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BY EMAIL AND RESS

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Ms. Nancy Marconi
Registrar
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON M4P 1E4

Dear Ms. Marconi,

EB-2023-0125 – Consultation for Benefit-Cost Analysis ("BCA") Framework for Addressing Electricity System Needs

OVERVIEW

On December 14, 2023, the OEB released the second draft of the *Benefit-Cost Analysis Framework for Addressing Electricity System Needs* ("**Handbook**" or "**BCA Handbook**") for stakeholder review for comment by February 1, 2024.

The OEB identified the need for a BCA Framework in its Report on the Framework for Energy Innovation ("**FEI**"), issued January 30, 2023. The FEI Report was informed by the work of the FEI Working Group to which Hydro One was a participant.

Hydro One was pleased to review the draft Project Plan for Phase 1 of the BCA Framework and provide comments on November 9, 2023. Hydro One reiterates its support for the development of a BCA Handbook to provide guidance on when and how to execute BCAs consistently and effectively. As noted in the FEI Report, the purpose of the BCA Handbook is to serve as a tool to guide LDCs on when they should conduct a BCA, and the level of detail required when filing the BCA results. Hydro One appreciates the opportunity to provide a detailed review of the second draft of the Handbook.

Hydro One's feedback is divided into two components. The first component is this cover letter, in which its key feedback is provided. The second component is a section-by-section review of the Handbook to further assist the OEB with more specific recommendations to amend or clarify in the next draft. This is attached as an Appendix to this letter. Hydro One welcomes the opportunity to discuss this feedback further to the extent that any of its feedback requires further clarification.

Hydro One notes that it has provided a preliminary review of some components of the Energy System Test ("**EST**") within the table in the Appendix. Further clarification and additional information are required before Hydro One can comprehensively assess the Handbook's EST contents, and we have made efforts to identify those specifically in the Appendix. Any lack of responsiveness to elements of the EST at this stage

should not be perceived as endorsement of the guidance proposed. We look forward to participating in Phase 2 of the consultation, focused on the EST.

Finally, we appreciate the provision of additional time at this stage of the process to assemble this detailed submission, which was invaluable to producing the feedback on this vital initiative.

GENERAL COMMENTS ON THE SECOND DRAFT OF BCA HANDBOOK

Hydro One supports the general direction of the second draft of the BCA Handbook.

Hydro One acknowledges the flexibility and deference preserved in the Handbook for distribution system planning. The worked examples are helpful tools for demonstrating how utilities are encouraged to conduct a BCA, and how varying scenarios and forecasts may impact the analysis. Hydro One also welcomes the forthcoming Consolidated Guidelines on Non-Wires Solutions ("**NWS**") which we expect will situate this guidance into existing policies and clarify its application to all forms of NWS, including Distributed Energy Resources ("**DER**") and Conservation and Demand Management ("**CDM**").

The BCA should enhance and complement existing planning processes.

Hydro One agrees with the OEB's approach to provide flexibility in the format and requirements for the "pre-assessment" stage, and that the degree of consideration of NWS will vary depending on the system need, as some system needs are plainly unsuitable for NWS at this time.

To ensure consideration of NWS is focused on system needs that are potentially suitable for an NWS, Hydro One intends to incorporate categorical exclusions into its pre-assessment process in addition to that recommended in the Handbook and an appropriate materiality threshold. The specific recommendations and rationale for the recommendations are discussed in greater detail below.

The Handbook also reiterates key considerations on leveling the playing field for NWS, while recognizing that "it is not the role of the OEB to increase or accelerate NWS adoption or to choose one technology solution over another." We believe this objective is correct and appropriate.

Hydro One requests changes to the Handbook to ensure its scope and reach are proportionate to the nascent state of DER development.

Distributors are contending with simultaneous pressures to modernize, grow, and enable participation across a vast, aged, and complicated energy system. To meet policy objectives and the needs of current and future customers, utilities must ensure resources (time, technology, workforce) are deployed in an efficient manner. The use cases for DERs as NWS is currently limited, and although expected to evolve in the future, NWS are not at the stage where such solutions can readily address a wide variety of system needs at-scale. To that end, the incremental effort required by the Handbook should be roughly proportional

to the expected value it generates, and we respectfully submit the following comments that we believe support this objective.

Categorical exclusions

Hydro One respectfully submits that the limited categorical exclusions and standard materiality threshold currently proposed within the draft Handbook is too broad for this initial stage of the BCA. A successful first version of the Handbook would optimally result in a relatively high "success rate" – that is, completed BCAs that result in positive NWS outcomes. Hydro One submits that a narrower initial scope would support BCA capability development and limit extraneous effort to undertake BCAs in instances with a low likelihood of supporting an NWS. This period would allow utilities to build expertise and experience in undertaking high-quality BCAs on opportunities with the highest potential for NWS in the short term.

As such, Hydro One recommends re-scoping the categories of investment decisions for which NWS must be considered under Section 2.2 to include System Service needs only. In addition to "General Plant", Hydro One recommends "System Renewal" and "System Access" needs should also be excluded from the mandatory requirement that distributors shall document their consideration of NWS when making material investment decisions as part of distribution system planning.

System renewal investments entail replacing and repairing traditional assets such as poles and stations to ensure the existing infrastructure delivers power safely and reliably. System access investments include customer service requests that require new, modified, or expanded customer connections, third-party infrastructure development requirements, and mandated service obligations like metering. Neither category strongly correlates to the types of solutions readily addressed by NWS. The Handbook could still encourage utilities to explore BCAs in those categories.

Materiality

To ensure efficient planning processes, Hydro One recommends the materiality threshold be set at $2 million in the short term. As noted in the initial draft of the Handbook (October 26, 2023, page 11, footnote 12), fixed costs for NWS remain high at this juncture, warranting a higher floor in the interim, with the expectation of lowering the threshold over time as familiarity with NWS benefits are better understood. Moreover, efficient system planning is ensured by setting the threshold higher at this stage. Utilities are testing and learning from potential NWS use-cases and should focus planning resources on the use cases and the NWS that are technically feasible and cost effective.

Hydro One recognizes that a lower threshold may be warranted in a future iteration of the guidance, or a deferred effective date may be set for a lower materiality threshold. Hydro One recommends a minimum of four years of experience (from the proposed BCA Framework effective date of 2026 rate year in the draft Handbook) with Hydro One's proposed materiality threshold before a lower threshold is established.

Proportionate BCAs

Hydro One recommends that the Handbook state specifically that level of detail expected to be provided within the BCA be proportional to cost of the NWS. Again, this recommendation is intended to ensure that utilities are spending their time optimally.

Streamlining discretionary BCAs

In the Handbook, the current draft proposes a distinct methodology for projects deemed to be discretionary, outlined in Section 3.2.3. It states, “the net present value of all alternatives is compared in the BCA, and the option (including the do-nothing option) with the highest net present value is determined to be the most economically viable or cost-effective solution.”

For discretionary needs, the likelihood of a BCA producing a positive net outcome for an NWS on a quantitative basis is very low – for the simple reason that any course of action (including an NWS) involves *some* level of investment, whereas the “do nothing” does not. Hydro One observes that, compared to “do nothing”, discretionary investments are driven primarily by qualitative considerations, such as customer outcomes that are fundamental to the *Renewed Regulatory Framework for Electricity Distributors*. When a discretionary need is addressed, it is because the “do nothing” option has already been assessed and discarded as a suitable course of action. Planning considerations for this decision are broader than the BCA framework and are already well established within expectations of distribution system planning and the filing requirements and guidance pertaining to those activities.

Hydro One recommends streamlining how the BCA deals with discretionary projects, and instead allow current regulatory guidance expressed through distribution system planning requirements and guidance to persist. Hydro One anticipates that its actions in this area can already be tested by adjudicators and the methods proposed in the Handbook will make it more challenging and labour-intensive to justify NWS.

Staging regulatory guidance in the Handbook

To ensure utility planning processes can evolve and scale with the pace of DER deployments, the parameters of the Handbook should provide utilities with time to integrate changes that will lead to the adoption of new solutions, test and learn from these alternatives, and finesse the processes to deploy, assess, and evaluate these solutions. The OEB's draft framework can be staged to evolve its own requirements as we collectively learn when and how NWS can feature in distribution system planning.

CONCLUSION

Hydro One thanks the OEB and Guidehouse for sharing the second draft of the BCA Handbook. We look forward to the completion and release of Phase 1 of the BCA Handbook. Hydro One would also welcome the opportunity to meet with OEB staff to further elaborate on these comments.

Sincerely,

Kaleb Ruch

APPENDIX: SECTION-BY-SECTION REVIEW OF THE DRAFT BCA HANDBOOK

Section #	Title	Feedback to OEB
Section 1: INTRODUCTION		
1.0 – 1.1	INTRODUCTION & BACKGROUND	Hydro One recommends including a definition of NWS in the Handbook that aligns with the FEI Final Report, and that is inclusive of DERs in the broadest sense (e.g. generation, storage) and CDM (e.g. energy efficiency and demand response). This will help clarify that an NWS could encompass a range of technologies and/or programs to meet a system need.
Section 2: PURPOSE AND USE		
2.2	CRITERIA FOR USE	Hydro One recommends setting the materiality threshold at $2 million. Hydro One recommends the requirement for consideration of NWS be limited to System Service. For System Renewal, System Access, and General Plant, the Handbook can suggest utilities to include NWS for system needs, if those needs are eligible for an NWS from any category. Requirements for consideration of NWS can be revised when the use cases and iterations of NWS are better developed, tested, and comprehended. Please refer to the cover letter for a detailed explanation.
2.3	INTERPRETING BCA OUTCOMES	Hydro One recommends moving footnote 8 [“Or conversely, that a traditional infrastructure solution is still preferred, despite a passing BCA score for an NWS”] to the main body of the paragraph. It would help to clarify that any type of solution that is marginally non-cost-effective can be considered, with supporting rationale.
Section 3: GENERAL METHODOLOGICAL CONSIDERATIONS		
3.0	METHODOLOGICAL CONSIDERATIONS	Hydro One recommends that the Handbook clarify how qualitative considerations will be assessed against quantitative considerations, for cases where the benefit can’t be quantified but should be considered.
3.1.3	DIFFICULT TO QUANTIFY AND QUALITATIVE IMPACTS	Hydro One recommends that the reference “to follow the process recommended by the NSPM” be removed and useful guidance be directly incorporated in an Appendix within the BCA Handbook. This would clarify considerations for distributors and avoid issues with NSPM document version control (which is outside of OEB’s scope).

3.1.4	SYMMETRICAL TREATMENT	In reference to the first example provided in this section, Hydro One recommends that the OEB provide additional clarity on the DST and EST treatment of NWS benefits beyond forecast needs.
3.1.5	INCREMENTAL ANALYSIS	Hydro One submits that there may be scenarios where double counting of incremental value streams may occur. An example of such a case is an embedded LDC and/or IESO implementing a DR program within Hydro One's service territory. Unless this information is shared in an organized manner, double counting of incremental value streams could occur. For the last example of this section in the Handbook, Hydro One requests further clarity on why the benefits from the energy savings from thermostats cannot be claimed in the EST.
3.2.2	NET PRESENT VALUE / DISCOUNTED CASH FLOW ANALYSIS	Hydro One recommends the Handbook allow flexibility for utilities to adopt the social discount and inflation rates used in their WACC, per their most recent rate filings.
3.2.3	DISCRETIONARY VS. NON-DISCRETIONARY SYSTEM NEEDS	Hydro One recommends streamlining how the BCA deals with discretionary projects. Please refer to the cover letter for a detailed explanation. Regarding the passage on page 16 that "a common use-case of NWSs, however, is for deferring non-discretionary capital investments," Hydro One submits that this has not been the utility's experience with use-cases of NWS. So far, Hydro One has observed that viable use-cases for NWS are generally to address what the utility would consider to be discretionary needs.
Section 4: DISTRIBUTION SERVICE AND ENERGY SYSTEM BCAs		
4.2	ENERGY SYSTEM TEST	On a preliminary basis, Hydro One recommends that the Handbook provide guidance on when utilities may conduct an EST. In some cases, DST impacts may not necessarily result in EST impacts (or they could be negligible on a project-by-project basis). Alternatively, material benefits on a project basis or aggregate basis from a distributor's total NWS program may be considered for EST.

		Also, when considering the EST impacts, Hydro One requests additional guidance to clarify the cost and benefit allocation between the distributor's ratepayers and other EST beneficiaries. In the current draft, Hydro One is unclear on how the benefits and costs should be considered when a distributor performs an EST, and how costs to EST beneficiaries should be allocated for EST benefits, while proportionately reducing costs to the distributor's ratepayers.
Section 5: BENEFITS AND COSTS		
5.1.1.1	DISTRIBUTION CAPACITY (DEFERRAL OR AVOIDANCE BENEFIT)	For the Marginal Capacity Value calculations on page 28, Hydro One recommends the Handbook allow flexibility for utilities to adopt the social discount and inflation rates used in their WACC, per their most recent rate filings. Hydro One recommends including examples (with numbers) for each formula and parameter used in the calculations, as an Appendix to the Handbook. This will help provide greater clarity and allow utilities to validate their calculations.
5.1.1.2	RELIABILITY (NET AVOIDED OUTAGE COSTS)	On a preliminary basis, Hydro One recommends that additional guidance be provided on capturing multiple value streams that could be realized by NWS (DER) solutions, as a secondary benefit, which may not be associated directly in addressing a reliability need but improves reliability. These secondary benefits could be used to justify the cost of NWS that rank similarly or slightly higher than a traditional wires solution.
5.1.1.3	RESILIENCE (CRITICAL LOAD BENEFITS)	Hydro One recommends that the Handbook clarify the distinction between resiliency and reliability.
5.1.1.4	INNOVATION AND MARKET TRANSFORMATION	Minor edit to the statement: "Electricity distributors ~~requesting~~ **may request** that costs be excluded from the cost-effectiveness test on the basis that such costs are associated with "leveling the playing field" (i.e., market development)."
5.1.2.1	NWS ACQUISITION COSTS	In the DSC, certain costs to connect a renewable generator to the system are classified as REI (renewable enabling improvements). Hydro One requests that the OEB clarify the treatment of acquisition costs for NWS that

		involve the connection or acquisition of renewable generation that results in REI investments.
5.2.1.2	TRANSMISSION CAPACITY (DEFERRAL OR AVOIDANCE BENEFIT)	Similar to the proposed methodology for assessing distribution benefits, distributors should be able to consider transmission capacity benefits (even if weighted differently as a secondary benefit), even if the need to increase transmission capacity does not exist. Hydro One requests additional guidance on the allocation of NWS costs to transmission customers where transmission benefits are realized.
Section 6: FILING REQUIREMENTS		
6.1	FILING FORMAT / TEMPLATE	Hydro One requests the OEB clarify whether utilities have the flexibility to use their own template, provided it uses the same inputs and calculations.