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Request IR-01:

Are Non-Energy Benefits (NEBs) reported by the Vermont Energy Investment Corporation (VEIC) study (NEB Application, Attachment 4: Final VEIC NEBs Report with Appendices – July 12, 2018) primarily based on the NEBs estimated by studies in Massachusetts (MA)? If yes, please provide responses to following questions:

a. Did EfficiencyOne (E1) or any of its consultants perform any research to verify that the sample size used in the MA study is representative of the overall population of Nova Scotia?

Response IR-01:

The following response has been provided by Vermont Energy Investment Corporation (VEIC).

Yes.

a) Conducting a detailed demographic analysis was outside of the scope of this work. EfficiencyOne requested an approach that balanced accuracy with “expeditious and cost-efficient implementation.”

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Request IR-02:

Regarding the NEBs associated with the property values, please state if VEIC performed any rigorous statistics study to estimate the NEBs associated with property values.

Response IR-02:

The following response has been provided by Vermont Energy Investment Corporation (VEIC).

No. This would be outside of the scope of VEIC's engagement with EfficiencyOne. EfficiencyOne requested an approach that balanced accuracy with "expeditious and cost-efficient implementation."

For additional detail on property value-related NEBs, please refer to EfficiencyOne's response to UARB-Multeese IR-16.

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Request IR-03:

If the property values included in the VEIC Report is based on the study of MA:

- **a. Please explain the method used in the MA study to identify property value-based NEBs.**
- **b. Did the MA study include any rigorous statistic study to estimate the increased property value as a result of the installation of Energy Efficiency (EE) measures?**

Response IR-03:

The following response has been provided by Vermont Energy Investment Corporation (VEIC).

Please refer to EfficiencyOne's response to UARB-Multeese IR-16.

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Request IR-04:

Table 1 (NEB Application, Page 9 of 15) lists types of NEBs recommended by VEIC for adoption. The NEBs considered in the study are either based on avoided resource cost or based on the perceived value of the customers. Please separate out the types of NEBs listed in Table 1 by identifying whether they are based on the avoided resource cost or the perceived value of the customers.

Response IR-04:

The following response has been provided by Vermont Energy Investment Corporation (VEIC).

Please refer to the two tables below which detail the basis of NEBs from the customers' perspective of value, indicated as an avoided customer cost or perceived value to the customer.

Residential	
Thermal Comfort	Perceived value
Noise Reduction	Perceived value
Property Value	Avoided cost
Equipment Maintenance	Avoided cost
Lighting Quality	Avoided cost (increased lifetime) and perceived value (lighting quality perceived)
Home Durability	Avoided cost

Business, Non-Profit, and Institutional	
Reduced Operations and Maintenance	Avoided cost
Reduction in Other Labour Costs	Avoided cost
Increased Rent Revenue	Avoided cost
Increased Sales Revenue	Avoided cost
Reduction in Waste Disposal	Avoided cost

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Request IR-05:

Regarding the Measure-level NEB Study conducted by VEIC (NEB Application, Attachment 4: Final VEIC NEBs Report with Appendices – July 12, 2018), please provide responses to following statements:

a. **Total number of measures considered by VEIC in estimating NEBs.**
b. **Total number of measures with non-zero NEBs recommended by VEIC.**
c. **For measures that have non-zero NEBs, list the number of measures that experienced the following Total Resource Cost (TRC) percentage increases after including NEBs as compared with not including NEBs:**
   i. **Less than 10% increase**
   ii. **10 – 25% increase**
   iii. **25 – 50% increase**
   iv. **50 – 100% increase**
   v. **More than 100% increase**

Response IR-05:

The following response has been provided by Vermont Energy Investment Corporation (VEIC).

a) 238

b) 153. With the removal of property values and rent revenues, 156 is revised to 153 measures.

c)
   i) 27

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ii) 13

iii) 82

iv) 24

v) 7

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Request IR-06:

Does the proposed method of including NEBs in Cost-Effectiveness (CE) testing for EE measure selection reduce electric energy cost to the customers?

Response IR-06:

Please refer to EfficiencyOne's response to UARB IR-07.

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Request IR-07:

Can EfficiencyOne envision any scenario where inclusion of NEBs in the CE testing would increase the energy costs to the customers?

Response IR-07:

Please refer to EfficiencyOne's response to UARB IR-07.

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Request IR-08:

Does the CE testing methodology proposed by EfficiencyOne put any limitation on how much NEBs (as a percentage of energy benefits) can be considered in the cost-effectiveness testing?

Response IR-08:

EfficiencyOne has implicitly proposed a limitation through requesting approval for a specific set of NEB values, as adopted from the Massachusetts research, as opposed to requesting the adoption of a particular methodology directly. Any future changes considered by EfficiencyOne are proposed to be discussed with the DSM Advisory Group and/or the NSUARB depending on the exact circumstances, as described in the Application.

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Request IR-09:

How does the proposed methodology of including NEBs in CE testing impact the measure selection process for measures that have NEBs substantially higher than benefits associated with energy and peak demand savings?

Response IR-09:

Please refer to EfficiencyOne's response to UARB IR-07.

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Request IR-10:

Please provide a comparison of the recommended program funding for a future program year without the consideration of NEB and with the proposed methodology of considering NEB in CE testing. Please include a description.

Response IR-10:

Please refer to EfficiencyOne's response to UARB IR-03 b).

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Request IR-11:

Is EfficiencyOne willing to have its goals and compensation based on proven realization of achieving the NEBs used for the program cost-benefit testing?

Response IR-11:

No. It would not be appropriate to do so. EfficiencyOne's goal (the electricity efficiency and conservation activities that ENS provides to NS Power) and the amount NS Power will pay for those services are established in accordance with the *Public Utilities Act*, RSNS 1989, c 380. The inclusion of NEBs in cost-effectiveness testing are merely intended to enable a more informed and accurate decision-making process when determining which measures ENS will implement to achieve its goals. NEBs are not goals in and of themselves.

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Request IR-12:

Please provide legislation and regulatory documents that provide the basis for authority for EfficiencyOne to sponsor programs based upon NEBs.

Response IR-12:

Please refer to EfficiencyOne's response to UARB IR-09.

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Request IR-13:

For the hypothetical measures included in each of the three groups listed in the table below, please identify one measure that would be selected from each group under the proposed method of including NEBs in CE testing.

Group	Measure Name	TRC without NEB	TRC with NEBs	Measure Selected under proposed CE Testing
Group 1	**Measure A**	**1.5**	**1.8**	
	Measure B	**1.3**	**2.3**	
Group 2	**Measure C**	**1.5**	**1.8**	
	Measure D	**1.8**	**2.1**	
Group 3	**Measure E**	**1.4**	**1.8**	
	Measure F	**1.4**	**2.0**	

Response IR-13:

EfficiencyOne does not select measures based only on TRC test results. The question above does not provide sufficient detail to allow for such a selection. For additional detail, please refer to EfficiencyOne’s response to UARB IR-07.

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Request IR-14:

Regarding the current 2018 DSM Plan,

a. **Please provide measure-level TRC results for each of the measures by DSM program included in Residential and BNI Sector with and without including NEBs.**
b. **Please provide TRC results for all measures by DSM program that includes NEBs by further separating NEBs between avoided-resource cost based and perceived-value based.**
c. **Would the choice of measures have been different if NEBs were included in CE testing for selecting portfolio of measures of 2018 DSM Plan?**
d. **If the answer is yes to 14(c), please provide the list of measures selected in each DSM program by considering proposed methodology of including NEBs in CE testing for 2018 DSM Plan.**

Response IR-14:

a) The following response has been provided by Vermont Energy Investment Corporation (VEIC).

   Please refer to Appendix C of Attachment D of the application, "Measure Tables".

b) The following response has been provided by Vermont Energy Investment Corporation (VEIC).

   Please refer to Appendix C of Attachment D of the application, "Measure Tables".

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c) No, it is not expected the choices would have been different, although EfficiencyOne submits it is not feasible to fully redesign the 2016-2018 DSM Plan portfolio for the purposes of this response.

d) Please refer to part c).

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Request IR-15:

Please identify the suite of EE program measures developed and marketed by the unregulated affiliate of Efficiency One and compare and contrast these to the EfficiencyOne measures included in the 2018 DSM plan. Do any of these non-regulated program measures incorporate NEBs?

Response IR-15:

EfficiencyOne Services is not engaged in the administration of any energy efficiency programs.

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Request IR-16:

EfficiencyOne has requested approval to base future estimates of Low-Income NEBs on the 2016 Three study performed in Massachusetts with a publication date of 2016 (page 14 of the Application) as well as other studies from 2016 and 2014. Please explain in detail why EfficiencyOne finds it reasonable to base its 2018 DSM plan and future estimates on an outdated study.

Response IR-16:

At the time that Vermont Energy Investment Corporation undertook the study, the reports referred to reflected current and comprehensive estimates of measure-based NEBs. EfficiencyOne is committed to using the most up-to-date and relevant comprehensive NEB values available within the industry.

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Request IR-17:

If EfficiencyOne expects, as indicated in Section 3.2.3, page 12, of the Application that "…new data may change the relevance of existing data", please explain why NEBs should be heavily relied upon at this time to achieve a CE value of 1.00 or greater.

Response IR-17:

EfficiencyOne does not consider the inclusion of NEBs in the TRC to result in NEBs being heavily relied upon for a measure to achieve a cost-effectiveness value of 1.00. Please refer to EfficiencyOne's response to UARB IR-07.

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Request IR-18:

What does EfficiencyOne mean by the term "primary research" (page 15, line 13, of the Application) and what are the metrics EfficiencyOne will publish prior to conducting such research to allow the DSMAG to determine that the results are verifiable and adequate?

Response IR-18:

Please refer to EfficiencyOne's response to UARB-Multeese IR-06 for what is meant by the term "primary research".

EfficiencyOne has yet to determine what metrics would be used in any future NEBs primary research efforts and would expect to engage the DSM Advisory Group and invite their comments.

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Request IR-19:

How will EfficiencyOne adapt its program results and future plans when homes, for which measures have been installed due to assignment of NEBs based on perceived increase in property value, are subsequently sold but that higher value was not fully realized?

Response IR-19:

Please refer to EfficiencyOne's response to UARB-Multeese IR-16.