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February 1, 2024 **VIA E-MAIL**

Nancy Marconi
Registrar
Ontario Energy Board
Toronto, ON

Dear Ms. Marconi:

Re: Consultation for Benefit-Cost Analysis Framework for Addressing Electricity System Needs (EB-2023-0125)
Draft Phase One Benefit-Cost Analysis Framework
Submission of the Vulnerable Energy Consumers Coalition (VECC)

In accordance with the OEB's letter of December 22, 2023, please find attached VECC's submission on the above referenced matter. Please contact me if any clarification is required (bharper.consultant@bell.net)

Yours truly,

William Harper
Consultant for VECC/PIAC

cc. J. Lawford, PIAC

OEB BENEFIT-COST ANALYSIS FRAMEWORK FOR ADDRESSING ELECTRCITY SYSTEM NEEDS (EB-2023-0125)
VECC'S COMMENTS RE: DRAFT FRAMEWORK

INTRODUCTION

On September 20, 2023, the Ontario Energy Board (OEB) issued a letter to initiate a consultation to support the development of a Benefit-Cost Analysis (BCA) Framework for addressing electricity system needs. A stakeholder engagement session was held on October 13, 2023 at which an overview of the draft Phase One BCA Framework project plan was presented. A copy of the draft Phase One BCA Framework project plan, prepared by Guidehouse Canada under the oversight of OEB staff, was subsequently issued on October 26, 2023 and interested parties were invited to provide comments by November 9, 2023.

After incorporating the feedback received regarding the project plan, the OEB issued its draft Phase One Benefit-Cost Analysis Framework for Addressing Electricity System Needs (Framework) on December 14, 2023. Interested parties were requested to provide comment by February 1, 2024.

Set out below are VECC's written comments.

VECC'S COMMENTS

VECC's comments are organized based on the section headings in the draft Framework. As requested in the December 14th letter, in its review of the draft Framework VECC has paid particular attention to Section 2 which addresses the intended purpose and use as well as associated requirements for electricity distributors.

1. INTRODUCTION

The first sentence in the Introduction states:

> *"The Benefit-Cost Analysis (BCA) Framework is an OEB policy document that outlines the methodology that electricity distributors are to employ when assessing the economic feasibility of non-wires solutions (NWS) to address defined electricity system needs".* (emphasis added)

Similarly, in Section 2 the draft states:

> *"The BCA Framework is provided to support the evaluation of the economic feasibility (i.e., benefits exceed costs) of NWSs and provide a structured approach to enable electricity distributors to seek ratepayer funding to enable prudent investment in NWSs."* (emphasis added)

In VECC's view the focus on "economic feasibility" is an important distinction as there may be other non-economic considerations that will influence the ultimate choice between traditional pole/wires solutions and NWS to a distributor's particular system needs. The Framework should include an acknowledgement that the BCA results may not be the only input to a distributor's decision making process.

In Section 1.2 (Context for Use) the draft Framework states:

> *"This Framework provides direction to electricity distributors on the development of the BCA required to accompany any application to deploy an NWS."*

As noted later in VECC's comments regarding Section 2.4 (Regulatory Submissions), clarification is required as to the regulatory approvals required before a distributor implements a NWS.

2. PURPOSE AND USE

In Section 2.1 (Purpose) the draft Framework states:

> *"The BCA Framework establishes a multi-test approach for use by rate-regulated electricity distributors in support of electricity distribution rate-setting applications to the OEB. The intent of the BCA Framework is to encourage the development of solutions that are in the best interests of both an electricity distributor's customers and Ontario's energy customers more broadly and to help level the playing field between NWS and traditional poles-and-wires infrastructure solutions to meet an electricity system need."*

VECC assumes that the reference to "a multi-test approach" is referring to the Distribution Service Test (DST) and Energy System Test (EST) in the draft Framework.

As VECC noted in its November 2023 comments (page 17):

> *"It will be important for the Handbook to clearly set out the role of the DST versus the EST with respect to the decisions a distributor will make as between a traditional wire solution and a non-wires solution to a given system need. In VECC's view, distributors should be focusing on investments and related decisions required to meet their customers' needs. Investments in non-wires (or for that matter traditional wires) solutions that do not benefit a distributor's customers but are deemed to provide broader system benefits should only pursued by a distributor if adequate compensation is provided by the system's customers."*

VECC notes that the draft Framework (Section 2.3 – Interpreting BCA Outcomes) appears to align with this view in stating:

> *"The costs and benefits used for the calculation of the DST will be the primary consideration for assessing rate funding of an NWS."*

Subsequently, Section 2.3 also states:

> *"Electricity distributors may propose (with supporting rationale) that an NWS found to be marginally non-cost-effective when applying the DST is still the preferred option to meet a system need. The OEB will consider approving such proposals when there are compelling qualitative impacts that support the deployment of the specific NWS and/or the EST provides further justification as to the feasibility of a given NWS."*

In VECC's view there is a significant difference between approving an NWS that is marginally non-cost effective when applying the DST based on: i) the qualitative impact of other considerations that impact the economics of providing distribution service versus ii) system benefits identified through the application of the EST. While the first consideration is consistent with a distributor focusing on investments that meet their customers' needs the second is not. The draft Framework needs to more clearly set out the OEB's expectations as to the relative roles of the DST and the EST in decision making by distributors regarding the choices to be made between wires and non-wires

solutions in the distribution system planning process. In VECC's submission these expectations should reflect the views stated above.

Based on the discussion set out in Section 2.2 (Criteria for Use - Consideration of NWSs in Addressing System Needs), the draft Framework states:

> *"The BCA Framework establishes a new requirement that distributors shall document their consideration of NWSs when making material investment decisions as part of distribution system planning, excluding general plant investments. This does not mean that a BCA will be required in all cases; rather a distributor should first conduct a pre-assessment to identify whether there is a reasonable expectation that an NWS may be a viable approach to meeting an identified need."* (emphasis added)

VECC interprets this to mean that for all material investment decisions that are not related to general plant a distributor must: i) conduct a pre-assessment to identify whether there is reasonable expectation that an NWS may be a viable approach to meeting the identified need and ii) undertake a BCA for those cases where an NWS is not eliminated in the pre-assessment.

However, later in the same paragraph, the draft Framework also states:

> *"Electricity distributors must provide rationale for all material infrastructure investment decisions where NWSs were not considered and/or those situations where NWSs were considered, but a BCA analysis was not conducted due to a pre-assessment finding."*

Given VECC's interpretation of the first reference, it would appear to VECC that the only acceptable rationale for not considering NWSs (i.e., not even undertaking a pre-assessment) when proposing a material investment as part of a distribution system plan would be that the investment is related to general plant. If this is the intent, then the second part of the paragraph should be re-worded to make this clear.

Section 2.2 (Criteria for Use – Consideration of NWSs in Addressing System Needs) then goes on to state:

> *"Should the pre-assessment conclude that an NWS is a viable approach to meeting an identified need, a distributor should proceed with completing a BCA and documenting the results, to assess its economic feasibility."* (emphasis added)

The use of the term "should" is ambiguous and suggests that a distributor has a choice as to whether or not to undertake a BCA for those material investments where an NWS is a viable approach. This is counter to the second paragraph in this section which states that "the BCA Framework establishes a new requirement that distributors shall document their consideration of NWSs when making material investment decisions as part of distribution system planning, excluding general plant investments". It is also counter to the statement later in the part of Section 2 (When a BCA is Required) that "for system needs where an electricity distributor has identified an NWS as a viable option, the electricity distributor is expected to complete a BCA". The OEB may wish to revise the wording so as to make it clear that a BCA is required for all material investments when an NWS has been determined to be a viable approach.

In Section 2.2 (When a BCA is Required) the draft Framework states:

> *"The BCA Framework is provided to support the evaluation of the economic feasibility (i.e., benefits exceed costs) of NWSs and provide a structured approach to enable electricity distributors to seek ratepayer funding to enable prudent investment in NWSs. The BCA Framework allows electricity distributors to demonstrate the economic feasibility of any NWS or traditional infrastructure solution with material costs for which ratepayer funding is being sought through the OEB."* (emphasis added)

In Section 2.3 the draft Framework states:

> *"Electricity distributors may propose (with supporting rationale) that an NWS found to be marginally non-cost-effective when applying the DST is still the preferred option to meet a system need. The OEB will consider approving such proposals when there are compelling qualitative impacts that support the deployment of the specific NWS and/or the EST provides further justification as to the feasibility of a given NWS."*

When considering wires versus non-wires solutions to a particular system need there may be considerations beyond technical feasibility (which is addressed at the pre-assessment stage) and economic feasibility (which is addressed by the BCA Framework) that need to be taken into account in the decision making process. As a result, it is may be reasonable for electricity distributors to propose (with supporting rationale) an NWS that is found to be marginally non-cost effective or reject an NWS that is marginally cost effective on grounds other than the qualitative economic impact considerations identified in the BCA Framework[1]. VECC believes the BCA Framework should acknowledge this.

Section 2.4 (Regulatory Submissions) similarly states:

> "Electricity distributors may utilize the BCA Framework to seek rate funding for NWS or traditional infrastructure investments as part of regular Cost of Service applications, in conjunction with supporting Distribution System Plans. Electricity distributors may also utilize the BCA Framework to seek approval for rate funding as part of Incremental Capital Module (ICM) applications". (emphasis added)

Again, the use of the term "may" suggests that the distributor can choose whether or not to utilize the BCA Framework which is inconsistent with other statements in the draft Framework indicating that use of the BCA Framework is required.

Also, as VECC noted in its November 2023 comments (page 12), "while a DSP is submitted as part of each rebasing application, beyond its implications for the test year rate calculation the DSP is not currently approved by the OEB". The OEB should clarify whether, in the context of a Cost of Service application, the distributor would be expected to seek specific (and separate) approval for rate funding of a NWS, particularly if spending and implementation is to occur after the test year.

In its November 2023 comments VECC also raised the more general question of whether or not OEB approval was required before implementation of a NWS if the

[1] Section 3.1.3 specifically states that "Qualitative BCA considerations should be specifically tied to the impact categories specified for each type of BCA (distribution service and energy system)".

distributor intended on seeking ratepayer funding for the initiative. The first paragraph in Section 2.4 (Regulatory Submissions) appears to suggest that this is the case as does the following statement in Section 4.1:

> *"The DST must be completed as part of the BCA submitted by the electricity distributor with its application to use an NWSs."*

If this is so, then the OEB should clearly and explicitly set this out as a requirement.

In Section 2.4 (Regulatory Submissions) the draft Framework states:

> *"The cost allocation that an electricity distributor proposes as part of its rate application may not necessarily be linked to the costs considered in a BCA cost effectiveness test."*

Given that the associated paragraph discusses both solutions aimed at addressing distribution system needs and solutions aimed at addressing regional needs it is not clear whether the referenced sentence is referring to: i) the allocation of costs between the distributor's customer classes or ii) the allocation of costs between the distributor and system customers overall.

3. General Methodological Considerations

In Section 3.1.1, the discussion regarding the example under Forecast Overload Under Blue-Sky Conditions suggests that the timing of peak load on a circuit maintained by distributor will coincide with the timing of the peak demand for the distribution system overall. As this does not necessarily need to be the case the discussion regarding the Assessment of Value to Bulk System should be revised accordingly.

Section 3.2.3 (The Impact of NWS Options on Reference Scenarios) states:

> *"In these situations, NWSs change the reference scenario. Consider, for example, the challenge of ensuring reliability of supply to remote communities at the end of long radial lines. It may simply not be feasible to twin the line or otherwise use some form of poles and wires investment to provide a level of reliability to which customers are entitled. In such a case NWSs might become the reference scenario, and undertaking a BCA might be neither appropriate, nor necessary. However, in these situations the electricity distributor is still expected to provide the estimated cost of a potential traditional poles and wires option in its filing to the OEB to demonstrate that a BCA is not required."*

In the example provided, the twinning of the line (or some other form of poles and wires investment) is deemed to simply not be feasible. In VECC's view the fact an alternative has an exceedingly high cost relative to other alternatives does not mean it is not feasible. For an alternative to not be feasible there must be some technical, statutory or other reason why the alternative cannot be pursued. In the case cited above, twinning of the line could be deemed to not be feasible if the geography or right-of-way involved was such that a second line could not be constructed. In such cases VECC questions whether it is reasonable to expect a distributor to provide the estimated cost for a potential traditional poles and wires option. However, if the twinning of the line is considered to not be feasible simply due to cost, then the BCA Framework should apply.

4. Distribution Service and Energy System BCAs

The second paragraph in Section 4 states:

> *"Note that lost revenues are not considered to be a cost or benefit in the DST or EST. This is consistent with guidance in the NSPM to separate cost-effectiveness analysis from rate impact analysis."*

VECC agrees that lost revenue should not be considered as a cost or benefit in cost-effectiveness tests. However, this does not mean that rate impacts are not a relevant consideration in the overall decision making process. In VECC's view rate impact considerations are relevant and one of the considerations outside of the BCA Framework (per the comments provided above) that could impact the choice of wires vs. non-wires solutions.

In Section 4.1 the draft Framework states:

> *"Quantitative impacts must be included in the DST, whereas qualitative impacts may be included in the BCA as considerations (see Section 6, Filing Requirements)."* (emphasis added)

This wording suggests that distributors have choice as to whether or not to include qualitative impacts in the BCA as considerations. However, Table 1 identifies two qualitative impacts that are classified as being required. Either the text or the table need to be changed so as to be consistent.

5. Benefits and Costs

Section 5.1 of the draft Framework states:

> *"The validity of the methods used by electricity distributors for estimating DST benefits and costs can be assessed as needed on a case-by-case basis in rate applications."*

As noted earlier in the draft Framework (Section 2.4), "OEB will also consider applications for CDM activities/NWSs outside of rebasing or ICM applications, if necessary". The wording in Section 5.1 should be revised to reflect the fact that applications for NWSs can be made outside of rate applications.

In Section 5.1.1.1 the table defining the various variables sets out two definitions for "$NPVCoSreference_y$", VECC assumes the second term being defined is actually "$NPVCoSdeferred_y$".

In Section 5.1.1.2 the draft Framework states:

> *"In some cases, the use of NWSs may reduce the reliability of the distribution system. This may occur when the traditional poles and wires solution deferred by the NWS was planned to incorporate some measure to improve reliability, or when the NWS impacts reliability directly, necessitating some remedial action (e.g., due to impacts on the accuracy of load forecasting, impacts on voltage control, etc.) These issues should be addressed either in the estimation of the distribution capacity value (see Section 5.1.1.1, above, where the deferred upgrade also provides reliability improvements) or else in the estimation of NWS OM&A costs, distribution system ancillary costs, or risks (see Sections 5.1.2.2 through 5.1.2.7)."*

In VECC's view, in those circumstances where implementation of the NWS would lead to lower reliability than a traditional wires solution, it is important to distinguish between situations where: i) other investments are planned (capital or OM&A) so as to maintain the same level of reliability versus ii) situations where the distributor determines it will accept the lower level of reliability. In the first situation, the approach should not be to adjust the distribution capacity value (i.e. the benefit) but rather to include, as part of the cost of the NWS, all of the additional investments required to provide an equivalent level of reliability. Where, in the second situation, the reduction in reliability is not a known fact needs to be incorporated in the BCA Framework as a qualitative consideration and treated as either a cost or a negative benefit.

Section 5.1.1.3 seeks to make a distinction between reliability and resilience. As VECC understands it, reliability refers to the frequency and duration of distribution service outages whereas resilience refers to the ability of the distribution system to both avoid an outage and recover from outages. If this is the case, then the two are closely related as: i) the frequency of outages will be impacted by the distribution system's ability to avoid outages and ii) the duration of an outage will be directly impacted by the ability of the distribution system to recover. VECC is concerned that the overlap between these two considerations will lead to a double counting of any associated benefits or costs. Either a clearer distinction needs to be made between reliability and resilience or they should be combined into one consideration.

Section 5.1.1.4 states:

> *"Electricity distributors are permitted to identify, as a qualitative consideration, any anticipated benefits that the NWS implementation may provide for market development or in supporting innovation that will result in lower-cost distribution service in the longer term.*
> *The qualitative benefits of innovation and market transformation identified in the BCA considerations must be benefits that specifically improve the value of distribution service to customers over time and so to be claimed must be part of a consistent narrative of anticipated electricity distributor development."*

It is important to note that for distribution system BCAs the focus is on the specific distributor's costs and benefits. For the distributor to assign benefits to the NWS implementation associated with market development there must be evidence that the distributor plans on making future use of that NWS. This point should be highlighted in the draft Framework.

Section 5.1.2.2 states:

> *"Electricity distributors must carefully consider what OM&A costs are truly incremental. For example, administering a DR program may require three full-time equivalent staff (FTEs) over the four-year program period, but if the traditional poles and wires were anticipated to require 1 FTE per year in-service then the cost-effectiveness test should consider only the cost of two FTEs (assuming an equivalent cost per-FTE, or adjusted as necessary to reflect differences in cost per-FTE)."*

This example assumes that, in determining the benefits of the DR program, the distributor did not include (as part of the cost of the traditional poles and wires solution)

the avoided cost of the required 1 FTE per year. As such it also provides a good example of the need for symmetrical treatment of incremental costs and benefits as discussed earlier in Section 5.1.2.1.

Some NWSs are likely to lead to increased overall energy use and costs. Examples include battery storage and local distributed generation. If the NWSs are owned by 3rd parties then presumably these costs are addressed through the incentive payments made by the distributor to the third party. However, if the NWSs are owned by the distributor then any incremental energy costs are a cost to the distributor and need to be included in the BCA Framework. Such energy costs are part of the cost of operating and maintaining the NWS and should be treated as such. However, as energy costs are not typically considered to be OM&A costs, it may be useful if their inclusion is specifically referenced in Section 5.1.2.2.

VECC notes that in Section 5.2.1.3 the draft Framework discusses the need to quantify the estimated benefit of avoided energy costs as part of the EST. However, in neither that section or later in Section 5.2.2 regarding Energy System Costs is there any discussion of the incremental energy costs that may result from the implementation of some types NWSs.

6. Filing Requirements

The first paragraph states:

> "Electricity distributors are expected to document their proposals for NWSs with the same level of rigour and depth provided for traditional poles-and-wires solutions when justifying the capital expenditure as part of a Distribution Service Plan or an Incremental Capital Module."

Consistent with VECC's comments regarding Section 5.1, this paragraph should be revised to reflect the fact that applications for NWSs can be made outside of rate applications.

7. Summary

The key points made in this submission are:

- The draft Framework needs to more clearly set out the OEB's expectations as to the relative roles of the DST and the EST in decision making by distributors regarding the choices to be made between wires and non-wires solutions in the distribution system planning process.
- The BCA Framework focuses on quantitative and qualitative considerations associated with the economic feasibility of NWSs versus traditional poles and wires solutions. While cost effectiveness based on both quantitative and qualitative economic considerations is important there may be other factors that also need to be considered, particularly if there is not a material difference in the BCA outcomes. The Framework should explicitly recognize that the BCA results may not be the only input to a distributor's decision making process.
- The draft Framework suggests that in order to recover the costs associated with NWSs distributors must provide the OEB with the results of the BCA (including the DST) and obtain approval before the project is implemented. The OEB should clarify whether this is the intent.