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Request IR-01:

Please provide all analysis and workpapers showing that the preferred plan contains the optimal amount of energy efficiency, and describe why it results in lower efficiency compared to the optimal scenarios in the 2014 IRP and Synapses 2018 Generation Optimization and Utilization.

a. What does E1 believe is the maximum cost-effective achievable potential that they could pursue? Show all analysis and workpapers to support this estimate of maximum achievable.

Response IR-01:

Please refer to EfficiencyOne's response to CA IR-03.

a) The High Case from the 2013 DSM Potential Study represents the highest level of DSM achievable potential examined, supported by a detailed quantitative development methodology. The High Case from the 2013 DSM Potential Study models peak DSM levels of approximately 2 percent (1.94 percent) of 2018 NS Power energy production (11,362 GWh¹). EfficiencyOne has not performed any quantitative analysis to support levels of DSM in excess of the 2013 DSM Potential Study High Case. Please refer to the 2013 DSM Potential Study Final Report², in support of the estimates referred to in this response.

¹ Emera, Management's Discussion and Analysis, As at February 15, 2019 at Page 31
[<http://investors.emera.com/QuarterlyResults.aspx?iid=4072693>].

² Navigant Consulting, Nova Scotia 2015-2040 Demand Side Management Potential Study, M05522, Exhibit N-1, January 14, 2014.

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Request IR-02:

Please provide projected budgets and savings by sector (commercial/industrial, residential, and low-income) for the preferred plan and the alternate plan. How would the budgets and savings by sector change if the efficiency budget were to be further reduced?

Response IR-02:

The following tables (Table 1 and Table 2) do not include enabling strategies.

Table 1: 2020-2022 Preferred Plan

	Investment (\$ million)	First Year Energy Savings (GWh)	Lifetime Energy Savings (GWh)	Peak Demand Savings (MW)
Residential Sector	53.4	163.2	2,367.0	58.7
BNI Sector	64.3	258.5	3,629.3	61.4
<i>Low Income*</i>	13.7	41.9	495.1	7.8

*The low income figures reflect estimated participation by low-income participants; numbers are included in the overall Residential and BNI sector totals.

Table 2: 2020-2022 Alternate Scenario

	Investment (\$ million)	First Year Energy Savings (GWh)	Lifetime Energy Savings (GWh)	Peak Demand Savings (MW)
Residential Sector	44.6	143.3	2,073.8	50.4
BNI Sector	56.4	230.9	3,242.3	52.3
<i>Low Income*</i>	10.0	34.9	401.5	6.3

*The low income figures reflect estimated participation by low-income participants; numbers are included in the overall Residential and BNI sector totals.

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- 1 If the Nova Scotia Utility and Review Board (NSUARB) approved a level of energy savings and
- 2 investment that differs from EfficiencyOne's Preferred Plan or Alternate Scenario,
- 3 EfficiencyOne would be required to file a Compliance Filing reflecting these changes. Impacts to
- 4 sectors and specific programs would be considered during the development of the Compliance
- 5 Filing. Please refer to EfficiencyOne's response to NSUARB-Pronko IR-06.

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Request IR-03:

Did Navigant develop any scenarios with savings that are higher than the preferred plan?

a. If so, please provide those scenarios.

Response IR-03:

Please refer to EfficiencyOne's response to Synapse IR-11 b).

a) Please refer to the above response to this IR.

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Request IR-04:

Please provide the avoided costs used to determine the cost-effectiveness of the preferred plan.

Response IR-04:

Please refer to EfficiencyOne's response to SBA IR-13.

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Request IR-05:

Please provide the avoided costs used to develop the efficiency scenarios in the 2014 IRP.

Response IR-05:

Please refer to Attachment 1 of this IR response for the annual avoided cost profiles used, based on the 2009 Integrated Resource Plan refresh process.

In addition, Table 1 below outlines the values used to model other resource impacts.

Table 1 - Other Resource Impact Values

Impact Type	Units	Value
Water	\$/m ³	0.51
Fuel Oil	\$/liter	0.78
Wood	\$/cord	300
Pellet	\$/tonne	300

[illegible]

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Request IR-06:

Please provide the avoided costs used by Synapse to develop the 2018 GUO report.

Response IR-06:

Synapse relied on updated DSM unit cost information to inform the development of the 2018 GUO report. In order to provide updated unit cost data, EfficiencyOne commissioned Navigant to perform an update of the 2013 DSM Potential Study. The annual avoided cost profile used in that analysis is provided as Attachment 1 of this IR response. Note that these annual costs are based on 2014 Integrated Resource Plan (IRP) avoided costs (Base Case), as well as NS Power's 2017 estimate of Avoided Transmission and Distribution costs.

In addition, the values in Table 1 below were used to model other resource impacts.

Table 1: Other Resource Impact Values

Impact Type	Units	Value
Water	\$/m ³	0.51
Fuel Oil	\$/liter	0.78
Wood	\$/cord	300
Pellet	\$/tonne	300

Year	2019	2020	2021	2022	2023	2024
Avoided Costs of Energy (\$/kWh)	0.057	0.060	0.062	0.084	0.085	0.086
Avoided Costs of Capacity (\$/kW)	417.722	195.758	178.527	190.476	206.864	200.565
Avoided Cost of Transmission and Distribution (\$/kW)	12.506	12.719	12.935	13.155	13.378	13.606

Year	2025	2026	2027	2028	2029	2030
Avoided Costs of Energy (\$/kWh)	0.087	0.089	0.093	0.098	0.102	0.108
Avoided Costs of Capacity (\$/kW)	215.163	202.151	198.373	194.701	195.005	193.438
Avoided Cost of Transmission and Distribution (\$/kW)	13.837	14.072	14.312	14.555	14.802	15.054

Year	2031	2032	2033	2034	2035	2036
Avoided Costs of Energy (\$/kWh)	0.113	0.120	0.113	0.130	0.143	0.150
Avoided Costs of Capacity (\$/kW)	189.308	187.908	192.667	192.004	195.907	192.088
Avoided Cost of Transmission and Distribution (\$/kW)	15.310	15.570	15.835	16.104	16.378	16.656

Year	2037	2038	2039	2040	2041	2042
Avoided Costs of Energy (\$/kWh)	0.155	0.163	0.169	0.178	0.187	0.197
Avoided Costs of Capacity (\$/kW)	196.199	196.610	173.187	169.904	166.682	163.522
Avoided Cost of Transmission and Distribution (\$/kW)	16.939	17.227	17.520	17.818	18.121	18.429

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Request IR-07:

Please list all the benefits included in the TRC for the efficiency programs. Were fossil fuel, water, and Operation/Maintenance benefits included?

Response IR-07:

Benefits included in the Total Resource Cost (TRC) test consist of:

- Avoided Costs of Energy;
- Avoided Costs of Capacity;
- Avoided Costs of Transmission and Distribution;
- Water-savings-related benefits; and
- Fossil-fuel impacts (negative benefit) (limited to impacts associated with increased natural gas use associated with certain BNI measures).

Operations and maintenance benefits were not included as part of the TRC test.

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Request IR-08:

Please provide all analysis and workpapers associated with the latest rate and bill impact analysis performed for the preferred plan.

Response IR-08:

The following analyses and workpapers have been filed by EfficiencyOne in this proceeding:

1. Two Excel-based models, one each for the Preferred Plan and Alternate Scenario, were included with EfficiencyOne's DSM Plan filing.
2. The Rate and Bill Impact Analysis (RBIA) report was included as Appendix B of EfficiencyOne's DSM Plan filing.
3. The workbook used to estimate participation rates was included in EfficiencyOne's response to NS Power IR-64.¹

The following analyses and workpapers are included as attachments to this or other intervenor IR responses. The Excel files retain all links and formulas used by EfficiencyOne.

1. NS Power DSMAG presentation that proposed revisions to EfficiencyOne's RBIA, *Revisions to Rate and Bill Impact Analysis*, 24 October 2018. A copy of this presentation was included as an appendix to NS Power's Evidence in this Matter.²
2. EfficiencyOne memo to DSMAG, *Proposed enhancements to EfficiencyOne Rate and Bill Impact Model*, 21 January 2019. Please refer to EfficiencyOne's response to Synapse IR-42, Attachment 1.

¹ M09096, 2020-2022 DSM Plan - E1 Responses to NS Power IR Requests 1-69, Exhibit E-3, March 29, 2019

² M09096, NS Power, *2020-2022 DSM Plan: NS Power Evidence*, 12 Apr. 2019, at Appendix B.

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- 1 3. Synapse response to EfficiencyOne memo, *RE: Revised Comments on EfficiencyOne's*
2 *Proposed Enhancements to its Rate and Bill Impact Model*, 5 February 2019. Please refer
3 to Attachment 1 of this IR response.
- 4 4. Resource Insight (CA) response to EfficiencyOne memo, *Comments on RBIA*
5 *Enhancements*, 11 February 2019. Please refer to EfficiencyOne's response to Synapse
6 IR-33, Attachment 2.
- 7 5. Small Business Advocate response to EfficiencyOne memo, *EfficiencyOne Rate and Bill*
8 *Impact Model – Comments on Proposed Enhancements*, 31 January 2019. Please refer
9 Attachment 2 of this IR response.
- 10 6. Drazen Consulting Group (IG) response to EfficiencyOne memo, *Proposed*
11 *Enhancements to EfficiencyOne Rate and Bill Impact Model – Comments of the*
12 *Industrial Group*, (undated), received 11 February 2019. Please refer to Attachment 3 of
13 this IR response.
- 14 7. A comparison of Preferred Plan impacts to Alternate Scenario impacts, *Inter-model*
15 *outputs*. Please refer to Attachment 4 of this IR response, filed electronically.
- 16 8. A comparison of Plan investment levels to 2016-2019 investment levels, *2016-2019 vs*
17 *Plan investment levels*. Please refer to Attachment 5 of this IR response, filed
18 electronically.
- 19 9. The workbook used to estimate rate class investment, energy savings and demand
20 savings, *Rate class investment, energy, demand – Preferred*. Please refer to Attachment 6
21 of this IR response, filed electronically.



February 5, 2019

Nova Scotia Demand Side Management Advisory Group
c/o Holly Brown
EfficiencyOne
230 Brownlow Avenue, Suite 300
Dartmouth, NS B3B 0G5

Via email

RE: Revised Comments on EfficiencyOne's Proposed Enhancements to its Rate and Bill Impact Model

Synapse Energy Economics, Inc. (Synapse) respectfully submits the following revised comments in regard to EfficiencyOne's (ENS) *Proposed Enhancements to EfficiencyOne Rate and Bill Impact Model* document provided to the DSMAG on January 21, 2019, and recirculated on January 24th. The document summarizes ENS' recommended approach to addressing nine existing open issues and six new issues with ENS' long-term rate and bill impact analysis (R&BIA), including changes proposed by NS Power. ENS requested feedback from the DSMAG on the document by January 31, 2019. We wish to replace Synapse's initial, January 31 comments with these revised comments.

On October 31, 2018, ENS filed its 2018 long-term R&BIA. The Nova Scotia Utility and Review Board (NS UARB) requested comments from interested parties by December 3, 2018. On October 10, 2018, NS Power circulated its comments to the Demand Side Management Advisory Group (DSMAG). Synapse, the Consumer Advocate, and the Small Business Advocate also provided comments. NS Power reviewed its comments at the October 24, 2018 DSMAG meeting. NS Power also shared Excel files supporting its comments with the group on November 21, 2018. NS Power filed reply comments on December 3, 2018.

ENS provided its written response to all the comments it received on December 17, 2018. On page 9 of the Conclusions section of its comments, ENS stated "EfficiencyOne will schedule a DSMAG discussion to further explore NS Power's proposed alterations to EfficiencyOne's model, to provide NS Power with an opportunity to share its short-term rate impact model, and to review outstanding items from the 2017 RBIA in advance of the 2020-2022 DSM Resource Plan Forward-looking RBIA modeling." ENS scheduled a DSMAG meeting on January 24, 2019 to further discuss NS Power's proposed R&BIA changes.

On January 11, 2019, the DSMAG received an email from ENS stating, "...there is no longer an in-person meeting scheduled until September...We have altered the approach to recognize tight timelines and stakeholder's time commitments, particularly in considering the regulatory process around the 2020-2022 DSM Resource Plan filing." ENS then circulated the document titled, *Proposed Enhancements to EfficiencyOne Rate and Bill Impact Model* to the DSMAG.

Synapse reviewed this document and offers the following findings and recommendations. It is important to note that ENS recommends no changes to the methodology for many of the issues. We also note there are several changes proposed by NS Power for which ENS has further questions. ENS recommends deferring action at this time to allow for further consideration of these changes. We have further questions on the same changes, as well as questions and concerns about other proposed changes. As a result, we agree with ENS' recommendation to defer action on some issues, but we apply it more broadly. We recommend making only one change at this time, given the tight turnaround time for comments on ENS' proposal, the lack of opportunity to discuss and ask questions about ENS' proposal with ENS and the DSMAG, and the number of important open follow-up questions posed by ENS on NS Power's proposed modifications to the ENS long-term R&BIA methodology. We recommend correcting the only error, which is to adjust multi-year average bill impact calculations from arithmetic to weighted averages (Issue # NEW_5).

Instead of taking an incremental approach, we recommend no further changes to the existing, long-term R&BIA methodology until the DSMAG receives NS Power's short-term rate impact model (a form of R&BIA) and methodology. We make this recommendation for two reasons. First, comparisons between the short- and long-term models may bring forth further recommendations and insights. We wish to consider all of the recommendations and insights at once, especially as it may be important for the two models to be consistent in certain ways. Second, the DSMAG's time is valuable. We do not see any good reason to go through this process twice in one year. Given that the NS UARB has ordered NS Power to provide a short-term rate impact analysis in the 2020-2022 Plan proceeding, we feel that it should be provided early enough in the process such that there is an opportunity to ask information requests on it in that context. The DSMAG should then set up a schedule for meeting(s) to occur after the 2020-2022 DSM Plan proceeding has concluded. These meeting(s) would allow the DSMAG to discuss (a) whether there should be any changes to ENS' long-term R&BIA to be consistent with NS Power's short-term rate impact model, (b) whether to adopt any new and outstanding proposed modifications to the long-term R&BIA, including those proposed by NS Power, and (c) whether there should be any changes to the short-term rate impact model prior to the filing of the next DSM Plan in 2022. By aligning these processes, the DSMAG will be able to make more informed decisions on a path forward for both models.

We thank ENS and the DSMAG for the opportunity to provide these revised comments.

Sincerely,

Jennifer Kallay, Senior Associate

Alice Napoleon, Senior Associate





Blackburn Law

January 31, 2019

Via email

Holly Brown
Regulatory Specialist
EfficiencyOne
230 Brownlow Avenue
Suite 300
Dartmouth NS B3B 0G5

Dear Ms. Brown,

Re: EfficiencyOne Rate and Bill Impact Model – Comments on Proposed Enhancements

The Small Business Advocate (SBA) has reviewed Efficiency Nova Scotia's (ENS) proposed enhancements to its Rate and Bill Impact Analysis (RBIA) on January 21, 2019. The proposed enhancements are the result of action items assigned to EfficiencyOne and the DSMAG from the 2017 RBIA process and new issues raised by Nova Scotia Power (NSP), EfficiencyOne, and various stakeholders since the 2017 Filing.

The SBA appreciates ENS engaging stakeholders to receive feedback on the proposed enhancements to RBIA and offers the following comments:

AVOIDED COSTS

ENS is proposing to use the avoided costs prepared by NSP for the 2014 Integrated Resource Planning (IRP) when they prepare the 2020 – 2022 DSM Plan RBIA. The various input variables – such as prices, load forecast, technology prices, and available energy – that are used in estimating avoided costs may have changed significantly since 2014.

The SBA therefore recommends that ENS use avoided costs calculated using inputs that are reflective of current market trends and the situation in Nova Scotia in the RIBA model accompanying the 2020 – 2022 DSM Plan.

CONTINUING ENGAGEMENT

As EfficiencyOne and NSP are simultaneously required to develop RBIA models, the SBA believes that the analysis undertaken by both parties will improve if there are opportunities for collaboration between the two parties.

During its Reply to Stakeholder Comments in the 2018 RBIA Application, EfficiencyOne acknowledged that it is important that the two RBIA models, independently developed by ENS and NSP, use common assumptions¹. A continuous engagement process will allow ENS and NSP to develop a common set of input assumptions.

Moreover, the engagement process among ENS, NSP, and DSMAG can also help discuss key differences of the RBIA models. For example, there seems to be some differences regarding the avoided costs to be used in RBIA model accompanying the 2020 – 2022 DSM Resource Plan. Synapse proposed EfficiencyOne apply a set of avoided costs developed and filed as an addendum to the final report in M08059 and continue to use these costs going forward². In the Reply Comments, EfficiencyOne mentioned that “NS Power does not support the use of Synapse proposed avoided cost calculations as they were performed in relation to a separate modeling exercise that was taken for a specific purpose, and were not tested through a discovery process.”³

The SBA recommends a continuing engagement process among ENS, NSP, and DSMAG while incorporating proposed enhancements in the RBIA model.

CLEAR TIMELINE

ENS does not provide a clear timeline for incorporating the proposed enhancements in the document shared with the DSMAG. It is also not clear whether ENS is addressing these proposed changes during the filing of the 2020 - 2022 DSM Resource plan.

As the SBA mentioned in its Submissions to the 2018 RBIA Application, the SBA believes it is essential that EfficiencyOne and NSP address all the action items identified by the Board in the 2017 RBIA Application process and any additional issues that have been raised since then before filing the 2020-2022 DSM Plan application.

With that in mind, the SBA recommends that ENS provide a clear timeline for incorporating proposed enhancements in the RBIA model and identify all the actions items that are being addressed.

FILING OF 2020-2022 DSM PLAN

On page 24 of Efficiency Nova Scotia’s presentation circulated on January 21, 2019, there is reference to a change in the required filing date. It would be appreciated if further information could be provided, both in terms of the anticipated filing date and the reason behind the need for an accelerated schedule.

¹ M08946 – ENS 2018 Rate and Billing Impact Analysis, EfficiencyOne Reply to Stakeholder Comments, Page 7 of 9, Line 17 – 19.

² M08946 – ENS 2018 Rate and Billing Impact Analysis, EfficiencyOne Reply to Stakeholder Comments, Page 4 of 9, Line 25 – 28.

³ M08946 – ENS 2018 Rate and Billing Impact Analysis, EfficiencyOne Reply to Stakeholder Comments, Page 5 of 9, Line 17 – 21.

Yours truly,

BLACKBURN LAW

A handwritten signature in dark ink, appearing to read "Melissa MacAdam", with a stylized flourish at the end.

Melissa P. MacAdam

for

E. A. Nelson Blackburn, Q.C.

Small Business Advocate

Issue	ENS Position/Proposal	IG Comments
2017_ENS_1.a. Avoided fuel costs	Switch from levelized to annual avoided fuel costs.	Agree.
2017_ENS_1.b. Marginal avoided fuel cost versus IRP avoided fuel costs	The two are similar; use IRP avoided costs.	Tentatively agree, though we would like to understand the reasons for differences. The marginal avoided cost does not necessarily reflect a single machine “on the margin”; it depends on the size of the decrement (or increment, as for the LRT energy rate).
2017_ENS_1.c. Time frame to use for levelized costs	Use the RBIA period, not the IRP period.	Agree.
2017_ENS_1.d. Fixed cost adjustment	Continue using existing method, pending further discussions with NS Power.	Agree.
2017_ENS_1.e. Allocation of lost revenues and avoided costs – Constant allocation ratios versus annual COSS ratios	Continue using existing method, pending further discussions with NS Power.	Agree. Either way, this is an inevitable source of imprecision in the RBIA results. See the attached table illustrating how the forecast of 2020 energy by sector changes in successive years. See General Comments below.
2017_1.f. Modeling billed demand reductions	Continue using existing method, pending possible new rate designs and AMI data.	Agree.
2017_1.g. Escalation rate for energy and demand charges	Continue using 2.7% per year	Agree.
DSMAG_1 Comments on NS Power October 2018 presentation	Comments invited	N/A
DSMAG_2 Treatment of Municipal Electric Utilities	Continue modeling as Rate Class 24	No comment.
DSMAG_3 NS Power rate impact model	ENS awaiting information from NS Power	N/A
NEW_1 Which avoided costs to use when avoided costs estimates change	For each program year use the avoided costs that were used for cost-justification in that year.	If avoided costs decrease because of DSM, this is valid. However, if NS Power avoided costs decrease for other reasons—as is the case—then previous cost-justification overstated the cost savings from DSM.

NEW_2 Avoided costs for 2020-2022 DSM Plan RBIA	Use 2014 IRP avoided energy and generation capacity costs Use avoided transmission and distribution avoided costs per NS Power Oct. 2018 estimates.	Use latest estimates from NS Power for all costs. 2014 IRP overstates avoided fuel costs.
NEW_3 Line losses	Use “at generator” savings to determine avoided costs; use “at meter” savings for lost revenues and bill impacts	Agree.
NEW_4 Cumulative customer counts	Use current method for now, but refine participation estimates in future.	Agree.
NEW_5 Method of averaging bill impacts	Use weighted average instead of arithmetic average	Agree.
NEW_6 Clarify rate impacts in graph	Clarified	N/A
IG General Comments		
Change in NS Power cost structure since 2014 IRP		COMFIT generation has increased above previously-forecast levels ¹ , which results in lower avoidable fuel costs. COMFIT also increases the fixed cost in rates, which increases lost fixed cost recovery.
Interpretation of results		A forecast like this is inherently imprecise. The percentage changes in rates and bills should be viewed as directional impacts, not precise changes.

¹ See NS Power Reply Evidence in M07348, pages 33-34

NS Power forecasts of 2020 energy usage by sector.

Source: NS Power 10 Year Load Forecasts

Nova Scotia Power Inc.						
<u>Forecast of 2020 Energy Usage By Sector</u>						
	<u>Residential</u>		<u>Commercial</u>		<u>Industrial</u>	
		Change		Change		Change
		from Prev.		from Prev.		from Prev.
	<u>GWh</u>	<u>Forecast</u>	<u>GWh</u>	<u>Forecast</u>	<u>GWh</u>	<u>Forecast</u>
2011 Forecast	4,269		2,839		3,471	
2012 Forecast	4,317	1.1%	3,102	9.3%	2,485	-28.4%
2013 Forecast	4,284	-0.8%	3,038	-2.1%	2,717	9.3%
2014 Forecast	4,462	4.2%	3,308	8.9%	2,602	-4.2%
2015 Forecast	4,636	3.9%	3,240	-2.1%	2,546	-2.2%
2016 Forecast	4,690	1.2%	3,258	0.6%	2,636	3.5%
2017 Forecast	4,499	-4.1%	3,130	-3.9%	2,643	0.3%
2018 Forecast	4,411	-2.0%	3,114	-0.5%	2,602	-1.6%

This is not in any way a criticism of NS Power's forecasts. As current conditions change it is reasonable that forecasts will change. Rather, the year-to-year changes mean that any forecast is inevitably imprecise.

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Request IR-09:

What were the driving factors behind the decline in efficiency savings from 2017 to 2019?

Response IR-09:

The 2016-2018 DSM Resource Plan was approved at a lower investment level than EfficiencyOne had filed, while maintaining the same level of energy savings. This reduced EfficiencyOne's ability to focus on further diversifying energy savings beyond lighting as planned. In 2019, EfficiencyOne's approved DSM Resource Plan was at an investment level consistent with 2016-2018, as per the *Electricity Plan Implementation (2015) Act*, with lower energy savings targets. This was the result of EfficiencyOne designing a portfolio that included more focus on diversifying energy savings beyond lighting.

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Request IR-10:

Regarding the reference on page 7 line 5 to the preferred program reducing greenhouse gas emissions by 3,180 MT, please provide the detailed calculations described in the footnote related to this bullet, and a breakdown of emission reductions by program.

Response IR-10:

Please refer to the Errata filed by EfficiencyOne on 14 March 2019 for a correction to this figure.

Please refer to EfficiencyOne's response to NS Power IR-18, Attachment 1 for the detailed calculations of this figure.¹

Please refer to EfficiencyOne's response to Synapse IR-12 for a breakdown of emissions reduction by end-use, program, and sector.

¹ M09096, 2020-2022 DSM Plan - E1 Responses to NS Power IR Requests 1-69, Exhibit E-3, March 29, 2019

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Request IR-11:

Please provide a definition of “affordability” as referred to in the E1 application. Does it refer to electricity or to energy services or to DSM? What is the difference between affordability to ratepayers and affordability to Nova Scotians?

Response IR-11:

In its Application, EfficiencyOne refers to the term “affordability” as the consideration of whether the 2020-2022 DSM investment is reasonably priced for its value and if ratepayers are financial capable of paying for it. Please refer to EfficiencyOne’s response to CA IR-08.

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Request IR-12:

The 6,000 GW-hours of savings referred to on line 15, page 36 of the E1 submission, when compared to the 3,180 MT referred to on line 5 of page 7, implies an average GHG reduction of 0.53 MT/GW.hour. Is this correct?

Response IR-12:

There was an error in EfficiencyOne's original filing – 3,180 MT should have been 3.180 MT. This was corrected in an Errata document, filed with the Nova Scotia Utility and Review Board on March 14, 2019.

Using the correct figures of 3.180 MT, the average GHG reduction would be 0.00053 MT/GWh, or 530 tonnes/GWh.

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Request IR-13:

What would be the greenhouse gas reductions achieved from full implementation of the economic DSM potential identified? What would be the reductions from a full implementation of the technical potential?

Response IR-13:

EfficiencyOne's 2013 DSM Potential Study identified Technical and Economic DSM potential for each year between 2015 and 2040. Since 2015-2019 DSM achievements are already achieved or contracted, this response looks only at years 2020-2040.

Using the same set of forecast GHG intensities as EfficiencyOne used in its 2020-2022 DSM Plan Application:

- Implementing the 2020 to 2022 Technical Potential would save 10.403 Mt of CO₂e
- Implementing the 2020 to 2022 Economic Potential would save 9.538 Mt of CO₂e
- Implementing the 2020 to 2040 Technical Potential would save 70.030 Mt of CO₂e
- Implementing the 2020 to 2040 Economic Potential would save 63.343 Mt of CO₂e

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Request IR-14:

On line 12 of page 46 it is stated that “one of the objectives of the Preferred Plan is to reduce the long-term cost of electricity to ratepayers”. What would be the implication to the plan if the objective were to reduce the long term cost of energy services?

Response IR-14:

EfficiencyOne has not considered the implication of adopting the objective of reducing the long term cost of energy services for the development of DSM plans.