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File No: SM002557-00003

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July 4, 2022

Delivered by E-mail

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

Dear Ms. Henwood:

Re: M10473 - EfficiencyOne ("E1") Application for Approval of a Supply Agreement for Electricity Efficiency and Conservation Activities between E1 and Nova Scotia Power Inc. (Demand Side Management (DSM) Plan 2023-2025)

These submissions are filed on behalf of the Industrial Group in relation to E1's proposed Demand Side Management ("**DSM**") Plan for 2023-2025 (the "**Plan**").

E1 has filed what it terms a "Settlement Plan", having secured agreement from NSPI. This Plan has a budget of $173 million over the three-year period.[1] In comparison, the current three-year plan is $110 million – almost a 75% increase in budget and activities. It also filed an "Alternate Scenario" with an investment level of $160.1 million.

These submissions will address four matters: incentives and payback analysis; the TRC test; "balanced plan" approach and the DSM Advisory Group.

INCENTIVE SETTING PROCESS AND PAYBACK ANALYSIS

The Industrial Group maintains that the incentive setting process and payback analysis requires additional scrutiny and direction and filed evidence by its consultant Mark Drazen to that effect (Ex. E-21). The thrust of Mr. Drazen's evidence on these points is that incentives should be no higher than necessary to achieve the result. To that end, incentives should explicitly account for bill reductions that the customer receives (having regard to current rates in place). He recommends a "payback" analysis to determine how cost-effective a measure is to the individual ratepayer, such that this can be properly accounted for in setting the incentive (or evaluating for inclusion in the Plan).

In its Rebuttal evidence (E-29), E1 takes the position that "its incentive methodology is now a settled matter" under matter M07544 and states that E1's Revised Incentive Setting Methodology ended with *acceptance* by the Board. E1 goes on to argue that consideration of payback periods is outside the recommendations of CLEAResult and is inconsistent with E1's *Board-approved*

[1] 2023: $53.1 million; 2024: $57.5 million; 2025: $62.5 million.

Incentive-Setting Methodology".[2] E1 emphasizes that it calculates and considers the electricity bill savings and payback periods as part of its incentive setting methodology for programs other than Custom. However, it goes on to say that such values only inform the threshold that incentives are compared against within the Custom program.[3] Significantly, E1 admitted that the level of incentives don't change when NSPI's rates change[4].

The Board had directed E1, in consultation with stakeholders to research and make recommendations on a more rigorous program for determining incentives. The outcome of that process in 2017 (M07544) was a report being filed by E1's consultant's CLEAResult and an Implementation Plan by E1. As noted in the Industrial Group's submission at the time[5], the CLEAResult Report set out a general approach for incentive setting but there was a lack of financial detail in how the methodology was to be applied and the results analyzed in practice. The Industrial Group specifically "reserved the right to address the appropriate level of incentives, for any individual measure or program in future once further financial information is available and the methodology is applied in practice."

The Industrial Group respectfully submits that contrary to E1's Rebuttal, the methodology was not "Board-approved;" rather, the Report and Plan were "accepted". As such, the Board's acceptance of a general methodological approach does not "settle" the issue of the appropriate level of incentives for any particular measure or program, nor preclude revisions to how incentives are determined.

In addition, and contrary to E1's argument that consideration of paybacks is "inconsistent" with the CLEAResult Report, in fact it endorsed analysis of payback periods (and not simply for the Custom program) including when considering Participant Perceived Value, when performing the Participant Cost Test, as well as when determining theoretical thresholds for incentive setting.[6]

Lastly, and despite E1's assertion that it considers payback periods, it is for limited purposes and there is no transparent explanation or justification of *how* payback analysis is accounted for in setting incentives within the Plan.

It appears that despite the push-back from E1, there is still some alignment with the Industrial Group. E1:

- "agrees that short payback periods, may, absent other behavioural patterns, suggest lower incentive levels" (Rebuttal page 16, lines 12-13); and
- "is very much focused on limiting incentive to the lowest level necessary to effect the desired result of measure uptake (Rebuttal page 16, lines 19-20).

E1 has the tools to evaluate the payback periods for individual measures and significantly, it acknowledges the relationship between payback levels and incentives. Providing this additional

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2 E-29 E1 Rebuttal Evidence June 10 2022, pg. 15-16.

3 E-29 E1 Rebuttal Evidence June 10 2022, pg. 16.

4 E-9, E1(IG) IR-2(a).

5 April 27, 2017 comments of Industrial Group.

6 Incentive Setting Methodology - CLEAResult Report and EfficiencyOne Implementation Plan ("CLEAResult Report"), Pg. 17-19 and 26.

information transparently, on a measure level, with due consideration for customer electricity rates will better inform the appropriate level of incentives to appropriately but not excessively incent customer participation.

The Industrial Group recommends that Board direct E1 to provide this information in its measure level tables and where a payback period is three years or less, to adjust incentives and/or justify the inclusion of the measure on some other basis.

THE TRC TEST OF MEASURES AND PROGRAMS

Within the Plan there has been a creeping departure from the first principles which were intended to guide the approval of cost-effective DSM measures and programs.

Background Review

In 2009, NSPI sought Board approval of its 2010 DSM Plan and DSM Rider[7]. Among the issues adjudicated was the cost effectiveness of certain activities. When considering cost effectiveness, the basic question is whether the avoided cost of new supply exceeds the cost of the measure. This is the Total Resource Cost ("**TRC**") test. A TRC ratio greater than 1.0 means that the benefits are greater than the costs; a ratio less than 1.0 means that the costs exceed the benefit.

NSPI had justified inclusion of measures with a TRC ratio of less than 1.0 on the basis that they benefit from bundling with other measures that provide significant savings and improve a Program's overall performance[8].

On this issue, the Board found:

> *[34] Avon, in its evidence, questioned the inclusion of some activities in the 2010 DSM programs which have a TRC ratio of less than one. NSPI stated that inclusion of activities with a TRC ratio of less than one are part of the overall programs which have TRC ratios of more than one.*
>
> *[35] Mr. Whalen is of the view that activities which have a TRC ratio of less than one should only be included in the 2010 DSM programs if they are critical and taking them out destroys the whole program.*
>
> *[36] The Board, after review of the evidence, agrees with Mr. Drazen and Mr. Whalen that any activity in the program, which, by itself, has a TRC ratio of less than one, should only be undertaken if its elimination jeopardizes the whole program.*

The Order which issued made the requirements clear when undertaking measures which by themselves may not be cost-effective:

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7 *Nova Scotia Power Incorporated (Re),* 2009 NSUARB 116 (NSUARB-NSPI-P-884; M10439)

8 *Nova Scotia Power Incorporated (Re),* 2009 NSUARB 116 at para.17.

> *Activities in individual programs which have a Total Resource Cost ("TRC") ratio of less than one are to be undertaken only if they are critical and their exclusion will jeopardize the whole program.*[9]

The following year, NSPI self-imposed a floor TRC of 1.0 for measures but questions were still raised by the Board why NSPI included DSM measures with a TRC ratio of 1.0 when other measures with ratios greater than 1.0 were available[10]. The Board's findings stated:

> *[80] The Board finds that while the DSM measures which have TRC ratios near 1.0 are marginal in effectiveness, it will accept them for the design of the 2011 DSM plan. However, the Board suggests that ENS monitor this issue for future DSM plans.*

Thereafter, responsibility for DSM shifted from NSPI to Efficiency Nova Scotia Corp. ("**ENSC**"). ENSC applied for approval of the 2012 DSM Plan. Among the issues were:

- *effectiveness of DSM measures with Total Resource Cost ("TRC") ratios near 1.0; and*
- *applying TRC screening to programs instead of measures.*[11]

The rationale was described in its filing:

> *ENSC is seeking the flexibility to consider factors in addition to TRC, when selecting measures. In some cases, a measure that fails the TRC test may provide strategic or long-term benefits, such as stimulating demand for newer technologies to achieve economies of scale.*

Board counsel consultant, Mel Whalen filed evidence supporting the change, for, among other reasons, the avoided costs used in the TRC are "somewhat conservative" and this was consistent with the possibility of moving to a performance-based approach to DSM.[12]

The Board agreed with the benefits and flexibility that would be provided to ENSC to change the TRC test from the measure level to the program level and approved the change effective January 1, 2012 (para.88).

As is apparent from the above review, while the Board granted E1 (or rather its predecessor, ENSC) the ability to apply the TRC at a program level, some scrutiny at the measure level must still be applied. The flexibility was granted on the basis that an individual measure which, by itself, is not cost-effective, would provide strategic or long-term benefits, stimulate demand for newer technologies, or help to achieve economies of scale.

9 M01439, Amended Board Order, August 31, 2009.

10 *Nova Scotia Power Incorporated (Re),* 2010 NSUARB 155 at para.77.

11 *Efficiency Nova Scotia Corporation (Re),* 2011 NSUARB 99 (NSUARB-E-ENSC-R-10; M03669) at para.5.

12 Exhibit E-12.

2023-2025 DSM Plan

It is clear from the evidence that not only do many of the individual measures not pass the TRC test, but the programs themselves are marginal in effectiveness. The Residential Low-Income Program Component has an overall TRC of 1.0, Residential Efficient Product Rebates Program Component has a TRC of 1.1 as does the Demand Response Program[13].

E1 contends in its Rebuttal Evidence that approval at the Program level provides it with flexibility and submitted that doing so "represents industry best practice". It states that excluding measures with a TRC ratio of less than 1.0 would result in "…exclusion of measures beneficial to the low income and small business sectors".[14] When asked to justify inclusion of measures on an individual basis, E1 offered general rationales, without reference to specific measures and programs[15]. In doing so, it is impossible to know why or on what basis any particular non-cost-effective measure should be permitted.

Respectfully, the Industrial Group submits that the Plan has strayed from the original concept, which required a non-cost-effective measure be critical to a Program or provide strategic or long-term benefits, stimulate demand for newer technologies, or help to achieve economies of scale.

In his evidence, Consultant for the Small Business Advocate, John Athas stated that "E1 should not be funding Measures with benefit-cost ratios below 0.9 on the TRC test". He highlighted that prohibiting measures with a TRC of 0.9 or less would "…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".[16]

The Industrial Group recommends that E1 be directed to justify on an individual basis measures which fail the TRC test.

"BALANCED PLAN APPROACH"

The Settlement Plan allocates spending 55% to the Residential Sector / 45% to the Business, Non-Profit, Institutional ("**BNI**") Sector to achieve 40% Residential / 60% BNI energy savings. Low-income investment makes up 21% of the total spend over the three years of the Plan, (to achieve 10% of Energy Savings), with the spending stated to be aligned with 2016 Statistics Canada Census data for low-income prevalence in Nova Scotia.[17]

The Industrial Group recognizes the benefits of supports to Nova Scotians within the low-income rate-payer category. However, as stated by Mr. Drazen efficiency spending is a supply contract so the Board should ask the same question as when NSPI is considering any potential supply source: *Is that supply being acquired by the lowest cost available?"*[18] As discussed, it is not – in part as a result of E1 choosing to subsidize DSM measures to an extent greater than necessary

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13 E-1 Evidence, Appendix A, Tables 9-12.

14 E-29 E1 Rebuttal Evidence June 10 2022, pg. 12.

15 E-9, E1(IG), IR-7(b).

16 E-24 M10473 - Evidence of John Athas, Daymark, pg. 18.

17 E-1, E1 Evidence, pg.13, lines 17-18.

18 E-21, p.4, lines 2-9.

(the issue of incentives) and in part, a policy decision to subsidize low-income and underserved communities.

NSPI is mandated to deliver electricity to its ratepayers without preference or discrimination[19]. The Nova Scotia Court of Appeal confirmed the Board has no power to approve a rate assistance program for low income customers.[20] The approval criteria for electricity efficiency and conservation activities is simply that they be "cost-effective".[21] E1 acknowledges that certain low-income program components do not pass the TRC test and negatively affects the overall cost-effectiveness of the Plan.[22]

The Industrial Group does not take a position in this proceeding on the Board's jurisdiction to approve E1's policy choices but respectfully submit that it is an issue which warrants consideration, in light of the statutory provisions.

The issue which the Industrial Group addresses is that E1's current benchmark within the Plan for the determination of funding for low-income investment is based on stale data which negatively impacts the overall cost-effectiveness of the Plan to the detriment of Nova Scotians, as a whole.

In E1's response to Industrial Group IR-16, E1 confirmed it relied upon Statistics Canada's <u>2016</u> Census data to set its funding level in 2023-2025. E1 stated it used the most recent Low-Income Measure After-Tax ("**LIM-AT")** figure from Statistics Canada's 2016 Census data which reported that 17.2% of Nova Scotians met the criteria for low income.

The Industrial Group suggested that more current data should be used, referring in IR-16 to the 2019 Census data, the most current data available at the time. The 2019 Statistics had determined the applicable low-income threshold in Nova Scotia to then be 12.1%. E1 responded that this was a different measure than it relied upon, i.e. the Market Based Measure ("**MBM**").

Statistics Canada has since released its 2020 Census Data. As reported, it includes <u>both</u> the MBM and the LIM-AT. Statistics Canada reports that the low-income measure further fell in 2020 and provides updated figures. The Survey states:

> *Statistics Canada also reports low income based on the low-income measure (LIM). According to the LIM, which is a relative measure, individuals are considered to be living in low income if their household after-tax income falls below half of the median after-tax income, adjusting for household size.*

The Survey goes on to state that "similar to the poverty rate, the low-income rate using the LIM either decreased or remained relatively unchanged for all family types and age groups in Canada, and for all provinces." Further, and as stated, "the low-income rate in Canada decreased from 12.1% in 2019 to 9.3% in 2020, the lowest rate since the beginning of the series in 1976". [23]

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19 *Public Utilities Act, s.67(1).*

20 *Dalhousie Legal Aid Service v. Nova Scotia Power Inc.,* 2006 NSCA 74.

21 *Public Utilities Act, s.79H.*

22 E-1, E1 Evidence, pg.17, lines 12-15.

23 https://www150.statcan.gc.ca/n1/daily-quotidien/220323/dq220323a-eng.htm

Specifically, for Nova Scotia, the percentage of all low-income persons has been steadily decreasing from a high in 2016 of 16.4% down to the most recent surveyed figure of 7.7%.[24]

While E1 can quibble over sample sizes and data points, as reported by Statistics Canada *both* measures - LIM and MBM - have been on a steady decline since 2016, the "high" and the date selected by E1 on which to base its funding levels for 2023-2025. In E1's stated goal to achieve equity, it has overshot and presented a stretch Plan which is not grounded in the data, nor as efficient or cost-effective as it could and should be.

The projected spending level of $35.8 million (21% of the total investment) for low-income customers is significantly higher than the previous average of 8% for the period 2015-2020. It is a 214% increase in the Residential investment dollars compared to the 2020-2022 Compliance Plan and a decrease of 65% from BNI.[25] The changes are discussed in the evidence of Consumer Advocate consultant, Theodore Love who expresses concern regarding E1's ability to ramp up and almost more than triple investment in this area. To address this, he recommends that E1 be required to meet specific performance targets for underserved communities.

The Industrial Group shares the concern regarding E1's ability to achieve this significant ramp up and recommends that the Board direct E1 to incorporate the most current Statistics Canada data into its program planning when setting investment levels as part of E1's compliance filing. On July 13, 2022, Statistics Canada will be releasing its data from the 2021 Census of Population on Income[26]. With this release, there can be no objection by E1 regarding the data set to be used.

DSM ADVISORY GROUP

The Industrial Group is a member of the DSM Advisory Group ("DSMAG"), and supports its purpose i.e., the promotion of information sharing and collaboration in DSM focused proceedings before the Board. The DSMAG Terms of Reference state that comments and positions taken by Members in the DSMAG are confidential and do not preclude any position being taken in any adjudicative process[27].

Still, within this proceeding, E1 has explicitly or inferentially stated that a failure to raise an issue or objection within the DSMAG somehow precludes or lessens the weight to be assigned to a concern that is raised in the regulatory process. To the extent that E1's Rebuttal suggests so, it should be disregarded.

CONCLUSION

The Industrial Group respectfully requests:

1. The Board direct E1 to provide payback information in its measure level tables and where a payback period is three years or less, to adjust incentives and/or justify the inclusion of the measure on some other basis.

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[24] Statistics Canada. Table: 11-10-0135-01. Low income statistics by age, sex and economic family type, https://doi.org/10.25318/1110013501-eng

[25] E-20 Theodore Love evidence, Table 1, pg.11.

[26] https://www12.statcan.gc.ca/census-recensement/2021/ref/prodserv/release-diffusion-eng.cfm

[27] Efficiency Nova Scotia DSM Advisory Group Revised Terms of Reference, Revised August 13, 2021, pg. 7

2. E1 be directed to justify on an individual basis measures which fail the TRC test.
3. The Board direct E1 to incorporate the most current Statistics Canada data into its investment levels as part of E1's compliance filing.

Thank you for the opportunity to submit these comments.

Yours truly,

Nancy G. Rubin

NGR/DAFM

cc All Participants in M10473