

2 **NOVA SCOTIA ENERGY BOARD**3 **IN THE MATTER OF:** *The Public Utilities Act*

4 **IN THE MATTER OF:** An Application by EfficiencyOne for approval of the 2027-2031
5 Demand-Side Management (DSM) Purchase Agreement
6 between EfficiencyOne and Nova Scotia Power Incorporated,
7 the establishment of a final agreement between the parties,
8 and approval of a 2027-2031 Demand-Side Management (DSM)
9 Resource Plan

10

11 **INFORMATION REQUESTS**

To: The Brattle Group
Nova Scotia Power Incorporated ("NSPI")

From: The Industrial Group

Responses Due: July 17, 2026

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13 Issued at Halifax, Nova Scotia, this 6th day of July, 2026.

14

15 **Request IR-1:**

16 (a) Please identify the specific data sources, E1 filings, and information
17 request responses that Brattle reviewed in preparing its evidence.

18 (b) Please confirm whether NSPI provided Brattle with any information, data,
19 or analysis that is not part of the public record in this proceeding, including
20 avoided cost inputs, load forecasts, capacity planning assumptions, or
21 system modelling outputs. If so, please identify the information and provide
22 a copy.

1 Request IR-2:

2 Reference: E-22, Page 3.

3 Preamble: Brattle states that the Preferred Plan allocates approximately \$286.8 million
4 (90% of total investment) to the EE portfolio, \$29.1 million (9%) to DR, and \$2.8 million (1%)
5 to solar PV, which *"largely mimics the allocations in the 2023-2026 plan and indicates that*
6 *the Plan largely maintains the existing DSM delivery model rather than materially*
7 *rebalancing toward the resources that are likely to become more important in a winter-*
8 *peaking, electrifying, and increasingly capacity-constrained system."*

9 And Reference: E-22, Page 7.

10 *While the proposed budget may be directionally appropriate given the goal*
11 *of limiting ratepayer impacts, its scope can be modified such that it*
12 *reallocates funds from more expensive EE toward DR and SE where those*
13 *resources have the potential to create higher system value.*

14 (a) Please provide Brattle's recommended allocation of DSM funding across
15 EE, DR, and SE within the proposed five-year budget, including the
16 recommended dollar amount, percentage share, and basis for each
17 category, in keeping with its recommended expansion of DR and SE.

18 (b) If Brattle recommends reallocating funds from EE to DR or SE, please
19 identify the EE program components or customer sectors that Brattle
20 recommends reducing, the amount of each reduction, and the expected
21 effect on energy savings and cost-effectiveness.

22 (c) Please confirm whether Brattle's reallocation recommendation is premised
23 on maintaining the total portfolio at the Preferred Plan's \$318.75 million
24 budget, or whether Brattle would support a different total spending level. If
25 the latter, please provide the recommended total budget and its basis.

26 (d) Please confirm the PAC ratio Brattle would expect the expanded DR
27 portfolio to achieve and explain how that estimate was developed. If Brattle
28 cannot provide the calculation, please identify the information required to
29 do so.

30

1 **Request IR-3:**

2 **Reference: E-22, page 5.**

3 *However, the fact that a program has social, environmental, or equity value*
4 *does not mean it should be funded through DSM funding. DSM funding*
5 *should be reserved for resources that directly and efficiently reduce Nova*
6 *Scotia's energy and capacity supply obligations through demand-side*
7 *measures or provide measurable system value in a manner consistent with*
8 *the purpose of the DSM framework.*

9 (a) If Solar PV is removed from DSM funding and treated as an equity program
10 funded through another mechanism, please identify who Brattle
11 recommends should bear the cost.

12 (b) Please explain the funding and cost-allocation implications for MI and LI
13 customers if Solar PV is removed from DSM funding.

14 **Request IR-4:**

15 **Reference: E-22, page 5.**

16 **Brattle states that "distributed solar PV systems already receive compensation through**
17 **net metering, so by including them in the DSM funding, they are double compensated for**
18 **ratepayer funds."**

19 (a) Please provide the basis for Brattle's double-compensation assertion. In
20 particular, please confirm whether participants in E1's proposed Solar PV
21 program would receive both DSM incentives and net metering credits, and
22 whether the PAC test calculation for the Solar PV program accounts for
23 those credits.

24 (b) If the PAC test does not account for net metering credits, please provide
25 the effect on the Solar PV program's PAC ratio if net metering revenues
26 are removed as a PAC benefit.

27 (c) Would Brattle's double-compensation concern apply to any future
28 expansion of the Solar PV program to customer classes beyond Mi'kmaw
29 communities, and does this same concern apply to any other DSM
30 measures that also receive provincial or federal support, such as heat
31 pumps? Please explain.

1 **Request IR-5:**

2 **Reference:** E-22, Page 6.

3 **Preamble:** Brattle states that a 2026 ACEEE report reveals that in 2024 the average
4 lifetime cost of energy efficiency was \$0.032/kWh with a median of \$0.029/kWh, whereas
5 E1's Preferred Plan has a first-year unit cost of \$0.66/kWh and a weighted-average lifetime
6 unit cost of \$0.05/kWh, implying "*E1 spends almost twice as much funding compared to*
7 *these other jurisdictions included in the ACEEE analysis to deliver a single kWh of*
8 *efficiency.*"

9 (a) Please confirm whether Brattle's comparison of E1's lifetime unit cost to the
10 ACEEE fleet average lifetime cost uses the same definition of "lifetime cost"
11 and the same calculation basis. If not, please explain.

12 (b) Please confirm whether the ACEEE dataset used for this comparison is the
13 same 2024 cross-sectional dataset of 42 US utilities cited by Mr. Love (Ex.
14 E-21). If so, please confirm whether the dataset includes year-over-year
15 trend data or is limited to a single-year snapshot.

16 **Request IR-6:**

17 **Reference:** E-22, page 8-9, Figure 1.

18 **Preamble:** Brattle has outlined the need for a stronger DR strategy, using the data
19 contained in NSPI's 2025 System Outlook report. IESO-NS has recently filed its 2026
20 System Outlook, in Matter M12916.

21 (a) Please update Brattle's Figure 1 using the most recent data from the 2026
22 System Outlook and confirm whether the updated data changes Brattle's
23 analysis or recommendations.

24 (b) Please confirm the data source and calculation underlying the 0.3% and
25 1.3% figures and provide Brattle's estimate of the maximum achievable DR
26 penetration as a percentage of Nova Scotia peak load by 2031, including
27 the supporting calculation.

28

1 **Request IR-7:**

2 **Reference:** E-22, Page 9.

3 **Preamble:** Brattle references a 2026 Otter Tail Power study showing that winter-peaking
4 **utilities can achieve DR peak reduction capability of 28% of system peak (or 13% excluding**
5 **large customer flexibility contracts).**

6 (a) Please discuss Nova Scotia's system characteristics relative to Otter Tail
7 Power's service territory in order to assess the usefulness of that figure as
8 a meaningful benchmark for Nova Scotia's achievable DR potential.

9 (b) Please confirm whether the "large customer flexibility contracts" included
10 in Otter Tail Power's 28% DR capability figure operate on the same basis
11 as Nova Scotia's Large Industrial Interruptible Rider, specifically
12 addressing whether those Otter Tail Power customers are contractually
13 obligated to curtail on demand and are already compensated through their
14 rate structure.

15 (c) If interruptible industrial load in Nova Scotia is removed from system peak
16 for PRM calculations, please explain why Brattle considers the 28% figure,
17 rather than the 13% figure, to be the appropriate benchmark.

18 (d) With respect to residential DR, please confirm whether the Otter Tail Power
19 study's base case identifies 8 MW of additional incremental winter DR
20 potential by 2041. If so, please explain how that finding supports Brattle's
21 recommendation that E1 significantly expand residential DR, taking into
22 account program maturity.

23 **Request IR-8:**

24 **Reference:** E-22, page 16.

25 ***A modified Plan should therefore require E1 to develop DR as a dispatchable***
26 ***system resource with clear performance, accreditation, and cost-***
27 ***effectiveness metrics. That should include a careful assessment of delivery***
28 ***models from other jurisdictions, including incentive levels, customer***
29 ***acquisition strategies, aggregator compensation structures, device-partner***
30 ***roles, and pay-for-performance mechanisms.***

31

(a) Please elaborate on the performance obligations, accreditation and cost-effectiveness metrics Brattle is recommending be included within the DR programming model. Is this based on experience, data, or judgement?

(b) Please identify any examples of comparable metrics from other jurisdictions that Brattle considered and recommends.

Request IR-9:

Reference: E-22, Page 16.

E1 should undertake a new DR potential study that identifies and prioritizes resources based on winter peak value, including the relative potential of smart thermostats, domestic hot water control, BNI curtailment, and other controllable loads. That study would be instrumental for guiding expectations around customer segments, event performance, attrition, device health, locational value, and the costs required to turn enrolled devices into dependable capacity.

(a) Please clarify whether Brattle's recommended DR potential study would focus primarily on improving the cost-effectiveness of Residential DR or would assess Residential and BNI DR on an equivalent basis.

(b) Based on Brattle's response to part (a), please explain how Brattle recommends allocating the cost of the DR potential study among customer classes, including MI and LI customers.

(c) When does Brattle suggest this DR potential study be completed, and what process does it recommend would follow thereafter?

(d) In Brattle's experience, have comparable jurisdictions completed similar DR potential studies as proposed? If so, please identify the jurisdictions and studies.

Request IR-10:

Reference: E-22, Page 16.

Finally, E1 should be required to report DR performance in a way that allows the resource to be used in system planning and operations. That means annual accreditation and performance reporting after each peak season, opt-outs, attrition, device failures, customer compensation, delivery costs, and verified peak reduction. Without a comprehensive performance evaluation,

1 ***DR will continue to sit in an uncomfortable middle ground counted as a***
2 ***promising future resource but not managed with the rigor needed for NS***
3 ***Power or the Board to rely on it.***

4 (a) Please describe Brattle's recommended DR reporting requirements,
5 including reporting cadence, required content, and the forum in which the
6 reporting should be provided.

7 (b) Please describe the comprehensive performance evaluation framework
8 Brattle recommends for DR (if different than in its response to IR-8) and
9 identify whether the recommendation is based on specific data,
10 professional judgment, or both.

11 **Request IR-11:**

12 **Preamble: NSPI is both the entity that pays E1 for DSM under the purchase agreement**
13 **and the entity that benefits directly when DR and SE reduce its capacity requirements.**

14 Please confirm whether Brattle considered the relationship between NSPI's interest in DSM
15 spending that may reduce capacity costs and ratepayers' interest in cost-effective EE programs.
16 If so, please explain how that consideration was reflected in Brattle's analysis. If not, please
17 explain why not.

18 **Request IR-12:**

19 **Preamble: IESO-NS has recently published an updated ELCC Study, from E3:**
20 **<https://ieso-ns.ca/wp-content/uploads/2026/06/2026-Nova-Scotia-ELCC-Study-Report.pdf>**

21 (a) Please confirm whether Brattle assumed a static ELCC in its evidence and
22 whether Brattle considered the BESS additions, as confirmed and outlined
23 in the 2026 ELCC Study, when forming its conclusions regarding expanded
24 DR programming.

25 (b) Please confirm whether the 2026 ELCC Study changes any of Brattle's
26 conclusions or recommendations.

27 (c) Please confirm whether Brattle's Smart Synergy cost-effectiveness
28 analysis accounts for declining DR ELCC as BESS penetration rises. If not,
29 please provide the resulting PAC ratio or identify the information required
30 to calculate it.

1 **Request IR-13:**

2 **Reference:** E-22, page 20.

3 *For instance, an EV managed charging program, or electric water heating*
4 *program which can shift the load to off-peak hours, could improve grid*
5 *utilization and defer expensive incremental grid investment. Integrating*
6 *flexibility into the design of SE programs is particularly relevant because*
7 *E1's own application recognizes that demand response and flexible demand*
8 *side resources will become increasingly important as the electricity system*
9 *evolves in response to electrification, environmental compliance, and*
10 *changing market conditions.*

11 (a) Please confirm whether Brattle is aware of any existing or proposed E1
12 managed EV charging program within the DSM Plan's DR programming.

13 (b) In Brattle's opinion, could the savings from a managed EV charging
14 program be captured within a DR program? If not, please explain why not.

15 **Request IR-14:**

16 **Reference:** E-22, page 20.

17 *E1 should be required to develop a more targeted building electrification*
18 *program focused on measures with the best chance of meeting Nova*
19 *Scotia's statutory criteria of reducing costs by incorporating more directly*
20 *controllable electric load, displacement of high-emitting fossil fuels, and*
21 *integration with weatherization and building controls, and even prioritizing*
22 *electrification in parts of the grid with headroom for distribution capacity....*

23 *... However, the Board should also not allow SE to remain a research-only*
24 *activity for the full 2027–2031 plan term. At a minimum, the evidence*
25 *supports requiring E1 to develop a phase-in pathway that identifies more*
26 *effective candidate measures including integrated flexibility and load control*
27 *features while continuing to refine its data gathering process for the*
28 *purposes of cost-effectiveness calculations.*

29 (a) Has Brattle identified any specific SE program design, incorporating the
30 recommended flexibility features, modelled and assessed as likely to pass
31 the modified PAC test in Nova Scotia? If yes, please provide the analysis.
32 If no, please confirm that the recommendation to redesign SE programs is
33 a general one.

34 (b) In Brattle's experience, what strategic electrification programs have been
35 considered or implemented in comparable jurisdictions?

- (c) Please explain how the recommended “phase-in” pathway produces a different outcome than E1’s current Enabling Strategies approach.
- (d) Please explain how long Brattle expects the recommended analysis and program development to take, whether the changes could be (or should be) addressed through a Mid-Course Adjustment, and how Brattle recommends implementing any new program within the Plan.
- (e) If E1 is unable to develop a strategic electrification portfolio that is cost-effective under the approved modified PAC test, please explain the basis on which Brattle recommends increased investment in SE programming.

Request IR-15:

Reference: E-22, Page 3.

Demand Response should play a larger and more disciplined role in the 2027–2031 DSM portfolio. DR provides system value because it can reduce load during the hours when the system is most stressed and when avoided capacity is most valuable. DR involves voluntary short-term reductions in electricity consumption triggered by grid reliability conditions or high prices. This response avoids the need to dispatch less efficient and more expensive generation during high-demand periods, as well as reduces the need to build peaking capacity when it can be aggregated into a sizable, dispatchable portfolio. These principles are directly relevant to Nova Scotia, where peak demand, winter reliability, and flexible load management are becoming increasingly important.

- (a) Please confirm whether the system-level benefits of DR, including avoided peaking capacity investment, improved planning reserve margin, and operational flexibility during high-stress hours, accrue exclusively to the customer class enrolled in the DR program, or whether they accrue to all ratepayers on the NSPI system regardless of class.
- (b) If the system-level benefits of DR accrue to all ratepayers, does Brattle agree that cost allocation of DR program costs should be reviewed?
- (c) Does Brattle agree that it would be reasonable for this review to be done during the next 5-year plan within the DSMAG, before investment grows beyond its current “relatively modest” levels?

1 (d) In other jurisdictions where DR is treated as a capacity resource and
2 procured through competitive or utility-administered capacity markets,
3 please confirm that the costs of DR procurement are typically allocated as
4 part of the overall capacity supply obligation and spread across all
5 ratepayers in proportion to their contribution to system peak demand rather
6 than allocated exclusively to the class enrolled in the program. If not, please
7 explain.

8