
Nova Scotia Energy Board

IN THE MATTER OF *The Public Utilities Act*, R.S.N.S. 1989, c.380, as amended

M12780

EfficiencyOne Application for Approval of the 2027-2031 Demand Side Management Plan

**NS Power
Closing Submission**

September 11, 2026

NON-CONFIDENTIAL

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

TABLE OF CONTENTS

1		
2		
3	1.0	INTRODUCTION 3
4	1.1	Request for Board Direction..... 4
5	2.0	REQUIREMENT FOR COMPREHENSIVE DSM POTENTIAL STUDY 7
6	3.0	ALLOCATION OF INVESTMENT TO APPROPRIATE DSM RESOURCES 12
7	3.1	Solar PV..... 13
8	3.1.1	Limited Winter Peak Capacity Value and Double-Funding 13
9	3.1.2	Solar PV Cost Effectiveness Methodology 16
10	3.2	Strategic Electrification..... 17
11	3.3	Demand Response 20
12	3.3.1	Continued Meaningful Residential DR Growth..... 22
13	3.3.2	Timing of DR EM&V and Reporting 25
14	4.0	MID-TERM CHECK-IN AND PLAN ADAPTABILITY 27
15	5.0	SCOPING OF RESEARCH INITIATIVES 30
16	5.1	Interruptible Customer Eligibility for E1’s DR Programs..... 31
17	6.0	CONCLUSION..... 34

1.0 INTRODUCTION

On March 31, 2026, EfficiencyOne (E1) filed an application with the Nova Scotia Energy Board (Board, NSEB) for approval of the 2027-2031 Demand Side Management (DSM) Purchase Agreement between E1 and Nova Scotia Power Inc. (NS Power, Company) and the associated 2027-2031 DSM Resource Plan (Preferred Plan). Intervenors included the Consumer Advocate (CA), Small Business Advocate (SBA), Industrial Group (IG), Affordable Energy Coalition (AEC), Eastward Energy Incorporated (EE), East Coast Environmental Law (ECEL), Ecology Action Centre (EAC), Kwiilmu'kw Maw-Klusuaqn Negotiation Office and Assembly of Nova Scotia Mi'kmaw Chiefs (KMKNO/ANSMC), Nova Scotia Department of Energy (DOE), NS Power, Solar Nova Scotia (SNS), Synapse Energy Economics (Synapse) on behalf of Board Counsel.

In addition to E1's application and evidence, the record included information requests (IRs), expert evidence from The Brattle Group (Brattle) on behalf of NS Power, Green Energy Economics Group Inc. (GEEG) on behalf of the CA, Posterity Group on behalf of EE, Apex Analytics on behalf of E1, and Synapse on behalf of Board Counsel. An oral hearing was conducted over three days from August 4-6, 2026.

In the days before the hearing, E1 entered into three agreements with the CA, IG, and EE, respectively, which were subsequently filed on the record (Study Agreements). E1 also filed its Opening Statement and Schedule A which contained clarifications and commitments related to the annual (mid-course) adjustment process, mid-term check-ins (also referred to as Mid-Plan Check-Ins), Strategic Electrification (SE), Demand Response (DR), and research activities.

Overall, E1's Preferred Plan proposes a total five-year investment of \$318.75 million, maintaining annual DSM spending at the 2026 approved level of \$63.75 million. E1's Application states this investment will deliver approximately 435.4 GWh of energy savings (14.0 GWh of which from dedicated low income and equity programs), 85.0 MW of peak demand savings, and 29.3 MW of

1 available DR capacity by 2031.¹ E1 also proposes the introduction of a solar photovoltaic (PV)
2 program with an associated performance target of 1.7 GWh of net solar PV generation.² While the
3 targets proposed by E1 are significant, the evidence in this proceeding demonstrates that more
4 system benefit can be achieved with the same overall level of funding if differently allocated.

5
6 Pursuant to section 79I(1) of the *Public Utilities Act* (PUA), NS Power has an obligation to
7 undertake “cost-effective demand side management that is reasonably available in an effort to
8 reduce costs for its customers.” NS Power therefore has a direct interest in ensuring that DSM
9 funding is directed toward resources that provide the greatest value to customers and to the
10 electricity system as a whole.

11 12 **1.1 REQUEST FOR BOARD DIRECTION**

13
14 While the Preferred Plan contains a number of positive elements, NS Power remains concerned
15 that the current allocation of DSM funding to resources within the Preferred Plan does not
16 appropriately reflect Nova Scotia’s evolving system needs which increasingly require capacity-
17 focused, flexible, and dispatchable resources. As the Province continues to electrify transportation
18 and heating, resources capable of managing peak demand and providing operational flexibility
19 become increasingly important. In this context, it is appropriate to assess whether a DSM portfolio
20 with a composition that largely mimics resource allocations in the 2023-2026 DSM Plans and
21 remains heavily concentrated in traditional energy efficiency measures continues to evolve at a
22 pace that can meet the needs of a changing system.

23
24 Accordingly, NS Power respectfully requests that the Board direct E1 to:

- 25
26 • Conduct a comprehensive DSM Potential Study as soon as reasonably practicable, and
27 sufficiently early to allow for meaningful adjustments ahead of the middle of the plan term,

¹ M12780, Exhibit E-1, E1 2027-2031 DSM Plan Application, Evidence, March 31, 2026, page 2.

² M12780, E-1, Evidence, March 31, 2026, page 61.

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 and, once the results and the most current IRP information are available, promptly remodel
2 the DSM portfolio for the remainder of the Plan period, incorporating updated avoided
3 costs, resource potential, and system needs, and bring the Plan back before the Board for
4 approval;

- 5
6 • Prior to, or as part of the Mid-Plan Check-In, file a proposed SE resource pathway that:
7
 - 8 • maintains the overall Board-approved DSM investment level;
 - 9 • identifies proposed measures and target markets;
 - 10 • Reduces GHGs and allows E1 to maintain a portfolio level PAC greater than 1.0;
- 11
12 • Develop and implement a revised DR strategy that expands active participants and
13 available capacity as soon as possible;
- 14
15 • Remove customer-sited solar PV measures from the Preferred Plan;
- 16
17 • Alternatively, if the Board approves solar PV as a DSM resource, require E1, prior
18 to program implementation, to:
 - 19 • develop solar-specific avoided cost values in consultation with the
 - 20 NSIESO;
 - 21 • update the PAC cost-effectiveness analysis for solar PV measures using
 - 22 those avoided costs and including the utility costs of net metering; and
 - 23 • file the resulting PAC test and supporting assumptions with the NSEB for
 - 24 review and approval;
- 25
26 • Modify the demand response evaluation, measurement and verification (EM&V) process
27 and reporting schedule such that annual DR evaluation results are filed with the Board and
28 available to stakeholders before the commencement of the subsequent DR season which

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 runs from December 1 to February 28 each year. (DR Season) (i.e. before December 1 of
2 each year); and

- 3 • Provide the scope, detailed plans, and process timelines for each of its research initiatives
4 including the Study Agreements, with such plans documented and discussed with members
5 of the DSMAG sufficiently in advance of implementation to allow for meaningful
6 stakeholder input.

7
8 Additional detail and submissions regarding the foregoing directives are addressed in turn below.

2.0 REQUIREMENT FOR COMPREHENSIVE DSM POTENTIAL STUDY

A DSM resource plan developed without the results of a current DSM Potential Study risks allocating resources based on an incomplete understanding of the quantity, timing, and cost-effectiveness of available DSM opportunities. Similarly, an IRP developed without a comprehensive and current Potential Study risks relying on outdated or insufficiently substantiated assumptions regarding the extent to which DSM can contribute to meeting future system needs and avoid or defer supply-side investments. Together, these risks may result in DSM investment levels, program design decisions, and long-term resource planning assumptions that are not aligned with the DSM potential actually available in the market. While E1’s evidence indicates that “[t]he primary objective of a DSM potential study is to project the technically achievable and cost-effective DSM potential available across customer classes and sectors over a defined planning horizon, to support IRP and DSM resource planning.”³ the Preferred Plan was developed without the benefit of a current, comprehensive DSM Potential Study.

The most recent comprehensive DSM Potential Study completed was conducted by E1 in 2019. That study does not reflect the significant changes that have occurred over the intervening six years, including legislative change, load growth, electrification trends, evolving peak demand drivers, advancements in demand response, and developments in strategic electrification technologies and program offerings. A potential study provides an important analytical foundation for assessing DSM resource needs and investment priorities. Where that foundation predates the system conditions and needs that DSM programs are intended to address, it becomes more difficult to assess whether ratepayer funds are being allocated to DSM resources in a manner that best addresses current and future system requirements.

E1 is currently undertaking a 2026 DSM Potential Study. While E1 rejects the characterization that the 2026 DSM Potential Study is “just an update,”⁴ the evidence nevertheless confirms that it is not the same type of comprehensive DSM Potential Study completed in 2019 that informed prior

³ M12780, Exhibit E-9, E1 (IG) RIR 1-29, May 28, 2026, IR-7.

⁴ M12780, Hearing Transcript, E1 2027-2031 DSM Plan Application, August 4-6, 2026, page 302-303.

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 planning processes.⁵ These limitations matter because DSM Potential Studies are intended to
2 provide an independent assessment of current, achievable DSM potential that can then inform
3 resource planning decisions. Here, the sequence has effectively been reversed. E1 testified that the
4 study is being undertaken primarily to inform the IESO-NS IRP, while at the same time
5 acknowledging that the 2026 DSM Potential Study near-term assumptions are aligned with the
6 Preferred Plan set for 2027-2031. It seems clear that the 2026 DSM Potential Study underway is
7 not informing the Preferred Plan and instead, simply reflects decisions that have already been made
8 by E1.

9
10 E1 acknowledged that, due to the condensed IESO-NS-led IRP timeline, it is not following the
11 methodology used in 2019, that a typical DSM Potential Study would require 12 to 18 months to
12 complete,⁶ and that it did not have sufficient time to consult DSMAG on the study scope as it
13 normally would.⁷ The 2019 DSM Potential Study established baseline equipment stocks across all
14 market sectors through surveys. In contrast, the 2026 DSM Potential Study will use market insights
15 and modelling developed through the 2027-2031 DSM Plan process to establish baselines.⁸ It is
16 noteworthy that E1 has already indicated that further DSM Potential Study work is expected during
17 the 2027-2031 Plan to support future planning activities, including the next five-year Plan and an
18 anticipated evergreen IRP process.⁹ This suggests that E1 itself anticipates the need for additional
19 analysis beyond the study currently being undertaken, reinforcing concerns regarding the timing,
20 scope, and completeness of the existing exercise.

21
22 It is important not to conflate the DSM assumptions used in the 2022 Evergreen IRP with an
23 independently determined optimal DSM investment level. For the period beyond the 2022- 2025
24 procurement horizon, the IRP weighed alternative DSM profiles derived from the 2019 DSM
25 Potential Study against each other and ultimately relied on one profile for planning purposes

⁵ M12780, Exhibit E-13, E1(NSPI) RIR 1-16, May 28, 2026, IR-10.

⁶ M12780, Hearing Transcript, page 301.

⁷ M12780, Hearing Transcript, page 309.

⁸ M12780, E-13, E1(NSPI) IR-10.

⁹ M12780, Hearing Transcript, pages 303-305 and 703-705.

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 relative to supply side resources.¹⁰ This further reinforces the need for a current DSM Potential
2 Study to inform future portfolio and investment decisions.

3
4 While it is understandable that many unknowns were at play during the development of past DSM
5 plans, E1 ought to have completed a comprehensive DSM Potential Study in support of its first
6 five-year Plan and well in advance of the IESO-NS-led IRP. This misalignment in E1's planning
7 processes were identified in 2019 in M08604, where Board Counsel Consultant, Alice Napoleon
8 of Synapse, raised concerns about dated assumptions and the timing of potential studies. Synapse
9 recommended then that, "E1 should develop a research plan. Future research, such as potential
10 studies, should be better aligned to inform decision making in the Integrated Resource Plan (IRP)
11 and the DSM planning process."¹¹ Moreover, Section 11 of the *More Access to Energy Act* was
12 proclaimed on October 24, 2024, providing the IESO one year to commence its first IRP exercise
13 and mandating cooperation with E1 as franchise holder. E1 knew it had to design a five-year DSM
14 Plan and ought to have known that an IRP would commence by October 24, 2025. E1 provided no
15 justification as to why it could not or did not complete a comprehensive DSM Potential Study
16 sooner.

17
18 This issue was raised throughout the proceeding by intervenors, the Board panel,¹² as well as
19 through the evidence of Mr. Love and Brattle. On cross-examination, Dr. Sergici of Brattle
20 answered the Board Chair's questions regarding order:

21
22 Q. (Chair) [...] Should the Board have concerns about the potential study being
23 informed by the development of the plan rather than the other way around?

24 A. (Sergici) I don't know how that would be helpful, is my answer. So in other
25 words, I can clearly see the information flow from the potential study because,
26 again, you have to know how many widgets you have to be able to decide how
27 many of those widgets you're targeting for a program, and then that gives you the
28 information that is necessary for a plan.

¹⁰ M11689, Exhibit N-5, NS Power 2024 Load Forecast Report, NSPI (SBA) RIR 1-0, June 19, 2024, IR-4 (a) explains the treatment of DSM inputs in the 2022 Evergreen IRP.

¹¹ M08604, Exhibit E-13, Synapse Evidence, E1 2019 DSM Plan Application, June 13, 2018, page 4.

¹² M12780, Hearing Transcript, pages 303 (lines 12-15), 667 (lines 3-16), 829 (lines 7-15), and 833-834 (lines 19, 1-14).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 So I don't see how the plan would inform the potential study. And I'm sure there
2 are some common inputs. Maybe that's kind of reference to the common inputs for
3 both studies, but like I personally don't see how that would be helpful from a
4 planning perspective.¹³

5
6 Mr. Love also commented on the order:

7
8 A. (Love) [...] So I think the order here needs to be kind of potential study into
9 IRP, which identifies what the resource needs are, which can then drive a plan to
10 meet those resource needs. Unfortunately, what we have right now in Nova Scotia
11 is that the DSM Plan itself has kind of gone off any sort of cadence with the greater
12 resource planning exercise. And I would really like to see it aligned with that in a
13 much more sequential way here.¹⁴

14
15 The sequence E1 has acted under has constrained E1's ability to consider emerging resources
16 during development of the 2027-2031 Plan and has resulted in an accelerated 2026 DSM Potential
17 Study with a limited scope. Further, the scope of the 2026 DSM Potential Study was developed
18 without consultation with the DSMAG, limiting stakeholders' ability to assess whether the
19 condensed study provides a sufficiently comprehensive assessment of available DSM resources
20 for long-term planning purposes.

21
22 This concern was highlighted by Mr. Love:

23
24 Q. (Chair) [...] my understanding of the evidence at least to this point is the
25 potential study that's being done at this point in time to inform the new IRP is not
26 what you might normally do because it's being done on a compressed timeline. And
27 as I understand it, it's being updated based on what E1 was informed about during
28 the development of this plan. Should the Board have concerns about an update of
29 that nature?

30 A. (Love) I think so. I think that a rushed potential study has the possibility to
31 underestimate what the potential is, overestimate what costs might be and ignore
32 what real resources might be available and not accounted for in just a refresh of
33 existing assumptions.¹⁵

¹³ M12780, Hearing Transcript, page 667 (lines 3-18).

¹⁴ M12780, Hearing Transcript, page 829 (lines 7-15).

¹⁵ M12780, Hearing Transcript, page 833-834 (line 19, 1-14).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1
2 The completion of a comprehensive DSM Potential Study in advance of plan design is particularly
3 important in Nova Scotia given the expansion of E1's mandate under s. 79A(b)(iv) of the PUA
4 and legislative changes under the *Energy Reform Act*.¹⁶ As acknowledged by E1 during the
5 hearing, DSM Potential Studies are generally refreshed on a three- to four-year cycle and ideally
6 completed in advance of DSM Plan development to inform resource selection and portfolio
7 design.¹⁷ Instead, E1 indicated that future DSM Potential Study work will be undertaken in
8 conjunction with, and informed by, a forthcoming IRP and broader resource planning activities
9 rather than as a standalone planning input developed in advance of those processes.¹⁸

10
11 NS Power respectfully requests that the Board direct E1 to complete and file a comprehensive
12 Potential Study covering all DSM resource categories including DR and SE as soon as reasonably
13 practicable, and sufficiently early to allow for meaningful adjustments ahead of the middle of the
14 plan term. Following completion of the current DSM Potential Study, E1 should evaluate whether
15 the allocation of DSM investments among energy efficiency, demand response, strategic
16 electrification, and other DSM resources remains appropriate and, where warranted, file proposed
17 modifications to the portfolio and budget allocations for Board approval.

¹⁶ Section 11(2)(a)(iii) required that the IESO-NS would have to commence an IRP by October 2025 and that the IESO-NS and E1 were to work together to develop avoided cost calculations for DSM resources and undertake reasonable cost-effective DSM.

¹⁷ M12780, Hearing Transcript, page 705 (lines 4-19).

¹⁸ M12780, Hearing Transcript, pages 304-305 (lines 19, 1-6).

3.0 ALLOCATION OF INVESTMENT TO APPROPRIATE DSM RESOURCES

For many years, DSM has extended beyond a narrow focus on traditional energy efficiency measures. It encompasses a range of demand-side resources including energy efficiency, demand response, strategic electrification, and other activities that reduce the energy or capacity NS Power would otherwise be required to provide. In an electricity system facing decarbonization requirements, electrification pressures, reliability needs, and affordability constraints, it is important for DSM to transition from traditional customer programs focused on energy efficiency savings to a resource planning tool that can also help address evolving system needs. Accordingly, the affordability and reasonableness of E1's five-year Plan cannot be assessed by reference to total portfolio spending alone – it requires scrutiny of whether DSM investment has been allocated to the resources of greatest value to customers and the electricity system overall.

As noted in Section 2.0, the absence of a comprehensive, current potential study makes it difficult to determine the optimal allocation of resources for the 2027-2031 DSM Plan. However, the evidence submitted by Brattle raises specific concerns that certain resources may be under-represented while others may be receiving funding despite providing limited value toward the system needs the Plan is intended to address. NS Power is concerned that the Preferred Plan continues to place significant emphasis on energy efficiency, is over-reliant on the Business, Non-profit, and Institutional (BNI) DR while limiting activity in the residential sector, and parses SE off as a research activity.¹⁹ It appears that E1 continues to view itself as an energy efficiency provider – treating DR and SE as secondary or optional resources. In NS Power's view, this is an unacceptable and inappropriate foundation for a DSM Plan extending through 2031.

Brattle's evidence demonstrates that the 2027-2031 Plan places insufficient emphasis on resources capable of addressing Nova Scotia's evolving system needs, including winter peak demand, resource adequacy, and load flexibility. In particular, Brattle concludes that greater investment should be directed toward residential DR and SE initiatives, while customer-sited solar PV should

¹⁹ As provided in Appendix A of E1's 2027-2031 DSM Plan Application, the five-year investment for SE-related activities is approximately \$166,000; the five-year total Plan investment is \$318.75 million.

not be funded through the DSM portfolio given its limited winter peak reduction or capacity value and double-funding concerns. These issues are discussed in the sections that follow.

3.1 SOLAR PV

Regarding the inclusion of solar PV measures in a DSM Plan, the issue before the Board is whether solar PV is an appropriate, cost-effective resource to be funded through DSM considering: (1) that solar PV does not provide meaningful winter peak capacity value in Nova Scotia absent storage or dispatchable controls, and (2) the double funding issue created. Further, E1 also does not appear to have included solar PV as a DSM resource in the 2019 DSM Potential Study and E1 confirmed that solar PV is not included as a DSM resource in the current IRP process.²⁰ This is noteworthy because E1 is seeking approval of solar PV as a standalone DSM resource in the Preferred Plan. Lastly, there are significant concerns regarding the valuation methodology used by E1, addressed further below.

3.1.1 Limited Winter Peak Capacity Value and Double-Funding

As Brattle’s evidence explained, the proposed Solar PV program may provide annual energy, clean energy, equity, and community benefits, but it does not provide meaningful winter peak capacity value in Nova Scotia absent storage or dispatchable controls.²¹ Standalone solar PV is not dispatchable and therefore, unlike DR, does not directly address the winter peak and flexibility challenges that are increasingly driving resource planning in Nova Scotia. These characteristics make standalone solar PV fundamentally different from the types of resources DSM funding should prioritize.

Further, E1 confirmed that participants in the proposed Solar PV program would participate through Nova Scotia’s net metering framework.²² Consequently, the proposed inclusion of solar

²⁰ M12780, Hearing Transcript, page. 443 (lines 1-6).

²¹ M12780, E-22, Brattle Evidence on behalf of NS Power, E1 2027-2031 DSM Plan Application, June 23, 2026, Section VI-B.

²² M12780, Hearing Transcript, pages 696-697 (lines 12-18, 1-4).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 PV as a DSM-funded resource raises issues regarding the interaction between DSM funding and
2 compensation already provided through net metering programs. As Dr. Sergici explained,
3 customers participating in net metering programs already receive value through the retail rate²³
4 credit mechanism associated with net metering.²⁴ She testified that when a solar PV customer
5 exports electricity to the grid, that customer receives a credit at the full retail rate, thereby avoiding
6 payment for not only the energy-related component of rates, but also components associated with
7 transmission, distribution, and other fixed costs, including riders. Dr. Sergici further explained that
8 while they are avoiding some energy expenses, those fixed cost aspects of the rate do not disappear;
9 rather, they are shifted to other customers who continue to contribute toward recovery of those
10 system costs.²⁵

11
12 The practical effect of this is that participating DSM funded solar PV customers receive ratepayer
13 funds through both net metering and DSM funding while non-participating customers bear the
14 remaining system costs that are avoided by the participant. Dr. Sergici emphasized that this is more
15 accurately characterized as double-funding rather than double-compensation,²⁶ but the underlying
16 concern remains the same: the same resource is being supported through two separate ratepayer-
17 funded mechanisms. Dr. Sergici explained that “other customers already contribute towards the
18 benefits created for these customers once” and that providing DSM incentives to the same
19 customers would represent “another contribution from the ratepayers, this time through the DSM
20 funding mechanism.”²⁷ Critically, the customers ultimately bearing those costs may include
21 customers who are unable to participate in these programs themselves. As set out by Brattle during
22 the hearing:

23
24 [...]
25 so those ratepayers that the costs are shifted to, it’s more likely that some of
26 those ratepayers are also those customers who cannot afford to put PVs on their
27 rooftops, so we might be asking some of the other low income customers to bear
 the burden for these additional funds that contribute towards paying for these PVs.

²³ “Retail rate” refers to the rate equivalent to the rate paid by that customer when it is consuming energy from the grid, inclusive of riders.

²⁴ M12780, Hearing Transcript, pages 597-598 (lines 12-21, 1-9).

²⁵ M12780, Hearing Transcript, pages 597-598 (lines 18-21, 1-9).

²⁶ M12780, Hearing Transcript, pages 597-598 (lines 1-12, 12-15).

²⁷ M12780, Hearing Transcript, pages 598 (lines 6-7).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 So it's not the most progressive from an incentive mechanism perspective approach
2 to create these benefits for the underserved equity-deserving communities.

3 Again, just to be clear, I'm not really opposed to contributing or supporting these
4 equity-deserving communities, it's just that I don't think doing that through the
5 DSM funding is the right approach."²⁸

6
7 NS Power agrees with Brattle's conclusion in that standalone customer-sited solar PV should not
8 be funded through the DSM portfolio. As Brattle explained, while solar PV may provide customer,
9 environmental and social benefits, it does not directly address the winter peak and flexibility
10 challenges that are increasingly driving resource planning in Nova Scotia.²⁹

11
12 The significance of this issue extends beyond this initial solar PV program. The Board has been
13 asked to approve a "modest level of solar-PV"³⁰ as part of the five-year Plan. In response to IRs,
14 E1 confirmed that it does not currently intend to expand solar PV to additional customer segments
15 during the 2027-2031 Plan period.³¹ While it is helpful that E1 has indicated its current intent is
16 not to expand the program during the 2027-2031 term, the concern is not E1's present intention.
17 Future expansion raises important questions regarding additional customer compensation, cost
18 allocation impacts on non-participating customers, and the interaction between DSM-funded and
19 net metered solar benefits. Approval of solar PV as a DSM resource creates a pathway for future
20 expansion of a resource that is already funded through Nova Scotia's net metering framework and
21 subsidized by non-participants.

22
23 Accordingly, it is the Company's position that customer-sited solar PV should not be approved as
24 a DSM-funded resource. It is more appropriate to redirect DSM funds toward resources that
25 directly support system flexibility and that provide demand reduction and capacity benefits,
26 including DR and SE measures. If the Board disagrees, given the double-funding and cost
27 allocation issues raised in this proceeding, NS Power submits that any expansion of solar PV

²⁸ M12780, Hearing Transcript, pages 598-599 (lines 16-19, 1-10).

²⁹ M12780, E-22, Brattle Evidence on behalf of NS Power, Section VI.

³⁰ M12780, Exhibit E-1, Evidence, page 33, line 16.

³¹ M12780, Exhibit E-13, E1(NSPI) IR-3 and IR-13 part (b).

1 should require Board review and approval rather than E1 implementing these changes through
2 intra-Plan portfolio administration and reporting this expansion through retroactive reporting.

3 4 **3.1.2 Solar PV Cost Effectiveness Methodology**

5
6 Should the Board approve E1's proposed solar PV program, it is critical that E1 demonstrate that
7 the methodology used to assess the cost effectiveness of the solar PV resource adequately reflects
8 the characteristics, value, and costs of the resource.

9
10 On cross-examination, E1 confirmed that solar PV measures were valued using the same avoided
11 cost framework applied to traditional EE measures.³² The Board then questioned whether the PAC
12 test results appropriately reflected the timing of solar PV generation, noting that the avoided costs
13 vary between the time at which a customer produces energy (in the summer) versus when they
14 require energy and capacity from the system (in the winter); E1 confirmed "it wouldn't be."³³

15
16 This creates a fundamental mismatch between the resource being evaluated and the valuation
17 methodology being applied. Applying avoided energy values developed to assess the cost-
18 effectiveness of traditional EE resources to solar PV measures effectively assumes that the benefits
19 delivered to the system by a standalone solar PV program are identical in character, magnitude,
20 and timing to the benefits delivered by EE – which would include lighting efficiency, a resource
21 that is diametrically opposed to solar PV (lighting efficiency provides benefits at night, rather than
22 the day).

23
24 A purpose-built IRP production cost model, calibrated specifically to solar generation was used in
25 proceedings M10176 and M12179 to quantify the avoided cost value of solar PV using a "with"
26 and "without" scenario similar to that used for DSM avoided cost series. These proceedings
27 established a precedent whereby the value of solar PV to the system is assessed using a
28 methodology tailored to its generation profile and operating characteristics. Using a similar

³² M12780, Hearing Transcript, page 697, 698 (lines 1-14, 5-8)

³³ M12780, Hearing Transcript, page 698 (lines 9-18).

1 approach to quantify the avoided cost value of solar PV for the purposes of cost effectiveness
2 testing minimizes the risk of inadvertently overstating the benefits of this resource.

3
4 A related issue arose during the Chair’s questioning of Dr. Sergici, who explained that solar PV
5 introduces unique interactions between net metering energy credits and the actual value of
6 electricity generated at specific times. She further explained that if costs are not appropriately
7 reflected, a DSM funded solar PV measure can appear more cost-effective than it truly is and
8 submitted that with the inclusion of utility costs related to net metering, “it’s highly likely that this
9 program is not going to be cost-effective.”³⁴ NS Power submits that the cost-effectiveness of the
10 proposed solar PV program may be overstated because the PAC test does not account for the utility
11 costs created by net metering.

12
13 The existence of increased utility costs created by net metering is discussed in Brattle’s Evidence³⁵
14 and in the Company’s recent Net Metering Report, which demonstrated that the incremental cost
15 of serving net metered customers exceeds the system benefits associated with their exports,
16 increasing revenue requirement.³⁶

17
18 Accordingly, if the NSEB approves customer-sited solar PV as a DSM resource, NS Power’s
19 position is that E1 should be directed to develop solar-specific avoided cost values in consultation
20 with the IESO-NS, update the PAC cost-effectiveness analysis for solar PV measures using those
21 avoided costs and including the utility costs of net metering, and file the resulting PAC test and
22 supporting assumptions with the NSEB for review and approval before the solar PV program is
23 implemented in 2028.

24 25 **3.2 STRATEGIC ELECTRIFICATION**

³⁴ M12780, Hearing Transcript, page 673-674.

³⁵ M12780, Exhibit E-22, Brattle Evidence on behalf of NS Power, Table 4, page 31.

³⁶ M12782, Exhibit N-4, NSPI (NSEB) RIR 1-9, May 26, 2026, IR-6 and M12783, Exhibit N-2 NSPI (NSEB) RIR 1-4, May 26, 2026, IR-4.

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 A central issue in this proceeding was E1's failure to comprehensively study the achievable
2 potential of Strategic Electrification (SE) or include SE as a resource in the Plan. The record
3 demonstrates that there is general alignment among the parties with respect to the crucial role SE
4 is expected to play in Nova Scotia's energy transition. The primary area of concern is the fact that
5 E1 has not included SE as a resource in the Plan and has no intention of incorporating a SE program
6 pathway from 2027-2031, despite the expansion of E1's legislative mandate under the PUA in
7 2022 to include strategic electrification.

8
9 Applying the modified PAC framework, E1 concluded that the SE measures it chose to model did
10 not satisfy the requirements of the PUA (that requires strategic electrification to be implemented
11 in a manner which reduces overall greenhouse gas emissions and electricity costs) and therefore
12 excluded SE from the portfolio for the entirety of the 2027-2031 period. Clearly, E1 treated the
13 modified PAC test results as determinative rather than the beginning of a strategy to make SE
14 viable.

15
16 Brattle's evidence indicates that the conclusions made by E1 during its planning for the Preferred
17 Plan respect to SE's cost-effectiveness and compliance with legislative requirements should not
18 end the enquiry. While the SE measures E1 chose to model failed the modified PAC cost-
19 effectiveness test, Dr. Sergici testified that E1 had not fully explored a number of potentially viable
20 pathways or design features that could materially affect those results, including hourly modelling,
21 flexible load management, controllable technologies, managed EV charging, and more targeted
22 deployment approaches. When asked whether E1 had demonstrated that every reasonably designed
23 SE pathway would fail, Dr. Sergici responded that the conclusion was limited to the measures E1
24 had actually modelled and that she would "like to see more evidence on how that modelling was
25 done"³⁷ before concluding that SE cannot satisfy the applicable framework.

26
27 Over the next five-years, E1 has earmarked approximately \$166,000 in direct costs, or 0.05 percent
28 of the total Plan investment to continue researching SE. While it is encouraging that E1 intends to

³⁷ M12780, Hearing Transcript, page 646 (lines 1-3, 10-15).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 dedicate resources to market research, technology assessments, and updating modelling
2 assumptions, the Preferred Plan contains no roadmap to implementation during the plan period or
3 any commitments leading into the next plan period. Further, during oral testimony, E1 could not
4 identify any concrete deliverables or outcomes from the SE research project work.³⁸ Though the
5 work identified by E1 is important, ratepayers are being asked to approve this funding without any
6 identified outcomes attached to it. At the same time, a five-year budget of roughly \$33,000
7 annually signals that SE is not being treated as a meaningful strategic priority by E1. E1 also
8 confirmed that if the Modified PAC test continues to prove a structural barrier, that E1 may
9 reallocate those funds from strategic electrification to other initiatives.³⁹

10
11 The Board heard evidence from Dr. Sergici that five years is a significant planning horizon and
12 that Nova Scotia's system is expected to undergo substantial change during that period. She
13 emphasized that opportunities may be lost if implementation discussions are deferred entirely to
14 the next DSM planning cycle.⁴⁰

15
16 Accordingly, the Company respectfully requests the Board direct E1 to undertake the work
17 necessary to identify, evaluate, and bring forward an SE pathway during the current Plan term that
18 maintains the approved total investment level and achieves a portfolio PAC greater than 1.0 so
19 that, if viable pathways emerge, they can be considered for implementation within the 2027-2031
20 period. Consistent with the recommendations laid out in Section 1.1, that work could be brought
21 forward through the Mid-Plan Check-In process.

³⁸ M12780, Hearing Transcript, page 322-324 (lines 14-19, 1-19, 1-4).

³⁹ M12780, Hearing Transcript, page 326 (lines 1-17).

⁴⁰ M12780, Hearing Transcript, page 595 (lines 8-16).

3.3 DEMAND RESPONSE

Many of the parties questioned E1’s decision to hold residential DR enrolment effectively flat over the five-year plan period.⁴¹

During the hearing, E1 suggested that Brattle’s evidence did not support reallocating DSM funding from EE to DR.⁴² Respectfully, that characterization does not reflect Brattle’s position. As Dr. Sergici explained, the concern is not simply the current cost-effectiveness of residential DR, but the risk that delaying program development, customer acquisition, operational learning, and program refinement will leave Nova Scotia behind other jurisdictions in developing flexible customer resources that are increasingly important to resource adequacy and winter peak management.⁴³

Mr. Love testified that he would not be comfortable shifting of EE funding to the current Eco Shift program in its present form, given concerns regarding program cost-effectiveness and the impact on energy savings objectives,⁴⁴ Brattle’s recommendation was that E1 should continue to expand and improve residential DR rather than pause enrolment pending future cost-effectiveness improvements. Importantly, Brattle confirmed that this objective can be achieved through reallocation within the current proposed investment or through an increase in the overall revenue requirement.⁴⁵

E1 included DR as a resource in the Preferred Plan, with projected growth to approximately 29.3 MW by 2031⁴⁶ through modest, concentrated efforts in the BNI segment. Residential DR participation is effectively held constant and enrolled devices are forecast to decline over the Plan period,⁴⁷ with no net new residential enrolment growth.

⁴¹ M12780, Hearing Transcript, pages 178-182, 313-323, 387-390, 508-518, and 591-596.

⁴² M12780, Hearing Transcript, page 790 (lines 3-12).

⁴³ M12780, Hearing Transcript, pages 608 (lines 10-18), and 615-616 (lines 15-19, 1-16).

⁴⁴ M12780, Hearing Transcript, pages 788 (lines 6-13), 789 (lines 2-9), and 790 (lines 9-12).

⁴⁵ M12780, Exhibit E-32, NSPI (CA) RIR 1-10, May 17, 2026, IR-4, part (b).

⁴⁶ M12780, Exhibit E-1, Evidence, March 31, 2026, Appendix A, Table 7, and Section 7, page 76 (lines 27-30).

⁴⁷ M12780, Exhibit E-1, Appendix A, Table 47, column “Participation (devices).”

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 NS Power supports the continued inclusion, and expansion, of DR as a core DSM resource. DR
2 provides dispatchable, measurable capacity during system peak conditions and is directly
3 responsive to Nova Scotia's evolving system needs, including managing increasing winter peak
4 demand, improving system flexibility, and contributing to resource adequacy. However, DR
5 growth in the BNI sector should not be relied upon as a substitute for a credible residential DR
6 strategy.

7
8 E1's Application indicated that enrolment in its Eco Shift program was paused to allow for
9 restructuring before future growth is pursued.⁴⁸ In its Opening Statement, E1 appended a Schedule
10 A indicating that enrolment in Eco Shift would "continue" during the Plan period.⁴⁹ These
11 seemingly inconsistent statements created uncertainty regarding E1's actual plans for residential
12 DR in the 2027-2031 period, as evidenced by the recurring need for clarification sought from E1
13 during the hearing.⁵⁰ Through oral testimony, E1 clarified that Eco Shift enrolment has been
14 paused and its primary focus is to replace underperforming participants to improve the
15 performance of the existing participant base, rather than actively pursue growth via recruitment of
16 net new customers.⁵¹ E1 repeatedly characterized this approach as "optimization" of the existing
17 program.⁵²

18
19 The distinction is important. Optimizing the participant base for performance may improve
20 program cost effectiveness, but it does not expand the residential DR resource available to the
21 system. E1 is not currently pursuing meaningful growth in residential participation and, based on
22 the record, future program expansion remains contingent upon future program improvements. Two
23 concerns arise: (1) the absence of a strategy for continued residential DR growth, and (2) the timing
24 of DR evaluation and reporting.

⁴⁸ M12780, Exhibit E-1, Appendix A, pages 76-77 (lines 28-30, 1-3).

⁴⁹ M12780, Exhibit E-42, E1 Opening Statement, E1 2027-2031 DSM Plan Application, July 29, 2026, Schedule A, page 2, item 3(a).

⁵⁰ M12780, Hearing Transcript, pages 173-185, 320-323, 387-390, and 508-518.

⁵¹ M12780, Hearing Transcript, pages 387 (lines 10-12), 388-389 (lines 16-20, 1-4), 508 (lines 4-15), and 509 (lines 15-19).

⁵² M12780, Hearing Transcript, pages 390 (lines 1-5), 517-518 (lines 18-19, 1-3), 825 (lines 3-6), and 888 (lines 3-6).

3.3.1 Continued Meaningful Residential DR Growth

E1's proposed approach to residential DR does not reflect the role that DR should play in a capacity-constrained, winter-peaking system, despite E1's Evidence that flexible demand-side programs such as Eco Shift are expected to play an increasingly important role as the electricity system continues to evolve in response to electrification, environmental compliance requirements and changing market conditions.⁵³ While the Preferred Plan increases overall DR capability to approximately 29.3 MW by 2031, nearly all growth is expected to come from the BNI sector. Residential participation is effectively held constant throughout the Plan period and enrolled devices are expected to decline.⁵⁴

Optimization of existing participants is appropriate and should be undertaken; however, this represents a program improvement activity rather than a DR resource strategy. The record demonstrates broad alignment that residential DR programs require sustained development, operational learning, enrolment growth, and increasing scale before their longer-term value can be fully realized.⁵⁵ Yet the Preferred Plan largely relies on BNI DR while waiting for future "optimization" activities to improve economics for the residential sector.

E1's rationale for limiting growth in residential demand response in the 2027-2031 Plan is difficult to reconcile with positions it advanced during the 2026 DSM Plan proceeding. At that time, E1 cautioned that restricting demand response on cost-effectiveness grounds would limit participation growth, impede market development, and reverse progress already achieved.⁵⁶ In its Decision, the Board declined to require demand response programs to achieve an aggregated PAC score of 1.0 and confirmed that programs with PAC results below 1.0 may be permitted where sufficient justification exists.⁵⁷ However, E1 appears to have self-imposed a cost-effectiveness requirement for demand response to have a PAC of 1.0 or greater in aggregate, stating "In response to the

⁵³ M12780, Exhibit E-1, Evidence, page 29.

⁵⁴ M12780, Exhibit E-1, Appendix A, Table 47, column "Participation (devices)."

⁵⁵ M12780, Hearing Transcript, pages 629-630, 790-791, and 887-889.

⁵⁶ M12249, Exhibit E-17, E1 Reply Evidence, E1 2026 DSM Extension Application, September 4, 2025, page 8.

⁵⁷ M12249, Board Decision, E1 2026 DSM Extension Application, December 22, 2025, page 27, para. 66.

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 concerns regarding demand response, E1 has limited its Residential Demand Response program
2 component in the Preferred Plan and grown its BNI Demand Response program component to
3 specifically address concerns with the cost-effectiveness of demand response.”⁵⁸ By making these
4 adjustments, E1 has treated demand response cost-effectiveness as a constraint on residential
5 demand response growth notwithstanding its prior positions on the matter.

6
7 The approach to Residential DR in the Preferred Plan is also inconsistent with evidence elsewhere
8 on the record in this current proceeding. In the review of E1’s DSM program evaluations, the
9 Board’s independent verification consultant (Gil Peach) recommends that residential DR programs
10 continue to be developed for at least five- to seven-years to determine whether participation levels
11 and demand response performance can be materially improved.⁵⁹ Brattle’s evidence similarly
12 highlights that continued program development, operational experience, participant growth, and
13 delivery improvements are necessary ingredients in achieving future cost-effectiveness.⁶⁰ E1’s
14 own Evidence sets out that strategic peak reduction can help lower long-term infrastructure costs
15 and moderate upward pressure on electricity rates and emphasizes the importance of continuing to
16 build participation and operational experience in Residential DR in order to improve cost-
17 effectiveness over time.⁶¹

18
19 The Preferred Plan therefore presents a circular challenge: the cost-effectiveness of the resource is
20 acknowledged to improve with scale and experience,⁶² but the Plan defers the very investments
21 needed to achieve that outcome. Pausing enrolment interrupts the progression toward scale,
22 disrupting operational learning, slowing improved economics, and risks increasing the cost and
23 difficulty of any future program re-launch. The resulting effect includes increased future customer

⁵⁸ M12780, Exhibit E-1, Evidence, page 18.

⁵⁹ M12780, Exhibit E-17, Savings Verification Review of Efficiency Nova Scotia, Program Year 2025 Evaluation Results, H. Gil Peach and Associates LLC, E1 2027-2031 DSM Plan Application, June 2, 2026, page vi.

⁶⁰ M12780, Exhibit E-22, Brattle Evidence on behalf of NS Power, Section IV-A.

⁶¹ M12780, Exhibit E-1, Evidence, page 29.

⁶² In response to M12780 NSEB IR-12 part (a), E1 provided “The program is not yet fully cost-effective, but early-stage residential DR programs require several years of customer recruitment, system integration, operational testing, and refinement before performance and economics stabilize.”

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 acquisition costs, increased programming costs, and ultimately a continued delay of the
2 achievement of cost-effective scale.

3
4 E1's Evidence notes that "[t]he IRP recognizes demand response as a valuable demand-side
5 resource for managing peak demand and supporting system reliability."⁶³ As Nova Scotia
6 electrifies its buildings and transportation, winter peak demand management and system flexibility
7 are expected to become increasingly important. In that context, DR should be prioritized as a
8 dispatchable system resource capable of providing measurable load reductions during period of
9 system need. Near-term residential efforts continue to focus on scalable technologies with
10 demonstrated winter peak reduction capability and scalability, including smart thermostats and
11 domestic hot water direct load controls.

12
13 The Preferred Plan instead relies predominately on continued growth in the BNI sector. While BNI
14 DR is cost-effective and should continue to be scaled, as highlighted in Brattle's evidence, reliance
15 on a single customer segment may increase concentration risk and does not provide a balanced,
16 resilient DR portfolio.⁶⁴ As Dr. Sergici explained, where a portfolio becomes heavily concentrated
17 in one resource segment, there is a risk that performance shortfalls within that segment have a
18 disproportionate effect on overall results.⁶⁵ She emphasized the importance of portfolio
19 diversification and continued development of residential DR resources, particularly given the
20 growing population of flexible devices expected to be deployed throughout the Plan period.⁶⁶

21
22 This concern is further reinforced by E1's continued deployment of DR-capable technologies
23 through other DSM programming streams. E1 confirmed that substantial numbers of controllable
24 devices continue to be installed through existing (non-DR) streams,⁶⁷ yet participation in DR is
25 not expected to grow alongside deployment of those enabling technologies.⁶⁸ As a result, the
26 population of controllable devices will continue to increase without a corresponding strategy to

⁶³ M12780, Exhibit E-1, Evidence, page 28.

⁶⁴ M12780, Exhibit E-22, Brattle Evidence on behalf of NS Power, Section IV.

⁶⁵ M12780, Hearing Transcript, pages 601-602 (lines 15-19, 1-4).

⁶⁶ M12780, Hearing Transcript, pages 615 (lines 1-2) and 616 (lines (1-16).

⁶⁷ M12780, Hearing Transcript, page 861-863.

⁶⁸ M12780, Hearing Transcript, pages 515-516 (lines 10-22, 1-16).

1 increase their participation as dispatchable system resources. This highlights the growing
2 disconnect between the availability of flexible customer load and the limited growth contemplated
3 for residential DR during the Plan period, even when the record indicates that opportunities remain
4 to improve the effectiveness of residential DR through program design⁶⁹ and coordination with
5 other customer flexibility initiatives.⁷⁰

6
7 E1's approach to DR is to largely hold it static during a five-year period in which system flexibility
8 and winter peak management are becoming increasingly important. NS Power submits that this
9 approach is not aligned with the role DR should play in Nova Scotia's evolving resource mix.

10 Accordingly, NS Power respectfully requests that the Board direct E1, to develop and implement
11 a revised residential DR strategy as soon as possible that includes both continued optimization of
12 existing participants and active enrolment of net new residential participants. Such a strategy
13 should establish a clear pathway for residential DR growth as program performance improves,
14 rather than deferring meaningful expansion to an unspecified future date.

16 **3.3.2 Timing of DR EM&V and Reporting**

17

18 The current March 31 filing date for E1's DR Evaluation Reports results in evaluation findings
19 being reported approximately 13 months after the relevant winter season concludes.⁷¹ This does
20 not provide sufficient time for evaluation findings to be integrated into system planning or
21 procurement decisions for the following winter. In response to an IR from NS Power, E1 indicated
22 it would be "agreeable to ensuring that the demand response evaluation results are available before
23 the next demand response season begins."⁷² The Company supports this commitment. If DR is to

⁶⁹ In M12916, the IESO-NS references the results of the updated ELCC study by Energy+Environmental Economics which compares and contrasts two event-based DR programs (CPP and E1's BNI DR) and shows how E1's program marginal ELCC rapidly declines due to limited program availability on weekends and hours outside the defined morning and evening event windows. The study is accessible at: <https://ieso-ns.ca/wp-content/uploads/2026/06/2026-Nova-Scotia-ELCC-Study-Report.pdf>

⁷⁰ E1 has acknowledged ongoing discussion with NS Power regarding the interaction between Eco Shift and Time Varying Pricing (Transcript, page 278 (lines 16 – 19) and page 279 (lines 1 – 8)).

⁷¹ For example, Exhibit E-3 in this Matter includes E1's 2025 DSM Evaluation Reports, filed on March 31, 2026. The DR season evaluated in this report is the 2024-2025 winter season.

⁷² Exhibit E-13, E1 (NSPI) IR-9.

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 be relied upon as a capacity resource for a winter peaking utility, measured and verified results
2 should be reported as close to the end of the DR Season as is reasonably possible so that the
3 information can be used to inform resource planning, procurement decisions, and program design
4 adjustments for the following Season.

5
6 Accordingly, NS Power respectfully requests that the Board direct E1 take the necessary steps to
7 adjust the DR evaluation reporting timeline such that DR results are filed with the NSEB prior to
8 the start of the next DR Season.

4.0 MID-PLAN CHECK-IN AND PLAN ADAPTABILITY

As discussed in Section 2, one of the principal concerns raised by multiple parties throughout this proceeding is that the Preferred Plan was developed without the benefit of a current DSM Potential Study and ahead of several key planning inputs like the IESO-NS-led IRP. Due to the sequencing issue identified, the Mid-Plan Check-In process becomes the first established opportunity to assess the Preferred Plan against the planning information that would ideally have existed before the Plan was developed. Further, while NS Power supports the addition of a mid-plan review, the process as currently proposed appears limited in scope and any resulting Plan amendments remain largely within E1's sole discretion.⁷³ As a result, the proposed review mechanism provides little assurance that material new information or changed circumstances will lead to meaningful reconsideration of the Preferred Plan, even where such information could call into question the Plan's underlying assumptions or continued suitability.

The Board has previously expressed concern regarding oversight of a five-year planning cycle, particularly given the potential for system conditions to change materially during that period.⁷⁴ During the hearing, the Chair explored how material changes would be identified, whether objectives thresholds or triggers would apply, and what actions would result operate if future planning information differed materially from the assumptions underpinning the Preferred Plan.⁷⁵ Board Counsel questioned how the outcomes of the study work agreed to with the CA, IG, and EE would interact with DSMAG oversight and existing governance structures.⁷⁶ That discussion revealed a governance gap. While E1 indicated that "material" changes could warrant further

⁷³ In response to Synapse IR-72, E1 provided "[a]s the franchise holder, E1 retains full discretion to determine whether to propose and seek NSEB approval of an amendment to a DSM Plan and as such retains full discretion to determine whether amendments to a DSM Plan are warranted."

⁷⁴ M12249, Board Decision (2025 NSEB 21), para. [73]. While the Board's concern in that proceeding focused on E1's discretion to reallocate spending within a plan, the underlying rationale – that ratepayers need greater opportunity to review and challenge changes, especially under five-year DSM plans – applies equally to the lack of a structured mechanism for reassessing the Plan's core assumptions when system conditions materially change.

⁷⁵ M12780, Hearing Transcript, pages 709-711.

⁷⁶ Specifically, Board Counsel enquired "whether or not establishing those bilateral arrangements" and having significant work proceed outside DSMAG could create issues with "those two methods running in parallel." (M12780 Hearing Transcript, page 385-386 (lines 6-16, 10-18)).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 consideration, it acknowledged that E1 does not “currently have a definition of what we would
2 consider material.”⁷⁷

3
4 E1 further confirmed that many aspects of the proposed Mid-Plan Check-In process remain to be
5 developed following Plan approval and that future decisions regarding whether amendments
6 should be brought forward would depend on the circumstances identified through stakeholder
7 discussions and E1’s judgment at that time.⁷⁸

8
9 Those questions highlighted the broader challenge of ensuring that significant planning and
10 resource allocation issues are not deferred to future processes without a clear pathway for review
11 and decision-making.

12
13 The Company supports stakeholder consultation regarding development of the process. However,
14 consultation alone is not a governance framework. A five-year planning horizon requires a clear
15 and predictable mechanism for identifying material developments, evaluating their implications,
16 and determining whether adjustments to the Plan are warranted. At present, E1 has not committed
17 to an adequately defined framework governing when issues must be assessed, reported on,
18 escalated, or brought before the DSMAG or the Board for consideration.

19
20 As Mr. Love testified, the preferred planning sequence is for a DSM Potential Study to inform the
21 IRP, which in turn informs DSM planning.⁷⁹ In this proceeding, however, the Preferred Plan was
22 developed before completion of both the DSM Potential Study update and the IESO-NS-led IRP.
23 Currently, the Mid-Plan Check-In therefore represents the first meaningful opportunity to assess
24 the Preferred Plan against planning information that would ideally have existed before the Plan
25 was developed.

⁷⁷ M12780, Hearing Transcript, 710 (lines 18-19).

⁷⁸ M12780, Hearing Transcript, page 712 (lines 3-15); see also E1 (Synapse) IR-72.

⁷⁹ M12780, Hearing Transcript, page 829 (lines 7-15) and pages 833-834 (lines 19, 1-14).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 By, and likely far ahead of, the proposed Q1 2029 check-in, E1 is expected to have the benefit of:

- 2 • the results of E1's 2026 DSM Potential Study update;
- 3 • updated system planning information from the IESO-NS-led IRP, including updated
- 4 avoided cost information;
- 5 • additional experience with residential DR optimization;
- 6 • further SE-related research and modeling; and
- 7 • the results of various research initiatives contemplated in E1's Innovation Framework and
- 8 the bi-lateral agreements executed ahead of the hearing.

9

10 At that stage, E1 should be in a position to bring forward the results and recommendations arising

11 from these matters, along with any proposed modifications necessary to ensure the Plan remains

12 aligned with Nova Scotia's evolving system needs, including an SE pathway and a revised

13 residential DR strategy as detailed in Sections 3 and 4. In light of the sequencing concerns

14 discussed in Section 2, once a comprehensive DSM Potential Study is conducted and the results

15 and the most current IRP information are available, NS Power requests that the Board direct E1 to

16 promptly remodel the DSM portfolio for the remainder of the Plan period, incorporating updated

17 avoided costs, resource potential, and system needs, and bring the Plan back before the Board for

18 approval as soon as practicable and in advance of the Mid-Plan Check-In.

5.0 SCOPING OF RESEARCH INITIATIVES

During this proceeding, new research initiatives emerged following the execution of the Study Agreements:

- incentive level study between E1 and the CA;
- hybrid heating study between E1 and EE; and an
- interruptible customer DR participation study between E1 and the IG.

In all three agreements E1 has committed to be “solely responsible for all costs associated with engaging the mutually agreed third-party consultant to conduct the Study, as well as any costs associated with the implementation of a pilot.”⁸⁰ During the hearing, E1 confirmed that costs associated with these initiatives would be funded through the existing budgets contemplated within the Plan, including through enabling strategies, though that the ultimate funding source depends on how the initiatives are scoped and implemented.⁸¹

NS Power respectfully submits that the Board should consider directing E1 to provide detailed plans and processes for each of the Study Agreements prior to finalizing the scope to ensure all affected parties’ views are reasonably considered. Those plans should be documented and discussed with the DSMAG in advance of implementation. NS Power submits that E1 should be required to provide and make the following available to the DSMAG:

- Study scope and objectives;
- Methodology;
- Governance framework;
- Stakeholder engagement plan;
- Reporting expectations;

⁸⁰ Refer to the final bullet point on each of the three studies.

⁸¹ M12780, Hearing Transcript, page 192 (lines 14-19), 331 (lines 1-18), and 432 (lines 9-15).

- Anticipated expenditures and funding source; and
- Expected deliverables and outcomes.

This ensures that inputs and assumptions to the studies are appropriately derived with input from affected participants.

5.1 INTERRUPTIBLE CUSTOMER ELIGIBILITY FOR E1'S DR PROGRAMS

On the interruptible customer DR participation study between E1 and the IG, NS Power is prepared to support further examination of Large Industrial Interruptible Rider (LIIR) customer eligibility for E1's DR programs; however, the issues raised by the proposed study involve fundamental questions relating to system operations, tariff design, and incremental system value that requires NS Power's involvement from the point of study development.

As Mr. Love explained during cross-examination, the central question is whether the system is already procuring, using, and paying for the load reduction through the LIIR Tariff.⁸² While a LIIR customer may be capable of reducing load beyond its interruptible obligation, it must first be determined whether the proposed DR resource provides incremental value to the system, beyond the benefits already reflected in the Tariff.

This concern was also reflected in questioning from the Board. The Chair explored whether interruptible customers could provide additional value beyond their existing interruptible commitment, while recognizing that the central issue is whether the system has already recognized and compensated the underlying resource through the LIIR structure.⁸³ Mr. Love agreed that any assessment must focus on incremental system value rather than customer capability alone.⁸⁴

⁸² M12780, Hearing Transcript, page 835 (lines 6-8).

⁸³ M12780, Hearing Transcript, page 834 (lines 16-19).

⁸⁴ M12780, Hearing Transcript, page 835 (lines 3-8).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 The interruptible portion of LIIR customer load is treated differently than firm customer load when
2 assessing system capacity requirements and future resource needs. Under the Tariff, LIIR
3 customers receive an interruptible credit in exchange for agreeing to curtail load under specified
4 system conditions within 10 minutes of the request. The effect of noncompliance is a monetary
5 penalty. This distinction is important because the system may already be receiving resource
6 adequacy and planning value through that interruptibility commitment. Any proposal to recognize
7 the same load through a DSM DR program therefore requires careful examination to determine
8 whether additional, measurable system value is being created.⁸⁵ Absent that analysis, there is a
9 risk that capacity-related benefits could be overstated, avoided costs could be mischaracterized,
10 and DSM incentives could be directed toward load reductions already reflected in broader system
11 planning assumptions.

12
13 During cross-examination, the Company raised the importance of being involved in development
14 of the study scope to ensure that tariff design considerations, operational requirements, and system
15 planning considerations are properly understood and reflected from the outset.⁸⁶ In response, E1
16 stated that “it is not critical at the outset that we define those with Nova Scotia Power” and instead
17 emphasized consultation during the execution of the study.⁸⁷ While it is helpful that E1 intends to
18 engage NS Power and the IESO-NS during the study itself, involvement after the scope has already
19 been established is not sufficient. Several proposed study elements depend fundamentally on
20 planning assumptions, reliability requirements, tariff design, and operational criteria that reside
21 with NS Power and the IESO-NS. Those issues directly influence the scope, assumptions, and
22 methodology of the study itself and should therefore be incorporated before the work begins.

23
24 The DR participation study illustrates a broader concern associated with all three Study
25 Agreements. Board Counsel specifically inquired how initiatives arising from these agreements
26 would interact with DSMAG consultation and whether significant planning and research activities

⁸⁵ NPCC criteria (<https://www.npcc.org/standards/regional-criteria>) does not allow load sources to be counted toward operating reserves if that load is already counted in other demand response programs.

⁸⁶ M12780, Hearing Transcript, pages 327-328 (lines 15-19, 1-13).

⁸⁷ M12780, Hearing Transcript, page 329 (lines 9-13).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

1 could operate through parallel processes and existing governance structures.⁸⁸ In response, E1
2 acknowledged that many aspects of these initiatives, including study scope, implementation
3 planning, stakeholder engagement processes, and other governance elements, remain to be
4 developed.⁸⁹ As a result, the Board is being asked to approve the Study Agreements before there
5 is a clear understanding of how their outputs will be integrated into existing DSM governance
6 processes or coordinated with DSMAG's established consultative role.

⁸⁸ M12780, Hearing Transcript, page 385-386 (lines 6-16, 10-18).

⁸⁹ M12780, Hearing Transcript, pages 200-201 (lines 14-19, 1-10), 322-323 (lines 1-13, 1-5), 433 (lines 1-3), and 500 (lines 1-3).

E1 2027-2031 DSM Plan – NS Power Closing Submission
NON-CONFIDENTIAL

6.0 CONCLUSION

NS Power thanks the Board for the opportunity to provide these closing submissions. The Company's intent is to strengthen the Preferred Plan by advocating for targeted enhancements that better reflect Nova Scotia's evolving system needs by emphasizing flexible, dispatchable, and emerging DSM resources. In NS Power's respectful submission, EE, DR, SE, and Solar PV resources must be considered in a manner that appropriately balances affordability, system needs and improves transparency in planning and evaluation.

The Company respectfully requests that the Board consider directing E1 in the manner described at section 1.1.