Nova Scotia
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October 21, 2025

Crystal Henwood
Clerk of the Board
Nova Scotia Energy Board
1601 Lower Water Street, 3rd Floor
Halifax, NS B3J 3S3

Re: M12282 Demand Side Management (DSM) Benefit Cost Analysis Test (BCAT) Rebuttal Submission

Dear Ms. Henwood:

Please accept the following as Nova Scotia Power Incorporated's (NS Power, Company) rebuttal to the closing arguments filed in the above noted matter.

NS Power submits that reaching consensus on the appropriate benefit cost analysis test (BCAT) to apply to Demand Side Management (DSM) Plans in Nova Scotia is essential to the long-term success of DSM. This matter is the first before the Nova Scotia Energy Board (NSEB, Board) to discuss the policy intentions of government in enacting the Bill 404 and is one of the first opportunities for the parties to meaningfully dig into the impact such recent legislative changes have on new matters coming before the Board. At this stage, NS Power disagrees with EfficiencyOne (E1)'s proposed interpretation of how the legislative changes in Nova Scotia since the Board's decision in M08888 should shape E1's new proposed BCAT. However, NS Power recognizes the importance of continued collaboration among the parties to achieve consensus on a test that aligns with both the legislative intent and the established cost-effectiveness framework in Nova Scotia. NS Power proposes that further joint work continue.

To reiterate upfront, NS Power maintains that the Board cannot account for host customer non-energy impacts as defined in Table 3-3 of the NSPM[1] or broad societal impacts in its decision-making post-enactment of the *Energy Reform Act* (ERA). The *Public Utilities Act* (PUA) dictates the operational requirements for DSM in Nova Scotia. Sustainability goals are policy objectives that do not override the operational requirement to approve programs that are demonstrably cost effective and in line with the statutory duties explicitly outlined in the PUA.

[1] Host customer non-energy impacts include productivity, comfort, health and safety, mobility, etc.

Response to the Closing Arguments of E1, the Consumer Advocate (CA), the Small Business Advocate (SBA), and East Coast Environmental Law (ECEL)

NS Power does not intend to summarize the entirety of the parties' closing submissions but will respond to the main themes presented by E1 and the signatories to the Partial Consensus Agreement ("PCA") below.

E1 asks that the Board approve the proposed BCAT as supplemented by the PCA, specifically:

- The Proposed BCA framework as set out in E1's Application to replace the TRC as the Board approved screening test for DSM in Nova Scotia at the portfolio level in accordance with PUA 79H(2);
- A real discount rate of 2%;
- The proxy values as set out in subsection (d) of the PCA are to be applied for the 2027-2031 DSM Plan; and
- subsection (f) of the PCA, the evergreen process will be used for all DSM plan applications subsequent to the 2027-2031 DSM Plan.

E1 submits that the proposed BCAT enjoys "wide support among intervenors" and is in the best interests of NS Power ratepayers.[2] Respectfully, five of the eight intervenors in this proceeding did not sign on (NS Power, the Industrial Group, Department of Energy, Eastward Energy, and Kwilmu'kw Maw-Klusuaqn Negotiation Office). While NS Power commends E1, the CA, the SBA, and ECEL for attempting to achieve consensus, as outlined in NS Power's closing submission and further below, consensus does not dictate the proper interpretation of legislation and there remains fundamental disagreement on the impact of the relevant legislative changes since the Board's decision in M08888 on E1's BCAT.

First, the PUA remains the governing statute for DSM in Nova Scotia. The PUA dictates that cost-effectiveness remains the primary goal against which DSM initiatives are judged. The *Energy Reform Act* (ERA) introduced several new statutory purposes, the relationships among which must be considered in light of the overarching framework of the PUA. While E1, the CA, the SBA, and ECEI appear to suggest that the Board must now conduct a balancing exercise between all and factors it must consider, essentially equating cost-effectiveness with sustainable prosperity, that interpretation is not supported by the plain and ordinary meaning of section 6(2) of the *Energy and Regulatory Boards Act* (ERBA), which clearly delineates the Board's task. If the Legislature intended the Board to approve programs solely or largely on sustainability grounds, it would have said so expressly, for example, by creating a separate test or exception. Instead, it instructed the Board to *give consideration* to sustainability *to the extent appropriate*, preserving the primacy of the cost-effectiveness mandate.

[2] E1 Closing Submissions, page 42, line 20.

E1 suggests that the legislation encourages the Board to be forward-looking and to consider long-term societal outcomes;[3] however, E1 does not discuss how those considerations can be applied within the bounds of ensuring cost-effectiveness and just and reasonable rates. The Board's responsibility is to ensure that DSM Plans are demonstrably cost-effective at the time they are approved. Sustainable development and prosperity cannot be achieved through measures that impose undue or unjustified costs on ratepayers.

The CA suggests that the weight of the evidence presented in this matter favours the approval of the Partial Consensus Agreement.[4] Respectfully, NS Power disagrees. Even if the signatories to the Partial Consensus Agreement's overarching interpretation of the impact of the legislative changes was adopted, which NS Power opposes, neither E1, the CA, the SBA, nor ECEI, produced evidence or analysis that has drawn any contextual or analytical link between the proposed host customer non-energy benefits impacts (NEBs), and the changes in legislation, specifically connected to the statutory concepts of *sustainable prosperity* or *sustainable development*. For ease of reference, the NEBs are as follows at page 32 of E1's Application, Table 8:

Asset Value	New equipment, latest technologies improve asset value
Water cost impacts	Some efficiency measures also reduce water consumption
O&M Costs	Energy Efficiency (EE) and Electric Vehicles (EV) typically decrease. Demand Response (DR), Distributed Generation (DG) and Distributed Storage (DS) may increase, Building and industry electrification (BE) may increase or decrease
Productivity	Many EE investments in businesses improve productivity
Economic well-being	Energy bill savings reducing stress of disconnections, foreclosures, etc. create direct and induced economic benefits
Comfort	Weatherization, possibly BE.
Amenity	EE 2nd fridge removals; DR changing home temperatures, business DR shut-downs; EV "range anxiety" (cost) + avoided trips to gas stations (benefit)
Health & Safety	E.g., improvements to indoor air quality
Empowerment	Satisfaction from ability to control energy consumption and bills
Pride	Satisfaction from contribution to addressing environmental

[3] E1 Closing Submissions, page 39, line 13.
[4] CA Closing Submission, October 14, 2025, page 8, line 29.

	concern

While the terms surrounding sustainability in the legislative amendments express broad, long-term societal goals, the listed impacts are primarily individual effects. They may be relevant to understanding how specific customers experience a DSM measure, but they do not, in and of themselves, constitute or demonstrate progress toward sustainable prosperity in the sense contemplated by the legislation, which is, prosperity achieved through the integration of environmental stewardship, economic resilience, and social well-being[5] or sustainable development, which is development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.[6] It is difficult to understand how parties could accept that aggregating these types of individual benefits naturally produces an outcome of supporting sustainability without any empirical support.

Even more concerning from NS Power's perspective is that the above list of NEBs is then assigned a proxy value and factored into the assessment of broader Host Customer Impacts as listed at Table 14 of Energy Futures Group (EFG)'s evidence, with imprecise values assigned.[7] EFG wrote in its evidence that there is a lack of data and research, particularly for the non-efficiency Distributed Energy Resources (DERs), which led to EFG's recommendation for a "more generalized approach as appropriate and manageable" and that while there are limitations of approximation in the proposed approach, given the time and resources necessary to provide more detailed estimates, these non-specific proxies could suffice.[8] The SBA expressed issue with the presented difficulties of quantification but seemed to have its concerns addressed with E1's commitment to an evergreen process and by having specific proxy values reduced to zero through the consensus-reaching process.[9]

Overall, it seems that the Board and the parties are to find assurance in the proposal of an "evergreen process"; however, NS Power submits that it would be procedurally and substantively unsound for the Board to endorse a new approach in principle with the intention of working out its true mechanics later. The CA acknowledges that E1 has committed to undertake extensive future work, including comprehensive literature reviews, jurisdictional analyses, market research, and customer surveys to validate and quantify non-energy impacts, alongside annual stakeholder sessions and reports to inform future adjustments to the BCA test.[10] With respect, a test that depends on such a substantial program of further review and study before it can be applied in a reliable and defensible manner should not be approved.

[5] *Environment Goals and Climate Change Reduction Act*, 2021 c 20, s 1, section 2(l).
[6] *Environment Act*, 1994-1995, c 1, s 1, section 3(aw).
[7] Energy Futures Group (EFG) Evidence, Appendix B, May 16, 2025, page 45, Table 14.
[8] EFG Evidence, Appendix B, May 16, 2025, pages 45-46.
[9] SBA Closing Submissions, page 3, October 14, 2025.
[10] CA Closing Submissions, pdf page 4/15.

Regulatory approval must rest on a demonstrably sound and evidence-based framework - one that can be shown, at the outset, to be capable of producing rational, transparent, and replicable results in line with legislative requirements. To proceed otherwise would mean granting approval first, and only afterwards attempting to discover whether the approach actually works. Overall, it is very difficult to accept that the weight of the evidence presented in this matter to date favours the approval of the PCA, particularly so when approval of it rests in large part on whether it is consistent with the legislative framework and whether key elements can be identified and quantified in a credible manner appropriate for the Board's oversight of this function.

Consideration of greenhouse gas emissions

ECEL is particularly supportive of the inclusion of the social cost of carbon among non-utility system benefits in E1's proposed BCAT.[11] Additionally, the CA agrees with E1 that the legislative changes at issue broadens the Board's mandate to consider greenhouse gas emissions.[12] The CA also notes, after reviewing sections 6 and 7 of *Environmental Goals and Climate Change Reduction Act* (EGCCRA) and section 79A(b)(iv) that "generally, it can now be said that consideration of environmental and societal impacts is appropriate when assessing DSM cost-effectiveness".[13]

NS Power maintains that greenhouse gas emissions reductions should be quantified at the measure level alongside a reduction in electricity costs to effect strategic electrification as per section 79A(b)(iv). This approach is consistent with section 6 of the EGCCRA which states:

> The Government's targets for greenhouse gas emissions reductions are
>
> (a) by 2030, to be at least 53% below the levels that were emitted in 2005; and
> (b) by 2050, to be net zero, by balancing greenhouse gas emissions with greenhouse gas removals and other offsetting measures.

Section 6 represents a cumulative goal, meaning numerous measures must be considered to reach the targets. The avoided greenhouse gas emissions resulting from specific strategic electrification initiatives can be identified and credited toward achieving these targets – the targets themselves are not achieved through the monetization of the external, societal benefits of avoided carbon emissions.

Discount Rate

[11] ECEL Closing Submission, page 1.
[12] CA Closing Submission, pdf page 12/14.
[13] CA Closing Submission, pdf page 9/14.

E1 submits that the 2 percent discount rate is not only appropriate and prudent, but also in the best interest of ratepayers. E1 calls it a “fit-for-purpose" rate that ensures appropriate considerations are included in the screening of a DSM portfolio.

NS Power reiterates that the discount rate used should continue to be NS Power’s cost of capital. Using a lower discount rate artificially inflates the perceived value of long-term savings and benefits, ignoring the reality that Nova Scotians are facing affordability and high energy transition costs today. A discount rate reflecting the true opportunity cost of capital supports initiatives with a strong, immediate financial benefit, aligning more closely with the economic interests of rate payers. Moreover, applying the same discount rate to demand and supply options provides a more accurate comparison between the two resource options.

Response to the Industrial Group’s (IG) Closing Submissions

Similarly to the above, NS Power does not intend to summarize the entirety of the IG’s closing submissions but will address differences in the IG’s proposed PAC and Modified PAC test and the recommendations provided in NS Power’s closing submissions.

NS Power agrees with the IG’s statutory interpretation approach and agrees that an alternative cost-effectiveness test to the one proposed by E1 must be considered. Further, NS Power agrees with the submission that greenhouse gas emissions reductions along with a reduction in electricity costs must be considered as part of evaluating strategic electrification activities under s 79A(b)(ib).[14]

The IG is advocating for both primary and secondary testing for DSM cost-effectiveness analyses and suggests that the Board approve a primary test at this time and endorse the use of complementary testing within the upcoming DSM Plan application. The IG states that the secondary test could be a modified proposed BCA. The IG notes that primary testing should be completed at the portfolio, program and measure levels, and when a level fails, justification or a reasonable explanation should be provided by E1. NS Power agrees.

The IG also noted that Ms. Thompson confirmed in oral testimony that the necessary justification to include non-cost-effective measures in a portfolio was a directive received from the Board and she confirmed that E1 is “required to provide justification of why we are including measures that are not cost effective using the primary cost test”.[15] NS Power agrees with the IG in part, but notes that for strategic electrification measures under section 79A(b)(iv) of the PUA specifically, a reduction in electricity costs as well as greenhouse gas emissions reductions (on a net tonnage basis) must be proven at the measure level or it should not be included in any DSM Plan.

[14] IG Closing Submission, page 10.
[15] IG Closing Submission, page 18 citing Transcript Day 1, September 22, 2025, page 17, lines 9-12.

The Modified PAC test for Electrification

The IG presents a secondary test called the "Modified PAC test for Electrification" for consideration to address this requirement which accounts for increased utility revenues as a benefit with respect to increased electrification.
The IG submits that the PAC:

> …need not be rigid or "ruthlessly applied." It can be applied or modified as needed, like a jurisdictional test. As suggested by Mr. Bowman, this can be done with respect to strategic electrification. Many utilities are also grappling with how to handle electrification. Mr. Bowman has proposed a reasonable solution, which is focused on costs charged to ratepayers. The PAC should be run, with an additional step of including the increased revenues to be received by NSPI with respect to the increased electrification. The increased revenues will be included as a benefit. This will better assess the true costs to the system, and will ensure that strategic electrification programs, that are well conceived and structured, will pass the PAC testing.[16]

Neither the PAC proposed nor the Modified PAC test specifically for electrification takes into account "other fuel impacts" which is an energy impact, but a non-utility system impact that factors in avoided costs for households from reduced oil and gas consumption. In NS Power's submission, including this non-utility impact ensures the test is closer aligned more closely with a Total Resource Cost (TRC) test which considers whether a program is economically beneficial more broadly, not just for the utility. In NS Power's submission, this allows for better assessment of the benefits of fuel switching programs within the strategic electrification mandate.

Lastly, as noted above, NS Power agrees with the submissions of Mr. Bowman, as well as its closing submissions, that a 2 percent discount rate is inappropriate in cost-effectiveness modelling. The discount rate used should continue to be NS Power's cost of capital which is reflective of the true opportunity cost of capital.

Response to Eastward Energy (EE) Closing Submissions

Here, too, NS Power does not intend to summarize the entirety of EE's closing submission but offers the following comments.

On EE's first request, NS Power takes no position on Eastward Energy's (EE) request to join the DSMAG.

On EE's request #6, NS Power can confirm that peak demand, ancillary services, and

[16] IG Closing Submissions, page 20.

reliability are considered as part of avoided cost modelling. NS Power notes that the foundation of the avoided cost modelling exercise is the most recent Integrated Resource Plan (IRP) model which has benefited from the input of many participants, including EE. NS Power has and will continue to discuss the items embedded in the avoided cost values through DSMAG and ongoing IRP-related work.

CONCLUSION

E1's proposed test leaves the Board with no transparent evidentiary pathway to assess whether the proposed non-energy benefits or their associated values are reasonable, reproducible, or consistent with statutory intentions. As stated in NS Power's closing submissions, though great progress has been made, a substantial amount of further work or revision is required to eliminate the potential for unintended consequences and to ensure alignment with the existing legislative and regulatory framework. NS Power provided recommendations that in its respectful submission, aid in ensuring the test reflects the legislative changes, in a grounded way, supported by the text of the PUA.

NS Power believes further collaborative work among all parties will be necessary to align on both the interpretation of the legislative framework and the practical application of cost-effectiveness testing. To that end, NS Power is committed to participating actively in a further process as determined necessary by the Board.

Yours truly,

J. Power

Jennifer Power
Senior Regulatory Counsel