June 20, 2025

Mr. Ritchie Murray
Acting Registrar
Ontario Energy Board
2300 Yonge St, 27th Floor
Toronto, ON M4P 1E4

Dear Mr. Murray:

Re: **Total Cost Benchmarking Update (EB-2025-0102)**

The Electricity Distributors Association (EDA) represents Ontario's local hydro utilities, which are 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. Our members are directly impacted by the analysis and assumptions that will be derived from the consultation named above.

The current Total Cost Benchmarking (TCB) method that the OEB uses to assess the performance of each utility has not been updated since 2013. This consultation is aimed at renewing the 2013 benchmarking methodology, which is expected to incent LDCs towards better productivity. The OEB plans to update this methodology and the data it requires, including updates to the X factor in the I-X formulation. The OEB is also considering using a Global Stretch Factor (GSF) as a new Ontario industry-wide productivity expectation for electricity distributors.

The EDA acknowledges the OEB's intent to modernize regulatory tools; however, we have significant concerns regarding the internally motivated initiative, direction, transparency, and assumptions underpinning the proposed TCB update and associated survey.

Our concerns are outlined below.

1. TCB consultation is outside the scope of the Letters of Direction from the Minister of Energy, and the Ontario Government's released Integrated Energy Plan (IEP)

The Minister's December 19, 2024, Letter of Direction emphasizes the importance of planning for growth, last mile connections, customer affordability, choice and energy efficiency, Grid Innovation, DERs and Future Utility Models, Resilience and Reliability and Regulatory Modernization and Efficiency. The Minister's letter makes no mention of "Total Cost Benchmarking," "X-Factor," or "Global Stretch Factor" (GSF). These terms are central to the

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current consultation but absent from the Minister's letter, which emphasizes enabling growth, improving responsiveness, and fostering collaboration.

The Ontario government also more recently released the Integrated Energy Plan (IEP), "*Energy for Generations*". This plan aims to bring together electricity, natural gas, hydrogen and other energy sources under a single coordinated strategy to ensure the province has the affordable, secure, reliable and clean electricity required to meet projected demand, power economic growth, and position Ontario as a global energy superpower.

The IEP highlights new and ongoing initiatives aimed at building a modern and resilient grid that unlocks the potential of distributed energy resources (DERs), as well as streamline the connections process to achieve policy objectives. The priorities of the government and the IEP include grid modernization, system reliability and resilience, housing connections, Ontario's DER strategy, integrated energy planning, planning for growth, prioritizing and streamlining processes for energy projects critical to growth, and most importantly ***enabling the distribution sector for the future.*** The government also directs the OEB to explore and report back on the suitability, scope, timing, and resourcing considerations for the potential expansion of the OEB mandate to reflect the evolving energy landscape.

Given this very extensive list of issues issued by the Minister to the OEB, and by extension to the sector, we suggest the time is best served by focusing our collective resources on these priority items and not adding other consultations and initiatives to this list.

We acknowledge that the recent Letter of Direction, as well as previous ones, do make reference to performance measurement. However, they refer to the OEB's performance vis-à-vis its strategic goals, presumably in furtherance of the goal of becoming a "top quartile regulator", rather than measuring the performance of the entities it regulates.

As well, while the letter highlights modernizing the regulatory framework, improving efficiency, and maintaining affordability, it does so in general terms. The expectations centre on regulatory responsiveness, resilience, and enabling growth, not on the technical recalibration of cost benchmarking models.

Lastly, we question whether the TCB review is aligned at this time with the government's pro growth agenda. The recent Letter of Direction rightly emphasized that "the OEB's renewed role as an energy regulator has never been more important to move at the speed of the market to ensure <u>we serve and incentivize investment</u> to our province" (emphasis added). We agree more with these sentiments emphasizing the importance of "ensuring regulated utilities critical to Ontario's growth can earn a fair rate of return to enable rational expansion and maintenance of the electricity…system." We believe that the TCB consultation will only serve to reduce LDCs' ability to invest in critical infrastructure to serve current and emerging customers at a time when it is needed most when we consider the unprecedented electricity demand growth that is forecasted.

2. Not enough time has been allocated for this consultation

We acknowledge that the OEB stated its intention to proceed with several complex and multi-year initiatives within its 2024-2027 Business Plan. In the OEB Business Plan, the strategy to drive sector performance by evaluating benchmarking and productivity was stated as being a **"multi-year" review** initiative intended to leverage the econometric modelling best practices to improve accuracy for rate setting purposes and performance monitoring. We note that the last time the OEB undertook a review of the TCB, that consultation began in the Fall of 2012 and did not conclude until 2014, with the report issued in 2015.

This time period is indicative of the complexities involved in reviewing the TCB. To underscore this point, stakeholders are expected to provide comments by July 15 on a report to be issued by the OEB in respect of the TCB consultation. That report was supposed to have been issued by June 15. However, as of the issuance of this letter on June 20, that report has yet to be released, thereby emphasizing that a review of TCB is not a simple exercise.

Therefore, we question the rationale of compressing the TCB review into five months this time. We also question whether the consultation will result in a thorough review of such a complex file in just five months, particularly when several other government-directed consultations are being held concurrently.

3. Lack of Data Transparency and Undocumented Assumptions

On April 24th, the OEB presented consultation materials and its work plan with its chosen consultant. The OEB has retained the consulting firm, Pacific Economics Group Research, LLC (PEG), to support the TCB update and contribute to the associated stakeholder consultation work. It is also important to note that PEG is the currently contracted party that annually prepares the industry's model for efficiency rankings. Within the consultation materials, we noted that they contained high-level assertions about Ontario's relative inefficiency without providing the sector with supporting jurisdictional benchmarking data or raw figures. Key assumptions—such as a 10% productivity gap and a 0.5% annual GSF—are presented as settled facts without empirical evidence, sensitivity analysis, or impact modelling.

The proposed GSF lacks transparency, credibility, and analytical rigor. While jurisdictions like the US and Alberta are cited as benchmarks, **no actual comparative benchmarking results** are provided to validate the assumption that Ontario utilities are 10% less efficient. This is a speculative claim, not an evidence-based conclusion (Slide 32).

Furthermore, the presentation fails to disclose the source datasets or methodologies used to generate key inputs, such as the updated construction and OM&A indexes. Without this foundational transparency, stakeholders cannot assess data quality, comparability, or relevance.

Critically, **no utility-level or jurisdictional raw cost or productivity figures** are presented—only broad summary trends. This obscures meaningful analysis, undermines confidence in the conclusions drawn, and prevents stakeholders from verifying or contextualizing Ontario's performance. In a regulatory context where accuracy and accountability are paramount, this absence of evidence is inappropriate.

The proposed GSF is particularly concerning. It is presented as a near-certain outcome yet lacks analytical grounding and fails to reflect the limitations in the current PEG model as acknowledged in the consultation deck (e.g., data normalization, missing variables).

Most concerning was that no cost or ratepayer impact analysis was provided. As well, stakeholders were not provided with an analysis of how the presupposed GSF or benchmarking changes would affect distribution revenue, customer rates, and cost recovery and investment planning. Without this analysis, it is not possible to assess the materiality or fairness of the proposed changes or provide wholesome responses to the PEG survey.

4. Survey Design Compromises Stakeholder Input

Following the issuance of the PEG survey on May 6th, we noted that several questions arose among our members. We have consulted our members and noted that only one third of the LDCs were issued the survey. When shared among our members some common themes arose. We have included questions and commentary on selected questions as an appendix to this letter.

The survey includes questions on major policy changes (e.g., moving to a Global Stretch Factor, separating OM&A and capital productivity) without evidence that these were explicitly directed by the Minister or OEB Board.

The survey included over 30 technical, open-ended questions that require advanced econometric skills not commonly retained within most LDCs, even the largest. It is widely recognized that LDCs **do not employ in-house economists** and must rely on external consultants during rate applications, limiting their ability to respond meaningfully without additional cost.

We know that although there was an expressed need for more time and resources to respond adequately, many stakeholders were forced to answer to the best of their ability. For instance, some questions ask for percentage estimates or cost trends (e.g., construction inflation since 2019) **without providing baseline data or definitions**. Without sufficient time to respond to technical questions, and without access to the data that underpins the questions, responses will likely be anecdotal in nature, inconsistent (based on individual assumptions) or incomplete, thereby limiting the survey's analytical value. Therefore, we believe that is not possible to draw meaningful conclusions from the completed surveys.

Additionally, the framing of several questions presupposes acceptance of proposed reforms, such as the GSF, rather than neutrally testing stakeholder perspectives. Combined with short timelines and a lack of clarity around confidentiality, the survey process risks undermining the legitimacy of the policy outcomes it informs.

5. Process and Timing Issues

The survey was released more than a week later than OEB staff had initially indicated, without extending the original deadline. This left stakeholders only seven business days to respond to complex and substantive questions. In contrast, other consultations with shorter and simpler surveys have received longer response windows.

Further, a report entitled "*Review of Total Cost Benchmarking Methodology for Electricity Distributors*", authored by Adonis Yatchew et al, was written on Nov. 12, 2024. Despite the OEB's use of the report to justify the inclusion of GSF, it never formally notified stakeholders of the release of the report. Rather, the OEB posted it on its website on Jan. 27, 2025, without any notification.

Finally, as noted above, the OEB was scheduled to release a report by June 15 for stakeholder comment. The report has still not been issued, nor has there been any communication explaining the delay, nor when it will be released.

Recommendations

Given the concerns outlined, the EDA respectfully recommends the following actions:

1. **Pause this consultation** until the Minister's list of priority items directed to the OEB (listed above) have concluded.
2. **Redirect resources** toward higher-priority, government-aligned files such as Performance Incentive Mechanisms, Distribution System Operator – System Capabilities, Grid Modernization, Reliability, Vulnerability Assessment and System Hardening, Capacity Information Mapping, and Capacity Allocation Modelling.
3. **Discontinue OEB's efforts to embed a Global Stretch Factor**, unless and until robust empirical validation and sector-wide consensus are achieved.
4. **Ensure transparency** by publishing the referenced data sources, methodologies, and comparative benchmarking used to justify proposed reforms. See appendix attached for questions related to this request. We hope that the OEB will publish their data and responses to our inquires with their report June 15th.
5. **Provide sufficient time** for a thorough and thoughtful review of TCB. The previous TCB review was a multi-year initiative with multiple extensions, lasting over 15 months to complete.

While the presenter acknowledged the limitations of the current model, the response in the consultation often minimized the structural and transitional challenges facing LDCs. A more

collaborative approach is needed to ensure the benchmarking model fairly and accurately reflects Ontario's evolving distribution environment.

We appreciate the opportunity to provide feedback and hope to work collaboratively with the OEB and other stakeholders to support fair, transparent, and evidence-based regulation and prioritize the government's and our customers' direction.

As previously mentioned, we met with many members, and our consultant, Dr. Larry Kaufmann, and noted some common theme items. We have included these questions, and as an appendix of this letter.

Should you require further information or clarification, please do not hesitate to contact Brittany Ashby, Senior Regulatory Affairs Advisor, at bashby@eda-on.ca or at 416.886.4420.

Thank you for your time and consideration.

Sincerely,

Teresa Sarkesian
President & Chief Executive Officer
Electricity Distributors Association

APPENDIX: EDA Comments & Questions on PEG's Total Cost Benchmarking Methodology

As part of our review of the Total Cost Benchmarking (TCB) consultation, and the open-ended nature of the survey questions, the EDA requests that the OEB and PEG clarify the following concerns and questions below related to the treatment of technology, model assumptions, and methodological rigor. We request that the OEB provide stakeholders with responses to the following concerns and also provides the datasets which support the questions posed. We believe that addressing these questions is essential to ensure that the OEB's benchmarking framework is fair, evidence-based, and aligned with the evolving nature of Ontario's electricity distribution sector.

SCALE AND BUSINESS VARIABLES:

1. Alignment of Technology with Industry Practice

- Does the current TCB methodology reflect how electricity distributors in Ontario procure and deploy capital and non-capital inputs to deliver services to customers?
- If not, in what ways does the model misrepresent actual industry practices?

2. Assumptions Regarding Technological Change

- Is it correct that, aside from a general "trend" variable, PEG's TCB models typically assume that the underlying technology of electricity distribution has remained unchanged during the estimation period?
- Specifically, does PEG's 2013 Ontario TCB model assume no change in industry technology over the period analyzed, except as captured by the trend variable?
- If this is not the case, please identify all model parameters that explicitly quantify changes in the industry's production technology (i.e., the relationship between inputs and outputs).
- What methodological changes has PEG implemented since 2013 to account for technological advancements in electricity distribution?

3. Treatment of Key Sectoral Developments

- In PEG's work for other jurisdictions since 2013, have its TCB models explicitly addressed the impact of the following developments:
    - Integration of distributed energy resources (DERs)
    - Management of intermittency and grid balancing
    - Investments in grid resilience and hardening
    - Enhancements in IT and cybersecurity

4. Use and Interpretation of the Trend Variable

- Please confirm that the trend variable in PEG's TCB models captures general cost changes over time that are not explained by the included cost driver variables.
- As such, confirm that this variable reflects a wide array of unobserved or random factors, and **should not** be interpreted as evidence of "technical change." If PEG disagrees, please provide a detailed rationale.
- Please confirm that omitted variable bias—resulting from the exclusion of relevant cost drivers—can distort model estimates and impair the reliability of benchmarking results.

5. Explicit Control of Sectoral Cost Drivers

- Does PEG acknowledge that DERs, resilience upgrades, IT systems, and related factors have materially affected electricity distribution costs since 2013?
- If so, does PEG intend to explicitly account for these factors in the updated Ontario model?
- If not, how does PEG intend to avoid omitted variable bias and ensure that model estimates are robust and unbiased?

6. Implications of Biased Model Estimates

- If TCB model parameters are biased due to omitted factors, is it not also true that the cost performance rankings and inferences drawn from these models will also be biased? If PEG disagrees, please explain.

7. Testing for Structural Breaks

- Please confirm that econometric parameters may shift over time due to structural breaks, especially during periods of technological change.
- Does PEG intend to test its TCB model for structural breaks in the estimation period? If not, how can stakeholders be assured that model coefficients derived from past data will remain valid for the 2027–2032 period, when the TCB results may be used to determine allowed distributor revenues?

8. Theoretical Foundation of PEG's Methodology

- Does PEG acknowledge that its model is based—either explicitly or implicitly—on the economic framework outlined in Dr. Hal Varian's *Microeconomic Analysis*, particularly Chapter 4 on "Estimating Production Functions"?
- Please confirm that Dr. Varian warns of the inherent bias in estimating cost functions when certain managerial input decisions are unobservable to researchers.
- Does PEG agree that this foundational critique applies to its cost benchmarking work? If not, what alternative economic framework does PEG use?

9. Need for Full Transparency of Workpapers and Models

- To facilitate review and meaningful stakeholder input, will PEG provide access to all source data, model spreadsheets, and statistical code used to derive:
    - The recommended inflation factor
    - The X factor
    - Local and Global Stretch Factors

This access should include all underlying datasets, data manipulations, model specifications, and software outputs to ensure the methodology is not a "black box" but open to validation and scrutiny.

Methodological Issues

The Electricity Distributors Association (EDA) urges that any development of Total Factor Productivity (TFP) and especially Total Cost Benchmarking (TCB) metrics—including the design of X factors and stretch factors (both local and global)—must give careful consideration to the financial and operational implications of the energy transition (ET) for electricity distributors.

1. Risk of Perverse Incentives

If not properly designed, stretch factors risk creating perverse incentives that could unintentionally penalize distributors that proactively invest in energy transition initiatives. Specifically:

- Distributors that actively support electrification and other ET goals are likely to incur higher capital costs than those that delay or minimize such investments.
- If these higher ET-related costs are not accounted for, the benchmarking model may assign higher stretch factors to these distributors, effectively "punishing" them for enabling government policy objectives.

2. Need for Differentiation in Cost Treatment

To mitigate this risk, PEG should explore mechanisms to exclude or adjust for targeted ET investments in the calculation of stretch factors, such as:

- Segregating and separately reporting the costs of major electrification or energy transition projects so they are not inappropriately benchmarked against business-as-usual expenditures.
- Ensuring benchmarking models distinguish between controllable cost increases and policy-driven capital expansions.

3. Challenges in Modeling Energy Transition Costs

Even with segregated reporting, full exclusion or adjustment may be insufficient due to the following complexities:

- **Deep Network Effects**: ET projects may trigger capital upgrades in legacy infrastructure that cannot easily be isolated from the broader cost base.
- **Data Limitations**: Historical cost data for ET initiatives is sparse, making it difficult to statistically project or benchmark such costs with any accuracy.
- **Local Variability**: ET project costs are highly site-specific and shaped by local conditions, such as customer mix, existing infrastructure, and climate—which resist standardization in econometric models.

Given these concerns, we request that PEG:

- Explicitly address how ET-related capital investments will be treated in its updated TCB model.
- Avoid benchmarking approaches that inadvertently disincentivize investments aligned with provincial and federal decarbonization policy.
- Consider a separate framework or adjustment factor to account for LDC participation in ET initiatives, until sufficient data and methodology exist to reflect these activities in the benchmarking model fairly.

General Comments

1. Reflection of Industry Technology and Inputs

- Does PEG's TCB methodology accurately reflect how Ontario electricity distributors procure and apply capital and non-capital inputs to deliver services to customers?
- Does the 2013 Ontario TCB model assume that the distribution sector's technology remained unchanged during the estimation period (excluding the trend variable)? If not, please identify and explain all relevant parameter estimates reflecting technological change.
- What methodological updates has PEG implemented since 2013 to reflect technological advancements in the electricity distribution industry, particularly those relevant to Ontario's context?

2. Adaptation to Sectoral Technological Developments

- In PEG's work for other jurisdictions, has the TCB methodology been updated to account for:
    - Integration of distributed energy resources (DERs)?
    - Management of intermittent generation and supply variability?
    - Enhancements in grid resilience and cybersecurity?
    - To what extent have these updates been incorporated into the proposed Ontario model?

3. Interpretation and Role of the Trend Variable

- Please confirm that PEG's 'trend' variable captures unexplained changes in cost over time, and should not be interpreted as technical change.
- If PEG disagrees, please provide a detailed explanation and justification for the alternative interpretation.
- Please confirm whether the TCB model may be subject to omitted variable bias due to exclusion of relevant factors such as DERs, IT investments, or resilience spending.

4. Accuracy of Estimates and Implications of Bias

- Does PEG acknowledge that if these factors are excluded, the model may yield biased parameter estimates, leading to misleading benchmarking conclusions?
- If TCB parameter estimates are biased, would performance assessments derived from the model also be biased?
- What actions does PEG propose to prevent or mitigate such bias?

5. Structural Breaks and Model Reliability

- Does PEG recognize the potential for structural breaks in model parameters over time due to rapid technological and policy changes?
- Will PEG test for structural breaks in the TCB estimation period? If not, how will stakeholders be assured that historical parameters remain valid for use between 2027 and 2032?

6. Theoretical Foundation and Econometric Integrity

- Is PEG's approach conceptually based on Hal Varian's 'Microeconomic Analysis'? If not, what is the methodological foundation for estimating cost functions in PEG's models?
- Does PEG agree with Varian's observation that econometric models may produce biased cost estimates due to unobservable managerial inputs?
- How does PEG account for these limitations in practice?

7. Transparency of Inputs, Models, and Results

- Will PEG publish all source data, assumptions, spreadsheets, and econometric code used in the derivation of its recommended inflation factor, X factor, and stretch factors?
- Will stakeholders have access to the full workpapers supporting the proposed TCB and TFP results?

8. Energy Transition Cost Pressures

- How will PEG ensure the TCB and Stretch Factor methodology does not penalize distributors actively investing in energy transition efforts?
- Will PEG exclude or adjust for electrification-related costs in benchmarking models to avoid perverse incentives?
- Given the lack of historical ET cost data and wide local cost variability, how will PEG model these costs fairly across LDCs?

9. Proxy Utility Groups and Benchmarking Comparators

- Does PEG support using representative proxy utility profiles to reflect cost drivers across different LDC types in Ontario?
- Has PEG revisited previous recommendations (e.g., Kaufmann 2013) on comparator utility segmentation and their applicability to the current benchmarking update?

10. Separation of O&M and Capital Cost Treatment

- Does PEG support differentiating between O&M and capital expenditure productivity in the benchmarking methodology?
- What lessons can be drawn from recent performance-based regulation cases, such as National Grid (MA) or FortisBC, that separate treatment of capital and O&M costs?

11. Capital Depreciation Methodology

- Will PEG consider using Hyperbolic Decay (HD) in its cost modeling approach, in addition to geometric decay and One Hoss Shay (OHS)?
- Given the limitations of OHS and geometric decay, does PEG agree that HD provides a more realistic depiction of asset aging in the electricity distribution sector?
- Would PEG commit to comparing HD against other depreciation approaches in its Ontario benchmarking work?

12. Global Stretch Factor and Jurisdictional Comparators

- What are the estimated costs of benchmarking Ontario against each of the proposed jurisdictions: the U.S., Alberta, and Australia?
- Does PEG recommend any additional jurisdictions for inclusion in the Global Stretch Factor methodology?
- How will PEG ensure inter-jurisdictional comparability of input assumptions, cost structures, and market characteristics?