns. Regarding efficient products, E1 reports it added new electrician-installed measures in late 2024, emphasizing auto-enrolled eligible devices to support the “Eco Shift” demand response.

In 2025, E1 will be retiring the “Green Heat” component due to continued decline in savings and participation attributed to federal grants co-delivered through home energy assessment (“**HEA**”) leading to participants choosing HEA over Green Heat due to higher, stackable incentives. In the HEA component, E1 introduced a “virtual audit” option. It also extended eligibility in the Mi’kmaw Home Energy Efficiency Project to support individual homeowners in addition to Band-owned homes.

In the BNI energy efficiency component, the only modification was to expand measures in the “Small Business Energy Solutions” regarding commercial direct installation.

The Demand Response programs for both Residential and BNI are planned to continue. Commercial batteries were added to BNI Demand Response beginning in the 2025-26 Demand Response season.

Anticipated Results

E1 anticipates *lower* energy savings and *lower* demand savings in 2025 and 2026 compared to those achieved in 2023 and 2024, despite the notable increase in the budget. It attributes this to the following factors:

- E1 had a “last chance” for rebates for certain LED lighting products in 2024 which will not be continuing into 2026.
- The Canada Greener Homes Grant Program funding which topped up E1’s Home Energy Assessment Program has been exhausted, leading to an expected decrease in participation.
- The results of the 2024/2025 demand response season indicate lower-than-forecasted adoption of certain demand response devices.

In E1's 2024 DSM Annual Progress Report (filed March 31, 2025),⁶ E1 expects to achieve 128.7 GWh with an investment of \$62 million in 2025.

In 2026, the 2026 DSM targets are lower, 116 GWh, with an investment level of \$63.75 million. Energy efficiency spending is also now split 51% residential and 49% BNI, which provide energy savings of 35% from residential and 65% from BNI, respectively.

At the portfolio level, the 2026 unit cost (the cost of energy efficiency per kWh) is \$0.49/kWh. This is an *increase* from the 2025 forecast of \$0.44/kWh, which is, in turn, an *increase* from the \$0.39/kWh included in the approved 2023 – 2025 Plan. Over the four-year 2023 – 2026 period, the portfolio unit cost is \$0.42/kWh. Table 5 in the E1 application outlines the 2026 program savings and investments:⁷

SUBMISSIONS OF THE IG

General

The Industrial Group submits that while this application has been filed as a one-year “extension plan”, it lacks the full consultative approach generally employed by E1 and E1 did not fulfill all the standardized filing requirements, or prior directions of the Board. Particularly, E1 states it did not model alternate scenarios in accordance with the Board's prior directions because the investment amount was legislated. The Industrial Group observes that E1 could have, and should have, modelled alternative rate class program spending.

Of more concern is E1's failure to comply with the Board's directives regarding providing justification for measures that fail cost-effectiveness testing and payback information in its measure level tables. It did, however, have the data to produce to stakeholders, and did provide this information as part of its responses to IRs.⁸ Regardless, the implication of failing to respond to the Board directives as part of the Application is that it denied intervenors the opportunity to ask IRs on the results. The justification for not doing so is insufficient, given that the data was within E1's possession.

E1 has relied upon its “balanced plan” approach to divide *spending* of 51% on residential programs and 49% on BNI programs. However, energy and demand *savings* are not “balanced” with 35% from residential and 65% from BNI.

The Industrial Group observes that E1 has now adopted the Industrial Group's recommendation from the 2022-2025 Plan Application and is relying on the most up-to-date census data for the proportion of its low income and equity spending.⁹ The Industrial Group supports this change.

Synapse in its evidence recommended, and E1 agreed, that the standardized filing framework should be reviewed in the DSMAG prior to the next five-year plan. The Industrial Group agrees and suggests that this should extend to a review of E1's so-called “balanced plan”, the relevant factors for consideration in the Plan development and the weighting of such factors, all of which

⁶ Matter M12186, Exhibit E-1, Progress Report, page 14 of 46.

⁷ Exhibit E-1, Evidence, page 23.

⁸ Exhibit E-6, E1 (NSEB) RIR-17, Exhibit E-8, E1 (Synapse) RIR-11, and Exhibit E-4, E1 (IG) RIR-12.

⁹ Exhibit E-4, E1 (IG) RIR-7 and Exhibit E-6, E1 (NSEB) RIR-12.

may be informed by the Board's anticipated decision respecting the new cost-effectiveness test to be applied in evaluating DSM Plans (M12282).

Cost Effectiveness Testing

E1 states that at the portfolio level, cumulatively the programs exceed the threshold ratio of 1.0, with a ratio of 1.6. E1 asserts that this thereby satisfies the statutory requirement of "cost effective" under the *PUA*.

If E1 is arguing that the Board is somehow limited to approving or not approving an overall DSM Plan based on cost-effectiveness at the portfolio level, the Industrial Group disagrees. The Industrial Group acknowledges that the *PUA* at s 79H(2) states that cost-effectiveness should be tested at the portfolio level, but it does not state that it may *only* be tested at the portfolio level for the Board's decision-making. In fact, s 79H(1), which requires that the Board determine cost effective DSM, is subject to NSPI's requirement to undertake cost effective DSM that is "reasonably available in an effort to reduce costs for its customers" (s 79I(1)). The Board must also determine whether the DSM proposed is in the best interest of NSPI customers (s 79(4)). Cost-effectiveness, tested more granularly than the portfolio level, is needed to make those determinations.

The Board is reminded of the evidence of the Consumer Advocate's consultant, Nancy Brockway in the infancy of DSM programming in Nova Scotia:

Before a DSM program can be evaluated, certain key components need to be developed. Without limitation, these include (a) determination of the cost-effectiveness standard for measures and programs [which in turn is guided by a clear understanding of the legitimate purposes of a utility DSM effort], (b) the target markets for DSM offerings [e.g. should programs be designed to provide benefits to all customers, even if it is less cost-effective to serve DSM needs of some customers?], (c) budgets for each class and for each program, informed by the overall goals of the initiative and by the cost-effectiveness results for various measures and programs; (d) allocation of costs to classes and subclasses based on principled allocation factors; and (e) cost-effectiveness screening of all measures and programs against the cost-effectiveness test or test that is chosen for the initiative, the program or the measure, as the case may be. It is also important to specify how the program will be evaluated, so that necessary data gathering can commence with program roll-out.¹⁰

These general principles and key elements of a DSM Plan continue to apply. Nothing in the *PUA* undermines these considerations.

Savings Targets and Costs of DSM

The Industrial Group observes that there are two matters which may still affect the forecasted cost of energy efficiency programs in 2025 and in 2026, projected at \$0.44/kWh and \$0.49/kWh respectively. First, the Board's verification consultant, Gil Peach raised concerns with respect to the residential behavioural program, the residential and BNI demand response programs, and the compressed air component of the BNI custom program. He recommended that savings from these

¹⁰ As cited in *Nova Scotia Power Inc., Re*, [2006 NSUARB 23](#), at para. 453.

programs not be counted. The Industrial Group does not agree. If the Board accepts Mr. Peach's recommendation, this will only increase the program costs even more for 2026. In response to Mr. Peach's recommendations, E1's Evaluator in its reply provided a full explanation for these programs to enable their validation.¹¹ The Industrial Group finds these explanations persuasive and reasonable and supports that these savings should be included in the calculation.

Second, on August 21, 2025, E1 updated the Board on its residential behaviour program confirming that NSPI's "cyber security incident" affected NSPI's ability to transfer customer consumption AMI data to E1 and E1's program delivery partner. Without this, E1 cannot measure the changes in customer usage between its treatment and control group customers. Accordingly, E1 has suspended the residential behaviour program and there is no timeline from NSPI to resume provision of data. E1 stated this is anticipated to "materially impact" E1's ability to achieve program component targets in 2025.

While E1's Evaluator addressed the concerns of Mr. Peach, the reply evidence does not address the problems arising from the absence of AMI data. Accordingly, the Industrial Group recommends E1 outline in its Reply Submissions how it proposes to revise its programming including any changes in spending and customer class investment impacts due to the suspension of this program and how E1 plans to achieve its performance targets.

DEMAND RESPONSE

As is evident from the Application (Table 5), the residential demand response program fails both the TRC and PAC tests by a wide margin: 0.3, for both. The BNI demand response program component passes the TRC with a ratio of 1.7 but fails the PAC marginally at 0.9. Collectively, the DR program fails both the TRC and PAC.

To this point, amounts expended by E1 on DR programs have been for pilots which E1 states provided "valuable insights and learnings".¹² It is a matter of some concern that there are no formal reports on the pilot results that elucidate these insights and learnings.¹³ The Industrial Group supports the recommendation of Mr. Peach that at the program planning stage, where there is a program with very weak results – such as elements of the DR programs – it should be flagged for examination and either a new business case for the program should be developed and the program redesigned, or the program should be cancelled to make more effective use of ratepayer dollars.¹⁴

Synapse recommended that demand response should only be included with a PAC of 1.0 or greater.¹⁵ E1 said it "could not commit" to this in the 2027-2031 Plan.¹⁶ While this application relates to the 2026 Plan, the Industrial Group is concerned that after four years engaging in demand response programs, E1 cannot commit to delivery of cost-effective demand response programs. If it unable to, then consideration should be given to rate alternatives, such as interruptible options and time varying pricing structures. The Industrial Group states that it is not

¹¹ Exhibit E-17, Reply Evidence, Appendix A.

¹² Exhibit E-1, Evidence Appendix A, page 42, line 5.

¹³ Exhibit E-4, E1 (IG) RIR-17 and Exhibit E-8, E1 (Synapse) IR-13.

¹⁴ Exhibit E-12, Peach (IG) RIR-1(c).

¹⁵ Exhibit E-15, Synapse Evidence, pages 3 and 20.

¹⁶ Exhibit E-17, E1 Reply Evidence, page 8, lines 15-16.

in the best interest of ratepayers who already pay very high electricity rates to continue to expend ratepayer dollars on programs where costs outweigh the benefits. E1 needs to be better informed before launching additional and an expanded demand response programs in the next DSM Plan.

When considering the extensive work that went into the development of the time varying programs, E1's efforts at demand response appear shallow and have not been transparently coordinated with NSPI or developed through a stakeholder engagement process.

The Industrial Group has supported and continues to support Synapse's recommended use of locational DSM in grid-constrained areas. E1 states it does not have the data to do so but there is no indication it requested this data from NSPI. The Industrial Group recommends that the Board provide the necessary directions to NSPI and E1 to coordinate in the provision of data to enable E1 to develop such programs including, if required by E1 and the data is held by NSPI, mapping customers to substations.

Mid-Course Adjustments and True-Ups

The Industrial Group has been expressing concerns with respect to E1's so-called "mid-course adjustments" by which E1 retains the discretion to shuffle spending between programs and customer classes. When the authority to do so was granted by the Board, it was limited to a variance of 25% of the program and on the basis of E1's stated commitment "to use reasonable efforts to avoid program changes that will result in substantial changes to any customer class on an annual basis".¹⁷ Additionally, E1 committed to give written notice of *an intent* to implement any mid-course adjustments, i.e. in advance. Notwithstanding these commitments, in response to IRs, E1 admitted it had not quantitatively defined what constitutes a "substantial change" either at the rate class expenditure level or on a per customer basis,¹⁸ nor has it provided advance notice (with presumably an ability to object or support).

With respect to the Industrial Group's concerns regarding rate class spending, E1 stated it had developed certain strategies to mitigate concerns.¹⁹ Specifically, it offered explanations as to what caused the increase in program spending over the past three years and admitted that its class allocations were largely developed using a single year of historical data (2020 actuals). It outlined its go-forward strategies. Specifically, it committed to:

1. Improve the accuracy of the estimates used for rate class allocation of expenditures in the DSM Plan by using three years of historical data, reviewing customer commitments for projects within programs and incorporating assumptions for program changes that may impact specific rate classes.
2. Provide enhanced reporting in the quarterly and annual reports by providing year-end forecasts by customer rate class and more discussion on the cause of variances. Additionally, in the annual progress report, it will include an outlook on projected rate class expenditures for the entire plan period and anticipated variances.

¹⁷ *EfficiencyOne (Re)*, [2015 NSUARB 204](#), at para 112.

¹⁸ Exhibit E-4, E1 (IG) RIR-5.

¹⁹ Exhibit E-4, E1 (IG) RIR-8(b).

3. Continue to manage program spending variances compared to DSM Plan and explain changes greater than 25% in its quarterly and annual progress report.

E1 asserts that it is “imperative” that it retain flexibility to shift funding between programs and it will focus on implications of these shifts, particularly when rate class spending is higher compared to plan. E1 states that it is “committed to considering rate class spending when reallocating funding between programs”.²⁰ However, E1 would not support establishing class caps on rate class participation, asserting that it could harm customers who want to participate and require support for a project and E1 added there could also be implications for E1’s ability to meet performance targets.²¹ Another option suggested but not adopted was to manage the timing of E1’s program expenditures by year (by deferring or delaying projects for example).

The Industrial Group supports E1’s efforts to improve its estimates and up-front allocations and the enhanced reporting. However, with due respect, explanations of program spending variances do not fulfill E1’s commitments to avoid a substantial change to any customer class on an annual basis and to provide notice in advance of implementing such changes. The Industrial Group respectfully submits that a 25% change in planned spending is a “substantial change” and requests that the Board direct E1 to manage its budgeted program spending by customer class, within a reasonable range to avoid such “substantial change”.

In the Plan period of 2023-2025, E1 was approved to spend annually, \$1.0 million, \$1.1 million and \$1.1 million on the Medium Industrial class, for a total of \$3.2 million. E1’s actual expenditures (including forecasted to end of 2025) for the Medium Industrial class is \$6.8 million. For the Large Industrial class, the approved amounts were \$2.2 million, \$2.3 million and \$2.4 million, for a total of \$6.9 million. E1’s actual expenditures (including forecasted to year-end 2025) for the large industrial class is \$9.6 million.²² The increase for the Medium Industrial class is more than a 100% increase in spending and almost a 50% increase for Large Industrial customers.

In 2026, E1 is proposing to increase its spending on Medium Industrial class to \$2.4 million (up from the 2025 approved spending of \$1.1 million) and on Large Industrials to \$3.9 million (up from \$2.4 million).

Rather than addressing the significant overspend on these customer classes in the first three years by managing the spend in this extension year, E1 is planning to *increase* the spending. The impact on customer rates cannot be ignored by E1.

The Industrial Group disputes E1’s assertion that it is “imperative” to retain an unconstrained degree of flexibility to shift funding between programs that disregard customer impacts. It is not sufficient to explain and report; E1 must also manage its spending to avoid such material rate impacts and provide advance notice so that customer classes directly affected may object or support such changes.

Where the reduction of costs to ratepayers is at the forefront of the Board’s analysis of the reasonableness and cost-effectiveness of DSM, the impact on rate swings for customers should be monitored and prevented. Unfettered discretion on cost shifting between customer classes to

²⁰ Exhibit E-4, E1 (IG) RIR-8(b) page 5 of 6, lines 18-19.

²¹ Exhibit E-4, E1 (IG) RIR-8(b) and RIR-16.

²² Exhibit E-4, E1 (IG) IR-4 and Att.1.

meet DSM targets should not be permitted to continue considering the significant impacts on customer costs that have and will continue to occur.

These impacts are proposed to be managed by an amendment to the DSM rider, addressed below.

Supply Agreement – COSS and DSM Rider

NSPI has filed an updated proposed Cost of Service Study (“**COSS**”) with the General Rate Application (“**GRA**”) for the test years of 2026-2027, with DSM to be allocated 100% to customers.

In addition, it proposes as part of the GRA, an amendment to the DSM Tariff such that cost recovery of the end-of-plan true-up is proposed to change from a single year to smoothed over multiple years to reflect a matching concept, i.e., the period of recovery of the variance matches the accrual period of the variance

The Industrial Group has reviewed the Supply Agreement (and Schedules as filed) between E1 and NSPI and it does not appear that any changes are required to implement these proposed changes in the COSS and DSM Tariff. However, the Industrial Group requests that if E1 believes otherwise, that it addresses this in its Reply submissions.

Conclusion

The Industrial Group recommends that the Board:

1. Take into consideration the cost-effectiveness results provided in relation to the program and/or measure level, in addition to the portfolio level, considering the requirement to determine the best interest of ratepayers and ensuring that the DSM is implemented with the goal of reducing costs to ratepayers.
2. Direct E1 to engage the DSMAG prior to the filing of the next five-year plan to discuss the standardized filing framework, review E1’s proposed “balanced plan”, review the relevant factors and weighing of factors for consideration in the new Plan, and discuss the impact of the Board’s future decision regarding the new Benefit Cost Analysis test to be applied, if any.
3. Reject the recommendation of Mr. Peach regarding not counting the savings associated with the residential behavioural program, the residential and BNI demand response programs, and the compressed air component of the BNI custom program.
4. Direct E1 to complete more comprehensive analysis into the demand response programming employed, and provide more clear support, including a PAC result of 1.0, in any proposed DR programming in the 2027-2031 DSM Plan.
5. Direct E1, and NSPI, to analyze and report on the overlapping programming in relation to the residential demand response programs and the CPP programming run by NSPI before the filing of the 2027-2031 DSM Plan, and direct E1, and NSPI, to coordinate in the provision of data required to enable E1 to develop better and more effective targeted demand response programming within the 2027-2031 DSM Plan, including the collection of data needed to map customers to substations.

6. Direct E1 to manage its budgeted program spending by customer class, within a reasonable range to avoid such "substantial change" to ratepayers when proposing any midcourse adjustments.

It is further suggested that E1 respond to the concerns raised by the Industrial Group above within its Reply submissions, as set out below:

7. How it proposes to revise its programming in relation to the noted impacts of the NSPI cybersecurity breach, and the residential behavioural program including any changes in spending and customer class investment impacts due to the suspension of AMI data and how E1 plans to achieve its performance targets.
8. Confirmation on whether amendments to the Supply Agreement are required to implement NSPI's proposed changes to the DSM Tariff and variance recovery period.

Thank you for the opportunity to submit these comments.

Respectfully,

A handwritten signature in blue ink, appearing to read 'Nancy G. Rubin', followed by a horizontal line.

Nancy G. Rubin, K.C.

A handwritten signature in blue ink, appearing to read 'Brianne E. Rudderham', followed by a horizontal line.

Brianne E. Rudderham

NGR/BER/lmc

cc Intervenors