

June 23, 2026

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

Dear Ms. Henwood:

Re: EfficiencyOne – 2027-2031 Demand Side Management (DSM) Plan Application –
(M12780) – Evidence Submission

Eastward Energy (“Eastward”) submits to the Nova Scotia Energy Board (“NSEB” or “Board”) the following document as Evidence regarding the above noted matter number:

- Posterity Group Evidence for M12780 - Application by EfficiencyOne for Approval of the 2027-2031 Demand-Side Management (DSM) Resource Plan

Please contact the undersigned with any questions.

Yours truly,
EASTWARD ENERGY INCORPORATED

A handwritten signature in black ink that reads "J MacNeil".

Jordan MacNeil
Director, Energy Transition

cc M12780 Participants





Posterity Group Evidence for M12780 – Application by EfficiencyOne for Approval of the 2027-2031 Demand-Side Management (DSM) Resource Plan

Re: EfficiencyOne – 2027-2031 Demand Side Management (DSM) Resource Plan

Submitted to: Eastward Energy

Version: 2

Date Submitted: June 22, 2026

Introduction

Posterity Group works with governments, utilities, and private sector clients to help them understand the risks and opportunities associated with energy use, climate change, and technology innovation. Posterity Group's mission is to provide clients with the data they need to make evidence-based decisions that will influence tomorrow's low-carbon energy landscape. Posterity Group has earned a reputation for providing exceptional analysis and advice related to energy use and the decarbonization of the built environment.

Posterity Group was retained by Eastward Energy to review EfficiencyOne's (E1) Application for Approval of the 2027-2031 Demand-Side Management (DSM) Resource Plan.

This memo includes an assessment of the appropriateness of E1's Custom New Construction (NC) Program baseline case. It also discusses the Custom NC Program incentive structure and examines whether it recognizes heating systems that reduce peak electricity demand.

Custom New Construction Program Baseline

Current Approach

The Custom NC Program provides financial incentives to support the design and construction of energy efficient commercial, industrial, institutional, and multi-unit residential buildings. This financial support is based on the modeled electrical energy savings between a baseline or reference building and the proposed building.

Custom NC Program guidance indicates that *"The baseline (reference) building must adhere to the requirements of NECB [National Energy Code of Canada for Buildings] Part 8 and/or the guidelines in this document"*.¹

Specific guidance for developing baselines for "mixed-fuel HVAC systems" is also provided: *"When the proposed building's heating system uses more than one fuel type, the reference heating system capacity ratio must match the proposed system's capacity ratio. For the purposes of quantifying electricity*

¹ Efficiency Nova Scotia, Custom New Construction Program Guide, Version 2. Dartmouth, Nova Scotia, Canada: Efficiency Nova Scotia, Aug. 2022. [Online]. Available: https://assets.ctfassets.net/hro74sf4x6k2/3FYoaL3ZijRHShoWVccO4Q/5a0847c03528fc3f2dbad2ad4c00417f/NC-Program-Guide-v2_2022.pdf. Accessed: Jun. 17, 2026.





savings, the baseline electric and fuel consumption shall be determined based on: a) The proposed system type(s); and b) The portion of the proposed annual heating load attributed to each system type.”¹

NECB Part 8 describes the Building Energy Performance Compliance Path, which demonstrates compliance by showing that the proposed building design will not consume more energy than an equivalent building built to the prescriptive requirements of the NECB, usually through building energy simulation modelling.

The NECB user’s guide gives additional context: “*The purpose of the NECB Part 8 performance compliance procedure is ... to evaluate the effects of deviations from the prescriptive building component requirements using fair and consistent calculation methods. The performance compliance path is intended to compare the energy performance of a proposed building to that of a building designed in accordance with the prescriptive requirements of the NECB (the reference building).*”²

In summary:

- The NC Program provides incentives based on the electrical energy savings of a proposed building relative to a reference building. The reference building must be developed as outlined in NECB Part 8, a method to demonstrate compliance with the National Energy Code for Buildings.
- For mixed-fuel HVAC systems the NC program further requires that the *baseline* electric consumption be determined based on the portion of the proposed heating load attributed to the *proposed* electric heating system.

Industry Practice for DSM Programs

For the purposes of DSM programs, the baseline case is typically intended to represent what the energy consumption and demand would have been in the absence of the program.³ Accordingly, the baseline should reflect the equipment selection, fuel choices, and design decisions that a customer would reasonably have made without program incentives, which may differ from those reflected in the NECB reference building.

In the context of the NC Program, this would mean:

- Providing incentives based on the electrical energy savings of a proposed building relative to what the electricity consumption and demand would have been for the building if it were built in the absence of the program, rather than relative to a reference building suitable for demonstrating code compliance.

² Canadian Commission on Building and Fire Code, User’s Guide – national Energy Code of Canada for Buildings 2020, Fourth Edition. Canada: National Research Council Canada, Nov. 2024. [Online]. Available: <https://nrc-publications.canada.ca/eng/view/object/?id=c6504d98-2da4-43c5-a8f6-360d6e640f88>

³ See, for example, Independent Electricity System Operator (IESO), Evaluation, Measurement and Verification Protocol, Version 5.0. Toronto, ON, Canada: IESO, Jan. 2025. [Online]. Available: <https://www.ieso.ca/-/media/Files/IESO/Document-Library/EMV/Evaluation-Measurement-and-Verification-Protocol-V5.pdf>. Accessed: Jun. 17, 2026.





- For proposed mixed-fuel or all-electric HVAC systems, that the baseline electric space heating consumption consider the space heating equipment fuel choices that would have been made for the building if it were built in the absence of the program, rather than prescriptively requiring that the baseline building have the same portion of the heating load met by electric equipment as the proposed building.

Taken together, the current program rules and E1's responses to Information Requests suggest that E1 has not determined an appropriate baseline for the NC Program consistent with good DSM practice.

Specifically,

- As described in the Custom NC Program guidance, program electricity savings are measured against a baseline suitable for demonstrating compliance with building code rather than from a baseline reflective of what electricity consumption and demand would have been in the absence of the program.
- The appropriateness of this approach to developing a baseline was not tested empirically through evaluation:
 - o Non-participants (i.e., decision-makers in the construction of new buildings who did not receive an incentive from E1) were not interviewed as part of the 2025 NC Program Evaluation.⁴
 - o Participant builders interviewed were not asked what space heating fuel they would have selected for their building in the absence of an incentive.⁴

Without this information, it is not possible to determine whether the NC Program is accurately measuring or rewarding incremental electricity savings. In fact, for participant builders that were incentivized to select efficient electric equipment who otherwise would have selected fuel-fired equipment, the NC Program would have rewarded an incremental increase in electric energy consumption and demand.

Custom NC Program Incentive Structure

The NC Program uses a tiered incentive structure, where incentives are calculated based solely on the electrical energy savings, excluding lighting savings. Error! Bookmark not defined. As a result, the NC Program does not include a mechanism to recognize peak demand reductions relative to any baseline, whether the NECB reference building baseline, or a more appropriate DSM baseline.

A primary benefit of hybrid gas/electric heating systems is their ability to reduce peak electricity demand at the system level, potentially avoiding electricity system investments that would put upward pressure on electricity rates and emissions. However, because the Custom NC Program incentive structure does

⁴ EfficiencyOne, *E1 Responses to Eastward Energy Incorporated (Eastward) Information Requests*, Exhibit 8, Matter 12780, Nova Scotia Energy Board, May 28, 2026. [Online]. Available: <https://uarb.novascotia.ca/fmi/webd/UARB15>. Accessed: Jun. 17, 2026. E1 response to Eastward IR 2(a) and IR 3(b).





not account for electric demand, the program cannot incentivize measures that would provide these potential benefits.

Recommendations

In summary:

- The Custom NC Program baseline development approach does not consider what electricity consumption and demand would have been in the absence of the program; and
- The Custom NC Program does not incentivize peak demand reduction (or discourage peak demand increases).

Taken together, this may result in the NC Program inadvertently incentivizing measures that increase peak electricity demand and ultimately increase system costs and emissions over time.

Based on the above, Posterity Group recommends that E1:

- Undertake additional evaluation activities to establish an appropriate DSM measure baseline for the NC Program. This should include assessing both participant and non-participant decision-making to better understand the design choices that would have occurred in the absence of Program incentives.
 - o Recognizing current timing constraints, E1 could, as an interim measure, assess Custom NC Program impacts for both all-electric and mixed-fuel HVAC systems relative to a common all-electric baseline. While imperfect, this approach would provide a more equitable comparison that would more accurately quantify the electricity demand reduction benefits of proposed mixed-fuel HVAC systems relative to equivalent proposed all-electric systems.
- Revise the incentive structure of the custom NC program to recognize the system-level impacts associated with building design decisions. This should include explicitly accounting for the value of configurations like hybrid heating systems that reduce or do not increase peak electricity demand.

