

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1 **Contact Person:** **Brian Curry**
2 **Senior Regulatory Counsel, Regulatory Affairs**
3 **Nova Scotia Power Inc.**
4 **Address:** **1223 Lower Water Street**
5 **Halifax, NS B3J 3S2**
6 **Mail:** **P.O. Box 910**
7 **Halifax, NS B3J 2W5**
8 **Telephone:** **(902) 428-6996**
9 **Fax:** **(902) 428-6542**
10 **Email:** **brian.curry@nspower.ca**
11
12 **Issued at Halifax, Nova Scotia, this 24th day of October, 2018.**

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

Request IR-1:

- (a) Is E1 requesting the UARB verify and approve the non-energy benefits as part of the current verification process? If not, why not?
- (b) Please describe how non-energy benefits will be evaluated and verified?
- (c) Please describe the expertise required for the evaluation and verification process before the UARB for each of the non-energy benefits sought by E1 for inclusion in the cost effectiveness testing.

Request IR-2:

Ref: Application, page 4 of 15, lines 18, 19.

Please provide the results of all research undertaken by E1 to “identify and distill the approach taken by other jurisdictions to quantify NEBs and incorporate them into the TRC test.”

- (a) Please provide a list of North American jurisdictions with electricity efficiency programing that do not consider non-energy benefits as part of their primary cost effectiveness testing.
- (b) Please provide a list of North American jurisdictions that use the Massachusetts calculation methodology for the purpose of including non-energy benefits in their primary cost effectiveness test.

Request IR-3:

Ref: Attachment 4.

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1 **(a) Please confirm the author(s) of the VEIC report.**

2 **(b) Please provide the curriculum vitae for each of the authors of the VEIC report.**

3 **(c) Please provide any copies of any testimony or reports submitted by VEIC or the**
4 **authors of the VEIC report in any regulatory proceedings respecting NEBs in any**
5 **other jurisdictions?**

6
7 **Request IR-4:**

8
9 **Please provide a list of all North American jurisdictions that have electricity efficiency**
10 **programs and identify within that list which, if any, have NEBs that are quantified and**
11 **provide a description of how the NEBs in those jurisdictions are quantified and the benefit**
12 **they are attempting to simulate.**

13
14 **Request IR-5:**

15
16 **Ref: Attachment 4.**

17
18 **(a) Please confirm if average home energy use was adjusted for by VEIC in its report**
19 **and, if not, why not?**

20 **(b) What is the difference in the average home energy use in Massachusetts compared**
21 **to Nova Scotia?**

22
23 **Request IR-6:**

24
25 **Ref: Attachment 1, page 17-18 of 27.**

26
27 **Please confirm that the DSMAG has not reached consensus that the “TRC test, as**
28 **currently applied in Nova Scotia, is flawed” due to it not including non-energy benefits.**

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

Request IR-7:

Ref: Attachment 4, page 4 of 64, paragraph 1.

Please provide a list of all Canadian jurisdictions that have “statutes and regulations requiring that electricity efficiency is the least cost energy procurement option”.

Request IR-8:

Ref: Attachment 4, page 4 of 64, paragraph 3.

Please provide the referenced “research review.”

Request IR-9:

Ref: Attachment 4, page 11 of 64, last paragraph.

Please provide a list of benefits included in the NEBs by jurisdiction for the states listed.

Request IR-10:

Ref: Attachment 4, page 13 of 64, last paragraph.

Please list all “local insights” provided by the project subcontractor and used in the study.

Request IR-11:

Ref: Attachment 4, page 14 of 64.

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1 Please provide a table listing all measures that fall in categories 4, 5 and 6.

3 Request IR-12:

5 Ref: Attachment 4, Table 1, page 5 of 64.

**7 Please describe how water and waste water savings were previously included in E1's cost
8 effectiveness testing and how VEIC's current proposal to included water and waste water
9 savings compares or differs.**

11 Request IR-13:

13 Ref: Attachment 4, page 15 of 64, para 3.

**15 Please provide a table showing the water savings that were removed compared to those that
16 were added using the Massachusetts methodology.**

18 Request IR-14:

20 Ref: Attachment 4, page 17 of 64, table 4.

**22 Please provide the definitions and specific activities that make up "air sealing",
23 "insulation" and "weatherization".**

25 Request IR-15:

**27 Ref: Attachment 4, page 26 of 64, Table 10 – Energy Star CEE Tier 2 or CEE Tier 3
28 Commercial clothes washer.**

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

Does the negative value referenced indicate that this measure has a non-energy cost?

Request IR-16:

Ref: Attachment 4, page 6 of 64.

Please provide all supporting information, data and research on which VEIC relied for assessing the regional differences between Massachusetts and Nova Scotia.

Request IR-17:

Ref: Attachment 4, page 13 of 64.

“Both of the other jurisdictions currently incorporating measure-level NEBs in their cost-effectiveness screening relied (at least in part) on Massachusetts’ research to inform their values.”

VEIC is requested to provide responses to the following:

- (a) What Massachusetts research did these other jurisdictions rely upon and how is it reflected in their respective methodologies?**
- (b) What other research did these two jurisdictions rely upon?**
- (c) Have these jurisdictions carried out their own review of NEB values?**
- (d) Prior to adopting its methodology did Massachusetts carry out its own review or did they adapt data from another jurisdiction?**
- (e) Please identify other jurisdictions that have adopted NEB values based on native data adapted from another jurisdiction in the manner currently being proposed by E1.**

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1 Request IR-18:

2
3 Ref: Attachment 4, page 8 of 64.

4
5 VEIC states:

6
7 “A jurisdiction’s primary cost-effectiveness test should account for its energy
8 and other applicable policy goals and objectives. These goals and objectives
9 may be articulated in legislation, commission orders, regulations, advisory
10 board decisions, guidelines, etc. and are often dynamic and evolving.”
11

12 Please provide the enabling legislation applicable to the regulator’s authority to approve
13 cost effectiveness testing for electricity energy efficiency programs for each of the three
14 jurisdictions (Massachusetts, Rhode Island, and Maryland) referenced in the VEIC report
15 at Section 3.

16
17 Request IR-19:

18
19 Please describe how non-energy benefits as described in E1’s application fall within the
20 definition of ‘electricity efficiency and conservation activities’ in section 79A(b) of the
21 *Public Utilities Act*.

22
23 Request IR-20:

24
25 Preamble – Section 79I of the *Public Utilities Act* states that:

26
27 Nova Scotia Power Incorporated shall undertake cost-effective electricity
28 efficiency and conservation activities that are reasonably available in an
29 effort to reduce costs for its customers and that it may meet this obligation
30 by, among other things, entering into an agreement with a franchise holder

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1 for the supply of electricity efficiency and conservation activities, if there is a
2 franchise holder, that is approved by the Board.
3

4 Please provide VEIC's opinion as to how the benefits "Recommended for Inclusion in ENS
5 Market Rate Programs" on page 5 of 64 of the VEIC report such as reduced labour costs,
6 increased sales revenue, increased rent revenue, noise reduction, and home durability
7 property value increases in the assessment of the cost effectiveness of electricity efficiency
8 and conservation activities, reflect a reduction of electricity costs for NS Power's
9 customers.
10

11 Request IR-21:
12

13 Preamble – Section 79J of the *Public Utilities Act* states that:
14

15 ...in order to purchase electricity efficiency and conservation activities from
16 a franchise holder to meet its obligation pursuant to clause 79I(2)(a), Nova
17 Scotia Power Incorporated shall enter into agreements with a franchise
18 holder that meet the requirements of this Section. Each agreement must (a)
19 be for a term of three years, ending on December 31st of the third year of the
20 agreement; (b) not be terminable or terminated unless the franchise holder's
21 franchise is terminated or the termination is approved by the Board
22 pursuant to Section 79N; (c) describe the electricity efficiency and
23 conservation activities that the franchise holder will provide to Nova Scotia
24 Power Incorporated; and (d) identify the amount that Nova Scotia Power
25 Incorporated will pay to the franchise holder for the supply of electricity
26 efficiency and conservation activities.
27

28 Please provide the authority for NS Power's customers to bear the responsibility to pay for
29 activities justified based on societal benefits.
30

31 Request IR-22:
32

33 Preamble – Table 2 on page 8 of 64 of Appendix 4 states:

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1
2 “EE is one of many resources that can be deployed to meet customers’ needs,
3 and therefore should be compared with other energy resources (both supply-
4 side and demand-side) in a consistent and comprehensive manner.”
5

6 Please describe how VEIC’s recommendation for inclusion of non-energy benefits in cost
7 effectiveness testing compares to the regulatory practice and approach to the UARB-
8 approved Capital Expenditure Justification Criteria’s Economic Analysis Model for
9 evaluation of economically justified supply-side electricity investments in Nova Scotia.
10

11 Request IR-23:

12
13 Ref: Attachment 4, page 39 of 64:
14

15 One W LED nightlight one-time NEB is \$3.78.
16

17 Please provide a breakdown of NEBs for this measure.
18

19 Request IR-24:

20
21 Ref: Application, page 4, lines 26-30.
22

23 E1 states that:
24

25 “The membership of the DSMAG agreed that a NEBs quantification
26 methodology that balanced expediency and cost efficiency with accuracy and
27 precision would be preferable. A minority of members emphasized that a
28 simple multiplier-based approach would suffice, while many advocated for
29 enhanced precision of a measure-based approach, using existing data from
30 another jurisdiction.”
31

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

Please provide all materials used by both majority and minority members, supporting their respective preferences.

Request IR-25:

Ref: Application, page 15, lines 17-22.

E1 states that:

“EfficiencyOne has engaged in extensive discussions and consultation with the DSMAG on this topic... While not every point of discussion has full agreement amongst the DSMAG, EfficiencyOne has endeavoured to find consensus where possible, and fully endorses the Final VEIC Report and its conclusions and recommendations.”

(a) Please explain the approach used by E1 to facilitate consensus.

(b) Did the DSMAG vote on each element of the proposed NEBs inclusion methodology? If no, why not?

(c) As some elements of the proposed VEIC methodology did not receive the support of every member of the DSMAG, please explain E1’s foundation for fully endorsing the Final VEIC Report.

Request IR-26:

Ref: Application, page 5, lines 12-14.

E1 states that “On May 1, 2017 EfficiencyOne began a competitive procurement process, and began working with Vermont Energy Investment Corporation on the project in June of 2017.”

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

- 1 (a) Please provide all documents related to the competitive procurement process,
2 including the list of bidders.
- 3 (b) Please explain the bid evaluation process.
- 4 (c) Why was VEIC selected?
- 5 (d) Did E1 work with other contractors to support the design and implementation of a
6 competitive procurement process? If yes, which other contractors provided
7 commercial support in the present context? If yes, please summarize the general
8 nature of the work performed by other contractors supporting E1's design of a
9 competitive procurement process.

10
11 Request IR-27:

12
13 Ref: Application, page 7, lines 7-9.

14
15 E1 states that:

16
17 "...many jurisdictions, in an effort to account for NEBs in CE testing, have
18 examined NEBs to the degree of assigning an 'addor' or multiplier to overall
19 portfolio benefits..."
20

- 21 (a) Please provide a list of the specific jurisdictions that have examined NEBs to the
22 degree of assigning an "addor" or multiplier to overall portfolio benefits.
- 23 (b) Please identify the pros and cons associated with the two methodologies, i.e.,
24 assigning the addor or multiplier vs. developing a measure-based region-specific
25 NEB methodology.

26
27 Request IR-28:

28
29 Ref: Application, page 7, lines 10-11.

NON-CONFIDENTIAL

1
2 E1 states that “The three candidate jurisdictions were identified as Massachusetts,
3 Maryland, and Rhode Island.” Also, page 8 of Attachment 4 includes Figure 1: Map of
4 Cost/Benefit Tests and NEB incorporation by Jurisdiction.

5
6 (a) Did VEIC only examine resources available from Massachusetts, Maryland, and
7 Rhode Island? If so, why? If other states or provinces were also examined, please
8 identify which ones.

9 (b) Did VEIC examine the approach used in Vermont to account for NEBs in its CE
10 test? If no, why not? Please provide a narrative on the extent NEBs are
11 incorporated in each jurisdiction shown in Figure 1, the advantages and
12 disadvantages of their Cost/Benefits tests, and the reasons for adopting their
13 respective tests.

14
15 Request IR-29:

16
17 Ref: Application, page 8, lines 23-26.

18
19 E1 states:

20
21 “In most cases, VEIC relied upon values contained within the Massachusetts
22 TRM as a starting point for adaption, but in some cases the original
23 Massachusetts Research base was used in cases where measures could not
24 reliably be mapped from the Massachusetts TRM to EfficiencyOne’s
25 modelled 2016-2018 Portfolio.”
26

27 (a) Please describe the process of updating the MA TRM and the relevant Research
28 base, and explain the reasons why data for individual measures were adjusted or
29 not, for reasons other than currency exchange rates and inflation.

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1 (b) Please provide all the revisions of the MA TRM and/or the relevant Research base
2 since VEIC prepared its Report for E1.

3 (c) Please explain how E1/VEIC incorporated the changes in Massachusetts in the NEB
4 values for NS. If changes were incorporated, please summarize how such revisions
5 or refinements were performed.
6

7 Request IR-30:
8

9 Ref: Application, page 15, lines 11-13.
10

11 E1 states:
12

13 “The method used by VEIC also provides sound NEB estimates from a
14 jurisdiction climatically-similar to NS, with regulator-approved NEBs values
15 at the measure level based on extensive primary research.”
16

17 (a) Please define the term “climatically-similar’ as used by E1 on page 15.

18 (b) What is the basis for the assertion that Massachusetts is “climatically-similar to
19 NS”? Please provide all available information that supports this assertion.

20 (c) Nova Scotia’s peak electricity demand occurs during the peak heating season and is
21 much lower during the summer. Massachusetts, Rhode Island, and Maryland
22 experience peak electricity demand during the peak cooling season, and have lower
23 demands during the winter. Are heating degree-day differentials between these
24 states and Nova Scotia relevant for purposes of designing an NEB inclusion
25 methodology? If no, why not?

26 (d) Please confirm that over 75% of Massachusetts homes have air conditioning
27 (compared to approximately 30% in NS).
28

29 Request IR-31:

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1
2 Ref: Attachment 1, Page 20 of 27, Attachment 4, page 14 of 64.

3 E1's answer A2 states that:

4
5 "If a proxy could be found of a very similar measure, that value was used. In
6 many cases this value was zero. If not the measure was flagged for further
7 research."
8

9 Also, on page 14 of Attachment 4 to E1's Application, category 4 is described as:

10
11 "A measure offered in Nova Scotia was not offered in Massachusetts, but
12 Massachusetts offered a similar measure (i.e., same technology type) that was
13 used as a proxy for the Nova Scotia measure in question, and NEBs from the
14 proxy were adapted to the Nova Scotia measure."
15

16 (a) Please clarify whether or not the statements in Attachments 1 and 4 address the
17 same category? If no, how are the different categories reconciled for purposes of
18 offering a similar measure for use in Nova Scotia?

19 (b) Please define the terms "same technology type" and "very similar measure" as used
20 in the aforementioned excerpts.

21 (c) To the extent that both Attachments address the same category, confirm that
22 category 4 specified in Attachment 4 has either zero value or is flagged for further
23 research. If category 4 is flagged for further research, please explain what further
24 research consists of for purposes of offering a similar measure for use in Nova
25 Scotia.
26

27 Request IR-32:

28
29 Ref: Application, page 8, lines 5-6.

30
31 E1 states that:

NON-CONFIDENTIAL

1
2 “Water savings values were adjusted by using Halifax Water and
3 Wastewater rates, as opposed to those found in Massachusetts.”
4

- 5 (a) Why did VEIC assume that Halifax’s water rates are sufficient to represent water
6 rates for all of Nova Scotia?
- 7 (b) Would using average Nova Scotia water rates be more accurate? If no, why not?
- 8 (c) How did VEIC account for households with private water supplies (i.e. wells)?
- 9 (d) Please provide the percent of Massachusetts households which have private water
10 supplies.
- 11 (e) Please provide the water utility rate used in the Massachusetts TRM.
- 12 (f) Approximately 46 percent of Nova Scotians are on well water, which is primarily
13 utilized by rural Nova Scotians and has significantly different parameters than
14 those served by Halifax Water. Recognizing this difference, please explain how E1’s
15 recommended approach takes into considerations significant differences within the
16 province of Nova Scotia between urban and rural populations.
17

18 Request IR-33:
19

20 Ref: Application, page 8, lines 19-21.
21

22 E1 states that “In addition, labour rates, fuel costs and Heating Degree Days were also
23 examined by VEIC, but no material differences between the two jurisdictions were found
24 to support further adjustments.”
25

- 26 (a) Please provide all documents, reports, data sets, calculations and any other sources
27 of information VEIC relied upon to determine that labour costs in Massachusetts
28 and in Nova Scotia are not materially different.

NON-CONFIDENTIAL

1 (b) Please provide all documents, reports, data sets, calculations and any other sources
2 of information VEIC relied upon to determine that fuel costs in Massachusetts and
3 in Nova Scotia are not materially different.

4 (c) Please provide all documents, reports, data sets, calculations and any other sources
5 of information VEIC relied upon to determine that Heating Degree Days in
6 Massachusetts and in Nova Scotia are not materially different.

7
8 Request IR-34:

9
10 Ref: Application, page 8, lines 8-1, and Attachment 4, Table 3.

11
12 E1 states that:

13 “NEBs relating to property valuation were adjusted for the relative
14 difference in property values between NS and Massachusetts. This
15 adjustment was based on the difference in median single-family house prices
16 between the two jurisdictions.”
17

18 Also, Table 3 on page 15 of Attachment 4 to E1’s Application shows the median single-
19 family house prices in Nova Scotia and Massachusetts and the multiplier used for
20 adjustments.

21
22 (a) Please provide the source of the data shown in Table 3.

23 (b) Please explain the rationale for relying solely on the single-family house category.

24 (c) Please explain whether the Massachusetts calculation of the change in property
25 value is after deducting the present value of expected future energy cost savings.

26 (d) Please describe the statistical method used to infer the change in property values,
27 over and above that represented by direct energy savings benefits. Provide
28 references to any economic or finance journal articles that employ the method.

NON-CONFIDENTIAL

1 Request IR-35:

2
3 Ref: Attachment 4, Attachment 4, page 20 of 64.

4
5 VEIC states that:

6
7 “Assessing labour rates in Nova Scotia and Massachusetts proved to be
8 difficult. While the minimum wage in Massachusetts is considerably higher
9 than the minimum wage in Nova Scotia (\$13.86 CAD in MA and \$10.85 CAD
10 in NS), the average hourly wage for material handlers and movers and
11 maintenance workers was higher in Nova Scotia (see Table 8).”
12

13 (a) Why is the minimum wage relevant for the labour cost adjustment?

14 (b) Why are the average hourly wages in Table 8 provided for MA for one group of
15 position description and for NS for another group? Is there any correlation between
16 the two groups? If so, what is the correlation?
17

18 Request IR-36:

19
20 Ref: Attachment 4, page 20-21 of 64.

21
22 VEIC states that:

23
24 “...we decided to adopt the labour costs components of the Massachusetts
25 NEBs for Nova Scotia BNI measures without making additional
26 adjustments.”
27

28 If the wages for relevant positions are known, would it be more accurate to make labour
29 cost adjustments on a measure basis rather than adopting the unadjusted labour costs
30 components of the Massachusetts NEBs? If no, why not?
31

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

Request IR-37:

Ref: Attachment 4, page 16 of 64.

VEIC indicates that it assumed that noise reduction and home durability in Nova Scotia and Massachusetts are comparable in value. Please explain the basis for this assumption and provide all documents, reports, data sets, calculations and any other sources of information used as a basis for this assumption.

Request IR-38:

Ref: Attachment 4, Table 5, page 18 of 64.

Table 5 contains heating and cooling degree day data for three cities in Massachusetts and three cities in Nova Scotia.

- (a) What criteria were considered in choosing these specific cities?**
- (b) Why was the measure of average total conditioning days used?**
- (c) Why was the simple average of degree-days over the three cities used?**

Request IR-39:

Ref: Attachment 4, page 15 of 64.

VEIC states that “heating and cooling degree days were very close between Massachusetts and Nova Scotia (2.2% higher in Nova Scotia).” However, the data in Table 5 on page 17 shows that when the cooling degree days for each region are averaged, Massachusetts had

NON-CONFIDENTIAL

1 129% more than Nova Scotia. Performing this same analysis for heating degree days
2 reveals that Nova Scotia had 18% more than Massachusetts.

3
4 (a) Please provide the statistical rationale underlying the assertion that the heating and
5 cooling degree days between Massachusetts and Nova Scotia are “very close.”

6 (b) How does E1 reconcile the significant differences in degree days between the two
7 regions on a seasonal basis with VEIC’s conclusion made on page 14, that the
8 degree-days between Massachusetts and Nova Scotia are “very close”?

9 (c) Does E1 agree that these percentages reveal potentially significant climatic
10 differences between Massachusetts and Nova Scotia in regard to cooling degree
11 days? If no, why not?

12 (d) Does E1 agree that any climatic differences are concealed in the VEIC report by
13 combining heating and cooling degree days into one value? If no, why not?

14 (e) Do these seasonal percentages suggest that VEIC’s assumption that heating and
15 cooling degree days can be combined for the adjustment purposes is flawed? If yes,
16 should the use of a combined heating and cooling degree day metric be revisited? If
17 no, why not?

18 (f) Does E1 believe that VEIC’s heating and cooling degree day adjustment
19 methodology cannot be more granular (i.e., having heating and cooling separately)
20 because the MA TRM does not have this level of granularity? If not, why not?

21
22 Request IR-40:

23
24 Ref: Attachment 1, page 11 of 27; Attachment 2, page 7 of 8.

25
26 In its response to question Q2 from Synapse Energy Economics, E1 stated that:

27
28 “VEIC’s approach assumed that improvements in comfort within the cooling
29 season are valued equally to those within the heating season.”

NON-CONFIDENTIAL

Also, on page 7 of 8 of Attachment 2, E1 further explains why this assumption is reasonable as follows:

“VEIC and EfficiencyOne agree that this assumption is reasonable. The comparison of total heating and cooling degree days was performed in an effort to adjust the comfort benefits associated with HVAC measures found in Massachusetts. The Massachusetts measure types examined were included in one “Heating and Cooling” category for heat pump systems, thus making a comparison of total HDD and CDD data reasonable. Since Massachusetts data cannot be readily broken into heating only and cooling only categories, the independent analysis of HDD and CDD data would be inconsistent with the resolution of the Massachusetts source data, and it is no clear how any such analysis would lead to an appropriate method of adaptation.”

- (a) Does E1 or VEIC have any evidence to support the assumption that heating and cooling degree days are valued equally and can therefore be combined for comparison not just in MA, but also in NS? If yes, provide all documents, reports, data sets, calculations and any other sources of information used to support this assumption.
- (b) If no NS-specific evidence is identified that would support the appropriateness of the HDD and CDD aggregation used in Massachusetts, why is it appropriate to use the aggregated Massachusetts values in Nova Scotia?
- (c) Did Massachusetts’ underlying study contemplate demographic variables that contribute to the variation in magnitude of the NEBs associated with thermal comfort? If yes, did VEIC effectively assume the same demographic variables for Nova Scotia as for Massachusetts?

Request IR-41:

Ref: Attachment 4, Table 10, beginning at page 5 of 64.

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

-
- (a) Which measures listed in Table 10 will have their benefit-to-cost ratios (BCR) changed from a value smaller than 1.0 to a value greater than or equal to 1.0 after the inclusion of NEBs?
- (b) Which measures listed in Table 10 will have their BCR changed from a value smaller than 1.0 to a value still smaller than 1.0 after the inclusion of NEBs?
- (c) Are the measures listed in Table 10 that have their BCR changed from a value greater than 1.0 to an even greater value after the inclusion of NEBs included in NS's current CE test? If not, how are they currently treated?
- (d) For the measures identified in (a) above, what would be their total benefits before the inclusion of NEBs by measure and year?
- (e) For the measures identified in (a) above, what would be their total benefits after the inclusion of NEBs by measure and year?
- (f) What would be the total additional benefits due to the inclusion of NEBs by measure and year for all measures in Table 10?
- (g) What would be the total additional costs due to the inclusion of NEBs by measure and year for all measures in Table 10?
- (h) What portion of these total additional costs due to the inclusion of NEBs would be supported by non-participants?
- (i) Would E1 recommend implementing a measure which, after the inclusion of the NEB calculated under the proposed VEIC methodology, has a BCR of 1.01? If not, what would be the appropriate range of uncertainty for a measure not to be considered cost effective even if the calculated BCR is slightly above 1.0?
- (j) What is E1's understanding of the sustainability and volatility of the NEB values as calculated by VEIC?

Request IR-42:

Ref: Attachment 4, Appendix B.

EfficiencyOne - Evaluation of DSM Programs - Application to Allow Inclusion of Non-Energy Benefits (M08888) NSPI Information Requests to EfficiencyOne

NON-CONFIDENTIAL

1

2 Please provide a table showing any measure contained in Appendix B that has a TRC
3 between 0.5 and 1.5 without NEBs, and then compared to the measure with NEBs.

4

5 Request IR-43:

6

7 Ref: Attachment 4, page 12 of 64.

8

9 Footnote 15 refers to the Massachusetts Technical Reference Manual (TRM) for
10 Estimating Savings from Energy Efficiency Measures for the 2016-2018 plan years.

11

12 (a) Is this document the most current version of the Massachusetts TRM?

13 (b) Does E1 propose that new versions of the Massachusetts TRM be adopted in Nova
14 Scotia when they are released?