

EfficiencyOne

2022 Rate and Bill Impact Analysis

E1 Reply to Stakeholder Comments

M10830

FILED

January 19, 2023



TABLE OF CONTENTS

1.	INTRODUCTION	1
2.	E1 REPLY TO STAKEHOLDER WRITTEN COMMENTS	1
3.	2022 RBIA CHANGES AND RESULTS	1
4.	FUTURE RBIA REPORTING	2
5.	AVOIDED COSTS	3
6.	COST OF CARBON	4
7.	MODELING OF DEMAND RESPONSE RESOURCES	5
8.	MODEL TRANSPARENCY	5
9.	CLOSING	7

LIST OF APPENDICES

Appendix A: 2022 RBIA Summary Results, Corrected January 2023 (Microsoft Excel file, filed electronically)

1 **1. INTRODUCTION**

2 EfficiencyOne (“E1”) filed its 2022 Rate and Bill Impact Analysis (RBIA) Report with the Nova
3 Scotia Utility and Review Board (“NSUARB”, “the Board”) on October 31, 2022. On November 15,
4 2022, the NSUARB provided interested parties an opportunity to comment.¹ On December 15,
5 2022, stakeholder comments were filed with the NSUARB by Synapse Energy Economics
6 (“Synapse”, on behalf of the NSUARB) and the Consumer Advocate (“CA”) (collectively
7 “Stakeholder Comments”).

8
9 **2. E1 REPLY TO STAKEHOLDER WRITTEN COMMENTS**

10 E1’s reply to the Stakeholder Comments is separated into the issues noted by participants in this
11 matter as follows:

- 12 • 2022 RBIA changes and results
- 13 • Future RBIA reporting
- 14 • Avoided costs
- 15 • Cost of carbon
- 16 • Modeling of demand response resources
- 17 • Model transparency

18
19 E1 wishes to note that in the course of addressing the Stakeholder Comments an issue in the
20 electronic Excel file “Appendix A - 2022 Summary of Results” was discovered. The issue has
21 been corrected and E1 is filing an updated electronic Excel file Appendix A in conjunction with
22 this Reply. The issue has resulted in revised Demand Response Scenario Rate Impacts presented
23 in Appendix A.

24
25 **3. 2022 RBIA CHANGES AND RESULTS**

26 Synapse noted that E1 made three changes to the 2022 historical RBIA which were first included
27 in the forward-looking RBIA for the 2023-2025 DSM Plan. The changes were:

¹ M10830, NSUARB Letter [November 15, 2022]

- the incorporation of avoided costs of carbon;
- the inclusion of demand response activities; and
- the use of more precise measure life assumptions.

Synapse stated, “We find the magnitude of the rate increases are lower than in the 2021 historical R&BIA, mostly due to the inclusion of the avoided cost of carbon. (In the 2021 historical R&BIA, carbon was modeled as a sensitivity). The levels of rate increase are reasonable and are resulting in higher bill savings. We continue to assert that the rate classes with higher rate increases (such as Small General and Small Industrial) are also the rate classes with the higher bill reductions for participants. Therefore, every effort should be made to maximize participation by customers in these rate classes.”²

E1 maintains that maximizing participation is critical to ensure ratepayers experience the bill savings from DSM to offset any rate impacts. E1 is committed to continuing efforts to achieve this goal through marketing and customer engagement initiatives, incentive and program design, and delivering higher levels of DSM resulting in a broader reach to customers.

4. FUTURE RBIA REPORTING

Both Synapse and the CA acknowledged E1’s stated intention to file the next historical RBIA in conjunction with future DSM Plans. Synapse commented, “It is important to note that this is the last historical R&BIA that E1 intends to file for several years...In its application for approval of the 2023–2025 DSM Resource Plan, E1 proposed to file historical R&BIA reports only in DSM Resource Plan application years...As the historical R&BIA will be filed less often moving forward, our comments are focused on areas that are likely to be relevant to the forward-looking R&BIA in addition to the historical R&BIA.”³ The CA commented, “In its cover letter to the Board, EfficiencyOne proposes that in the future EfficiencyOne only provide an RBIA report when filing new DSM plans, instead of annually as is presently undertaken. The Consumer Advocate is

² M10830, Synapse Comments, p. 1 [December 15, 2022]

³ M10830, Synapse Comments, p. 2

1 inclined to support that request. Providing an annual RBIA is of limited value, as it is unlikely to
2 impact program design or budgets.”⁴

3
4 E1 endorses these comments and looks forward to ongoing discussion on both historical and
5 forward-looking RBIA reports as part of stakeholder engagement for future DSM Plans.

6 7 **5. AVOIDED COSTS**

8 Synapse asserted that, “a “no DSM” case is necessary for accurate R&BIA modeling. NSPI is in the
9 process of updating the 2020 IRP to reflect the impacts of recently adopted legislation and other
10 changes. As part of the updates, we request the addition of a “no DSM” case that does not include
11 energy efficiency and demand response. We request that the DSMAG be engaged in these
12 updates and the IRP development more generally moving forward.”⁵

13
14 NS Power has provided the following reply to Synapse’s comments:

15 “As part of the ongoing Evergreen IRP process, NS Power will analyze scenarios
16 incorporating a range of potential DSM trajectories. In response to comments from E1 in
17 the Evergreen IRP process, NS Power clarified that it will have the models available to
18 calculate avoided costs for specific use cases if required in the future. Similar to the 2020
19 IRP, the avoided costs will be calculated by NS Power but this undertaking is not part of
20 the Evergreen IRP scope. NS Power can provide this information to E1 following the
21 conclusion of the Evergreen IRP work. As was done in 2020, these avoided costs covering
22 the Evergreen IRP planning horizon would be calculated using a “no DSM” case.”

23
24 E1 supports Synapse’s request that a “no-DSM” case that does not include energy efficiency and
25 demand response be included as part of the updates of the 2020 Integrated Resource Plan (IRP)
26 Update. E1 further supports Synapse’s request that the Demand Side Management Advisory
27 Group (DSMAG) be engaged in these updates and the IRP development more generally.

⁴ M10830, Consumer Advocate Comments, p. 1 [December 15, 2022]

⁵ M10830, Synapse Comments, p. 2

1 **6. COST OF CARBON**

2 Synapse stated, “We emphasize the need for discussion and analysis of the impacts of the
3 adoption of Act 57 on DSM and other clean energy investment planning. We also note that DSM
4 planning needs to be integrated with the planning for other clean energy resources. For example,
5 the DSMAG should be aware of the cost of other clean energy resources and how these costs
6 compare to the cost of DSM resources. We request that NSPI provide the DSMAG with this data.”⁶

7
8 NS Power has provided the following reply to Synapse’s comments:

9 “Synapse has requested that DSM be “integrated with the planning for other clean energy
10 resources”. This occurs explicitly as part of NS Power’s IRP process. The 2020 IRP included
11 significant evaluation of DSM; see the Final Report, in particular Finding 2e and Action
12 Plan Item 5.

13
14 The 2020 IRP modeling is being updated via the ongoing Evergreen IRP process. The
15 scenarios⁷ include evaluation of multiple DSM trajectories, developed by E1, which are
16 then evaluated via NS Power’s capacity expansion and production cost optimization tool
17 in combination with all other resource options. This process allows DSM to be compared
18 directly to other clean energy resource costs in determining the lowest cost long term
19 resource plan. Synapse also requested data on “the cost of other clean energy resources
20 and how these costs compare to the cost of DSM resources”; data on the cost of clean
21 energy resources was provided to stakeholders, including Synapse, as part of NS Power’s
22 Evergreen IRP process (see ‘2022 Evergreen IRP Updated Assumptions’ slides 17-
23 21).⁸ Comparisons of DSM with other clean energy resources (each of which have their
24 own shapes and properties) are achieved through the integrated modeling process as
25 described.”

⁶ M10830, Synapse Comments, p. 2

⁷ NS Power, 2022 Evergreen IRP Updated Modelling Scenarios, July 29, 2022. <https://irp.nspower.ca/files/key-documents/annual-evergreen-materials/2022-Evergreen-IRP-Updated-Modeling-Scenarios.pdf>

⁸ 2022 Evergreen IRP Updated Assumptions, NS Power, slides 7-14. <https://irp.nspower.ca/files/key-documents/annual-evergreen-materials/2022-Evergreen-IRP-Assumptions-Updated.pdf>

1 E1 agrees that integrating DSM planning with the planning of other clean energy resources is
2 appropriate and supports a transparent approach with stakeholders for any such process.

3 4 **7. MODELING OF DEMAND RESPONSE RESOURCES**

5 Synapse commented, “While we did not find specific issues based on this review, we are not
6 aware of other jurisdictions addressing demand response in an R&BIA or of any best practices in
7 that regard. We encourage E1 to monitor methodology for incorporating demand response into
8 R&BIA in other jurisdictions.”⁹

9
10 E1 worked with its RBIA consultant Elenchus to incorporate demand response into the E1 RBIA
11 model. Demand response was incorporated for the first time in the forward-looking RBIA for the
12 2023-2025 DSM Plan. E1 is committed to considering whether refinements are appropriate as
13 part of future RBIA reports.

14 15 **8. MODEL TRANSPARENCY**

16 Synapse stated, “Synapse appreciates the improvements made over last year’s model and
17 recommends E1 continue to increase the model’s transparency in the years to come. We have
18 two specific recommendations towards transparency.”¹⁰ Synapse’s recommendations are as
19 follows:

- 20 • “...in the Total Savings tab of the historical rates model, E1 make it easier to understand
21 the savings from energy efficiency and how they impact rates. In the current model, the
22 full DSM package is the base case, and the energy savings from energy efficiency only
23 show up when the “demand response” scenario is selected. These results show up as
24 positive, which is counterintuitive because the demand response case includes no energy
25 efficiency. We recommend either changing the base case in the model to *no DSM* or
26 making these energy savings show up as negative when the demand response case is

⁹ M10830, Synapse Comments, p. 2

¹⁰ M10830, Synapse Comments, p. 2

1 selected in the model. In the short term, we think a note on this would suffice.¹¹

- 2 • Going forward, we would appreciate E1 documenting any formula changes made to the
3 model. While we do not want to overburden the process of updating the model,
4 documentation alerting stakeholders that calculations have changed or that previous
5 calculations may have been incorrect would help with transparency.”¹²

6
7 Regarding the first point, the model is working as intended and the results are correct. The rate
8 model always compares a “With DSM” scenario to an alternative scenario and the resulting rate
9 impacts are the difference between the two scenarios. These alternative scenarios are as follows:

- 10 • “No DSM” Alternative Scenario. When this is selected the model compares “With DSM”
11 to “No DSM”. The difference is the rate impact of all DSM (includes both energy efficiency
12 and demand response).
- 13 • “Demand Response” Alternative Scenario. This scenario includes demand response
14 programs but no energy efficiency programs. The difference between the “With DSM”
15 and “Demand Response” scenarios is the rate impact of energy efficiency.
- 16 • “Energy Efficiency” Alternative Scenario. This scenario includes energy efficiency
17 programs but no demand response programs. The difference between the “With DSM”
18 and “Energy Efficiency” scenarios is the rate impact of demand response.

19
20 The NS Power rate model essentially serves as an intermediary model, which calculates the
21 rate impacts of various scenarios. Those results are then copied into the E1’s RBIA model
22 where all four scenarios can be compared in any configuration.

23
24 E1 will work with NS Power to incorporate additional information into NS Power’s rate model
25 to explain the meaning of various scenarios in advance of the next RBIA report. E1 does not
26 currently propose making additional changes to the NS Power rate model to change scenario
27 configurations for the following reasons:

¹¹ M10830, Synapse Comments, p. 2-3

¹² M10830, Synapse Comments, p. 3

- The results of the model are correct;
- Users can compare scenarios within E1's RBIA model rather than NS Power's rate model; and
- It would require significant effort to reconfigure the scenarios within NS Power's rate model to default to a "No DSM" base scenario.

Regarding the second point on model transparency, E1 is committed to exploring the incorporation of a change log into the E1 RBIA model and NS Power rate model so that any consequential model updates or corrections can be captured.

E1 appreciates the support that DSMAG members have provided as we continue to refine the RBIA in response to stakeholder feedback.

9. CLOSING

E1 appreciates the ongoing stakeholder engagement on the RBIA and thanks DSMAG members for the opportunity to respond to these comments.