#### VIA RESS and EMAIL

June 30, 2025

Ritchie Murray
Acting Registrar
Ontario Energy Board
2300 Yonge Street, 27<sup>th</sup> Floor
Toronto, Ontario M4P 1E4

Dear Ritchie Murray:

Re: Burlington Hydro Inc.

2026 Cost of Service

**Intervenor Consolidated Interrogatories** 

OEB File No. EB-2025-0051

In accordance with the Decision on Issues List and Procedural Order No. 2, dated June 19, 2025, please find attached the consolidated interrogatories of the intervenors with respect to the above-noted matter.

These consolidated interrogatories are jointly filed on behalf of the Coalition of Concerned Manufacturers and Businesses of Canada (CCMBC), Consumers Council of Canada (CCC), Distributed Resource Coalition (DRC), Enbridge Gas Inc. (Enbridge Gas), Environmental Defence, Pollution Probe, School Energy Coalition (SEC), and Vulnerable Energy Consumers Coalition (VECC).

While the consolidated interrogatories are filed on behalf of the above-listed intervenors, this should not be taken to mean that all intervenors agree with each and every question that is attached.

Yours truly,

Lawrie Gluck

Lawris Gluck

Consultant for the Consumers Council of Canada

cc: All parties in EB-2025-0051

# Intervenor Consolidated Interrogatories<sup>1</sup>

Burlington Hydro Inc. 2026 Cost of Service EB-2025-0051 June 30, 2025

# Exhibit 1 - Administration

1-Intervenor-1

Ref: Ex. 1, p. 29

# Question(s):

- a) Please provide a copy of the Burlington Distribution Sustainability Report.
- b) Please provide the specific investment costs in the application that are a direct result of the Burlington Distribution Sustainability Report.
- c) The report BHI referenced suggests that in 2026 5% of existing residential buildings would have heat pumps, Table 30 of Exhibit 3 suggest ~1% of existing residential customers (inferred as buildings) would have heat pumps in 2026. Please reconcile the forecast from the Burlington Distribution Sustainability Report with the 0.15%/per year rate of conversion of existing customers to HPs from NG for space heating.

## 1-Intervenor-2

Ref: Ex. 1, p. 108

## Question(s):

 a) Please provide the savings from any productivity and efficiency initiatives undertaken in the past five years and show how these savings were calculated.

<sup>&</sup>lt;sup>1</sup> These consolidated interrogatories are jointly filed by the Coalition of Concerned Manufacturers and Businesses of Canada (CCMBC), Consumers Council of Canada (CCC), Distributed Resource Coalition (DRC), Enbridge Gas Inc. (Enbridge Gas), Environmental Defence, Pollution Probe, School Energy Coalition (SEC), and Vulnerable Energy Consumers Coalition (VECC).

b) Please provide details of all productivity and efficiency measures Burlington is planning to undertake over the next five years. Please quantify the forecasted savings and explain how they were calculated.

#### 1-Intervenor-3

Ref: Ex. 1, pp. 107, 111 and Appendix B – Business Plan

# Question(s):

- a) (P. 107) Please advise where the costs of GridSmartCity and DSO readiness are set out in the application. If not provided, please provide the associated cost for 2026. Please also explain the relationship between this work and the work that is undertaken by Burlington Electricity Services Inc.
- b) (P. 111) BHI continues to explore shared services and joint pilot programs that expand access to emerging technologies while sharing costs across LDCs. Please advise whether there are any pilot costs reflected in revenue requirement. If so, please provide reference to where those costs are shown in the application.
- c) (Appendix B, p, 23) Please advise whether the forecast cost savings associated with GridSmartCity are reflected in the application. If these savings are reflected, please provide a reference to where these savings are shown in the application.

## 1-Intervenor-4

Ref: Ex. 1, Appendix B – Business Plan

## Question(s):

- a) Please explain the differences between the financial data provided in the Business Plan and that included in the Application, for 2024-2030 capital expenditures.
- b) What was the assumed inflation incorporated into the forecasts for 2026?
- c) Please provide any other materials reviewed by Burlington's Board of Directors regarding its approval of the Application and the underlying budgets.

#### 1-Intervenor-5

Ref: Ex. 1, Appendix B – Business Plan, p. 23 and Ex. 4, p. 232

Question(s):

Please provide a copy of Burlington's balanced scorecard (or any similar predecessor document), with annual targets and actual results, for each year since 2021.

1-Intervenor-6

Ref: Exhibit 1, Appendix B - Business Plan, p. 13

Preamble:

BHI states: "The City of Burlington has created a Climate Action Plan and expects to be net zero by 2050, in alignment with Canada's economy wide goal. BHI must prepare to support and enable these goals in addition to incorporating the necessary system capacity."

Question(s):

a) Please provide a quantitative and qualitative comparison between the load that BHI forecasts arising from the electrification of heating in the forecast underlying the application with the heat pump installation figures found on pages 25 and 64 of Burlington's Climate Action Plan.

b) Please provide the City of Burlington climate action plan and indicate how the BHI plan (including DSP) and application supports those community objectives over the plan's term.

c) Please describe what reviews and/or approvals were provided by the City of Burlington for the BHI plan or application.

d) Please confirm that the BHI plan is aligned with and enables net zero by 2050 in the City of Burlington. If there are any elements of the plans that do not enable achieving this objective, please provide details.

1-Intervenor-7

Ref: Exhibit 1, Appendix B - Business Plan, p. 16

# Question(s):

- a) Please provide a timeline for BHI's plans relating to a DSO model.
- b) By what year does BHI expect to be able to implement a DSO model?
- c) Please provide the DSO model study discussed on page 16.

#### 1-Intervenor-8

Ref: Ex. 1, p. 73

# Question(s):

Many letters of comment opposing BHI's proposed rate increase were filed on the record. Please explain how these letters from BHI's customers reconcile with BHI's customer engagement results.

#### 1-Intervenor-9

Ref: Ex. 1, p. 77

## Question(s):

With respect to the Key Customer Webinar:

- a) Please provide a copy of all presentations or other materials provided to participants as part of the Key Customer Webinar.
- b) Please provide a copy of all notes of feedback received.

## 1-Intervenor-10

Ref: Ex. 1, Appendix C – Customer Engagement, p, 25

# Question(s):

a) Please provide a quantitative and qualitative comparison between the load that BHI forecasts arising from the electrification of heating in the forecast underlying the

application with the heat pump installation intentions expressed by customers in the customer engagement report on page 25.

b) If BHI's forecasts underlying the application reflect a lower level of heat pumps adoption than that suggested by their customer survey, please explain why.

## 1-Intervenor-11

Ref: Ex. 1, Appendix C – Customer Engagement

Ex. 1, Appendix B - Business Plan

- a) Please provide a copy of all written instructions provided by BHI to Decision
   Partners Canada Inc. ("DPCI") in relation to DPCI's customer engagement mandate
   for the Application and the report provided in Appendix C.
- b) Please provide a copy of all written instructions provided by BHI to DPCI in relation to customer engagement with respect to consumer choice in integrating technologies like distributed energy resources ("DERs"), electric vehicles ("EVs"), and battery storage (including vehicle to grid ("V2G").
- c) Please describe all measures undertaken by BHI and DPCI to invite and ensure the participation of EV stakeholders and other DER customers (including EV drivers, owners of DERs, EV associations, and DER industry associations) in customer engagement activities.
- d) Please provide any and all notes from DPCI's customer engagement relating to EVs and DERs that are supplementary to the reports provided in Exhibit 1, Appendix C.
- e) Please discuss how the outcomes and priorities of customers have changed compared to historical equivalents and discuss any trend lines in customer priorities related to the adoption and integration of technologies like DERs, EVs, and battery storage (including V2G).
- f) Please discuss how the outcomes and priorities of customers have changed compared to historical equivalents and discuss any trend lines in customer priorities related to the energy transition and BHI's commitment to "support and

enable" the City of Burlington's net zero goals. As part of your answer please discuss any work done by the BHI or DPCI on the substantive knowledge of customers and their understanding of the energy transition.

- g) Please outline BHI's emissions reduction targets for the rate period, if any.
- h) Please provide all figures/graphs that show survey response information in a tabular format.

## 1-Intervenor-12

Ref: Ex. 1, Appendix F

## Question(s):

Please provide Burlington's forecast for its achieved ROE in 2024.

## **Exhibit 2 - Rate Base and Capital**

# 2-Intervenor-13

Ref: Ex. 2, Appendix 2-AA

## Question(s):

With respect to Appendix 2-AA:

- a) Please explain why average gross system access capex has increased by 34% for the period 2026-2030 from 2021-2025, yet contributions only increased by 6.6%.
- b) For those System Access projects which include capital contributions, please explain how the forecasted contributions were calculated.
- c) Please provide details of each System Access project and its forecasted capital contribution, such that the total adds to the total in line 45 of Appendix 2-AA.
- d) Please provide an estimate of the revenue requirement impact in 2026 resulting from the changes to connection and revenue horizon rules set out in amendments to the Distribution System Code, dated December 23, 2024.

Ref: Ex. 2, Appendix 2-AB

## Question(s):

- a) Please confirm that BHI's actual average annual net capital cost during the 2021-2024 period was \$12.4M.
- b) Please confirm that BHI's forecast average annual net capital cost for the 2026-2030 period is \$21.8M.

#### 2-Intervenor-15

Ref: Ex. 2, Appendices 2-AA, 2-AB and 2-BA

- a) Please provide a revised version of Chapter 2 Appendix 2-AA. As part of this revised version, please provide year-end actuals for 2024, an update to the forecast full year 2025 capital expenditures (and 2026-2030 as necessary) using the current best available information. In addition, instead of including the capital contributions only at the major category level (e.g., system access, system renewal, etc.), please also provide the capital contributions at the program level (e.g., Dundas St. Road Widening, Major Transit Station development, etc.).
- b) Please provide updated versions of Appendices 2-AB showing year-end actuals for 2024, and any revisions to 2025 and 2026 forecasts as required.
- c) Please provide a revised version of 2-AA and 2-AB that provides 2025 year-to-date actuals, as well as year-to-date actuals for the same point in time for 2023 and 2024.
- d) With respect to the following system access programs with expenditures in 2026-2030, there does not appear to be a description or explanation included in the DSP. For each of the following projects, please confirm that the reason there is no description/explanation is that the work is fully contributed (with no rate

implications). If that is not the case, please provide a detailed description/explanation for the project.

- i) Burloak Grade Separation (\$3.1M 2026)
- ii) Downtown Core Underground Development (approx. \$1M/year 2026-2030)
- iii) Metrolinx Onxpress (\$1.3M 2026)

#### 2-Intervenor-16

Ref: Ex. 2, p. 4

# Question(s):

- a) Please further explain the statement that capital expenditures are equivalent to inservice additions. Does BHI assume that all capital expenditures made in a given year are placed in service in the same year?
- b) Please discuss whether, historically, work on major capital projects have been spread across multiple years with capital expenditures occurring in one year and the asset going into service in a subsequent year.

#### 2-Intervenor-17

Ref: Ex. 2, p. 7

## Question(s):

Please provide an example calculation using BHI's cost of debt, ROE, and an average depreciation rate that highlights BHI's conversion of each of: (i) Rate Base to Revenue Requirement and; (ii) capital expenditures to in-service additions to rate base to revenue requirement.

#### 2-Intervenor-18

Ref: Exhibit 2, p. 13

# Question(s):

Why would capital expenditures increase due to the following reasons? For each please provide the amount of the increase and the accounts that were impacted.

a) The delayed implementation of BHI's new Customer Information System from

January 1 to July 1, 2021 due to COVID-19.

b) The integration of BHI's Geographic Information System ("GIS") with its Outage

Management System ("OMS") to enhance GIS functionality.

2-Intervenor-19

Ref: Ex. 2, pp. 21, 24 and Appendix 2-AB

Question(s):

a) (P. 21) Please explain the difference between the \$13.74M increase in gross assets

(net of contributions) in 2025 (relative to 2024) shown at page 21 and the \$18.5M of

CAPEX shown in Appendix 2-AB.

b) (P. 24) Please explain the difference between the \$29M increase in gross assets (net

of contributions) in 2026 (relative to 2025) shown at page 24 and the \$24.3M of

CAPEX shown in Appendix 2-AB.

2-Intervenor-20

Ref: Ex. 2, pp. 27-28

Question(s):

Please confirm that the noted error regarding computer software service life in Appendix 2-

BB in EB-2020-0007 did not impact the depreciation expense during the previous rate term.

2-Intervenor-21

Ref: Exhibit 2, p. 30

Question(s):

Please explain the ICM depreciation amounts recorded/(adjusted) in continuity for OEB

Purposes of \$85,600 shown for 2021 Actuals and \$(63,772) for 2025 Bridge Year.

2-Intervenor-22

Ref: Exhibit 2, p. 36

Question(s):

Please explain how the negative revenue growth of (0.79)% was determined showing all calculations with references to evidence.

2-Intervenor-23

Ref: Exhibit 2, p. 39

Question(s):

a) Please list the projects that are below the \$13,307,629 Materiality Threshold in the

order of priority.

b) Please confirm that the projects included in the \$13,3027,629 expenditure forecast

are all higher priority than the SCADA Replacement/ADMS Acquisition ACM project

of \$3,640,000.

2-Intervenor-24

Ref: Exhibit 2, p. 40

Question(s):

a) How many ADMS modules will be installed?

b) Does ADMS cover the entire BHI service territory?

c) Is the need for ADMS the same in all parts of the BHI service territory?

d) Did BHI consider phasing in ADMS to reduce the annual rate impact?

2-Intervenor-25

Ref: Exhibit 2, p. 41-43

Question(s):

- a) Please confirm that proposed project system consisting of advanced ADMS and DMS applications, including Fault Location, Isolation, and Service Restoration (FLISR), Volt-VAR Optimization (VVO), and a Distributed Energy Resources Management System (DERMS) is required to deal with the changes in load caused by customers who own Distributed Energy Resources (DERs) such as rooftop solar and EV chargers.
- b) What is the forecast of incremental revenues that BHI will collect from customers who own DERs and EV chargers over the life of the SCADA Replacement/ADMS Acquisition ACM project?

Ref: Exhibit 2, p. 41

Exhibit 2, Appendix B – SCADA Business Case, pp. 5-8, 11-12, 14

Exhibit 2, Appendix A - Distribution System Plan, Material Investment Summary

Documents, pp. 108-115

Attachment 4 - ICM/ACM Model, Sheets 3, 6

- a) (Attachment 4) Please reconcile the billing determinants shown in Sheet 3 of the ICM/ACM Model to the Load Forecast Model.
- b) (Attachment 4) Please reconcile the billing determinants shown in Sheet 6 of the ICM/ACM Model to the Load Forecast Model.
- c) In its customer engagement activities, did BHI ask its customers specifically about its proposed SCADA/ADMS project including reference to the estimated cost? If yes, please provide a reference to the related evidence. If not, please explain why not.
- d) With respect to the expected December 31, 2027 in-service date, please advise what level of ICM funding will BHI be seeking for 2027. More specifically, will BHI be seeking the half-year or full-year of revenue requirement associated with the capital costs.
- e) Please confirm that the current Hitatchi OMS system was acquired/implemented in 2024.

- f) Please confirm that the cost of the current Hitatchi OMS system was approx. \$0.6M.
- g) Please advise whether the current Hitatchi OMS system was forecast in BHI's 2021 cost of service application. If so, please provide the relevant excerpts from that evidence.
- h) If available, please provide the business case (or other documentation) supporting the purchase/implementation of the new OMS system. Please discuss whether vendors other than Hitatchi were considered. If so, please provide the bids and explain why the chosen vendor was selected.
- i) Please further explain why the current SCADA cannot be integrated with ADMS.
- j) Please provide an estimate of the annual operational cost savings resulting from the SCADA/ADMS project. Please highlight which operational budget categories will be impacted by these forecast savings after the new system is installed.
- k) Please provide the annual costs associated with the maintenance of SCADA system between 2007 (when it was installed) and 2025.
- l) Please provide the estimated annual costs associated with the maintenance of the SCADA system between 2027-2030.
- m) Provide the estimated cost of a SCADA only upgrade.
- n) Please confirm that the expected cost of the SCADA/ADMS system will be higher than \$3.6M (inclusive of field hardware and integration-related costs). Does BHI have a high-level estimate of these costs available at this time?

Ref: Ex. 2, p. 37 and Appendix B – SCADA Business Case

## Question(s):

a) Burlington is proposing sole sourcing the SCADA/ADMS solution from the same vendor as the recently acquired OMS in order that the systems can be integrated.

Please explain why other vendors' SCADA/ADMS systems could not be integrated with Burlington's OMS and provide supporting evidence.

- b) Given that the project is to be sole sourced, how has Burlington ensured the cost is prudent?
- c) Please explain why Burlington cannot readjust its capital plans to accommodate this project with its capital envelope.

## 2-Intervenor-28

Ref: Ex. 2, p. 44

## Question(s):

- a) Provide an update on the timing of the expected in-service date for the Dundas St. Road Widening Project (2025 ICM).
- b) Please provide a detailed reconciliation of the actual costs incurred (including capital contributions) for the Dundas St. Road Widening Project (2025 ICM) relative to the forecast costs included in EB-2024-0010.

## 2-Intervenor-29

Ref: Ex. 2, Appendix A – Distribution System Plan

#### Preamble:

Reference: DER definition from National Standard Practice Manual - NSPM (nationalenergyscreeningproject.org):

Distributed Energy Resources (DERs) are resources located on the distribution system that are generally sited close to or at customers' facilities. DERs include EE, DR, DG, DS, EVs, and increased electrification of buildings. DERs can either be on the host customer side of the utility interconnection point (i.e., behind the meter) or on the utility side (i.e., in front of the meter). DERs are mostly associated with the electricity system and can provide all or some of host and/or support the utility system by reducing demand and/or providing supply to meet energy, capacity, or ancillary services (time and locational) needs of the electric grid.

# Question(s):

- a) Please provide the definition of DER that BHI is using and explain how it differs (if at all) from the best practice NSMP definition noted above.
- b) Please explain what DER resources from the list above were included in the BHI modeling and what the gross and net impact for each were.

#### 2-Intervenor-30

Ref: Ex. 2, Appendix A – Distribution System Plan

## Question(s):

- a) Has BHI assessed what portion of the demand increases over the coming decades could be mitigated by CDM or E-DSM? If no, please explain why not. If yes, please provide a copy of the analysis, reports, presentation and other related materials.
- b) Please explain how BHI plans to maximise e-DSM results in its service territory from the IESO's Save on Energy over the term.

## 2-Intervenor-31

Ref: Ex. 2, Appendix A – Distribution System Plan

## Question(s):

- a) What is the average physical lifetime of the conductors and transformers that BHI is currently installing?
- b) How will BHI ensure that the conductors and transformers that it will install over the rate term will not need to be replaced before the end of their lives due to demand growth outstripping their capacity?
- c) If all homes heated with gas were to be electrified by 2050, approximately what percent of the conductors and transformers that BHI expects to install over the rate term would need to be replaced by 2050 to meet the increased demand (with all other aspects of BHI's load forecast remaining unchanged)? Please provide as

much of a specific answer to this question as possible and make and state assumptions as necessary. For instance, BHI could assume that homes are electrified via 50% air-source and 50% ground-source heat pumps.

d) If all transportation were to be electrified by 2050, approximately what percent of the conductors and transformers that BHI expects to install over the rate term would need to be replaced by 2050 to meet the increased demand (with all other aspects of BHI's load forecast remaining unchanged)? Please provide as much of a specific answer to this question as possible and make and state assumptions as necessary.

#### 2-Intervenor-32

Ref: Ex. 2, Appendix A – Distribution System Plan

- a) Please provide a table showing the number of residential service upgrades in the past five years and a forecast for the rate term. Please provide columns for the total costs for service upgrades, the proportion covered by the homeowners whose service is being increased, and the proportion covered by ratepayers. Please include both capital costs (e.g. new conductors or transformers) and O&M costs (e.g. costs to de-energize and energize the home).
- b) Please discuss the feasibility and potential savings from offering customers seeking a service upgrade an alternative option via a load sharing device (e.g. circuit pauser or smart panel).<sup>2</sup>
- c) Please discuss the feasibility and potential savings from offering customers seeking a service upgrade an alternative option via a SPAN Edge.<sup>3</sup>
- d) If customers are able to avoid a service upgrade, how does that impact the need for potential upstream capacity increases? For example, can upgrades to street-level transformers that may be needed if multiple homes upgrade their service be avoided if those service upgrades are avoided via the technologies noted above?

<sup>&</sup>lt;sup>2</sup> https://www.passivehousecanada.com/wp-content/uploads/2023/08/20231026-Electrification-without-a-service-upgrade-report.pdf

<sup>&</sup>lt;sup>3</sup> https://www.span.io/blog/span-expands-beyond-smart-electrical-panels-creating-new-category-of-at-the-meter-products

What, if any, electricity infrastructure is built based on the size of residential services?

## 2-Intervenor-33

Ref: Ex. 2, Appendix A – Distribution System Plan and Exhibit 8 (Service Charges)

# Question(s):

a) Please confirm whether the proposed capital investments are sufficient to ensure that each BHI residential customer would be able to install an EV charger or electric heat pump without delay in any part of BHI's system. If not, please indicate where on its system there would be insufficient capacity and whether any customers have been prevented or delayed in installing EV chargers or electric heat pumps.

b) What does BHI charge to facilitate upgrading a residential customer's service to 200 amps? Please provide a breakdown of the costs (e.g. application fee, disconnect/connection costs, conductor upgrade where necessary, transformer upgrade where necessary).

c) Please create a table to compare the charges in (b) to those charged by Alectra, Hydro Ottawa, and Elexicon Energy.

d) Please provide excerpts from the Burlington Hydro conditions of service and the DSC that allow Burlington Hydro to levy the charges/fees described in (b).

e) Please provide all studies and calculations justifying the fixed fees for a panel upgrade charged by Burlington Hydro.

f) On average, how long does it take for BHI to carry out a service upgrade once requested by a customer.

#### 2-Intervenor-34

Ref: Ex. 2, Appendix A – Distribution System Plan

# Question(s):

- a) Please provide a table showing, for each year from 2025 to 2029, the forecast number of new connections, the forecast contribution to co-incident system peak demand (summer and winter) for those that are gas heated, the forecast contribution to co-incident system peak demand (summer and winter) for those that are electrically heated, the forecast total demand for those that are electrically heated and those that are gas heated.
- b) Please provide the information requested in (a) but for the most recent year of historical data.
- c) Please provide a list of all expected connection requests during the rate period, the forecast peak (summer and winter) and annual demand of each, and how each is forecast to be heated.
- d) If all new construction in Burlington over 2025 to 2029 were to be heated with efficient heat pumps (i.e. no fossil fuels), would Burlington Hydro be able to provide the required electrical service? If not, what would the shortfall be and how would it arise?
- e) If all of the new construction in Burlington over 2025 to 2029 that is expected to be heated by fossil fuels were to switch to heat pumps instead, approximately (i) how much additional revenue would Burlington Hydro collect from those customers due to incremental demand (nominal lifetime and NPV), and (ii) approximately how much additional cost would Burlington Hydro have to invest in its system that would not be covered by contributions in aid of construction from the connecting customers?
- f) Please provide a sample of the Appendix B DCF calculations for a typical new condominium construction with geothermal heating versus gas heating? Please indicate (i) the electricity connection capital costs for each heating scenario and (ii) the 25-year revenue offset for the connection costs under Appendix B (i.e. how much more distribution revenue would be paid and thus be used to offset the contribution in aid of construction).

Ref: Ex. 2, Appendix A – Distribution System Plan

# Question(s):

- a) If customer connection costs are higher than forecast, how would Burlington Hydro manage the cost?
- b) Please confirm that DSC allows utilities to apply a longer revenue horizon beyond the standard horizon for calculating contributions in aid of construction. Has Burlington Hydro ever done this? Would Burlington Hydro consider doing this where the customer implements technology that lowers its impact on the system peak (such as geothermal, which lowers summer cooling requirements)?
- c) Please compare the co-incident peak summer electricity demand from a typical commercial or residential tower that is cooled with geothermal versus traditional air conditioning.
- d) Please provide the 20 highest winter demand hours and summer demand hours for each of the past five years for Burlington Hydro's system, including the date, hour, and demand.
- e) On average, what is the peak demand on Burlington Hydro's system in the summer versus the winter?

#### 2-Intervenor-36

Ref: Ex. 2, Appendix A – Distribution System Plan

## Question(s):

- a) What barriers exist to installing EV chargers in existing multi-residential buildings?
- b) What roles does Burlington Hydro typically play with respect to the installation of EV chargers in the parking area of multi-residential buildings.
- c) Please provide a breakdown of the number of and percent of multi-residential buildings in each rate class, with a description of how distribution charges are levied in each class (fixed, per kWh, or per kVA?).

- d) If distribution system upgrades are required to allow a multi-residential building to install EV chargers, how are the costs to be paid by the building customer calculated? Is the forecast incremental revenue from the incremental load considered as part of those calculations? If not, why not. Please describe two cases: (i) with individual meters for each unit and (ii) a single meter for the property.
- e) How many and what percent of multi-residential buildings have a meter for each unit?
- f) What additional steps could Burlington Hydro take to ease the connection of EV chargers in multi-residential buildings?

Ref: Ex. 2, Appendix A – Distribution System Plan

# Question(s):

- a) What number and percent of meters does BHI plan to replace with an AMI 2.0 meter.
- b) What percentage of BHI meters already have bi-directional capabilities such that no meter replacement is needed for a customer to move to net metering?
- c) Are the AMI 2.0 meters that BHI will be installing bi-directional such that customers moving to net metering would not need a meter replacement?
- d) Would BHI agree to prioritize the rollout of AMI 2.0 meters for customers installing a DER by installing AMI 2.0 meters for those customers out of the AMI 2.0 meter replacement budget versus cost recovery from the customer?

#### 2-Intervenor-38

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 15 and Appendix 2-AA

## Question(s):

a) Please advise in which category shown in Appendix 2-AA the costs associated with office equipment and tools would be found.

b) Please provide a breakdown of the "miscellaneous" capital costs shown in Appendix 2-AA.

#### 2-Intervenor-39

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 17

- a) Please provide the metres of cable tested in each year 2021 to 2025
- b) Please provide the forecast metres of cable to be tested in each of the years 2026 to 2030.

#### 2-Intervenor-40

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 20

## Question(s):

- a) Please provide the Energy Storage Feasibility Study referenced in the DSP.
- b) Please provide a table indicating which of the recommendations and conclusions in the study BHI agrees with.

## 2-Intervenor-41

Ref: Ex. 2, Appendix A - Distribution System Plan, pp. 21-23

- a) Please discuss how AMI 2.0 meters allow customers to utilize home analytics, V2G and vehicle to home charging, battery storage and other DERs.
- b) Please provide BHI's assessment of the specific impacts of customer interest in DERs and the associated increase in DER penetration in BHI's service territory on: (i) BHI's distribution system planning; (ii) load forecast; (iii) productivity; and (iv) OM&A costs.
- c) Please provide any and all analysis, reports, studies, presentations, data or other documentation with respect to past and forecast DER uptake in BHI's service territory.

2-Intervenor-42

Ref: Ex. 2, Appendix A - Distribution System Plan, pp. 46, 48, 49

Question(s):

a) (P. 46) Please provide a further breakdown of Defective Equipment (Total

Interruptions) by causes codes i.e. equipment/asset type.

b) (P. 48) Please provide a further breakdown of Defective Equipment (Customer

Interruptions) by cause code i.e. equipment/asset type.

c) (P. 49) Please provide a further breakdown of Defective Equipment (Customer Hours

of Interruption) by cause code i.e. equipment/asset type.

2-Intervenor-43

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 58

Question(s):

Please provide the percentage of the capital budget undertaken by internal compared to

external resources for the period 2021-2025 compared to 2026-2030.

2-Intervenor-44

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 63

Question(s):

Please provide the number of work orders resulting from maintenance activities over the

period 2021 to 2024 and 2025 to date.

2-Intervenor-45

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 63

Question(s):

Please provide copies of the Annual System Performance Reports for 2021, 2022 and 2024.

## 2-Intervenor-46

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 107

- a) BHI indicates that it "has not proposed any NWS for this upcoming rate period." Will BHI continue to assess whether NWS would be appropriate in lieu of any in-period capital investments during the rate period? Why or why not?
- b) If BHI decides that a NWS would be appropriate during the rate period, will it request OEB approval or do so via its existing funding envelopes?
- c) Please provide all underlying documentation relating to NWS assessments BHI has undertaken with respect to each project during the rate term over \$2 million. If it is not clear from that underlying documentation, please indicate each of the NWSs explored for each project and why each was ruled out.
- d) Has BHI already completed a full NWS assessment for each project over \$2 million during the rate term?
- e) Please provide a table with a row for each project over \$2 million and columns to indicate whether each of the following NWSs was considered: demand response, energy efficiency, storage, solar/storage, and a combination of those solutions. Please also include a column to indicate whether one or more third party NWS developers or aggregators were approached to assess whether they could meet the distribution needs at a lower cost.
- f) In assessing NWSs, did BHI approach one or more third party NWS developers or aggregators were approached to assess whether they could meet the distribution needs at a lower cost? If yes, please indicate which ones were approached and provide the documentation provided to them (e.g. a request for proposal or equivalent).

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 119 and Material Investment Summary Documents, p. 27

# Question(s):

- a) These questions concern the proposed system access spending, including the spending to connect new housing developments. Please provide a table showing the average connection costs per lot for residential developments. Please provide a breakdown showing the average costs for developments with and without gas heating. Please include the full costs, including the amounts that will be included in rate base and the amounts that will be covered by the developer. Please provide the information based on the previous 5 years of connections. If that is not feasible, please select a feasible timeframe.
- b) Please provide a figure comparing the results in (a) to the figures on page 14 of the following PwC report prepared for the OEB: https://www.oeb.ca/sites/default/files/uploads/documents/reports/2024-10/Report-Back-to-Minister-on-System-Expansion-for-Housing-Developments-20241021.pdf.
- c) Please discuss additional steps that BHI could take to fulfill the Ontario Government's goal of reducing the cost of electrical connections for housing developments.

#### 2-Intervenor-48

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 141

## Question(s):

a) Please provide the approximate number and percent of BHI customers that are unable to connect a distributed energy resource (i.e. DERs or BTM generation) due to electricity system constraints (e.g. thermal or short circuit constraints). This can be estimated, for instance, by determining the number of customers on restricted feeders.

- b) Please provide the approximate number and percent of customers for whom a technical restriction (e.g. short circuit or thermal constraint) on connecting a DER will be removed due to investments that BHI is planning.
- c) Please describe the measures that BHI is undertaking to reduce restrictions on its customers connecting DERs.
- d) Does BHI offer Flexible Interconnection Capacity Solutions?<sup>4</sup> If not, does it intend to do so in the future, and if yes, when?
- e) Does BHI have DER Management Systems (DERMS) in place to cost effectively monitor and, where appropriate, control DERs? If not, does it intend to do so in the future, and if yes, when?

Ref: Ex. 2, Appendix A - Distribution System Plan, p. 143, 149

- a) Whenever Toronto Hydro is replacing fossil fuel heating equipment, it is replacing it with electric heat pumps (per EB-2023-0195, 1B-ED-3). Is BHI planning and committing to do the same? If yes, the remaining parts in this question need not be answered.
- b) Please provide a table listing each building owned by Burlington Hydro, how they are heated, their approximate annual gas consumption, the age of any fossil fuel heating equipment, the approximate life left in any fossil fuel heating equipment, the annual fossil fuel costs (all inclusive, including commodity, delivery, and fixed charges), and the annual incremental electricity costs that would arise were the fossil fuel equipment with an appropriate electric heat pump.
- c) Please provide a table showing all fossil fuel heating equipment in its buildings that is at the end of its expected useful life or will reach the end of its useful life within

<sup>&</sup>lt;sup>4</sup> For a description of Flexible Interconnection Capacity Solutions and their benefits see https://restservice.epri.com/publicdownload/00000003002022432/0/Product.

the rate term. For each piece of equipment, please indicate whether Burlington Hydro expects to replace it with fossil fuel or electric equipment, and why.

## 2-Intervenor-50

Ref: Ex. 2, Appendix A – Distribution System Plan, pp. 17, 37, 38, 69, 92, 103, 110, 115, 117

- a) (P. 17) Please confirm that the costs associated with asset refurbishments are treated as capital costs. If not, please discuss how the costs are categorized between capital and OM&A.
- b) (P. 38) Please provide the underlying data supporting the unit cost analysis shown in Table 5.2-7.
- c) (P. 38) Please reconcile the average unit costs in Table 5.2-7 to the information provided in Table 5.2-6. If they do not reconcile, please explain why.
- d) (P. 38) Please further explain the methodology used for costing assumptions and how historical actual costs are used as part of that methodology.
- e) (P. 92) Please provide a table that sets out the historical (2021-2025) and forecast (2026) unit count between replacement and refurbishment for each major asset type where refurbishment practices are applied (e.g., 10 pad-mounted switch gear were replaced and 2 were refurbished). Please explain how the opportunity to refurbish rather than replace is reflected in the capital expenditure plan.
- f) (P. 103) Please provide an update on the 2025 pilot with respect to cable injection as an alternative to cable replacement.
- g) (P. 103) Please confirm that BHI treats cable injection costs as a capital expenditure. If not, please explain.
- h) (P. 103) Please provide an update on the 2025 pilot with respect to wood pole reinforcement as an alternative to pole replacement.

- i) (P. 103) Please confirm that BHI treats pole reinforcement costs as a capital expenditure. If not, please explain.
- j) (P. 110) Please explain the difference between the \$18.2M of 2025 budget CAPEX shown in Table 5.4-1 relative to the \$18.5M forecast CAPEX shown in Appendix 2-AB.
- k) (P. 112) Please provide a detailed variance analysis of the approved budget compared to actual costs for the CIS project.
- l) (P. 115) Please provide the total number of wood poles tested in each of the years 2021 to 2024.
- m) (P. 115) Please provide the forecast number of wood poles to be tested in each of the years 2025 to 2030.
- n) (P. 117) Regarding the 2024 planned vs. actual capital expenditures, please:
  - i) Further discuss the need for full resealing/replacement of meters and provide the cost of this activity related to the meter groups that were too small for compliance sampling.
  - ii) Provide the unit cost differential between installing cable in conduits relative to directly buried cable. Please also explain why this change in installation technique resulted in a variance between actual and planned (i.e., was the plan to directly bury cable in the approved DSP?) How does the change in the installation technique impact the 2026 CAPEX forecast?
- o) (P. 118) Regarding the 2025 planned vs. forecast capital expenditures, please:
  - i) Provide an update to the budget figures and variance explanations in Table5.4-7 using the most up to date information.
  - ii) Further discuss the need for full resealing/replacement of meters and provide the cost of this activity related to the meter groups that were too small for compliance sampling. Please also discuss whether the issue of "meter groups being too small for compliance sampling" influences the 2026 CAPEX forecast related to metering costs.

- iii) Provide more specific details regarding the additional costs incurred with respect to computer hardware and software.
- iv) Provide more specific details regarding the additional costs incurred with respect to large fleet vehicles (and explain why these investments were deferred to 2025).

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents

## Question(s):

a) Please list all of the service upgrades underlying the investment summaries on page 8 and 11 and comment on each as to whether storage could serve the increased customer needs instead. Please do not guess, and indicate "unknown" where it is unknown.

## 2-Intervenor-52

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 1-7
Attachment 1, Appendix 2-AA

- a) Please provide an update regarding the in-service date and cost for the Dundas St.
   Road Widening Guelph Line to Kerns Rd. section of the project.
- b) Please provide an update regarding the in-service date and cost for the 2025 work related to the Dundas St. Road Widening (Northhampton Blvd. to Guelph Line).
- c) For each of the Dundas St. Road Widening Project Appleby line to Tremaine, Tremaine to Bronte and Guelph Line to Kerns Road, please provide:
  - i. The scope and volume of work (same format as shown in the material investment summary document for comparison purposes)

- ii. The total cost, capital contribution and net cost.
- d) Please describe how the actual costs associated with earlier Dundas St. Road Widening projects (i.e., Appleby line to Tremaine & Tremaine to Bronte) were considered when forecasting the latter sections of the Dundas St. Road Widening Project (i.e., 2026-2027 sections of the project).
- e) Please provide details regarding the Halton Region road widening project, including scope and volume of work, and further explain how the costing information from the Halton Region road widening project was used to inform the forecast for the current project.
- f) Please provide specific examples of the input provided by BHI to the Region in support minimizing relocation requirements, particularly with respect to assets that are not candidates for renewal.
- g) Please quantify the future maintenance and asset renewal cost savings associated with assets that are renewed as part of the Dundas St. Road Widening projects in the plan period.
- h) With respect to project alternatives please explain and provide the incremental costs related to the Upgrade alternative compared to the Like for Like alternative for the Dundas Road Widening projects in the plan period.

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 8-10

# Question(s):

a) Please further explain how the 2026-2030 budget for the General Service – Overheads program was developed. More specifically, provide the calculation showing how the factors of the historical average, expected new connections and upgrades due to increased EV adoption resulted in the forecast for the DSP period. b) Please further discuss how the 2026-2030 capital contributions were forecast. As part of the response, please explain the reason for the very significant decrease in capital contributions (as a percentage of gross CAPEX) between the historic and forecast periods.

#### 2-Intervenor-54

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 11-13

# Question(s):

- a) Please further explain how the 2026-2030 budget for the General Service Underground program was developed. More specifically, provide the calculation showing how the factors of the historical average expected new connections and upgrades due to increased EV adoption resulted in the forecast for the DSP period.
- b) Please further discuss how the 2026-2030 capital contributions were forecast. As part of the response, please explain the reason for the very significant decrease in capital contributions (as a percentage of gross CAPEX) between the historic and forecast periods.

## 2-Intervenor-55

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 14-16

- a) Please advise whether BHI receives capital contributions associated with its Transformers New Connections program. If yes, please provide the annual amounts from 2021-2030.
- b) Please complete the following table:

		2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Transforme	ers - New Connections (\$)	193,462	528,959	476,393	335,151	377,000	588,540	600,080	612,197	624,314	637,008
Transformers – New Connections (Units)											
Transformers – New Connections (\$/Unit)											

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 17-19

## Question(s):

a) Please complete the following table with respect to the "metering – new connections program." In addition, please provide a breakdown of the meter costs, units and unit costs by customer type (e.g., residential meter, GS<50 meter, etc.).

			2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Meters - N	Meters - New Connections (\$)		367,229	272,630	423,832	280,232	360,000	408,000	428,480	450,925	472,834	496,800
Meters - N	Meters - New Connections (Units)											
Meters - New Connections (\$/Unit)												

- b) Please explain the statement that this "program includes expenditures for procurement and installation or replacement of revenue meters for new and existing customer connections." If this program includes replacement meters, please provide the breakdown between new meters and replacement meters.
- c) Please advise whether BHI receives any capital contributions related to the metering new connections program. If so, please provide the annual amounts.

#### 2-Intervenor-57

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 20-23

## Question(s):

a) Please complete the following table with respect to the "Smart Meter Replacement/Reverification" program:

			2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Smart Meter Replacement/Reverification (\$)		0	226,356	402,556	406,000	275,000	2,600,245	2,547,332	2,597,833	774,996	747,701	
Smart Meter Replacement (\$)												
Smart Met	Smart Meter Replacement (Units)											
Smart Met	er Replace	ment (\$/Unit)										
Smart Meter Reverification (\$)												
Smart Meter Reverification (Units)												
Smart Meter Reverification (\$/Unit)				·	_							

- b) BHI states "Meter failure projections based on annual failure trending indicate that 15% of BHI's meter population will have failed by the end of 2025." Please provide the year-to-date percentage of failed meters.
- c) Please provide the cost differential between proactive and reactive replacement of smart meters.
- d) Please advise whether all the meters planned for replacement between 2026-2030 are at their seal expiry date. If not, please provide the number of meters that will be replaced prior to seal expiry (by year).
- e) Please provide an estimate of the cost difference between Option 1 and Option 2 (Proposed). For Option 1 assume that you would replace the meters, as needed, with the same meter type(s) as planned for Option 2.
- f) Please discuss the pacing of the Smart Meter Replacement/Reverification program in the context that the average cost over the 2026-2030 period is \$1.9M with a \$2.6M test year budget.
- g) If a detailed business case for the AMI 2.0 project is available, please file that business case.

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 24-26

## Question(s):

Please complete the following table with respect to the "Suite Metering" program:

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Suite Metering (\$)	53,059	116,791	63,468	238,203	409,500	609,323	587,340	553,842	630,536	643,356
Suite Metering (Units)										
Suite Metering (\$/Unit)										

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 30-51

## Question(s):

For each of the three Major Transit Station Area Development Projects (Aldershot, Burlington and Appelby):

- a) Please explain how the capital contribution was derived (including any economic evaluation that was completed).
- b) Please provide an update on the expected timing. Does BHI still intend to bring assets into service on December 31, 2026 for the Aldershot GO and Burlington GO projects.
- c) If available, please provide third-party documentation supporting the forecasted expenditure.
- d) Please provide any comparative analysis regarding the cost relative to other similar transit-related projects that BHI has undertaken in the past. Please include the forecast versus actual cost and in-service dates for similar transitrelated projects.
- e) Please provide the quantity and cost of the underground components for each of the Aldershot, Burlington and Appleby projects.
- f) Please explain the statement that "The final installation method will depend on City of Burlington and Halton Region Right of Way (ROW) Municipal Consent approvals, including approvals from the MTO, CN and Metrolinx" and the implications on the forecast cost of the project. As part of the response, please

- advise whether there is the potential that a different proportion will need to be installed underground.
- g) Please discuss whether the Aldershot GO MTSA development work (p. 30) could be deferred via an NWS. Please include details such as the timeline of forecast capacity deficits and why the early deficit years can or cannot be addressed via NWSs.
- h) Please discuss whether the Burlington GO MTSA development work (p. 37) could be *deferred* via an NWS. Please include details such as the timeline of forecast capacity deficits and why the early deficit years can or cannot be addressed via NWSs.
- i) Please discuss whether the Appleby GO MTSA development work (p. 44) could be *deferred* via an NWS. Please include details such as the timeline of forecast capacity deficits and why the early deficit years can or cannot be addressed via NWSs.

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 27-41

- a) Burlington has forecast \$3,393k in System Access funding for Major Transit Station Area Developments based on known developments identified through the City of Burlington's Site Plan Approval (SPA) process, for a total of 31,500 units. Burlington acknowledges that these activities are dependent on the developer, and it does not start construction until a signed Offer to Connect is received and the deposit is paid by the developer. Please provide the SPA information that Burlington is relying upon as the basis for this forecast.
- b) Burlington is forecasting net average \$748k per year from 2025 to 2030 for 300 new units in subdivisions, when historically the average is \$95k. Please provide the information that Burlington is relying upon as the basis for this forecast.

- c) For each Site Plan Approval included under parts a and b, please provide information on the status of the development, e.g. has SPA been given, has the developer been in contact with the utility, when is the expected start date?
- d) BHI states "Subdivision developments are typically constructed under the alternative bid option. Upon completion, BHI pays the developer a transfer price in accordance with Section 3.2 of the Distribution System Code (DSC)." Please advise whether the entirety of the net capital budget for Subdivisions is related to the transfer price payment. If not, please provide a breakdown of the budget.

# Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37 and Material Investment Summary Documents, pp. 52-56

## Question(s):

a) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
UG Rebuild (\$)	\$815,151.87	\$999,997.31	\$1,974,672.03	\$1,281,918.78	\$1,050,000.00	\$2,091,000.00	\$2,132,000.00	\$2,175,050.00	\$2,218,100.00	\$2,263,200.00
UG Rebuild Proactive (\$)	\$ 181,000.00	\$106,000.00	\$ 18,000.00	\$ 246,000.00						
UG Rebuild Proactive (meter)	1038	90	N/A	1788						
UG Rebuild Proactive (\$/meter)	\$ 174.37	\$ 1,177.78	N/A	\$ 137.58						
UG Rebuild Reactive (\$)	\$ 634,000.00	\$894,000.00	\$1,957,000.00	\$1,035,000.00						
UG Rebuild Reactive (meter)	1549	3856	7675	1199						
UG Rebuild Reactive (\$/meter)	\$ 409.30	\$ 231.85	\$ 254.98	\$ 863.22						
	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
UG Rebuild Replacement (\$)										
UG Rebuild Replacement (meter)										
UG Rebuild Replacement (\$/meter)										
UG Rebuild Injection (\$)										
UG Rebuild Injection(meter)										
UG Rebuild Injection (\$/meter)										

- b) BHI states that proactive replacement of end-of-life underground primary cables is more cost effective than reactive replacement. Table 5.2-6 appears to show that reactive underground rebuilds were lower cost per unit (on average from 2021-2024) than proactive replacements. Please reconcile and explain the switch to a more aggressive proactive replacement strategy in the context of the unit cost difference.
- c) Please provide the number of cable faults for each of the years 2015 to 2019.
- d) What is the unit price of replacing secondary cable?

e) Please provide details on what assumptions Burlington has made in forecasting an average of \$2,176k per year for Underground Rebuild, i.e. how much secondary versus primary will be replaced, how much of the replacement will be reactive versus proactive?

## 2-Intervenor-62

Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37 and Material Investment Summary Documents, pp. 57-60

# Question(s):

a) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Pole Replace (\$)	\$1,117,942.43	\$1,092,660.49	\$ 1,390,654.69	\$1,631,007.20	\$1,050,000.00	\$1,581,000.00	\$1,612,000.00	\$ 1,644,550.00	\$1,677,100.00	\$1,711,200.00
Pole Replace Proactive (\$)	\$ 915,000.00	\$ 711,000.00	\$ 1,032,000.00	\$1,130,000.00						
Pole Replace Proactive (Unit)	69	51	77	75						
Pole Replace Proactive (\$/Unit)	\$ 13,260.87	\$ 13,941.18	\$ 13,402.60	\$ 15,066.67						
Pole Replace Reactive (\$)	\$ 203,000.00	\$ 421,000.00	\$ 340,000.00	\$ 302,000.00						
Pole Replace Reactive (Unit)	15	26	32	18						
Pole Replace Reactive (\$/Unit)	\$ 13,533.33	\$ 16,192.31	\$ 10,625.00	\$ 16,777.78						
	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Pole Replacement (\$)					-					
Pole Replacement (Unit)										
Pole Replacement (\$/Unit)										
Pole Enforced (\$)										
Pole Enforced (Unit)										
Pole Enforced (\$/Unit)										

b) Please provide the number of pole failures for each of the years 2015 to 2024 and 2025 to date.

#### 2-Intervenor-63

Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37 and Material Investment Summary Documents, pp. 61-64

# Question(s):

a) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Switchgear Replace (\$)	\$292,929.62	\$100,101.50	\$2,047.70	\$158,826.21	\$350,000.00	\$408,000.00	\$364,000.00	\$371,350.00	\$378,700.00	\$386,400.00
Switchgear Replace Proactive (\$)	\$293,000.00	\$100,000.00	\$ -	\$159,000.00						
Switchgear Replace Proactive (Unit)	2	1	0	2						
Switchgear Replace Proactive (\$/Unit)	\$146,500.00	\$100,000.00	N/A	\$ 79,500.00						
Switchgear Replace Reactive (\$)	0	0	0	0						
Switchgear Replace Reactive (Unit)	0	0	0	0						
Switchgear Replace Reactive (\$/Unit)	N/A	N/A	N/A	N/A						

b) Please provide the number of switchgear failures for each of the years 2015-2024 and 2025 to date.

#### 2-Intervenor-64

Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37 and Material Investment Summary Documents, pp. 65-68

# Question(s):

a) Please complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Station Relay Replace (\$)	115,375	224,303	236,469	471,346	220,000	408,000	416,000	424,400	432,800	441,600
Station Relay Replace Proactive (\$)										
Station Relay Replace Proactive (Unit)										
Station Relay Replace Proactive (\$/Unit)										
Station Relay Replace Reactive (\$)										
Station Relay Replace Reactive (Unit)										
Station Relay Replace Reactive (\$/Unit)										

- b) In the absence of any station relay replacements, please provide the number of relays that are forecast to be in very poor condition by the end of 2030.
- c) Please provide the number of station relay failures for each of the years 2015 to 2024 and 2025 to date.
- d) Please provide the number of obsolete station relay replacements over the period 2026 to 2030.

#### 2-Intervenor-65

Ref: Ex. 2, Appendix A, p. 37 and Material Investment Summary Documents, pp. 69-

# Question(s):

a) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual		2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Station Transformer Replace (\$)	319,004	1,011,123	204,940		490,012	450,000	408,000	416,000	424,400	432,800	441,600
Station Transformer Replace Proactive (\$)	\$319,000.00	\$1,011,000.00	\$205,000.00	\$ 476	,000.00						
Station Transformer Replace Proactive (Unit)	1	1	0		1						
Station Transformer Replace Proactive (\$/Unit)	\$319,000.00	\$1,011,000.00	N/A	\$ 476	,000.00						
Station Transformer Replace Reactive (\$)	\$ -	\$ -	\$ -	\$ 32	,000.00						
Station Transformer Replace Reactive (Unit)	0	0	0		0						
Station Transformer Replace Reactive (\$/Unit)	N/A	N/A	N/A	N/A							

- b) Please explain the proactive spending in 2023 where no station transformers were replaced.
- c) Please explain the reactive spending in 2024 where no station transformers were replaced.
- d) Please advise whether BHI has repaired station transformers in the past. If so, please explain whether BHI has considered that option for the forecast period.
- e) Please provide the unit cost differential between oil-type station transformers and dry-type station transformers.
- f) For the four station transformers that BHI is monitoring, please provide the age of those assets and the expected type of the replacement asset.
- g) Please provide the number of power station transformer failures per year for the 2015 to 2024 period and 2025 to date.

#### 2-Intervenor-66

Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37 and Material Investment Summary Documents, pp. 74-78

# Question(s):

 a) Please confirm that Table 5.2-6 was transposed correctly and that there were no reactive replacements of substation circuit breakers. b) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Circuit Breaker Replace (\$)	117,923	158,046	113,299	93,742	200,000	255,000	260,000	265,250	270,500	276,000
Circuit Breaker Replace Proactive (\$)	\$118,000.00	\$158,000.00	\$113,000.00	\$93,000.00						
Circuit Breaker Replace Proactive (Unit)	3	3	2	2						
Circuit Breaker Replace Proactive (\$/Unit)	\$ 39,333.33	\$ 52,666.67	\$ 56,500.00	\$46,500.00						
Circuit Breaker Replace Reactive (\$)										
Circuit Breaker Replace Reactive (Unit)										
Circuit Breaker Replace Reactive (\$/Unit)										

- c) In the absence of any circuit breaker replacements, please provide the number of circuit breakers that are forecast to be in each of poor or very poor condition by the end of 2030.
- d) Please provide the number of substation circuit failures for each of the years 2015 to 2024 period and 2025 to date.

#### 2-Intervenor-67

# Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37 and Material Investment Summary Documents, pp. 79-83

# Question(s):

a) Please confirm, or correct, and complete the following table. In addition, please provide a breakdown of costs, units and unit costs by transformer type (e.g., polemount, padmount, etc.).

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Transformer Replace (\$)	\$621,878.80	\$336,157.87	\$613,610.70	\$ 1,007,389.39	\$464,550.00	\$473,841.00	\$483,132.00	\$492,887.55	\$502,643.10	\$512,863.20
Transformer Replace Proactive (\$)	\$201,000.00	\$ 63,000.00	\$193,000.00	\$ 255,000.00						
Transformer Replace Proactive (Unit)	14	1	14	16						
Transformer Replace Proactive (\$/Unit)	\$ 14,357.14	\$ 63,000.00	\$ 13,785.71	\$ 15,937.50						
Transformer Replace Reactive (\$)	\$421,000.00	\$285,000.00	\$420,000.00	\$ 734,000.00						
Transformer Replace Reactive (Unit)	32	37	32	75						
Transformer Replace Reactive (\$/Unit)	\$ 13,156.25	\$ 7,702.70	\$ 13,125.00	\$ 9,786.67						

- b) In the absence of any transformer replacements, please provide the number of transformers by type (e.g., polemount, padmount, etc.) that are forecast to be in each of poor or very poor condition by the end of 2030.
- c) Please provide the number of transformer failures for each of the years 2015 to 2024 period and 2025 to date.

Ref: Ex. 2, Appendix A – Distribution System Plan, p. 37, 140

# Question(s):

a) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Switch Replace (\$)	\$349,370.10	\$375,449.30	\$617,278.11	\$412,656.94	\$180,000.00	\$183,600.00	\$187,200.00	\$190,980.00	\$194,760.00	\$198,720.00
Switch Replace Proactive (\$)	\$205,000.00	\$ 38,000.00	\$146,000.00	\$141,000.00						
Switch Replace Proactive (Unit)	17	3	29	9						
Switch Replace Proactive (\$/Unit)	\$ 12,058.82	\$ 12,666.67	\$ 5,034.48	\$ 15,666.67						
Switch Replace Reactive (\$)	\$144,000.00	\$338,000.00	\$471,000.00	\$272,000.00						
Switch Replace Reactive (Unit)	15	16	27	17						
Switch Replace Reactive (\$/Unit)	\$ 9,600.00	\$ 21,125.00	\$ 17,444.44	\$ 16,000.00						

- b) In the absence of any switch replacements, please provide the number of switches that are forecast to be in each of poor or very poor condition by the end of 2030.
- c) Please confirm, or correct, and complete the following table.

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
MS Feeder Cable Replace (\$)	\$223,945.89	\$305,056.33	\$134,661.11	\$3,558.09	\$225,000.00	\$198,900.00	\$202,800.00	\$206,895.00	\$210,990.00	\$215,280.00
MS Feeder Cable Replace Proactive (	\$129,000.00	\$ 12,000.00	\$135,000.00	\$ -						
MS Feeder Cable Replace Proactive (r	1784	0	1381	0						
MS Feeder Cable Replace Proactive (	\$ 72.31	N/A	\$ 97.76	N/A						
MS Feeder Cable Replace Reactive (\$	\$ 95,000.00	\$293,000.00	\$ -	\$4,000.00						
MS Feeder Cable Replace Reactive (m	520	3113	0	0						
MS Feeder Cable Replace Reactive (\$	\$ 182.69	\$ 94.12	N/A	N/A						

d) In the absence of any MS Feeder Cable replacements, please provide the length of cable that is forecast to be in each of poor or very poor condition by the end of 2030.

# 2-Intervenor-69

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 84-86

# Question(s):

a) Please further discuss the relationship between the AMI Collector System upgrade and the replacement of the smart meters (from AMI 1.0 to AMI 2.0). As part of the

response, please explain whether a slower pace of smart meter replacement would allow for a slower pace of installing the upgraded collector system.

b) Please confirm that BHI's existing collector system is compatible with the planned upgraded smart meters.

#### 2-Intervenor-70

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 87-89

# Question(s):

Please provide a table that shows the following information for 2021-2030.

Intelligent Switches (O/H) \$
Intelligent Switches (O/H) Units
Intelligent Switches (O/H) \$/Unit
Intelligent Switches (U/G) \$
Intelligent Switches (U/G) Units
Intelligent Switches (U/G) \$/Unit

# 2-Intervenor-71

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 90-95

# Question(s):

- a) Please provide a detailed breakdown of the buildings program costs (by year for the 2026-2030 period) that aligns with the description of the work to be completed provided at pages 91-92 of the Material Investment Summary Documents, and include the project priority rankings where applicable.
- b) With respect to the roof damage resulting from a storm, please discuss whether there were any insurance claims/payments associated with that damage. If so, please explain how those payments were treated for ratemaking purposes.

#### 2-Intervenor-72

# Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 96-102 Ex. 9, p. 40

# Question(s):

- a) Please provide a detailed breakdown of the other computer hardware and software spending by year for the 2026-2030 period, and include the project priority rankings where applicable.
- b) BHI discusses "cloud-driven IT/OT modernization" at page 98 of its Material Investment Summary Documents. BHI also appears to be seeking the continuation of the Incremental Cloud Computing Implementation costs account for the 2026-2030 period.
  - i. Please provide the cloud computing-related costs (both OM&A and capital (as applicable)) that are reflected in the application.
  - ii. Please discuss whether there have been offsetting reductions to IT/OT capital costs from cloud computing.

### 2-Intervenor-73

# Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 103-107 and Appendix M

- a) In the same format as the table shown in the "scope and volume of work" at page 103 of the Material Investment Summary Documents, please provide an update regarding the types of vehicles purchased or planned to be purchased in 2025 and provide an updated cost figure. Please discuss whether any of the trucks listed on page 105 as having a score over 27 were replaced in 2025.
- b) Please provide the fleet evaluation scores (resulting from the Fleet Evaluation Matrix) for all of BHI's vehicles (and a description of the vehicles that aligns with the vehicle descriptions shown in the table in the "scope and volume of work" at page 103 of Material Investment Summary Documents).

- c) Please provide details on what vehicles were replaced/purchased between 2021 to 2024.
- d) What is the status of ordering vehicles scheduled for 2026?

Ref: Ex. 2, Appendix A - Distribution System Plan, pp. 159, 162, and Appendix M

# Question(s):

a) Please complete the following chart indicating the breakdown of vehicle type in BHI's current vehicle fleet:

Vehicle Type	Fully	Hybrid	Non-	Total
	Electric		EV/Hybrid	
Heavy Duty Vehicles				
Medium Duty Vehicles				
Light Duty Vehicles				

b) Please complete the following chart to indicate what proportion of BHI's planned fleet renewal investment will involve fully electric vehicles:

Year	2025	2026	2027	2028	2029	2030
Heavy Duty Vehicles						
Medium Duty Vehicles						
Light Duty Vehicles						

c) Please indicate the estimated quantum of efficiency savings (including operations, maintenance, fuel cost savings) that BHI anticipates it will achieve by utilizing EVs rather than traditional internal combustion engine vehicles over the rate period.

#### 2-Intervenor-75

Ref: Ex. 2, Appendix A – Distribution System Plan, Material Investment Summary Documents, pp. 116-119

# Question(s):

Please provide the Business Case for this project.

#### 2-Intervenor-76

Ref: Ex. 2, Appendix A – Distribution System Plan, Appendix D– Needs Assessment,p. 11

#### Preamble:

"All IRRPs will include opportunities for engagement with local communities and stakeholders, as well as include discussion of any local initiatives focused on energy and/or reducing GHG emissions, and how the IRRP can coordinate with these plans. This could include Community Energy Plans, Net-Zero strategies, or similar. Particular attention will be paid to opportunities for information sharing and/or coordination of goals and outcomes."

- a) Please confirm that Burlington Hydro is the local source of information and coordination for stakeholders and information on demand and integrated planning, including all stages of the Regional Planning process. If that is not correct, please provide details on what BHI's role was and what supplemental coordination and input was conducted.
- b) Please provide details on the community and plan items (related to planning, as noted above) that were undertaken by BHI or other parties (if applicable).

c) Please describe how the local initiatives, plans and consultation (as notes above) led to specific changes in the BHI plan, DSP and as a result, the Regional Planning process.

#### 2-Intervenor-77

Ref: Ex. 2, Appendix A – Distribution System Plan, Appendix D, E, F -Needs Assessment, p. 11

# Question(s):

- a) Please provide a table showing the needs identified in the reports (e.g. Appendix D, p. 8, Appendix E, p. 36, and Appendix F, p. 10) with a column indicating which ones are driven by BHI customers. Where the need is driven in part by BHI customers, please includes an estimate of the contribution of BHI customers to the overall need (e.g. more or less than 50%).
- b) Please provide BHI's best estimate of the total capacity of DERs in its service territory. Please provide a breakdown by type (e.g. storage, solar, etc.).
- c) Hydro One assumes that all DERs are not exporting for the purposes of transmission system planning (per responses in the UTR generic hearing). If the DERs in BHI's territory were controllable and could be used to address distribution and transmission constraints, would that allow for the deferral of any of the projects described in Appendix D, E, and F.

#### 2-Intervenor-78

Ref: Ex. 2, Appendix A - Distribution System Plan, Appendix E - IRPP

# Question(s):

Please provide a table showing the needs identified in the assessment report (e.g. on page 36) with a column indicating which ones are driven by BHI customers. Where the need is driven in part by BHI customers, please includes an estimate of the contribution of BHI customers to the overall need (e.g. more or less than 50%). If none are driven in whole or in part by BHI customers, a table is not needed.

# Ref: Ex. 2, Appendix A - Distribution System Plan, Appendix G - REG Investment Plan

# Question(s):

- a) BHI indicates that "Transformers are more sensitive to reverse power flow; therefore, BHI calculates thermal capacity as 60% of the transformer's nameplate rating added to the minimum load of the transformer." Are different transformers more or less sensitive to reverse power flow? Could BHI take reverse power flow sensitive into account when purchasing transformers? Does BHI believe it could achieve a higher level than 60% when replacements occur due to new transformer technology or specification? If yes, roughly what percent is achievable. [Note: We understand that thermal capacity limits are not currently a problem. However, this question is relevant to ongoing transformer replacements, which have long lives into the future, at which point thermal capacity limits could become an issue.]
- b) Please provide details similar to what is found in s. 3.3 (Thermal Capacity Constraints) but for the short circuit constraints, distribution and upstream.

#### 2-Intervenor-80

# Ref: Ex. 2, Appendix A – Distribution System Plan, Appendix I – 2024 Asset Condition Assessment

# Question(s):

- a) Please provide a copy of the ACA that underpins BHI's 2021 Cost of Service application.
- b) (P. v) Please provide Table 0-2 on the basis of quantities for each asset category.
- c) (P. v) For each of the Distribution Assets in Table 0-2, please provide the quantity replaced over the period 2021 to 2024 and the forecast quantity to be replaced in each of the years 2025-2030. In the response, please quantify the assets by asset category in poor and very poor condition that were replaced or forecast to be replaced.

#### Exhibit 3 - Customer and Load Forecast

Ref: Ex. 3, pp. 17, 32, 49, 51, 53, 54, 62, 67

- a) If available, please provide the number of new housing units forecast for BHI's service area between 2024 and 2026.
- b) Please provide customer numbers, kWhs and kW for 2025 for all classes for all months for which actual values are available.
- c) Please rerun the load forecast using these most recent year-to-date numbers.
- d) Please provide an update with respect to the GS>50kW customer that will cease operations in early 2025. Has that customer already ceased operations?
- e) Please explain the implications of the 2024 net reclassification of customers from GS>50kW to GS<50kW to the customer and load forecasts for those two rate classes. Please discuss whether BHI considered a manual adjustment to address this reclassification.
- f) Please further explain the basis for the assumption that 0.15% of existing customers will convert from natural gas to electricity heating each year.
- g) Please further explain the basis for the assumption that 15% of new customers will have electric heating.
- h) Please provide the amount of incremental consumption (kWh) due to space heating forecasted for 2022 through 2024 that has manifested on the system.
- i) Please provide the amount of actual consumption (kWh) for 2022 through 2024 that is attributable to space heating. Please reconcile these amounts against those that were forecast and provided in table 30 through 36.
- j) How does BHI determine when a customer has installed a heat pump?

- k) How does BHI determine whether a customer that has installed a heat pump is using it for space heating?
- l) Is BHI assuming that the heat pump provides all of the space heating demand without need of backup?
- m) Is BHI assuming that the customers that convert to heat pumps are using electricity for all their space heating needs?
- n) Please provide the actual and forecast demands for the residential customer class.
- o) How much of this demand is attributable to heat pumps? If BHI does not have this information or cannot provide this information, why not?
- p) How does BHI track the adoption of heat pumps by residential and GS<50 kWh customers over time? If BHI does not track this information, why not? How will BHI know if customers are converting their space heating to heat pumps?
- q) Please confirm BHI is a summer peaking utility.
- r) Please provide BHIs summer and winter peak demands and the contributions of the forecasted number of heat pumps to those demands.
- s) Does BHI anticipate becoming a winter peaking utility? If yes, when? If not, why not?

Ref: Ex. 3

# Question(s):

a) Please list the differing assumptions and methodologies used when forecasting peak load for the purposes of billing determinants and for assessing capital needs at the various levels of the electricity system (e.g. transmission, large scale distribution, street-level distribution). For each, please ensure that assumptions regarding distributed energy resources (e.g. whether they are assumed to be generating, not generating, or otherwise).

- b) If a residential customer increases their service (e.g. from 40 amp to 200 amp), how will that impact the various peak load forecasts (if at all). For the purpose of this question, please assume that the customer's peak and annual load remains the same. The purpose of this question is to determine whether efforts to help customers avoid service upgrades when electrifying heating or transportation can help reduce costs driven by peak demand in any part of the electricity system.
- c) Please describe whether and how BHI has changed its formal forecasting methodologies to address the unknowns relating to electrification and the energy transition. For instance, how has BHI addressed the reality that past peak demand trends are not as predictive of future peak demand trends due to the change inherent in the energy transition. Please provide any internal documentation regarding forecasting methodologies and highlight the portions that have changed to address these factors.
- d) Please provide live excel spreadsheets with the data and details listed on page 50 and 53 of Appendix 4.1. Please ensure the historical and forecast space heating systems are shown.
- e) Please provide a table showing for each customer class: the number of customers, the annual demand, and the peak demand, including historical figures for the past 5 years and forecast figures for as long as is available. If possible, please include a breakdown of summer and winter peak demand.

Ref: Ex. 3

# Question(s):

- a) Please explain why there is no increase in load for the GS > 50 kW class as a result of electrification/heating.
- b) Please explain the basis for the assumption that CDM savings in 2025 and 2026 will be the same as 2024 savings.

#### 3-Intervenor-84

Ref: Ex. 3, pp. 12-15

# Question(s):

- a) For the Residential class model did Power Advisory test Residential customer count as an explanatory variable? If yes, why was it rejected? If not, please provide the results (i.e., regression equation, regression statistics and 2026 forecast) where the model also includes Residential customer count as an explanatory variable.
- b) For the Residential class model did Power Advisory test the use of a COVID-related variable as an explanatory variable? If yes, what COVID-related variables were tested and why were they rejected?
- c) If Power Advisory did not test the use of a COVID-related variable please provide the regression results (i.e., regression equation and statistics) for each of the following and also provide the 2025 and 2026 kWh forecast for the alternative that has the highest R-squared result with a statistically significant COVID variable coefficient:
  - 1) Binary Flag equal to: i) zero for months before March 2020, ii) 1.0 in each of March, April and May 2020 and iii) then zero thereafter
  - 2) Binary Flag equal to: i) zero for months before March 2020, ii) 0.5 in March and June 2020, iii) 1.0 in April and May 2020 and iv) zero thereafter
  - 3) Two Binary Flags where:
  - One is equal to: i) zero for months before March 2020, ii)  $0.5 \times \text{HDD}$  value in March 2020, iii)  $1.0 \times \text{HDD}$  in April to December 2020, iii)  $0.75 \times \text{HDD}$  in 2021, iv)  $0.5 \times \text{HDD}$  in 2022 and v) zero thereafter.
  - Second is equal to: i) zero for months before March 2020, ii)  $0.5 \times CDD$  value in March 2020, iii)  $1.0 \times CDD$  in April to December 2020, iii)  $0.75 \times CDD$  in 2021, iv)  $0.5 \times CDD$  in 2022 and v) zero thereafter.

#### 3-Intervenor-85

Ref: Ex. 3, pp. 18-22

# Question(s):

a) For the GS<50 class model did Power Advisory test the use of a COVID-related variable as an explanatory variable? If yes, what COVID-related variables were tested and why were they rejected?

- b) If Power Advisory did not test the use of a COVID-related variable for the GS<50 class please provide the regression results (i.e., regression equation and statistics) for each of the following and also provide the 2025 and 2026 kWh forecast for the alternative that has the highest R-squared result with a statistically significant COVID variable coefficient:</p>
  - 1) Binary Flag equal to: i) zero for months before March 2020, ii) 1.0 in each of March, April and May 2020 and iii) then zero thereafter
  - 2) Binary Flag equal to: i) zero for months before March 2020, ii) 0.5 in March and June 2020, iii) 1.0 in April and May 2020 and iv) zero thereafter
  - 3) Binary Flag equal to: i) zero prior to March 2020, ii) 1.0 in April and May 2020, iii) 0.5 for June to December 2021, iii) 0.25 in 2022 and iv) zero thereafter.

Ref: Ex. 3, pp. 25-29 and 51

- a) For the GS>50 class model did Power Advisory test the use of a COVID-related variable as an explanatory variable? If yes, what COVID related variables were tested and why were they rejected?
- b) If Power Advisory did not test the use of a COVID-related variable for the GS>50 class please provide the regression results (i.e., regression equation and statistics) for each of the following and also provide the 2025 and 2026 kWh forecast for the alternative that has the highest R-squared result with a statistically significant COVID variable coefficient:
  - 1) Binary Flag equal to: i) zero for months before March 2020, ii) 1.0 in each of March, April and May 2020 and iii) then zero thereafter
  - 2) Binary Flag equal to: i) zero for months before March 2020, ii) 0.5 in March and June 2020, iii) 1.0 in April and May 2020 and iv) zero thereafter
  - 3) Binary Flag equal to: i) zero prior to March 2020, ii) 1.0 in April and May 2020, iii) 0.5 for June to December 2021, iii) 0.25 in 2022 and iv) zero thereafter.
- c) With respect to the adjustment for lost load (page 51), why doesn't the trend variable (which has a negative coefficient) account for some or all of the lost GS>50 load?

Ref: Ex. 3, pp. 43-48

**Attachment 5, EV Data and EV Forecast Tabs** 

# Question(s):

a) Table 22 only includes actual data up to 2023. However, the EV Data Tab appears to include actual data for 2024. If actual data is available for 2024 please update Table 22 to include 2024 actuals.

b) Please explain the basis for the assumption that the number of vehicles sold in Ontario will increase by 2% per annum in 2025 and 2026 (per page 45).

c) Please explain why Burlington's share of new EVs in 2025 and 2026 was based on the actual share in 2024 (per Attachment 5, EV Forecast Tab, Row 28) as opposed to the average share over a number of historical years.

d) In Attachment 5, EV Forecast Tab, it appears that the ½ adjustment has been applied twice for 2025 and 2026. In Rows 16, 21, 28, 53, 58 and 64 where the cumulative kWhs are determined for the various types of EVs and used in the calculation of the incremental and cumulative kWh calculations by customer class in Rows 134-152. However, these results then include a further ½ year adjustment in Rows 162 to 164. Please review and either: i) explain why there is no double counting of the ½ year adjustment or ii) revise the forecast if there is double counting.

e) What was the basis for the judgement used to determine the allocation of incremental EV consumption to rate classes (per page 47)?

f) What was the basis for the 20% load factor used to determine incremental EV billing demand (per page 48)?

3-Intervenor-88

Ref: Ex. 3, pp. 43-48

Attachment 5, EV Data and EV Forecast Tabs

# Question(s):

- a) Please provide any and all reports, studies, presentations, data or other documentation with respect to past and forecast EV uptake in BHI's service territory.
- b) Please provide BHI's assessment of the specific impacts of the growing customer interest in EVs and the associated increase in EV penetration in BHI's service territory on: (i) BHI's distribution system planning; (ii) load forecast; (iii) productivity; and (iv) OM&A costs.
- c) Has BHI collected any data on the Ultra-Low Overnight ("ULO") for customers who are EV drivers? If so, please file any and all related analysis, reports, studies, presentations, data or other documentation.
- d) Please confirm whether BHI's EV adoption forecast explicitly incorporates the federal ZEV sales mandate and its 2026/2030/2035 interim targets. If not, please explain why the forecast does not reflect this federal policy, and whether BHI intends to update its assumptions.
- e) Please provide BHI's forecasted annual EV sales as a percentage of new vehicle sales in its service area in 2026, 2030, and 2035. Please compare those projected shares to the federal ZEV sales targets and comment on any differences.
- f) Please confirm whether BHI considered multiple EV adoption scenarios (e.g., high/medium/low cases) in preparing its forecast. If yes, please provide a summary of each scenario, the adoption levels assumed, and the associated system impacts. If not, please explain why scenario analysis was not considered appropriate or necessary.
- g) Has BHI undertaken any benchmarking or comparative analysis of its EV adoption and load forecasts against those of other Ontario LDCs? If yes, please provide a summary of the results of any such benchmarking. If not, please explain why Burlington Hydro did not undertake such benchmarking.

3-Intervenor-89

Ref: Ex. 3, p. 48

# Question(s):

- a) Evidence from other OEB proceedings indicates that the peak load of typical residential home with a Level 2 EV charger is equivalent to 3 to 5 homes without a Level 2 EV charger. What has been the experience of BHI?
- b) Has BHI needed to install higher capacity distribution transformers to deal with higher peak loads from customers with Level 2 EV chargers?

# 3-Intervenor-90

Ref: Ex. 3, pp. 49-51

**Attachment 5, Heating Tab** 

# Question(s):

The incremental heating load by customer class reported in Table 35 (page 51) does not match that in Attachment 5, Heating Tab, Rows 60-63. Please reconcile and correct the Load Forecast as necessary.

#### 3-Intervenor-91

Ref: Ex. 3, pp. 10-11

Attachment 5, CDM Tab and CDM Framework Tab

**IESO 2023 Efficiency Report (**2021-2024 Conservation and Demand Management Framework)

IESO 2025-2027 DSM Plan (www.ieso.ca/Sector-Participants/IESO-

News/2025/01/2025-2027-Electricity-Demand-Side-Management-Program-Plan-Released-0131)

- a) With respect to the CDM savings from 2015-2020 programs, please provide the source(s) for the savings assumed for the period 2021-2025.
- b) According to the IESO's 2023 Efficiency Report (p. 23), the actual cumulative savings from the 2021-2023 programs was only 76% of the target amount (as used in the Load Forecast). Also, the IESO has issued new savings targets for 2025 and

2026. Please revise the Load Forecast Model (Attachment 5) to incorporate these updates.

- c) Exhibit 3 (p. 11) states that savings for 2021-2024 are estimated based on BHI's share of provincial CDM savings. However, in CDM Framework Tab the savings appear to be estimated based on BHI's share of provincial kWh. Please clarify the basis for BHI's share of the provincial targets.
- d) Please provide a breakdown of: i) BHI's residential class' share of the total provincial residential kWhs and ii) BHI's GS<50 class' share of the total provincial GS<50 kWh and iii) BHI's GS>50 class' share of the total provincial GS>50 kWh for the years 2019 through 2023.

# **Exhibit 4 – Operating Costs**

#### 4-Intervenor-92

Ref: Ex. 4, Appendices 2-JA, 2-JC and 2-K

# Question(s):

Please provide a revised version of Appendices 2-JA, 2-JC and 2-K that include 2025 actuals year-to-date, and provide actuals for the same date in 2023 to 2024.

#### 4-Intervenor-93

Ref: Ex. 4, p. 48 and Appendix 2-JC

- a) Please provide an update in a similar format to Appendix 2-JC that provides the most up-to-date forecast for full year 2025 OM&A spending by program.
- b) For all programs where there is an allocation to "capital/billable" in Appendix 2-JC, please explain how that allocation was made (and provide the supporting calculations) for each year in the historical period and for the test year.

- c) To the extent that the information is available, please provide the most up-to-date 2025 forecast for OM&A spending at the sub-program level (i.e., similar to the information provided in Table 15 at page 48 for Accounting but for all programs).
- d) In BHI's view, please discuss which categories of OM&A expenses have a direct linkage to capital spending (i.e., if capital spending is increased you will see an increase in related OM&A spending and vice versa).

Ref: Ex. 4, Appendices 2-JB and 2-JC

# Question(s):

- a) Please explain the \$456k increase in 'Other' between 2021 approved and 2026.
- b) Please explain the \$588k increase in 'Miscellaneous' between 2021 approved and 2026.

# 4-Intervenor-95

Ref: Ex. 4, Appendices 2-D and 2-K

# Question(s):

a) Please explain why the % of capitalized OM&A in capital expenditures has reduced in 2025 and 2026 from an average of 21.5% to 12.2%, as shown below.

	Source	2021	2022	2023	2024	2025	2026
Total Capital	2-AA	\$ 11,163,467	\$ 11,447,138	\$ 12,064,984	\$ 14,919,471	\$ 18,502,819	\$ 24,271,845
Capitalized OM&A	2-D	\$ 2,088,914	\$ 2,832,813	\$ 2,738,085	\$ 2,969,785	\$ 2,386,181	\$ 2,798,919
% of Capital that is c	apitalized OM&A	18.7%	24.7%	22.7%	19.9%	12.9%	11.5%

#### 4-Intervenor-96

Ref: Ex. 4, p. 10

#### Preamble:

BHI prepares an annual budget and ten year plan.

Please provide a copy of the latest ten year plan approved by BHI's Board of Directors.

#### 4-Intervenor-97

Ref: Ex. 4, pp. 11-12

# Question(s):

- a) Please provide the calculation that supports the salary/benefit inflationary increase of \$2.3M.
- b) Please provide the calculation that supports the other operational cost inflationary increase of \$1.5M.

#### 4-Intervenor-98

Ref: Ex. 4, pp. 15, 16

# Question(s):

- a) The Ministry of Energy and Electrification issued its renewed Letter of Direction to the OEB on December 19, 2024, which included the expectations/directives listed on pages 15 and 16. Please provide BHI's cost estimate of implementing each expectation or directive showing capital and OM&A expenditures by year.
- b) The OEB, as of the time of filing, had 32 active policy initiatives and consultations,
   27 of which were launched after BHI's last Cost of Service application listed on page
   16. Please provide BHI's cost estimate of implementing each initiative showing capital and OM&A expenditures by year.

# 4-Intervenor-99

Ref: Ex. 4, p. 19

# Question(s):

Please provide details on the change in the volume of work and additional positions needed to explain the forecast variance and net increase of 10 FTEs in 2021 comparing the

Burlington Hydro Inc. Intervenor Consolidated Interrogatories

EB-2025-0051

2021 cost of service application to actuals.

4-Intervenor-100

Ref: Ex. 4, pp. 53, 55

Question(s):

a) (P. 53) Please advise which positions are included in the salary and benefits of the

Administration Program.

b) (P. 55) Please advise whether BHI's insurance covers property damage at its head

office.

c) (P. 55) Please explain the nature of BHI's cyber security insurance.

d) (P. 56) Please provide the deadline for BHI to file its independent cyber security

assessment.

e) (P. 55) Please explain how the reduced utilization of the BHI's administrative staff to

assist with the work of BHI's affiliates has been directly reflected in BHI's workforce

planning.

4-Intervenor-101

Ref:

Ex. 4, p. 60

Question(s):

Please discuss what efforts BHI has made to increase the number of customers on e-billing

in 2024.

4-Intervenor-102

Ref: Ex. 4, pp. 68-69

Question(s):

Burlington Hydro Inc. Intervenor Consolidated Interrogatories EB-2025-0051

Please explain the increase in Communications – All Other costs between 2024 Actual and 2026 forecast in the context that the 2025 increase was related to a "one-time" cost increase associated with conducting a review of the company brand.

4-Intervenor-103

Ref: Ex. 4, p. 71

# Question(s):

Please explain what happened after early 2023 with respect to BHI's provision of control room services to BESI. As part of the response, please discuss the implications for BHI's workforce planning once that arrangement ended. If BHI continues to provide BESI with control room services, please provide a reference to where those OM&A offsets or, if treated as other revenue, the related revenues are shown.

4-Intervenor-104

Ref: Ex. 4, pp. 78-79

# Question(s):

- a) If available, please provide the annual amount of debt collected in the "early stages" of BHI's debt collection process as reflected in the Collection Support costs.
- b) What cost savings were generated from the enhanced IVR platform in terms of reduced customer service representative costs (salaries & benefits)?

4-Intervenor-105

Ref: Ex. 4, pp. 84-85, 94, 96, 102

# Question(s):

a) (P. 84) Please provide a breakdown of the actual staff compensation costs (incl. overtime) in the Distribution, Operations and Maintenance program broken down between capital and OM&A allocations for each year in the historical period (2021-2025) and for the test year (2026).

- b) (PP. 94, 96) Please explain why the Distribution Maintenance and Operations program does not show an allocation to "Capital/Billable" similar to the engineering program (see Table 23 vs. Table 30). As part of the response, please explain how the 2026 allocation for Distribution Maintenance and Operations Salaries, Benefits and Overtime, which appears to be 76% operating and 24% capital (Bullet 2 on page 96), is operationalized in the application for ratemaking purposes.
- c) (P. 85) Please provide a breakdown of the contracted labour costs as between: (i) maintenance & repairs; and (ii) asset removal. With respect to asset removal, please provide the forecast number of half-cut poles to be removed in 2026.
- d) (P. 102) Please provide an updated forecast using the best available information for 2025 locates in a similar format to Table 26.

Ref: Ex. 4, pp. 22, 86-91, 103-106

- a) P.22) Please confirm that the term of the previous vegetation management contract was 2022-2024. If not correct, please provide the term of the previous contract.
- b) (P.22) Please provide details on the increase in the fixed cost of the vegetation management contracts relative to the most recent term of those contracts.
- c) (P.22) Please explain why the RFP for vegetation management was sent to only three proponents.
- d) (P.22) Please advise whether BHI changed its vegetation management service provider(s) as a result of the contracts awarded for the 2025-2027 period.
- e) (P.91) Please confirm that the scheduled vegetation management services budget for 2025 of \$834k reflects the latest contracts.
- f) (P.91) Please explain what, if any price escalation, is included in the vegetation management contracts for 2026 and 2027.

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g) (P.91) Please explain why supervisory management is being shown as a credit amount in Table 22 (and advise whether it should be a debit). With respect to the variance analysis (at pages 103-106), it appears that the supervisory management costs are subtracted in some years and not others. Please correct or confirm the variance analysis.

h) Please provide a copy of the vegetation management RFP for the 2025-2027 contract.

i) Please provide a copy of the contract awarded for 2025-2027.

4-Intervenor-107

Ref: Ex. 4, p. 90

#### Preamble:

In Figure 6, BHI identifies its three vegetation management sections.

# Question(s):

a) Please provide a figure that further divides the sections into the 17 zones.

b) For each of the years 2021 to 2024, please provide the planned areas/zones to be addressed, the actual zones addressed and the cost of each zone.

c) Please provide the planned area/zones to be addressed in 2025, the actual accomplishments to date and forecast accomplishments.

d) Please provide the planned area/zones to be addressed in 2026 and 2027 and the forecast cost of each zone.

e) Please provide the contractor assigned to each of the 17 zones in the latest 3 year cycle.

4-Intervenor-108

Ref: Ex. 4, pp. 108, 115

# Question(s):

- a) (P. 108) Please confirm that the Distribution Asset Inspection costs of \$204k in the test year is directly comparable to the Distribution Asset Inspection costs of \$100k to \$130k in 2022 and 2023, respectively.
- b) (P. 115) Please provide the 2021-2026 OM&A for computer software in a single table (and advise which Information Technology sub-program includes the computer software costs for the 2026 test year).
- c) (P. 115) Please provide the 2021-2026 OM&A for the GIS/OMS Licensing in a single table (and advise which Information Technology sub-program includes the GIS/OMS Licensing costs for the 2026 test year).

4-Intervenor-109

Ref: Ex. 4, p. 122

# Question(s):

Please explain how the burden allocated to materials was calculated.

4-Intervenor-110

Ref: Ex. 4, pp. 146, 148-149

#### Question(s):

- a) (P. 146, 148) Please provide a detailed job description for each of the 11 positions (FTEs) included as part of the Information Technology program budget. As part of the response, please highlight the roles that were created during the 2021-2025 period.
- b) (P. 148) Please advise whether BHI has undertaken a benchmarking exercise with respect to its IT cost relative to other similar businesses. If so, please provide this study.
- c) (P. 148) Please explain what AI-driven initiatives BHI is undertaking. As part of the response, discuss how these initiatives will lead to reduced operational costs or improved customer services.

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d) (P. 149) Please discuss the extent to which the software licenses include support to

BHI for the installation, use, troubleshooting, etc. of the software.

e) (P. 149) In the context of the cyber security protections provided within the software

licenses, please explain the need for additional in-house resources to address cyber

security needs.

f) (P. 149) Please advise whether BHI has collaborated with other LDCs to negotiate

software license discounts.

g) (P. 150) Please describe how increased vendor support (as reflected by the higher

costs related to technology consulting services) has operated to reduce the need for

in-house IT support.

h) Please provide BHI's most recent internal IT strategy that guides its expenditures.

4-Intervenor-111

Ref: Ex. 4, p. 166

Question(s):

Please explain the statement that "incremental operating expenses associated with other

resources have increased due to the implementation of a new cloud-based reporting platform that brings improved data accuracy, as well as increased efficiency in preparing

platform that brings improved data accuracy, as well as increased emclericy in preparing

this application."

4-Intervenor-112

Ref: Ex. 4, p. 166

Question(s):

Please provide a breakdown of the incremental operating expenses associated with other

resources allocated to this application.

4-Intervenor-113

Ref: Ex. 4, pp. 15-20, 155-156, 182-242

- a) (PP. 17, 155-156) Please explain why incremental resources are needed to manage the new OMS system. As part of this response, please reference pages 155-156 of Exhibit 4 and highlight the staffing related costs.
- b) (P. 17) Please provide specific examples of incremental work requiring additional resources related to OCSF standards.
- c) (P.19) Please provide an update for the 2025 FTE count in the same format as Table 5 (at page 19). As part of this response, please discuss any implications of the 2025 updated FTE count on the 2026 forecast.
- d) (P.19) Please explain the basis for the figures shown in Table 5 (at page 19) (e.g., year-end FTE count, average FTE count for the year, etc.). Please explain the difference between this table and Chapter 2 Appendices Appendix 2-K for the historical period.
- e) (P. 19) Please provide a full listing of all position titles (broken out by category) for each of 2024 actual and 2026 forecast. As part of the response, please highlight which positions are proposed to be created between 2024 and 2025.
- f) (PP. 193, 195) Please confirm that two of the FTEs lost in 2024 reflected in the Engineering FTEs category are included in the Information Services category in that same year.
- g) (PP. 211-212, 217) With respect to the workload for the new Energy Transition Integration team (2 new FTEs) and the Supervisor (System Planning & Grid Modernization), please provide the following (along with specific references to other exhibits in BHI's application where this information can be located):
  - The total percentage increase in EV chargers in Burlington between 2024 and 2026
  - ii. The total percentage increase in DER connections between 2024 and 2026

- iii. Specific examples of the implications on workload of conversions from natural gas home heating to electrical home heating and new fully electric home heating.
- iv. The 2026 DSO-related workload that will be handled within these new positions
- h) (PP. 214-216) Please advise whether, currently, the IT Manager (Projects and Business Applications and the Business Applications/Data Specialist are responsible for the work that is planned to be undertaken by the new roles of Supervisor (GIS) and Technician (GIS).
- (P. 223) Please provide the expected retirement year for each of the employees that will be replaced by these two new employees (Electrical Operator Apprentice and Metering Technician Apprentice).
- j) (P. 224) With respect to the 27 new policy consultations, please provide the number that BHI directly (i.e., not through the EDA) participated in.
- k) (P. 224-225) With respect to the new reporting and procedural changes, please provide specific examples of the work that BHI's regulatory team would now need to complete that it did not need to complete previously.
- l) (P. 225) Please confirm that BHI would not be completing the independent cyber security assessment using internal resources.
- m) (P. 225) Please advise what position is currently responsible for evaluating, prioritizing and optimizing BHI's capital plans and addressing supply chain issues.
- n) (P.226-227) Please discuss how the 2026 capital spend on buildings (\$830K) will reduce the number of reactive maintenance issues to be addressed through the facilities operational budget.
- o) (P. 230) Each pay grade and job rate has a salary range between 80% and 120%. Please provide BHI's assumptions for 2026 with respect to the % salary range for Executive, Management and Non-Union employees.

# Ref: Ex. 4, Table 49 and Appendix 2-K

# Question(s):

- a) Burlington is proposing to add 14 new FTEs in 2026, 4 Management and 10 non-management. Please indicate which positions in Table 49 are Management.
- b) For those added positions which Burlington has attributed to being required due to the energy transition, please explain why they are all required in 2026 and cannot be phased in.
- c) Please explain why the two new apprentice FTEs are considered incremental FTEs?

#### 4-Intervenor-115

Ref: Ex. 4, Appendix 2-K

# Question(s):

- a) Please explain the decrease in non-management FTEs forecasted in 2025?
- b) Please provide Burlington's vacancy rate for each year between 2021 and 2024.
- c) What vacancy rate has Burlington assumed for 2025 and 2026?
- d) Please provide Number of Employees, Total Salary and Wages, Total Benefits and Total Compensation by the following categories: Executive, Management, Union, and Non-Union. In the response, please provide a further breakdown of overtime and incentive pay. Please provide an excel version.
- e) Please provide details on the number of part-time employees for each of the years 2021 to 2026.
- f) Please provide an organizational chart to the Supervisor level for 2021 Actuals and 2026. In each chart please include the number of FTEs reporting through to the Supervisor.

#### 4-Intervenor-116

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Ref: Ex. 4, Table 52 and Appendix 2-K

Question(s):

a) Please explain the increase in the number of employees eligible for incentive pay in

2025 when the number of employees is decreasing.

c) For both management and non-management, please explain the year over year

changes in average pay/FTE, including the large increases in 2025.

4-Intervenor-117

Ref: Ex. 4, pp. 229, 232, 238-239

Question(s):

a) (P.229) Please provide support for the statement that the unionized annual wage

increases are consistent with other negotiated settlements in BHI's immediate

geographic area.

b) (P.232) Please provide the January 2024 Short-Term Incentive Program Review if it is

not already filed. If it is filed, please provide a reference to where that review can be

located in the evidence.

c) (P. 238) Please provide an explanation of the approx. \$0.4M increase in health and

dental benefit costs between 2024 actual and 2026 forecast.

4-Intervenor-118

Ref: Ex. 4, p. 231

Question(s):

a) Please provide the number of FTEs in each of the years 2021 to 2025 where the

payout is at or above the target. In the response include the corresponding

incremental \$ amount in each year.

- b) Please provide the assumptions with respect to incentive pay for 2026 in terms of achievement of the targets.
- c) Please explain any incentive plan changes since 2021.
- d) Please provide the Corporate objectives linked to performance.

Ref: Attachment 6

# Question(s):

- a) Please confirm that this was the latest total compensation benchmarking study completed for BHI.
- b) (P. 8) Please explain how BHI management determined which positions to have KF review and what it means in this context for KF to review a specific position.
- c) (P. 18) Please confirm that the result of the KH study is that BHI, on an actual basis in 2023, provided its non-union employees with total direct compensation that was 9% higher than the Ontario utility comparators.
- d) Please provide the cumulative 2026 total direct compensation for all management and non-union positions (i.e., the positions that are covered by the KF report). Please also confirm that the KF study covered 40 positions and advise whether there will be 56 management and non-union positions eligible for the incentive program in 2026.
- e) Please provide the average total direct compensation per employee (for each of Union employees and Non-Union employees) for 2026.

#### 4-Intervenor-120

Ref: Ex. 4, p. 234 and Attachment 6

# Question(s):

With respect to the Korn Ferry Hay, 2023 Management & Non-Union Employee Pay Report:

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a) For each of 'Target Total Direct Compensation: and 'Actual Total Direct Compensation", please provide an estimate of the dollar difference between each of, the total compensation for Burlington's employees and the P50 for the Ontario Utilities Market, median used in the study. Please provide a step-by-step explanation of how the estimate was reached and include all supporting

calculations so the numbers can be verified

b) Please explain how Korn Ferry Hay determined the list of companies to included in the 'All Industrial Market' peer and how they are an appropriate comparator to

Burlington Hydro Inc.

 For each of the companies included in the 'All Industrial Market', please list the location of the employees included in the survey, number of employees, annual

revenue.

4-Intervenor-121

Ref:

Ex. 4, pp. 246-249

Question(s):

a) (P. 246, 248) With respect to the Water/Waste Water billing, it appears that the costs of two FTEs (billing representative and customer service representative) are recovered from BESI. For the system programmer and customer service manager,

please advise the proportion of their time/cost is recovered from BESI.

b) (P. 247-248) With respect to facilities costs, please provide a detailed calculation of

allocation to BESI and provide rationale.

c) (P. 249) Please further explain the need for sales and marketing services associated

with suite metering.

4-Intervenor-122

Ref:

Ex. 4, pp. 247-248

Question(s):

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Regarding shared services:

a) Please provide a copy of the shared service agreements between Burlington Hydro

and its affiliates.

b) Please provide all underlying supporting calculations regarding the 2026 forecast of

revenue from service provided to affiliates from Burlington Hydro.

4-Intervenor-123

Ref: Ex. 4, pp. 252

Question(s):

a) Please provide a revised version of Table 67, broken down into external legal,

consulting, expert witness, internal labour, OEB and intervenor and other costs.

b) Please separate 2025 into actuals at the time of filing of the application, and the

remainder of the year.

4-Intervenor-124

Ref: Ex. 4, Appendix 2-M

Question(s):

Please explain the reasons for the cost to file this application are forecasted to be 52%

greater than the actual cost of the 2021 Cost of Service application.

4-Intervenor-125

Ref: Ex. 4, pp. 253

Question(s):

Please provide a schedule that for the years 2021-2024 sets out: i) the LEAP funding available in each year, ii) the LEAP funding provided in each year and iii) if the LEAP funding

"ran out" before year end, the month the funding was exhausted.

Exhibit 5 - Cost of Capital and Capital Structure

Ref: Ex. 5, p. 7 and Appendix 2-OB

Question(s):

With respect to the long-term debt:

a) Has Burlington received an updated quote for the debt rate for the new \$10M debt which is to be secured July 1, 2025? If so, please provide.

Exhibit 6 - Revenue Requirement and Revenue Deficiency or Sufficiency

6-Intervenor-127

Ref: Ex. 6, p. 21

Question(s):

a) Please provide an update to Table 11 that provides the most up-to-date forecast of full year 2025 other revenues.

b) Please provide a revised version of Table 11 that also includes: i) actual year to date spending for 2025 by account and ii) actual 2024 spending by account for the same months.

c) Please explain the methodology applied for forecasting miscellaneous income for 2026. As part of the response, please provide breakdown for this sub-category of other income for the historical period and test year.

d) Please explain the methodology applied for forecasting 2025 and 2026:

a. Interest & dividend income

b. Late payment charges

c. Gains/Loss on disposition.

6-Intervenor-128

Ref: Ex. 6, p. 21

# Question(s):

- a) Please provide a schedule that sets out the calculation of pole attachment revenues (i.e. Rent from Electric Equipment) for 2021 to 2026 (i.e., number of poles and rate per pole).
- b) On June 19, 2025 the OEB issued the Pole Attachment Rate for 2026 (EB-2025-0200). Please update the 2026 Rent from Electric Equipment to reflect a Pole Attachment Rate for 2026 and update the forecast Other Revenue for 2026.
- c) On June 19, 2025 the OEB issued the approved Retail Services Charges for 2025 (EB-2025-0199). Please update the 2026 Retail Services Revenues and STR Revenue for 2026.

#### 6-Intervenor-129

Ref: Ex. 6, Appendix 2-H

# Question(s):

- a) Please provide the details for Specific Service Charges, i.e. # of occurrences times the charge for each year 2021 to 2026.
- b) Please provide a revised version of Appendix 2-H that includes 2025 actuals year-to-date, and provide actuals for the same date in 2023 and 2024.

#### Exhibit 7 – Cost Allocation

#### 7-Intervenor-130

Ref: Attachment 10, I8 Demand Data Tab, Rows 64-65

- a) How were the LTNCP4 and SNCP4 values determined for the GS<50 and GS>50 classes?
- b) Are there any Residential customers that own their transformers?

Ref: Ex. 7, p. 10

Preamble:

The Application states that a typical Residential EV demand profile from New York state was used.

Question(s):

a) Does New York State offer residential and small business customers TOU pricing

similar to the TOU and ULO pricing available in Ontario?

b) What percentage of BHI's residential customers are on: i) TOU pricing and ii) ULO

pricing?

7-Intervenor-132

Ref: Ex. 7, p. 10

Question(s):

The evidence states that incremental EV load of 834.5 kW is added using a typical Residential EV demand profile from New York State. Please file the incremental Residential

EV demand profile from New York State.

7-Intervenor-133

Ref: Ex. 7, p. 11

Question(s):

a) Please provide a copy of the analysis used to derive the Billing and Collecting

weighting factors.

b) Please confirm that for the GS>50 class there are no wires/cables that were paid for

by BHI and service only one customer.

Ref: Ex. 7, p. 14

# Question(s):

a) Does BHI have any customers who generate their own power to take advantage of ICI? If the answer is yes, please provide the number of customers and indicate if they have their own transformer.

b) Do other customers pay for the facilities that are on standby while the ICI customer is generating power?

# Exhibit 8 – Rate Design

8-Intervenor-135

Ref: Ex. 8, p. 9

Attachment 12, Tabs 3 and 5

**Attachment 5, Normalized Annual Summary Tab** 

# Question(s):

a) What historical year is the customer class consumption data used in Attachment 12, Tab 3 based on?

b) What historical year is the billing data used in Tab 5 based on?

c) Please explain why the historical customer class consumption data used in Attachment 12, Tab 3 does not match the historical data for any of the years reported in Attachment 5.

8-Intervenor-136

Ref: Ex. 8, pp. 13-14

Attachment 1, App. 2-R\_Loss Factors

# Question(s):

a) In Appendix 2-R the Supply Facilities Loss Factor (Row K) is calculated as Row A divided by Row B. However, the notes indicate that Row K should be calculated by dividing (A+C+D) by (B+C+D). Please provide a revised version of Appendix 2-R that uses the formula for Row K as set out in the Appendix's notes.

8-Intervenor-137

Ref: Ex. 8, p. 7

# Question(s):

- a) Please provide a table showing the proposed fixed monthly service charges and the ceiling (Minimum System with PLCC Adjustment) by rate class (excluding the residential rate class) for each year in the rate term.
- b) Does BHI agree to make adjustments to ensure that the monthly service charges will not increase beyond the ceiling for the duration of the rate term consistent with previous OEB decisions (e.g. in the most recent Ottawa Hydro rebasing decision) and LDC settlements. [This confirmation would provide for greater efficiency as it would avoid the need for additional questions on this topic at the technical conference.]

8-Intervenor-138

Ref: Ex. 8, p. 9

# Question(s):

- a) Does BHI propose to charge RTSRs or any other rates to its customers on a gross load basis (versus a net load basis)? Please explain why or why not.
- b) Please provide the total transmission charges paid by BHI over the past five years and a forecast over the next five years. If those charges were levied on a net load basis (instead of a gross load basis) how much less would they be (approximately, \$ and %).

8-Intervenor-139

Ref: Ex. 8, pp. 9, 12 and Appendix A

# Question(s):

- a) Please provide a list of all approved and proposed service charges that are related to or triggered by DER connections.
- b) Please provide a list of all charges that BHI levies on customers connecting distributed energy resources (i.e. BTM generation). Please divide the charges by DER category (i.e. micro, small, medium, etc.) and include a breakdown by type of charge (application fees, meter replacement, connection impact assessments, commissioning, etc.). For each category, please indicate whether it is a fixed fee or a variable fee (i.e. payment for work at cost). For variable fees, please provide the average amount charged over a convenient period of applications (e.g. the past five years).
- c) Please provide the total amounts charged to generation connection customers in the small facility category for each year in the past five years, the kW of generation connected, and the \$/kW on average each year
- d) Please provide copies of the regulatory documents authorizing the various fees referenced in (a) and (b) and indicate the relevant section.
- e) Please provide a copy of the BHI interconnection procedures applicable to distributed energy resources. Please prepare a table comparing those procedures with the Interstate Renewable Energy Council's Model Interconnection Procedures (2023).<sup>5</sup>

#### 8-Intervenor-140

Ref: Ex. 8, p. 15 and Appendix C (distribution loss study) & Exhibit 2 and Exhibit 4 (O&M)

# Question(s):

a) Please estimate on a best efforts basis the reduction in losses (kWh and annual peak kW) and the savings to customers (\$) arising from BHI's actions taken as a

<sup>&</sup>lt;sup>5</sup> https://irecusa.org/wp-content/uploads/2023/08/IREC-Model-Interconnection-Procedures-2023-FINAL-8.23.23.pdf

direct result of its distribution system loss analysis over the rate term. Please include the underlying analysis

- b) Please list the actions BHI has taken and plans to take as a direct result of its distribution system loss analysis over the rate term. For future work, please provide the timeline.
- c) Please list the recommendations and conclusions of CIMA+ and indicate for each whether BHI agrees, and where applicable, will be implementing the recommendation.
- d) CIMA+ studies 10 of BHI's 160 feeders. Will BHI be extrapolating the findings and recommendations to all BHI feeders? If yes, please explain how and the timeline.
- e) Please provide the forecast losses (kWh), losses at peak (kW), and cost of losses to customers for each year in the rate term and total over the full term. Please include the calculations.

#### 8-Intervenor-141

Ref: Ex. 8, Appendix C (distribution loss study)

# Question(s):

- a) The study "focuses on the primary voltage distribution line losses only" (p. 7). Please estimate the percentage of losses from the primary voltage distribution lines versus elsewhere in the BHI system.
- b) The study indicates that 3 of the 10 feeders that were studied had line losses greater than 4% and that "any feeder with calculated total line losses exceeding 4% of the feeder load was targeted for mitigation review." Does this mean that CIMA+ recommended taking no actions for feeders that did not exceed 4% line losses?
- c) Please discuss whether BHI's incremental loss reduction work is limited only to those feeders with line losses exceeding 4%.

#### 8-Intervenor-142

Ref: Ex. 8, Appendix C (distribution loss study)

# Question(s):

- a) For each of the following loss reduction measures indicated in the CIMA+ study, please indicate the staff positions that are responsible for the measure and whether additional staffing or O&M funding would assist in achieving incremental loss reductions:
  - i) Load balancing and system optimization
  - ii) Voltage profile management
  - iii) Power factor correction
- b) The CIMA+ report notes that "Embedded Distributed Generation (DG) can offer the LDC an opportunity to improve a feeders' voltage profile ...." Please discuss how inverter-based DERs can or can't be used to improve the voltage profile or for power factor correction. Would BHI agree to internally study the option of contracting with customers with existing or new DERs to provide that service?
- c) Please describe how BHI considers losses in its procurement of conductors and transformers. Please include any internal guides or documentation relevant to that topic.
- d) Some LDCs assess alternatives with respect to conductors and transformers by comparing the all-in lifetime cost of each alternative (e.g. different sized conductors, different transformer brands) in a way that includes the forecast volume of losses arising from each alternative. Does BHI do this? If not, why not? If yes, please provide the internal guides or documentation that detail this.

#### 8-Intervenor-143

Ref: Ex. 8, Appendix C (distribution loss study)

# Question(s):

Please ask CIMA+ to estimate, on a best efforts basis, the potential annual savings if BHI were to implement all of the recommendations of CIMA+ with respect to all of its 160 feeders. Please provide both annual energy savings (kWh) and peak demand savings (kW).

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Please also estimate the value of these savings. Please make and state assumptions as necessary and include all calculations.

8-Intervenor-144

Ref: Ex. 8, Appendix C (distribution loss study)

Question(s):

Please ask CIMA+ to comment on what it would propose including in a further study during the next rate period to build on the learnings from its June 21, 2023 report, address any potential missing data or other gaps, and explore additional means to cost-effectively reduce distribution losses.

8-Intervenor-145

Ref: Ex. 8, Appendix C (distribution loss study)

Question(s):

a) Please provide a table showing the load factor for the past five years and the forecast load factor for the next five years.

b) Does BHI agree that the higher the load factor, the more efficiently its system is being used, and the lower the cost of the distribution and transmission system on a \$/MWh basis? Please explain the answer.

c) Please discuss how increased off-peak electricity demand could potentially assist in lowering volumetric distribution charges (i.e. charges based on \$/kWh).

d) What additional steps could BHI take to increase the load factor, such as encouraging increased off-peak electricity demand (i.e. electrification of transportation, etc.)?

8-Intervenor-146

Ref: Ex. 8

Question(s):

- a) Please discuss the benefits of co-incident peak demand charges in encouraging behaviour that lowers system costs, such as peak shaving and peak shifting.
- b) Please provide a table listing the demand charges for each customer class and whether they are co-incident peak demand charges.
- c) Would BHI consider increasing the proportion of the rates that it charges through co-incident peak demand charges in order to encourage more efficient use of the electricity system?

Ref: Ex. 8

# Question(s):

a) Does Burlington Hydro agree with the following conclusion of the following report: EB-2016-0004, Report by Dr. Stanley Reitsma, P. Eng., 6:

"Though geothermal relies on electricity as an input (to power the pump), geothermal system actually reduces electricity demand in the summer, and increases it in the winter, relative to traditional methods of heating and cooling (heating with fossil fuels and cooling with traditional AC systems). For Ontario, a summer peaking jurisdiction, a greater reliance on geothermal would reduce peaking power needs and also reduce surplus baseload generation. Coincidentally, t the load profile of a geo system is similar to the production profiles of Ontario wind energy facilities."

"For the cooling of buildings, Geo HP's use about half the electricity to operate compared to air source heat pumps and AC systems, and, geo's electrical demand doesn't spike as it gets hot outside, since the ground loop temperature remains relatively unchanged. They can

<sup>&</sup>lt;sup>6</sup> Dr. Stanley Reitsma, P. Eng., *Ontario's Low Carbon Future: Geothermal Heat Pumps*, March 21, 2016 (http://www.rds.oeb.ca/HPECMWebDrawer/Record/521626/File/document).

<sup>&</sup>lt;sup>7</sup> *Ibid*. p. 5.

reduce the "heat wave" electricity system demand spikes by up to 75%."

- b) Does Burlington Hydro agree that the expansion of geothermal systems would reduce peak demand on Burlington Hydro's system, on which distribution system capacity is based?
- c) Does Burlington Hydro agree that geothermal systems have the capacity to provide important benefits to the electricity distribution system, especially in comparison to traditional baseboard heating?
- d) Does Burlington Hydro agree that the benefits of geothermal systems are not reflected in the distribution costs paid by residential consumers because those charges do not vary based on coincident peak demand?
- e) Does Burlington Hydro agree that increases in heat pumps would assist the City in achieving its GHG reduction targets?
- f) Would Burlington Hydro agree to study the possibility of offering customers with geothermal systems a reduction in their distribution charges that would approximately reflect the benefits those customers provide to the distribution system? Assume the overall rate structure would continue to make Burlington Hydro whole for its revenue requirement.
- g) Please provide Burlington Hydro's best information on the number and proportion of its customers with (i) electrical, (ii) natural gas, (iii) propane, (iv) oil, (v) wood, and (vi) other kind of space heating.

# **Exhibit 9 - Disposition of Deferral and Variance Accounts**

Question(s):	
<sup>8</sup> <i>Ibid</i> . p. 6.	

9-Intervenor-148 Ref: Ex. 9, p. 31-32

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With respect to Account 1592 - Sub Account CCA Changes, BHI says that the calculations in Table 20 provide the revenue requirement impact of the phasing out period of the AIIP in 2024 and 2025.

- a) Please explain the source of the 'CCA in Rates' and 'Actual CCA' amounts.
- b) Please provide all specific references and any necessary calculations.

#### 9-Intervenor-149

Ref: Ex. 9, p. 31-34

# Question(s):

With respect to the Account 1509 – Impacts Arising from COVID-19 Emergency,

- a) (Table 2) Please provide a breakdown of the incremental costs and savings.
- b) The <u>OEB Report</u> says that the "OEB will apply a 50% recovery rate to the amounts recorded in the Account." Is the balance sought before or after the application of the 50% recovery rate.
- c) (P. 33) Please confirm on an annualized basis, Burlington Hydro's 2021 ROE as reported in its RRR is 6.06%, and its weighted deemed ROE for that year would be 8.68%

9-Intervenor-150

Ref: Ex. 9, p. 37

# Question(s):

- a) Please explain why Burlington is requesting the continuation of the Incremental Cloud Computing Costs DVA when the OEB stated "Upon disposition of its balance, the use of the generic deferral account is no longer expected" in the February 2024 Q&A related to the accounting order.
- b) Should the OEB approve the continuation of this DVA, please provide the baseline included in OM&A.

Ref: Ex. 9, p. 41

# Question(s):

Please provide a more detailed breakdown of the incremental operating costs incurred with respect to the Customer Choice Initiative.

9-Intervenor-152

Ref: Ex. 9, p. 43

# Question(s):

Please provide a more detailed breakdown of the incremental operating expenses reflected in the Green Button Initiative Account. As part of the response, please provide an updated 2025 forecast for incremental operating expenses.

9-Intervenor-153

Ref: Ex. 9, p. 52

# Question(s):

- a) Please provide an excerpt from BHI's 2014 cost of service rate application that shows the \$512,305 revenue offset related to collection of account charges.
- b) Please provide the number of collection notices issued in each year full year from 2018 to 2024.
- c) Please provide BHI's rules/protocols regarding the issuance of customer notices as they were in effect in the 2020 to 2021 period. Please advise whether those rules/protocols have changed since that time. If so, please explain the difference.
- d) Please explain the savings from process changes reflected in the Collection Charge Lost Revenue account.