November 26, 2024

Donald Lau
Manager, Electricity Distribution
Ontario Energy Board
2300 Yonge St, 27th Floor
Toronto, ON M4P 1E4

Dear Mr. Lau,

Re: **Vulnerability Assessment & System Hardening (VASH) Project EB-2024-0199**

The Electricity Distributors Association (EDA) represents Ontario's local hydro utilities, the part of our electricity system closest to customers. Publicly and privately owned utilities, otherwise known as local distribution companies (LDCs), deliver electricity to residential, commercial, industrial, and institutional customers—powering every community in the province. The sector owns more than $30 billion in electricity system infrastructure and invests more than $2.5 billion annually in the electricity grid.

Our members are directly impacted by the Vulnerability Assessment (VA) proposal, and the planning of their systems for climate related matters and vulnerability are of the highest importance to ensure our customers receive reliable energy, and fast restoration of any interruption unforeseen. This submission provides the comments of our members on matters arising in the VASH proposal.

VASH Stakeholder Session #3 & EDA Member Meeting:

At the October 21st stakeholder session, the Ontario Energy Board (OEB) and its consultants, Guidehouse, presented a summary of September Stakeholder Meeting Feedback and a proposal for VA deliverables including an excel sample toolkit and timeline. To support the pathway forward for VA work, OEB staff brought with them a vulnerability assessment toolkit (VA Toolkit) which was designed to support LDCs as an option for streamlining the identification of vulnerable asset classes and locations.

During this consultation we noted the importance of the VA proposal to our members and offered an opportunity for OEB staff to bring this working proposal to our membership in an EDA-hosted virtual meeting. We hosted this virtual meeting for LDCs on November 12 and the session was well attended by our LDC membership, bringing with them a diverse range of LDC staff from departments that could provide valuable feedback for the OEB pertaining to system planning and asset management. This stakeholder session was very well received, and on behalf of all our members, we extend our appreciation to the OEB staff for attending and presenting materials, engaging directly with our members through our invitation to consult, and allowing for written feedback on the VA proposal.

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When we asked our members if they used a similar process for evaluating their asset vulnerabilities in their system, there were varying degrees of methods used to perform this task across the sector for system planning. Most LDCs used asset condition assessments, and engineering analysis in accordance with the latest CSA standards for items such as wind/ice loading. While there are aspects of the VASH concepts which are proposed by OEB staff, our findings indicate there are widely diverse elements used in each individual LDC's internal assessment methodology. There are also members who do not have an existing formalized process which would meet the criteria outlined by OEB staff. Some indicated use of an asset-based approach for vulnerability, but this certainly was not a large percentage.

The OEB's approach to VA is based on reaching a threshold for asset failure, while those LDCs that perform the closest variation of VA is based on reaching asset limitations. Our members note that relatively limited information exists with respect to asset failure, and distributors would typically need to rely on asset limitations as a proxy for asset failure. LDCs currently undertake a variety of methodologies to achieve these ends, and generalizations should not be made with respect to either current practices or how to amend those current practices. As a result, we advise the OEB to consider varying degrees of readiness in the evaluation and development of vulnerability assessment (VA) materials, and the implementation timeframe as the consultation progresses.

The following submission is organized by the OEB's discussion questions directed to stakeholders during the VASH consultation pf October 21:

(1) Requirements, Efficient Proceedings, Consistency and Regulatory Certainty
(2) Standardized Climate Inputs
(3) Considerations for Flexibility, Implementation Timelines, Costs, Training

(1) Requirements: Efficient Proceedings, Consistency and Regulatory Certainty:

OEB Question: What requirements on the approach to vulnerability assessment will best support efficient proceedings, appropriate consistency in OEB decisions, and lower regulatory uncertainty for applicants?

EDA Response:

We greatly appreciate the OEB staff and their consultants presenting a draft set of criteria and the example of a vulnerability assessment toolkit for stakeholder consideration and discussion, and we don't have an issue with the proposed criteria. That said, some members have existing methodologies for vulnerability assessments, and we recommend that the OEB maintain the flexibility for LDCs to propose alternative approaches to the OEB's templates/standard approach. Such flexibility will permit regulatory efficiency while maintaining cost and resource efficiency for distributors that have already invested in the development of a framework, while conversely those that have not yet ventured into depths of implementation are able consider the use of sample methodologies.

We support the OEB's work, and offer the following recommendations to further refine the development of VA that will best support **efficient proceedings, consistency and regulatory**

certainty while avoiding unnecessary levels of regulatory burden (subject to the flexibility considerations outlined above):

- Standardized templates as a sample starting point/example (such as the VA Toolkit), with examples of predefined uniform categories and guidelines for climate perils and asset classes/sub-classes, which also accommodate some degree of flexibility for each LDC's unique planning considerations. This should be a standard baseline approach that would meet filing requirements, while also not being overly restrictive or prescriptive to balance outcomes which meet LDC specified needs. LDCs that wish to use their own thorough approach, can build off this example, and file them in a manner that suits their VA needs.
- Industry-accepted data inputs (e.g. from Environment Canada) and methodologies (e.g. how the OEB developed the climate peril probabilities) so that these don't become the topic of arduous debate during rate applications. These should be documented in clear language and include guidelines for their usage.
- Guidance around the categorization of assets into generic groupings (such as Above Ground, Below Ground, etc.) consistent with Fixed Asset Continuity Schedules could help to provide more uniformity in assessing results.
- Guidance outlining classifications for categorizations of vulnerabilities specific to geographic locations will help produce and balance a consistent approach to VAs across the province.
- A precise definition for "High Impact Low Frequency" (HILF) events, specifically in the context of VASH, which is well understood and appropriately scoped through the stakeholder process.
- A precise definition for the range of the 'value of lost load' to be used in the quantification of risk evaluation, prior to establishing a requirement to file VA.
- A summary of guidance, that indicates acknowledgement of underlying assumptions can be made by the LDC based on geographic region, groupings, or external factors, e.g. climate, or sub-regions.
- The establishment of the evaluation criteria, which will help to contain the scope of review within rate applications. The evaluation criteria should be specific and relate directly to the intention and outcomes of the VASH policy.
- Set of Guidelines from the OEB, such as Chapter 5 requirements, Asset Condition Assessment, and expected inputs.
- Guidance for input data and calculation methodologies for the proposed toolkit, heatmap and standard framework.
- Guidance on how to approach and interpret risk evaluated outcomes would be valuable to ensure that LDCs understand the framework within which they are operating and will be evaluated. This will ensure that the risk scores in the heat maps are interpreted and evaluated consistently, within each geographical categorization.

We believe that the outcomes of VASH assessments should be tied directly to an LDC's asset management program, customer preference, and investments in System Access, Renewal and Service projects. As VASH is intended to be an assessment of potential vulnerabilities in the LDC's service area, outcomes of a vulnerability assessment should have a tie in to system planning and the resulting proposed and CAPEX/OPEX investments that address vulnerabilities that exist beyond the threshold for risk tolerance.

(2) Standardized Climate Inputs:

Question: To what extent will expectations for standardized climate inputs help to achieve the outcomes above, and how should standardization be balanced against the requirement for asset owners alone to manage risks associated with their assets?

EDA Response:

We recommend that standardization be balanced with preserving flexibility in other aspects of the vulnerability assessment, to allow the framework to be applied effectively to the diverse LDCs in Ontario. In addition, as with the comments provided above, we also believe that guidance from the OEB providing a sample listing of acceptable data sources for climate peril forecasts, climate science and standardized definitions of asset failure thresholds, would help to achieve a level of consistent outcomes in the initial rollout of VA. Standardized climate inputs, particularly for High Impact Low Frequency (HILF) events would assist LDCs in providing data in a cohesive manner, ensuring comparability across LDCs and assurance to OEB and intervenors that LDCs are performing satisfactory VA evaluations**. We recommend that to balance this requirement for asset owners to manage risks associated with their assets, and customer preferences, the OEB must develop a VA process which includes localized adjustments (exceptions categories) to ensure relevance to specific regions and certain assets, in recognition that not all LDCs face the same or similar risks, and that some variations in risk tolerance may exist from one distributor to another (and their respective customer bases).**

LDCs will also benefit from standardized climate data inputs for use in their VA analyses. It is our evaluation that reliance on climate projections for HILF events may present specific challenges in predicting vulnerability events, which are at this time, considered difficult to forecast. For example, it was noted during the stakeholder session that wind factors can only be predicted with extremely low levels of confidence and as a result, this is expected to be complex as there are significant limitations on probability impacts particularly for much larger geographic regions. Forecasting climate peril probabilities is a net new capability LDCs will have to learn and develop. OEB staff indicated that flexibility in approach to VA assessments should be a cornerstone, and we concur.

However, without consistent use of certain data inputs, where achievable, this could result in the unintended consequence of debates regarding these assumptions in every single rate case. It was noted during the OEB's October 21st VASH stakeholder meeting, that a balanced approach to this is providing an accepted list of OEB's acceptable data sources/methods for developing climate peril probabilities to streamline rate applications and allowing LDCs to provide additional considerations based on their expertise as the asset owner. We agree with this sentiment.

We recommend that a balanced approach for standardization could be limited to focus on major assets that have a significant impact on reliability and customer service while considering the unique characteristics of each utility. It should provide the OEB with consistent information for oversight while ensuring asset owners remain accountable for system assessments and risk management. Even with standardized data, the output of the vulnerability assessment is just one piece of the assessment used in making an investment recommendation.

Stakeholders should also consider how customer preferences are evaluated and tied to the final investment proposal. For example, a pole could have a very high vulnerability, but if it is at the end of a feeder with very few customers and doesn't have additional equipment attached to it, the LDC may choose not to replace it (especially if its performance has withstood climate perils for its life to that point). While we support the development of the framework to evaluate vulnerability, decision making and investment prioritization needs to rest with system planners such that planning can be balanced and can appropriately consider and manage the wide array of competing demands on the system.

(3) EDA Considerations for Flexibility, Implementation Timelines, Costs, Training

Flexibility:

We are thankful that OEB staff have recognized the need for flexibility concerning the development and application of VA. In the general stakeholder sessions #1 and #2 we emphasized our concerns for establishing criteria that are restrictive or burdensome and that don't align with system planning processes. This is critical because LDCs across the province represent various sizes, differences in geographic considerations, and in asset mixes. As a result, the toolkit should be flexible, allowing for the use of internal and external data sources and permitting customization. LDCs would request continued confirmation that use of the toolkit as provided is not mandatory and distributors may propose their own alternative methodologies.

We are pleased that OEB staff's proposed tool provides flexibility for LDCs to model VASH in a way that allows for consideration of unique conditions or circumstances. **We also recommend that the OEB's expectations for risk-based vulnerability assessment remain broad to allow consideration of climate risks not specific to HILF events, and which can be applied to each LDC, based on size and service territory. As OEB staff will know, some utilities in Ontario have very defined and specific service areas within a specific geographic region, and others have service territories that span over several geographic regions or are in differing time zones.**

We appreciate the OEB's efforts to develop a VA Toolkit Heatmap for LDCs to sample and believe this toolkit will evolve naturally over time with more experience, depending on how the trends of each LDC balances and accounts for customer engagement needs, vulnerabilities and investments over time. Moreover, we support and welcome the proposed VA approach that allows for flexibility for LDCs to provide more detail, and to commission outside consultants if need be.

Implementation Timeline:

During the stakeholder session we noted that OEB staff intends to introduce the VA framework to Chapter 5 filing requirements in 2025 for 2026 rate applications. Based on our assessment of our members' readiness, we do not believe that this is enough lead time. It will take some time for LDCs to categorize the inputs for inclusion in a rate filing, and to analyze the outputs for inclusion in a rate application. ***The lead-time required for a major, complex application is significant, and we recommend that more time be allowed for implementation, to allow LDCs to consider and implement this new framework within the spirit with which it is intended.*** The current timing does not permit the meaningful completion of a VA, with associated planning outcomes appropriately taken into consideration in distributors' planning. Distributors are concerned that the

quality and/or timing of application materials for 2026 filers may decline as a result of the requirements, if implemented as proposed.

For those LDCs that are preparing 2026 rate applications, they may have already begun writing and planning parts of their application, or are near the completion of the distribution planning, budgeting and customer engagement which informs major areas of the application (noting that January 1, 2026, rate filings are 5 months from their deadlines). As well, as noted earlier, while members are supportive of VA work, there are varying degrees of readiness in the sector. Therefore, we believe that it is premature to introduce the VA requirement to rate application proceedings prior to establishing the final framework, inclusive of specific guidelines and expectations. LDCs require an appropriate amount of lead time to produce a VA robust enough to be scrutinized in a rate proceeding. Without clear guidance LDCs will be challenged to update their investment plans based on an unclear criterion.

As a result, the earliest implementation date we recommend OEB consider for introducing VA requirements to chapter 5 is 2027 for 2028 rate applications, assuming the consultation, the framework, and resulting guidance are released in Q4 of 2025 or later. This would allow a suitable period for LDCs to plan, budget, resource, prepare inputs and begin to analyze VA evaluations for application purposes. Additionally, we encourage OEB staff to consider the varying readiness of LDCs within their planning cycles. Therefore, a deferral of a start date could be considered acceptable for the initial filing of VA, which was considered an accepted practice in the staggered roll out of DSPs into LDC rate applications.

Third Party Cost Consideration:

We believe that the VA framework should be developed in a manner that is both cost effective and provides enough direction to promote streamlined processes for internal preparation and evaluation. We appreciate the OEB staff's efforts and understanding in this regard.

Additional costs may arise from engaging third-party expertise to complete the assessments, for staff training, for adapting internal systems, and/or for procuring data (e.g., climate forecasts) for detailed analyses. The current proposal guides LDCs to begin vulnerability assessment models from the ground up, including compiling and developing required data inputs, analysis of the results, sensitivity analysis, model calibration, ongoing data maintenance and management which will require substantial resource allocation.

Until a final framework is established, it will be difficult for LDCs to produce credible cost estimates for undertaking this new work. LDCs will also require a clear understanding of timelines and frequency for any potential future filing reporting requirements (e.g.: Cost of Service, annual RRR monitoring, scorecards, etc.) which will also impact resource planning and cost estimates. LDCs would also appreciate clarity regarding the frequency of updating a VA. Many aspects of a Vulnerability Assessment, once completed, are unlikely to change over a five-year span.

Industry Training:

We recommend that once the OEB VA toolkit and VASH guideline materials have been developed, OEB staff conduct stakeholder training sessions. As this is a new venture for stakeholders, our members would appreciate training sessions hosted by the OEB or its consultant, Guidehouse, to

walk stakeholders through the calculations for climate peril probabilities, and how they are to be populated based on the sample toolkit, and importantly, what conclusions should be drawn from the evaluation. Training will support consistency across the sector by promoting common understanding, and explanations of the toolkit approach will help all stakeholders better understand the expectations (and limitations) of the exercise.

Summary

We support the OEB in its first steps toward the VASH framework, specifically by including consideration to allow for flexibility. We believe the recommendations outlined in this submission represent thoughtful contribution to this initiative, and we hope that it is helpful for the OEB staff to consider as they continue to evolve an appropriate methodology for the vulnerability assessment process. This initiative is very valuable for ensuring that assets will operate as expected during adverse weather events, to enhance reliability and resiliency, and LDCs have a shared desire to build a framework that will be beneficial for all Ontarians. Allowing the work to unfold in a phased approach will provide benefits to the process for protection, cost savings, and implementation of the assessment framework and establish a more successful roll out for the industry.

Thank you once again for the opportunity to comment on this proposed development of electricity utility vulnerability assessments. We look forward to continuing to partner with the OEB on this project and offering valuable LDC feedback. Should you have any questions on this submission or require clarification, please do not hesitate to contact Brittany Ashby, Senior Regulatory Affairs Advisor, at bashby@eda-on.ca or at 416.886.4420.

Sincerely,

Ted Wigdor
Vice President, Policy, Government & Corporate Affairs