Alectra Comments on the Proposed BCA Framework

Electricity demand is increasing in Ontario and is expected to continue to do so through 2050, due to the demands associated with electrification, an increasing population, and economic growth. Investments in non-wires solutions ("NWSs" or "DERs") can assist in cost-effectively meeting demand needs and/or defer the need to invest in traditional poles and wires solutions. In addition, NWSs offer potential to alleviate station capacity issues. There may be circumstances where an NWS solution might meet a defined need directly, or other cases where a NWS solution is stacked on top of a traditional solution to bring about enhanced benefits. In short, the use and benefits brought about by greater introduction of NWSs into distribution operations may be as varied as the number of situations that arise.

Alectra is a strong proponent for evolving Ontario's electricity sector, of which the introduction of more and varied uses of NWSs will be a key item. To that end, Alectra is pleased to see the BCA Framework evolve, and notes that these first steps are very important in order to make the vision of sector evolution a reality. The establishment of a common framework used by all sector participants to understand and evaluate opportunities or to curtail or mitigate risks is a necessary and fundamental beginning. It is a very important step towards ensuring transparency and efficient outcomes that will serve all users of distribution system networks.

In Alectra's view, much of the foundation of what has been presented as the BCA Framework (or simply the "Framework") suits the needs and purpose of what is intended. There is much good work in this initial proposed Framework. While that is the case, Alectra does have some concerns about what implementation of the Framework will entail and the expectations that will be placed on distributors as a result. In this regard, Alectra believes the OEB should apply a "walk before we run" philosophy.

Alectra's comments below offer remarks on both domains – those where Alectra sees positive development and which are steps in the right direction, and areas where further policy certainty would be of benefit for the sector.

Positive Elements of the BCA Framework

For the most part, the Framework achieves what it sets out to do. In particular, the sentiment from the report below captures this point effectively:

> *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.*

As stated in the FEI Report, it is not the role of the OEB to increase or accelerate NWS adoption, or to choose one technology solution over another.

Many of the features that are discussed in the Framework advance achievement of these outcomes by moving the policy forward and providing sector participants a better understanding of what is expected and how evaluations will be conducted.

Specifically, Alectra's view is that the structure for evaluation of NWSs is appropriately established through the Framework. The application of the Framework to either projects or programs is appropriate, and from there the distinction between discretionary or non-discretionary needs facilitates the establishment of an suitable reference case against which to evaluate alternatives. It makes intuitive sense that where a project or program is discretionary that it would be evaluated against competing alternatives, while for non-discretionary needs that require some action, the evaluation would be in reference to what would otherwise be the traditional solution.

Further, the enumeration and description for the types of benefits and costs that are to be evaluated are also appropriate. The lists generated for each type of benefit or cost captures the likely universe of possible outcomes and offer enough breadth and depth to cover additional items if or should they arise. The acknowledgment of various types of risks and the inclusion of elements such as market transformation or innovation are also positive. They demonstrate a recognition that the application of this evaluation Framework is new ground for the sector.

The Framework is also enhanced by the flexibility apparent in a variety of ways throughout the Framework. Flexibility is very important as the sector engages in what is essentially new territory and will have impacts that may affect generations to come.

In particular, the Framework builds in the flexibility to consider different kinds of benefits and costs and recognizes that there may be times when qualitive costs or benefits might require consideration. This may be especially helpful as distributors deploy technologies that they have not traditionally used in the past. That the Framework builds in the flexibility to help guard against unintended consequences allows for projects to be introduced in measured and conservative ways, which could potentially reduce long term risks and costs for all ratepayers.

The distinction between the Distribution Service Test ("DST") and the Energy Service Test ("EST") in the proposed Framework is also helpful. The distinction will help to appropriately categorize different evaluations and ensure that the beneficiary pays principle can be applied most effectively so that those who benefit from investments are those who carry the cost.

It is this application of flexibility which is so necessary as the sector embarks on the application of new ways of approaching system planning, and new assets used in the field that prompt Alectra to suggest that the OEB apply the same logic to additional elements of the Framework.

Opportunities for Further Enhancement

There are three main areas where Alectra recommends the OEB consider opportunities to further embed a 'walk before we run' philosophy:

1. Scope and Applicability;
2. Expectations and Timing; and
3. Enabling Infrastructure.

1. Scope and Applicability

Pre-Assessment Stage

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.*

It is positive that the Framework is intended to apply to projects that exceed a distributors' materiality threshold and that utilities are afforded flexibility to apply discretion for projects that do not exceed the materiality threshold. Further, Alectra also believes the Framework correctly allows for the application of pre-assessment screening to filter out projects where a NWS would just not be feasible. It is also suitable that such pre-assessment not be specifically prescriptive, allowing for utilities to assess how and what conditions might guide such pre-assessment.

The way the Framework is currently drafted, there is ample flexibility to apply pre-assessments, and in Alectra's view this is a positive attribute of the Framework, which should be maintained. It may be, given the circumstances or issues facing any given utility at a given time, that the pre-assessment could be applied to ensure that the distributors' focus is directed at those NWS opportunities that carry the highest potential. For example, even though there may be some applications that technically have a viable opportunity to consider a NWS, there may be reasons to believe that the benefits are limited, or the costs much higher, relative to other opportunities. In such cases, it may be appropriate to use the pre-assessment phase to indicate where the highest priorities or biggest bang for the buck could be attained so as to rationally or reasonably limit the universe of alternatives, if necessary.

In other words, a pre-assessment might identify a number of candidate investments, but some candidates may not be as promising as other candidates. As a result, the distributor could use the pre-assessment phase to focus its attention and resources to the right projects. All of which

is to say that the application of the pre-assessment stage is helpful for allowing utilities to apply focus and resources in the right way to the right opportunities.

Feasibility

Alectra would note that in its experience there are a number of applications or conditions where consideration of a NWS simply won't be feasible. For example, the Framework already indicates that general plant projects are to be excluded, which is entirely logical and reasonable. Additional categories for exclusion may often apply to system renewal investments, such as cable replacement.

Another example might include the construction of a transformer station, which will necessarily require a wires solution. Often, these projects will be reviewed and considered with the IESO as part of the Integrated Regional Resource Plan ("IRRP") process. This process includes an assessment for the viability of NWSs. The IESO conducts an options development and analysis exercise and gives consideration to all wires and non-wires solutions that could meet a need, including conservation, local generation, and infrastructure expansion options. In these situations, the distributor wouldn't be able to add further value to the process by performing an additional BCA, and the pre-assessment should simply indicate this.

Another factor that the pre-assessment stage might consider is that a NWS is not available for consideration when a public road allowance or a property easement is not available, thereby rendering a NWS alternative not feasible in the timeframe under consideration. Sometimes these issues can take years to flesh out. In Alectra's experience, it is sometimes more feasible to consider NWS opportunities for greenfield developments, where new infrastructure is being installed.

Not all investments should require BCAs, and the field should include the ability for exemptions where it may be appropriate. For example, certain system renewal projects involving refurbishment or replacement of lines may not always be good candidates to consider NWSs. In this regard, Alectra is pleased to see that the Framework offers ample flexibility, which will allow utilities to conduct a pre-assessment and to provide comments where opportunities are, or are not, available.

2. Expectations and Timing

Critical to the 'walk before we run' philosophy is the time it will take for distributors to build up the necessary skill sets, experience, and expertise in evaluating, implementing, and operating NWSs as key features of distribution system operations. Alectra also has questions of a practical consideration, concerning when, where, and how to file BCA evaluations.

Experience and Expertise

The flexibility offered in the Framework will be crucial in allowing utilities to ramp up their expertise and experience with evaluating, and ultimately operating NWSs to achieve a variety of objectives. While Alectra believes this is fundamentally required to ensure the sector evolution unfolds in a way that offers increased value for money for ratepayers, some caution is necessary. Utilities will need time and resources to build these capabilities.

In particular, the main concern is that the sector not rush to adopt NWSs to simply fulfil an OEB mandate for BCAs. The application of NWSs in place of traditional solutions may impact reliability or resiliency in ways that are not completely understood, or to degrees that may require further evaluation or study. Mitigation or 'plan b' strategies may need to be formulated if there is a risk that the technology fails to deliver what is intended. In the case of third party owned solutions, there is the additional risk that the vendor fails to deliver on its contractual obligations that would require the utility to backstop in the case of operational failure.

The evaluation and application of NWSs in place of traditional assets is a new discipline and comes with new costs and risks that need to be carefully evaluated before they are deployed at scale. Utilities will need time to ramp up their technical expertise. As this experience is gained, as DERs begin to proliferate more widely, the possibilities, the risks, and the costs will become more clear and more reliable. The costs and expectations, as well as the operational risks and contingency plans will allow for more stable and standardized approaches.

OEB Expectations

The Framework establishes the expectation for applying BCAs as follows:

> *BCAs are to be prepared for each specific system need and are not to be applied on a system-wide basis. This may be provided as a standalone document that accompanies an application or be embedded directly in an application or utility distribution system plan (DSP).*

As discussed above, the distinction between discretionary and non-discretionary projects or programs is useful in orienting the evaluation of reference cases. One complication that Alectra foresees, however, is that needs may (likely will) evolve over time. Specifically, what may be considered discretionary at one time may become non-discretionary in the future as conditions change. Conditions may not always change as forecast or expected. For example, capacity requirements, load growth, or asset conditions may all evolve in unforeseen ways, necessitating some action, where previously a 'do nothing' alternative might have been available. This may cause a need to then conduct a BCA test where one was previously not conducted.

As per the situation above, it is unclear whether a BCA test would be required to be filed at a point in time after a DSP has been produced or filed at the next rebasing. For that matter, the BCA Framework indicates that BCAs should be conducted as part of, or in conjunction with, a

distributor's DSP, but what is not clear is how or when a BCA should be conducted for projects that fall between DSPs or for projects that do not fall within the ambit of a DSP. Examples of this might include system growth and expansion projects, projects for which the magnitude of a need has changed since the DSP, or projects that only emerge or become apparent after a DSP, but for which an ICM is not feasible.

Alectra believes the sector would benefit from more clarity regarding the frequency and forums within which utilities should file BCAs.

Timing

Alectra believes the OEB should reconsider the timing for applicability. As written, the expectation is that distributors would be expected to file a full suite of BCAs in conjunction with their DSPs for rate cases filed for the 2026 rate year. That effectively means that BCAs need to be conducted this year, and relatively soon, for inclusion in the DSP which would be filed in 2025 for inclusion in the application for rates beginning 2026. In Alectra's view that is a miscalculation that should be remedied as this Framework moves towards finalization.

There are risks to moving forward if the operational conditions and outcomes are not fully planned for. Presently, utilities lack the full suite of resources and skill sets that will be required, and the entire sector will benefit from experience gained, both in conducting evaluations, and from the application of NWS technologies in meeting system needs. Given these conditions, Alectra recommends the OEB temper its expectations to some degree. Distributors can and should begin applying BCA evaluations and bringing those forward to the OEB with DSPs, however, a more measured pace is in order.

Some latitude for timing is reasonable since, as above, it will require new skill sets and will also involve new technologies and new operating dynamics in some cases. The adoption of these new skill sets, and new technologies will occur at precisely the time that demand is increasing due to uptake of electric vehicles and due to electrification, and as customers and authorities are also establishing new perspectives on reliability and resiliency.

3. Enabling Infrastructure

Alectra envisions a future where DERs become more fully integrated into distribution system operations in ways that bring more flexibility, reliability, resilience, and value to customers. Doing so may necessitate new roles or accountabilities for distributors in providing enhanced service. Whether for distribution service, or to accommodate greater customer adoption of DERs to meet their own needs, what is clear is that more DERs result in greater calls on the grid for 2-way power flows resulting in a greater need for system oversight and control. Certain enabling infrastructure will be required to facilitate enhanced oversight and control capabilities.

In particular, Advanced Metering Infrastructure and Advanced Distribution Management Systems ("ADMS") will be required to accommodate higher volumes of DER participation. Currently, DER connections have been at a small enough scale, which has allowed for the use of manual processes to manage and control the interconnections. However, as more connections are introduced, greater capabilities to manage and control load will be imperative. An ADMS would enable distributors to forecast and manage the demand on the distribution system among many connected DERs, provide grid services, identify load shifting opportunities, and provide emergency demand response capabilities.

Alectra believes that such enabling infrastructure will be a requirement in the near future and that the activation and implementation of such capabilities will enhance value for all ratepayers by unlocking capabilities not otherwise available. Accordingly, the cost of such enabling infrastructure should necessarily be borne by all ratepayers. Said differently, the cost of such enabling infrastructure should not be applied to individual specific NWS projects as the beneficiary of the capabilities will be applied to all system users. The implementation of this enabling technology will also facilitate more customer owned DERs within a distributor's service territory.

Conclusion

In summary, key points raised in Alectra's submission are the following:

- Application – Not all investments should require BCAs, and the field should include the ability for exemptions through the pre-assessment phase, as may be appropriate. For example, regional planning undertaken with the IESO already considers NWSs when evaluating alternatives for Transformer Stations. In addition, certain system renewal projects involving refurbishment or replacement of lines may not be good candidates to consider NWSs.

- Experience – While Alectra fully supports greater integration of DERs as NWSs into distribution system operations, to date there has been little real world experience. It will take some time to gain experience managing operational variability and risks. It will also take time to procure and contract for the provision of assets or services.

- Expectations – the field of potential evaluations should be narrowed, at least for the first few years of implementation. It will take some time for utilities to build the skill sets, knowledge and expertise necessary to properly evaluate NWS alternatives.

- Timing – The OEB's expectation that every project that exceeds the materiality threshold include a BCA to consider NWSs by the 2026 rate year should be tempered. The OEB should expect that full scale deployment may take several years.

Specific items that Alectra believes greater clarity would benefit the sector include the following:

- Whether the OEB expects BCA materials to be filed in any circumstances outside an ICM or a Cost of Service application. Where a need has emerged or changed in between DSP/ICM submissions, does the OEB expect BCA materials to be filed?

- Whether BCA assessments must be completed for every project above the materiality threshold, or if general exclusions apply – for example, System Renewal projects. Alectra would prefer that broad discretion be allowed through the pre-assessment screening phase.

- Whether the OEB intends to issue guidance with respect to the implementation and cost recovery associated with enabling infrastructure globally, or if this will be handled for each distributor on an individual basis.

- Whether the OEB agrees that the implementation timeline associated with BCA framework can be tempered to more realistically expect a phase in over several years to allow distributors to enhance knowledge and experience in respect of NWS alternatives.

Alectra thanks the OEB for the opportunity to comment on this important policy file.