

E1 Responses to Municipal Electric Utilities (MEU) Information Requests
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Request IR-01:

Reference: Evidence, page 3, lines 5-13. “E1 developed its Settlement Plan over the course of a comprehensive and transparent stakeholder engagement process, ensuring that all ratepayer classes were given the opportunity to participate and provide meaningful input into various plan scenarios. Over the course of scenario development, stakeholders were provided with initial model results and assumptions, technical tables, and rate and bill impact analysis results, and given the opportunity to ask questions of and provide comments to E1. Stakeholder input and advocacy were carefully considered and, where appropriate, incorporated by E1 into subsequent modelling rounds. The result of this extensive stakeholder engagement is a Settlement Plan that will deliver cost-effective energy savings that are in the best interest of ratepayers and reflective of stakeholders’ feedback.”

Reference: Appendix A, Table 2: DSMAG Stakeholder Engagement Timelines in the 2023-2025 Settlement Plan Development, pages 14-16 of 149.

Questions:

(a) E1 refers to its Application as a “Settlement Plan”. Please confirm that no Settlement Agreement has been signed in relation to E1’s Application with any party that would preclude stakeholders from raising any issues with respect to the Application as part of this proceeding. If not so confirmed, please explain in detail.

(b) Please identify all examples of the specific input and advocacy received from each of the stakeholders that were (i) carefully considered, and (ii) specifically incorporated by E1 into subsequent modelling rounds.

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1 **(c) Please identify and summarize any changes to the proposed DSM Portfolio Scenarios and**
2 **Model Results that were made following the filing of NS Power’s 2022-2024 General Rate**
3 **Application on January 27, 2022 and prior to the filing of E1’s Application on March 11,**
4 **2022.**

5
6 **(d) Table 2 in Appendix A shows kick-off meetings and multiple one-on-one meetings with a**
7 **number of stakeholders. Please indicate whether, prior to the filing of its March 11, 2022**
8 **Application, E1 had any one-on-one meetings with representatives from the municipal**
9 **utilities.**

10
11 **(e) Please provide copies of any minutes available from the meetings referenced in Table 2**
12 **in Appendix A.**

13
14 Response IR-01:

15
16 (a) Confirmed.

17
18 (b) In response to feedback received after the 2020-2022 DSM Plan process, EfficiencyOne (E1)
19 developed a comprehensive Demand Side Management Advisory Group (DSMAG)
20 stakeholder engagement plan, for the 2023-2025 DSM Plan, that was more transparent and
21 responsive to stakeholders and focused on earlier engagement in the Plan development.
22 Four DSMAG Sessions were held, six information packages were distributed to the DSMAG
23 members, four written comment periods were provided to DSMAG members and multiple
24 one-on-one meetings were held as part of the 2023-2025 DSM Plan engagement. The
25 DSMAG members for distribution of these activities include:

- 26 • Consumer Advocate (CA);
- 27 • Small Business Advocate (SBA);

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- Synapse Energy Economics (consultant to the NSUARB);
- NS Power;
- Industrial Group (IG);
- Province of Nova Scotia;
- Assembly of Mi'kmaw Chiefs;
- Affordable Energy Coalition (AEC);
- Ecology Action Centre (EAC);
- Municipal Electric Utilities (MEU); and
- Halifax Regional Municipality (HRM).

The engagement allowed for several opportunities for the DSMAG to provide feedback through active discussions and written comment periods with E1 providing responses of how this feedback was considered. E1 had a one-on-one meeting with MEU staff prior to filing the 2023-2025 DSM Plan Application on March 11, 2022 and as a member of the DSMAG the MEU representative was included throughout the DSM Plan development process. As understood among the DSMAG, all materials including meeting minutes and submitted comments are treated confidentially and are available to members of the DSMAG on the DSMAG SharePoint site. Please also refer to EfficiencyOne's response to IG IR-17.

(c) Please refer to EfficiencyOne's IR response to CA IR-07.

(d) Please refer to EfficiencyOne's response in part (b) of this IR response.

(e) Please refer to EfficiencyOne's response to part (b) of this IR response.

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Request IR-02:

Reference: Evidence, Table 1: 2023-2025 Settlement Plan, page 11 and Table 2: 2023-2025 Settlement Plan Cost-Effectiveness Results by Program, page 19

Reference: Evidence, page 16, lines 17-22. “Avoided energy and capacity costs have been calculated by NS Power using the 2020 IRP Reference Plan 2.0C... The avoided costs of carbon have been calculated by E1 by applying the Federal Carbon Pollution Pricing Benchmark to the emissions intensity for Base DSM savings, which was determined by comparing the 2020 IRP Reference Plan 2.0C emissions to the emissions from scenario 2.0C model run that did not include any new DSM.”

Questions:

(a) Please confirm that the Total Resource Cost Test (TRC) and Program Administrator Cost Test (PAC) were conducted assuming that all energy and capacity savings were calculated using the annual avoided costs of energy and capacity and annual avoided CO2 emissions from NS Power.

(b) Please confirm that E1 is aware that the Berwick Electric Commission, the Riverport Electric Light Commission, the Town of Antigonish, and the Town of Mahone Bay supply their customers from the Ellershouse Wind Farm and imports from New Brunswick, as opposed to from NS Power under Rate Class 24.

(c) For the proposed DSM spending in relation to the service territories of the Berwick Electric Commission, the Riverport Electric Light Commission, the Town of Antigonish, and the Town of Mahone Bay, did E1 consider any alternative approaches to reflect the

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differential in costs and avoided emissions that would be applicable to any energy and demand savings that occur in those service territories? If so, please explain. If not, why not?

Response IR-02:

(a) Please refer to EfficiencyOne's (E1) response to NSUARB IR-13.

(b) Confirmed.

(c) E1 did not consider alternative approaches to avoided costs in the development of the 2023-2025 DSM Plan that reflect specific costs of the MEUs. As described in the Standardized Filing Framework approved by the Nova Scotia Utility and Review Board (NSUARB), NS Power will provide estimates of annual avoided costs of fuel on a per-MWh basis, and annual avoided costs of generation, transmission, and distribution on a per-kW basis to EfficiencyOne for use in the cost-effectiveness screening of DSM measures and programs during DSM planning processes. Estimates of avoided costs will be provided prior to each DSM Potential Study, and whenever NS Power and EfficiencyOne believe avoided cost estimate require changes. Please refer to EfficiencyOne's response to NSUARB IR-13.

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Request IR-03:

Reference: Evidence, page 11, line 11. “Avoided costs of transmission and distribution were provided by NS Power in 2021.”

Questions:

(a) Please provide the avoided costs of transmission and distribution as provided by NS Power.

(b) Please indicate whether E1 is of the view that any specific transmission and/or distribution projects have been avoided as a result of the DSM spending in the 2020-2022 Plan. If so, please provide further information regarding these specific projects.

(c) Please indicate whether E1 is of the view that any specific transmission and/or distribution projects will be avoided as a result of the DSM spending for the 2023-2025 Plan. If so, please provide further information regarding these specific projects.

Response IR-03:

(a) Please refer to EfficiencyOne’s (E1) IR response to NSUARB IR -13.

(b) E1 has not been provided with details regarding specific transmission and/or distribution projects undertaken by NS Power.

(c) Please refer to part (b) of this IR response.

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Request IR-04:

Reference: Evidence, page 59, lines 11-13. “As a new portfolio item that will introduce an additional 17.9 MW of capacity to the grid by the end of 2025, DR will become an important contributor toward the overall 96.7 MW of cumulative system-peak demand savings projected under the 2023-2025 DSM Plan. Likewise, DR complements demand reduction activities under the Settlement Plan that comprise the majority (approximately 81.5%) of the overall system-peak demand savings impact.”

Questions:

(a) Please provide a breakdown of the 17.9 MW of capacity on account of Demand Response and the overall 96.7 MW of cumulative system-peak demand savings projected under the 2023-2025 DSM Plan by Rate Class and program.

(b) Please indicate whether the Municipal customers will be eligible to participate in Demand Response programs as part of the proposed 2023-2025 DSM Plan. If so, please provide further details. If not, why not?

Response IR-04:

(a) Please refer to Table 1 and Table 2, below.

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1 Table 1: Energy Efficiency (EE) Programs Cumulative Demand Savings by Rate Class (kW)

Rate Class	Efficient Product Rebates (Res)	Existing Residential	New Residential	Efficient Product Rebates (BNI)	Custom Incentives	Direct Installation	Total EE
Residential	3,228	28,755	1,210	1,602	43	1,961	36,799
Small General	60	673	-	2,175	488	1,137	4,533
General	65	766	-	11,433	7,969	4,217	24,450
Large General	-	-	-	1,772	1,911	-	3,683
Small Industrial	1	-	-	1,299	790	169	2,259
Medium Industrial	0	-	-	427	1,326	-	1,753
Large Industrial	-	-	-	1,512	2,316	-	3,829
Municipal	107	526	47	307	367	144	1,498
Unmetered	0	-	-	34	-	-	34
Total	3,460	30,720	1,258	20,562	15,210	7,628	78,838

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3 Table 2: Demand Response (DR) Program Cumulative Capacity in 2025 by Rate Class (kW)

Rate Class	Demand Response Program
Residential	7,135
Small General	94
General	3,421
Large General	5,331
Small Industrial	31
Medium Industrial	555
Large Industrial	1,294
Municipal	0

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Rate Class	Demand Response Program
Unmetered	0
Total	17,861

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- 2 (b) As part of the 2023-2025 DSM Plan, E1 has assumed no participation from the Municipal
3 Rate Class in the Demand Response program therefore there was no allocation of DR costs
4 estimated. To realize system benefits, Demand Response resources must be controlled by
5 the utility. In the case of Municipal Electric Utility (MEU) customers, E1 understands this
6 should be the MEUs rather than NS Power. The DR within the 2023-2025 DSM Plan focuses
7 on the E1/NS Power DR collaboration; however, E1 understands that there may be
8 opportunities for collaboration with the MEU as well within this program.

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1 **Request IR-05:**

2
3 **Reference: Appendix A, Table 8: 2023-2025 Settlement Plan Investment and Savings, page 39**
4 **of 149.**

5
6 **Reference: Appendix A, Table 9: 2023-2025 Settlement Plan Investment and Savings, by**
7 **Program Component, page 40 of 149.**

8
9 **Reference: Appendix A, Table 10: 2023 Settlement Plan Investment and Savings, by Program**
10 **Component, page 41 of 149.**

11
12 **Reference: Appendix A, Table 11: 2024 Settlement Plan Investment and Savings, by Program**
13 **Component, page 42 of 149.**

14
15 **Reference: Appendix A, Table 12: 2025 Settlement Plan Investment and Savings, by Program**
16 **Component, page 43 of 149.**

17
18 **Questions:**

19
20 **(a) Please reproduce each of these five tables using only the Investment for the Municipal**
21 **Rate Class (24) of \$1.0M in 2023, \$1.0M in 2024, and \$1.1M in 2025.**

22
23 **(b) Please provide the same five tables as in (a), but assuming the avoided energy costs are**
24 **10% lower than the avoided energy and capacity costs from NS Power.**

25
26 **(c) Please provide the same five tables as in (a), but assuming the avoided energy, demand,**
27 **transmission, and distribution costs are 10% lower than the avoided costs from NS Power.**

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1 Response IR-05:

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3 (a) Please refer to EfficiencyOne's (E1) response to MEU IR-06.

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5 (b) Please refer to E1's response to NSUARB IR-13.

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7 (c) Please refer to E1's response to NSUARB IR-13.

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Request IR-06:

Reference: Appendix A, Table 13: Rate Class Expenditure by Year, page 44 of 149.

Questions:

(a) Please reproduce this table for the Alternate Scenario.

(b) Please provide a breakdown of the proposed Settlement Plan Expenditures for the Municipal Rate Class (24) of \$1.0M in 2023, \$1.0M in 2024, and \$1.1M in 2025 showing the forecast expenditures for each of the five municipal public utilities (Berwick Electric Commision, Riverport Electric Light Commission, Town of Antigonish, Town of Mahone Bay, and the Town of Lunenburg.) If the specific breakdown is not available, please explain why not, and provide an overall breakdown based on E1’s understanding of the relative forecast load for each of the five municipal public utilities for each of those years.

(c) Please explain in detail how E1 determined the Municipal Rate Class (24) proportion of the total proposed Settlement Plan expenditures, and provide all analysis, workpapers, and supporting materials used to determine this allocation of forecast expenditures.

(d) Please provide E1’s assumptions with respect to the specific energy (MWh) and capacity (MW) savings expected to be achieved in relation to the Municipal Rate Class (24) in each of 2023, 2024, and 2025 as a result of approval of the 2023-2025 DSM Plan as filed.

(e) Does E1 have any objection if the four municipal public utilities that participate in the Wholesale Market (Berwick Electric Commision, Riverport Electric Light Commission, Town of Antigonish, and the Town of Mahone Bay) pay all of their allocated and Board-

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approved DSM costs directly to E1, rather than to NS Power through the Riders proposed in NS Power's General Rate Application? If so, please explain.

Response IR-06:

(a) Please refer to EfficiencyOne's (E1) 2023-2025 DSM Plan Application (page 8 of 8) Appendix C, Section 1.2, Table 6 for the Alternate Scenario rate class spending.

(b) Please refer to Attachment 1 of this IR response that provides E1's 2023-2025 DSM Plan spending, energy savings, and demand savings for the Municipal Electric Utilities rate class by individual utility. This reflects an estimate at this time, using 2020 program participation. Actual spending, by NS Power rate class, will be provided at the end of each year and reported in E1's Annual Progress Report.

(c) Please refer to part (b) of this IR response.

(d) Please refer to part (b) of this IR response.

(e) E1 believes that any change of the nature posited would require approval of the Nova Scotia Utility and Review Board (NSUARB).

Line #

Allocation of 2024 DSM expenditures (\$ million), energy savings, and demand savings associated with Municipal Utilities

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Program costs, energy savings, and demand savings by participating municipal utility

Program	Efficient Product Rebates RES	Energy Savings (GWh)	Demand Savings (MW)	Existing Residential	Energy Savings (GWh)	Demand Savings (MW)	New Residential	Energy Savings (GWh)	Demand Savings (MW)	Efficient Product Rebates BNI	Energy Savings (GWh)	Demand Savings (MW)	Custom Incentives	Energy Savings (GWh)	Demand Savings (MW)	Direct Installation	Energy Savings (GWh)	Demand Savings (MW)	Enabling Strategies	Program Costs + Enabling Strategies	Energy Savings (GWh)	Demand Savings (MW)	
Rate Class																							
Municipal	\$0.135	0.328	0.035	\$0.393	1.207	0.175	\$0.000	0.000	0.000	\$0.100	0.596	0.099	\$0.207	0.646	0.122	\$0.084	0.176	0.048	\$0.086	\$1.005	2.952	0.480	
Antigonish	\$0.048	0.117	0.012	\$0.149	0.459	0.067	\$0.000	0.000	0.000	\$0.063	0.377	0.063	\$0.091	0.284	0.054	\$0.014	0.029	0.008	\$0.046	\$0.411	1.266	0.204	
Berwick	\$0.030	0.073	0.008	\$0.086	0.263	0.038	\$0.000	0.000	0.000	\$0.015	0.090	0.015	\$0.039	0.123	0.023	\$0.028	0.059	0.016	\$0.014	\$0.212	0.607	0.100	
Lunenburg	\$0.036	0.087	0.009	\$0.097	0.298	0.043	\$0.000	0.000	0.000	\$0.014	0.086	0.014	\$0.076	0.239	0.045	\$0.028	0.059	0.016	\$0.015	\$0.267	0.769	0.128	
Mahone Bay	\$0.010	0.026	0.003	\$0.032	0.099	0.014	\$0.000	0.000	0.000	\$0.007	0.043	0.007	\$0.000	0.000	0.000	\$0.014	0.029	0.008	\$0.009	\$0.073	0.197	0.032	
Riverport	\$0.010	0.025	0.003	\$0.029	0.088	0.013	\$0.000	0.000	0.000	\$0.000	0.000	0.000	\$0.000	0.000	0.000	\$0.000	0.000	0.000	\$0.002	\$0.041	0.113	0.015	
		Residential Programs									BNI Programs												

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Numbers may not add due to rounding

Lines 16 - 21 provide a breakdown of the Municipal Rate Class participation by individual Municipal Electric Utility (MEU).

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Request IR-07:

Reference: Appendix A, Section 9.3, Mid-Course Adjustments & Flexibility, page . “E1 often makes limited adjustments to an approved DSM Resource Plan to reflect changes in market conditions and updated insights from program and organizational evaluations unknown at the time of DSM Resource Plan development. When setting 2023-2025 Mid-Course Adjustments (MCAs), E1 will follow the same approach as was taken for the 2020-2022 DSM Resource Plan MCAs. This approach includes the following:

- E1 will provide explanations of changes, that have a variance in energy savings, demand savings, or investment that are 25 percent or more at a program level.**
- As per above, and dependent on approved cost allocation methodology, E1 will undertake reasonable efforts to consider impacts to any customer rate class on an annual basis that result from program changes.**
- E1 will provide written advance notice of its intent to implement mid-course adjustments by program and their customer rate class impacts in the APRs for the 2023-2025 DSM Resource Plan period and will file the MCAs with the Quarterly Report in Q1. It is E1’s position that it is not able to provide advance notice of mid-course adjustments resulting from third-party evaluation reports, as these adjustments are made after receipt of these reports.”**

Questions:

- (a) Please indicate whether E1 would be willing to specifically engage with the Berwick Electric Commission, the Riverport Electric Light Commission, the Town of Antigonish, and the Town of Mahone Bay with respect to the DSM spending levels in relation to the service territories of those public utilities as part of its 2023-2025 Settlement Plan**

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1 following the Board's approval in this matter and prior to January 1, 2023. If not, please
2 indicate why not.

3
4 (b) Please identify any constraints that E1 currently believes could limit its ability to
5 implement any adjustments that have been specifically agreed to between E1 and the
6 Berwick Electric Commission, the Riverport Electric Light Commission, the Town of
7 Antigonish, and the Town of Mahone Bay for the DSM programs in the 2023-2025
8 Settlement Plan in the service territories of those public utilities following the Board's
9 decision in this matter, either prior to January 1, 2023 or as part of E1's mid-course
10 corrections. If E1 identifies any constraints, please indicate how E1 suggests these could
11 be addressed as part of this proceeding.

12
13 Response IR-07:

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15 (a) EfficiencyOne (E1) is open to discussing with our stakeholders, partners and customers to
16 understand how best to implement the approved DSM Plan programs and services to meet
17 customer needs, including the Municipal Electric Utilities' customers.

18
19 (b) Any adjustments proposed and/or agreed to with regard to Municipal Electric Utilities
20 following approval of the DSM Plan by the Nova Scotia Utility and Review Board (NSUARB),
21 and prior to the Plan implementation date of January 1, 2023 would be limited to the
22 flexibility afforded E1 in the approved Plan, and related compliance filing, and any direction
23 contained in the Order of the NSUARB.

24
25 Mid-course adjustments are used in a limited way to make adjustments within the
26 approved investment and savings on a program-by-program basis which are influenced by
27 changes in market conditions which affect participation and third-party evaluation results

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- 1 always with the intent of achieving NSUARB performance targets within the approved
- 2 investment level.

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Request IR-08:

Reference: Appendix A, Attachment 4

Reference: Appendix A, Attachment 6

Reference: Appendix C, Attachment 1

Question:

Please provide a copy of these three electronic spreadsheets with all formulas and references intact.

Response IR-08:

Please refer to EfficiencyOne’s response to SBA IR-19 and Synapse IR-24.

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Request IR-09:

Reference: Appendix B, Attachment 8, Tab M-1 Participants. In the Rate and Bill Impact Modelling in this Attachment, each Municipal Utility is considered a single “participant” for the entire portfolio. For the other rate classes, participant tabs provide a count of the number of NS Power customers who are estimated to have participated or are forecasted to participate in E1 programs.

Question:

Does E1 have information with respect to the number of individual customer participants in E1 programs within each Municipal Utility, in the same manner that it has information on the number of individual NS Power customer participants for other rate classes? If so, please provide that information in a revised Attachment 8. If not, please explain why this information is not available, and indicate whether E1 is willing to forecast and track this individual customer participant information within the Municipal Utilities on a go forward basis.

Response IR-09:

No, EfficiencyOne (E1) does not have information about the number of individual customer participants within each Municipal Electric Utility (MEU) for the 2023-2025 DSM Resource Plan.

The energy efficiency ProCESS™ model relies on estimates of measure uptake, i.e. the number of rebates provided for each measure in each of 2023, 2024, and 2025. For each measure, this is inclusive of both NS Power and MEU customers. The model does not directly allocate these measure quantities to any particular rate class. The individual measure quantities were summed to the program component level and converted into estimates of the number of individual utility

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1 customer accounts that participate in each measure, using the historical (in this case, 2020)
2 correlation between tracked measure quantities and tracked participating customer accounts for
3 each program component. The estimates of participating customer accounts were then summed
4 to the Nova Scotia Utility and Review Board (NSUARB) program level. The participating customer
5 accounts for each NSUARB program were then allocated to NS Power rate classes according to
6 the historical (in this case, 2020) rate class breakdown of tracked customer accounts for that
7 specific NSUARB program. Because the specific purpose of this analysis is to produce estimates
8 of participating utility accounts for use in the Rate and Bill Impact Analysis (RBIA), which is an
9 analysis from the perspective of NS Power, the MEUs were treated as a single NS Power rate
10 class, and each MEU was treated as one NS Power customer.

11
12 E1 is open to discussions on what participation levels can be reasonably reported on and used
13 for forecasting into the future for the MEU rate class.