1-Intervenor-1

Reference: 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) BHI's application was developed 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.
Clarification: Figure 9 on page 24 of the Burlington Distribution System Sustainability Plan is a graph showing the heat pump heating share assumptions. Interpolating from the figure itself suggests 5% of buildings have heat pumps in 2026.

The reference to table 30 is a typo. It should be to table 31. To get to the ~1% of existing customers in 2026 having heat pumps, our staff summed up the existing connections with heat pumps + the new connections with heat pumps to 2025. Then divided that total by the 2026 customer count. So, 612/63,119 = ~1%

Response:

a) BHI provides the Burlington Distribution System Sustainability Plan as Appendix 1-Intervenor-1 a).

b) The following investments are aligned with and support the priorities outlined in the Burlington Distribution Sustainability Report.

Capital Investments (2026–2030)

1. Feeder Expansion Projects

- Tremaine TS South Expansion: To relieve constraints on feeder 280M8, Palermo TS feeders, and Bronte TS.

- Aldershot Area Expansion: Extending feeders from Burlington TS to support growth, including tie points and switches.
- Estimated Net Cost Impact: 10+million. The timing of these projects is based on estimated demand forecast and schedules provided by the developers and/or City of Burlington
- Related Major Projects in the Capital Plan – Major Transit Station Area (MTSA) developments.

2. Grid Modernization

- Installation and integration of ADMS and SCADA with the new OMS.
- Investments in distribution automation, sensing technologies, and smart switching.
- Estimated Net Cost Impact: $5M+ depending on system size and technology.
- Related Major Projects in the Capital Plan – AMI Collector System, Smart Meter Replacement, Intelligent Switches, SCADA replacement and ADMS implementation.

3. Voltage Conversion and Upgrades

- Gradual conversion of 4.16 kV and 13.8 kV systems to 27.6 kV.
- Oversizing new transformers in anticipation of EV and heating electrification.
- Estimated Net Cost Impact: This cost could vary significantly, however customer contributions are expected to fund the majority of these investments.
- Related Major Projects in the Capital Plan – Downtown Core UG Development, Installed Transformers.

4. EV Charging Infrastructure Enablement

- System upgrades to support residential and commercial EV charging.
- Estimated Cost Impact: Variable; depends on uptake and charger types.
- Related Projects in Capital Plan – no specific capital outlay in the Capital Investment Plan as majority of these projects are expected to be customer driven.

c) Figure 9 of the Burlington Distribution Sustainability Report identifies that approximately 5% of residential buildings will have electric heating in 2026. This table includes all electric heating, not necessarily only heat pumps, and shows there is some electric heating in Burlington before 2022. Table 31 of Exhibit 3 shows the incremental number of residential customers with heat pumps in each year, rather than the total number of customers with electric heating. Figure 9 of the Burlington Distribution Sustainability Report shows the increase in electric heating within the 2022 to 2026 timeframe is relatively low.

1-Intervenor-2

Reference: 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.

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.

Response:

a) BHI does not track productivity and efficiency initiatives through a centralized process; they are diffused throughout the organization. However, the productivity and efficiency initiatives undertaken in the past five years, and, where applicable, the corresponding costs savings, are provided on a best-efforts basis in Table 1 of IR_Attachment_1-Intervenor-2_BHI_07242025.

b) BHI does not have a detailed plan of productivity and efficiency initiatives that the company is planning to undertake for the forecast years (2026-2030). These initiatives will be identified in the normal course of business as part of executing the work plans and managing funding, including the impact of the OEB's stretch factor. However, BHI has identified two forward-looking initiatives in Table 2 of IR_Attachment_1-Intervenor-2_BHI_07242025 with quantified benefits.

   Further, in the next rate term, BHI also intends to implement a new SCADA/ADMS System and a new Enterprise Resource Planning System (ERP). The benefits of the capital initiatives are included in the DSP.

   SCADA/ADMS

   The implementation of an upgraded SCADA and a new ADMS will enhance system reliability, modernize the grid including the integration of renewable energy sources, EVs, and advanced customer energy management solutions, optimize operations, improve customer service, and ensure regulatory compliance, delivering long-term value for both BHI and its customers.

ERP

A new ERP system is expected to streamline business processes by automating routine tasks and reducing manual data entry, which minimizes the risk of errors and enhances productivity. It will provide advanced analytics and reporting capabilities to support better decision-making and accommodate business growth and integrate seamlessly with other systems and applications, ensuring smooth data flow and process automation.

1-Intervenor-3

Reference: 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.

Response:

a) The costs that support DSO readiness, through automating grid operations and supporting DER integration, are embedded throughout the application as follows:

- Capital investments in distribution infrastructure to accommodate integration of DERs without which could lead to voltage fluctuations, thermal overloads, capacity constraints, power quality concerns, and protection coordination challenges. Examples of some of these required investments include:
    - Investments in SCADA and ADMS (p.15, Section 5.2.1.2.4 of the DSP)
    - Investments in automated switches (p.142 of the DSP)
    - Investment in AMI 2.0 and the AMI Collector System upgrade which will facilitate the implementation of grid modernization initiatives, including those required for DER integration (p. 129 of the DSP)
    - The new Outage Management System which will enable Distributed Energy Resources Management System (DERMS), Volt-Var Optimization (VVO) and similar DSO readiness capabilities
- Additional engineering and operations resources (as identified on pages 213 and 217 of Exhibit 4) will be performing the following activities:
    - System planning and identification of grid needs in context of DER integration
    - Long-term demand forecasting which incorporates DERs

- Hosting capacity analysis
- Implementing system automation and communication network requirements for SCADA interface with smart field devices and the future ADMS
- Maintaining reliable protection and control schemes on all network feeders, to ensure reliable operation of all devices
- Consideration of NWS during system and infrastructure planning
- Development of DER onboarding, technical review and service verification
- Develop robust DER settlement processes supported by advanced data analytics and visualization tools
- Develop advanced capabilities for DER dispatch including comprehensive real-time monitoring and control of DERs
- Manage market services with a thorough understanding of IESO market rules, services and bid structures

- Technology resources in the Information Services department will be performing the following activities:
  - Identifying technical requirements
  - Defining interoperability to ensure compatibility across different operational systems and technologies
  - Defining standardized data formats and exchanging protocols to facilitate seamless communication between LDCs, aggregators, and the IESO
  - Refining data standards, addressing interoperability challenges, and ensuring alignment with evolving market requirements
  - Ensuring data availability for monitoring, verification and settlement process
- Cyber security measures to protect grid operations and ensure customer privacy
- Additional resources in the Human Resources department (as identified on pages 212-213 of Exhibit 4) are required to manage workforce planning including but not limited to the following activities:
  - Develop targeted training models and professional development opportunities that address identified skills gaps (e.g. ability to manage interconnections, aggregation tools and processes, and customer-centric programs)

BHI is undertaking grid readiness work (in front of the meter) whereas BESI is focusing on behind the meter solutions such as EV charging infrastructure.

b) There are no pilot costs reflected in revenue requirement.

c) Forecast cost savings associated with GridSmartCity joint purchases are reflected in the forecasted capital costs of the projects and programs that utilize the equipment purchased as part of that initiative (e.g. poles and distribution transformers, which span various projects and programs). Please refer to BHI's response to 1-Intervenor-2 b) for more information on forecasted cost savings.

1-Intervenor-4

Reference: 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.

Response:

a) BHI has updated its capital expenditures forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and therefore provides an explanation of the differences between the financial data provided in the Business Plan, the Application and the capital expenditures updated as part of the interrogatories, in the attachment filed as IR_Attachment_1-Intervenor-4a_BHI_07242025.

b) The assumed inflation rate incorporated into the forecasts for 2026 is as follows:

- Capital Expenditures 2% per annum (2026-2030)
- 2026 Operating Expenses
    - Salaries – please refer to Table 51, page 231 of Exhibit 4
    - Wages – please refer to Table 50, page 229 of Exhibit 4
    - Benefits – please refer to Table 58, page 240 of Exhibit 4
    - All other costs – please refer to page 36 of Exhibit 4

c) BHI provides the additional materials reviewed by Burlington's Board of Directors regarding its approval of the Application and the underlying budgets as Appendix 1-Intervenor-4c).

1-Intervenor-5

Reference: 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.

Response:

BHI provides a copy of its balanced scorecard for each year since 2021, and the annual targets and actual results in Appendix 1-Intervenor 5.

1-Intervenor-6

Reference: 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.

Response:

a) The Climate Action Plan was prepared by the City of Burlington in 2020 and its implementation milestones for heat pump installations reflect a more linear rate of growth than BHI's current projections. BHI's load forecast includes a 0.5% increase in electric heat pumps by the 2026 test year. BHI is expecting somewhat lower levels of heat pump adoption in the near term before increasing in the early 2030s and increasing further in the later 2030s.

b) The City of Burlington's Climate Action Plan is provided as Appendix 1-Intervenor-6b. BHI representatives are members of the City of Burlington's Climate Action Steering Committee and provide input into the City of Burlington's Climate Action Plan. BHI's plan (including the DSP) and Application supports the objectives set out in the City of Burlington's Climate Action Plan to become net zero by 2050, in alignment with Canada's economy wide goal through a number of activities as follows:

i. Transitioning to low carbon or zero carbon vehicles including by replacing end of life vehicles with electric vehicles or hybrid vehicles rather than internal combustion engine vehicles, where feasible, as part of its Fleet Management plan.

ii. Supporting the City's initiatives for local renewable energy projects by providing direct BHI website links to customers to access forms and information in an effort to streamline the application processes, and implement the changes to the OEB's Distributed Energy Resources (DER) Connections Review[1] for customers to apply for connection for their renewable projects.

iii. BHI has proposed a number of investments in its DSP to adapt to and withstand more frequent and extreme weather events including installing more automated switches, upgrading breakers and relays in substations, and continued investments in system renewal projects.

Land Use policy changes towards intensification around the MTSAs drive lower energy usage and efficiencies as identified in the Climate Action Plan. The Burlington Climate Action Plan states that land use policies, including intensification and other policies included the City's Official Plan, enable the reduction of greenhouse gases.[2] BHI supports these efforts by planning for electrical distribution infrastructure to serve and support the electrical loads within intensified areas in and around the MTSAs. A number of capital investments are identified in the DSP to support these growth areas, particularly in the System Access program with investments such as additional feeders (new poles and additional wires) to provide additional electrical supply to the MTSA areas (refer to page 30-51 of Appendix A of the DSP). In addition to the new circuits are investments in automated switches which provides BHI the ability to move loads for additional capacity and provide supply options for reliability (refer to page 87-89 of Appendix A of the DSP).

c) The City of Burlington reviewed and approved the BHI plan and Application, through their participation on the BHI board, as follows:

- On June 17, 2024, the Board met to review the 2025/2026 budget inputs.
- On November 12, 2024, the Board reviewed and approved the 2025 Business Plan and 2025/2026 budgets for BHI.

[1] EB-2019-0207, EB-2021-0117
[2] Appendix 1-Intervenor-6b, p. 81-82.

Further, the BHI Business Plan was delivered to the City of Burlington on November 14, 2024 and the BHI Business Plan was subsequently presented to the City of Burlington at a Shareholder Meeting on December 6, 2024.

d) Yes, BHI is aligned with and enables net zero by 2050 in the City of Burlington. Please refer to the response to part b).

1-Intervenor-7

Reference: **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.

Response:

a) BHI does not have a timeline for this project yet.

b) Please refer to part a) above.

c) BHI provides the DSO Strategy Readiness Report as Appendix 1-Intervenor-7c.

1-Intervenor-8

Reference: Ex. 1, p. 73

Question(s):

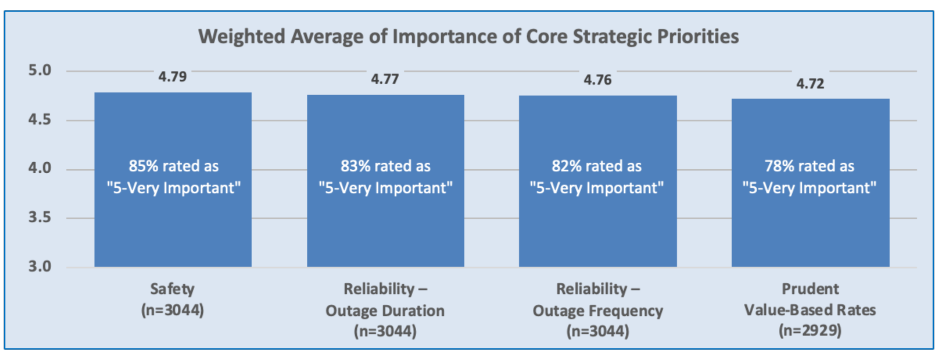
Many letters of comment opposing BHI's proposed rate increase were filed on the record. Please explain how these letters from BHI's customers reconcile with BHI's customer engagement results.

Response:

BHI values all customer feedback and has responded to the letters of comments received in this application in its response to 1-Staff-2.

Throughout the customer engagement study, customers identified keeping rates as low as possible as top priority, while also emphasizing the importance of safety and reliability (outage duration and outage frequency).[1] Figure 1 below shows the relative ranking of these core priorities in the customer research.

Figure 1

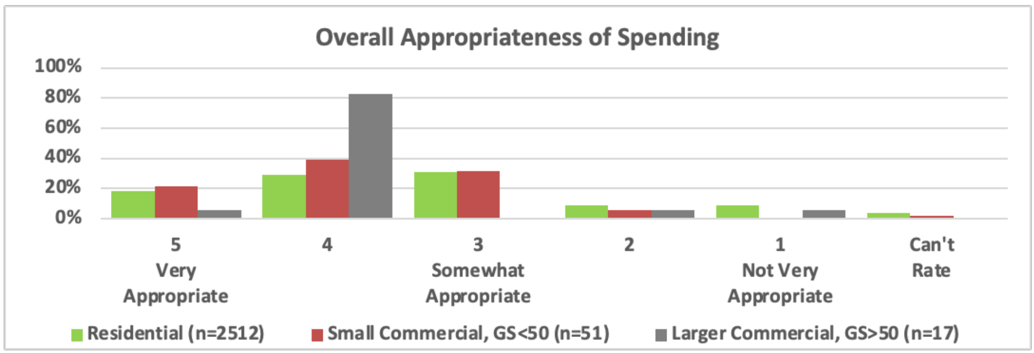


BHI applied these core strategic priorities to its distribution system planning and presented the resulting capital investment plan to customers during the customer engagement process. After reviewing BHI's capital investment plan, customers were presented with a summary of the overall bill impacts based on BHI's proposed investment plan.

[1] Exhibit 1, Appendix C: Customer Engagement Report, page 4

Although there was a minority of customers in the customer engagement study who shared the sentiment of those who filed letters of comment opposing BHI's rate increase, the majority (>70%) of the customers who participated in the survey rated the appropriateness of the proposed spending as "5-Very Appropriate" (18.3%), "4" (29.5%), or "3-Somewhat Appropriate" (30.9%) as shown in Figure 2 below. Fewer than 20% rated is as "2" (9%) or "1-Not Very Appropriate" (9%).

Figure 2



The letters of comment offer important insights into the specific reasons behind some customers' opposition to the proposed spending and corresponding rate increase. BHI observes that some concerns raised by customers pertain to factors beyond BHI's control, such as broader economic conditions or the commodity costs that are not within BHI's purview.

The customer engagement results offer a more thorough and reliable evaluation of how well BHI's investment plans align with customer needs and preferences, for the following reasons:

- More than 3,400 residential, small commercial and large commercial/industrial customers participated in the customer engagement activities compared to 19 letters of comment filed with the OEB;

- The customer engagement activities reached a broad range of customers of varying gender, age, tenure as a Burlington Hydro Customer, participation in low-income programs, and method of home heating, among other demographics.

- BHI's customer engagement provided customers with appropriate context and information regarding its investment plans and solicited feedback about BHI's investment plans based on this this informed context – it's unclear from the letters of comment whether customers had the opportunity to inform themselves of the similar context and information; and

- More than 94% of customer engagement participants expressed confidence in BHI's ability to provide safe, reliable, and affordable electricity – consistent with BHI's annual Customer Satisfaction survey results.

1-Intervenor-9

Reference: 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.

Response:

a) BHI provides a copy of the Key Customer Webinar presentation as Appendix 1-Intervenor-9a.

b) During the webinar, key customers were encouraged to complete the web survey, if they had not already done so. The feedback collected through the survey is summarized and incorporated into the 2026 Cost of Service Customer Engagement Report, included as Appendix C of Exhibit 1.

1-Intervenor-10

Reference: **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.

Response:

a) BHI's customers indicated 35.1% were very likely (11.6%) or somewhat likely (23.5%) to have a heat pump system in the next 10 years. BHI's load forecast includes a 0.5% increase in electric heat pumps by the 2026 test year. BHI is expecting somewhat lower levels of heat pump adoption in the near term before increasing in the early 2030s and increasing further in the later 2030s. The Burlington Distribution System Sustainability Plan forecasts approximately 15% of residential heating will be electricity space heating by 2034, ten years after the customer consultation.

b) BHI's forecasts reflect an assessment of the actual share of adoptions from customers that indicate they are "very likely" or "somewhat likely" to convert.

1-Intervenor-11

Reference: **Ex. 1, Appendix C – Customer Engagement**
Ex. 1, Appendix B - Business Plan

Question(s):

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.

Response:

a) BHI provides its Customer Engagement RFP as Appendix 1-Intervenor-11a. Schedule A – Scope of Work provides the written instructions provided to Decision Partners in relation to their customer engagement mandate.

b) BHI did not provide written instructions to Decision Partners with respect to consumer choice in integrating technologies like distributed energy resources ("DERs"), electric vehicles ("EVs"), and battery storage (including vehicle to grid ("V2G"). BHI provided its 2024 Business Plan and Community Report[1] as background material for Decision Partners to design the customer engagement process, including the interview and survey questions. Questions related to customer choice in integrating these technologies were developed based on Decision Partners' understanding BHI's Core Strategic Objectives, including the one for Technology: "Continuous investment in technology that helps reduce electricity costs, provides consumer choice and creates business value".

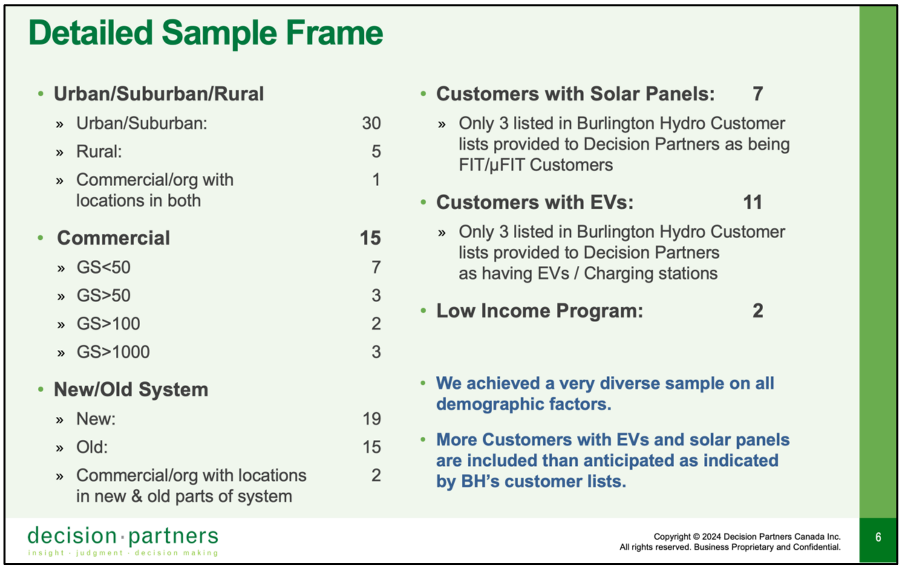
c) In the first, exploratory phase of customer engagement, Decision Partners conducted in-depth interviews with a small number (36) of customers. In their sample design, Decision Partners intentionally included customers of varied demographics and individual characteristics (such as whether they have electric vehicles or solar panels). There were no specific quotas for customers with EVs or solar panels in the sample design. BHI provided a large sample of their customer database which included specific customer data such as if a customer had a charging station installed and if a customer participated in FIT/mFIT programs.

   Decision Partners chose individual customers to interview at random from the BHI customer database, while ensuring participation from among these varied demographic groups.

   All customers who participated in these interviews were asked directly their likelihood of having an electric vehicle, solar panels, or battery storage systems in the future (including an option for "already have"). In the 30 interviews conducted, 11 customers reported having electric vehicles and 7 reported having solar panels as shown in Figure 1 below.

[1] Exhibit 1, Appendix I

Figure 1



The results of the exploratory phase of customer engagement were used to inform the design of the confirmatory phase of customer engagement – a survey open to all BHI customers. The survey elicited a large number of responses with 3,484 customers participating. Since the survey was open to all customers, no effort was made to include customers with specific demographic or other individual characteristics. Participation was encouraged generally through multiple channels including emails to customers, bill inserts, social media posts and a banner on the BHI website. Customers who participated in the survey were asked to indicate whether they currently had or were likely in the future to have EVs, solar panels, or battery storage systems. The results of those questions indicated that the survey included a diverse sample of customers, as show in Figures 2-4 below.

Figure 2

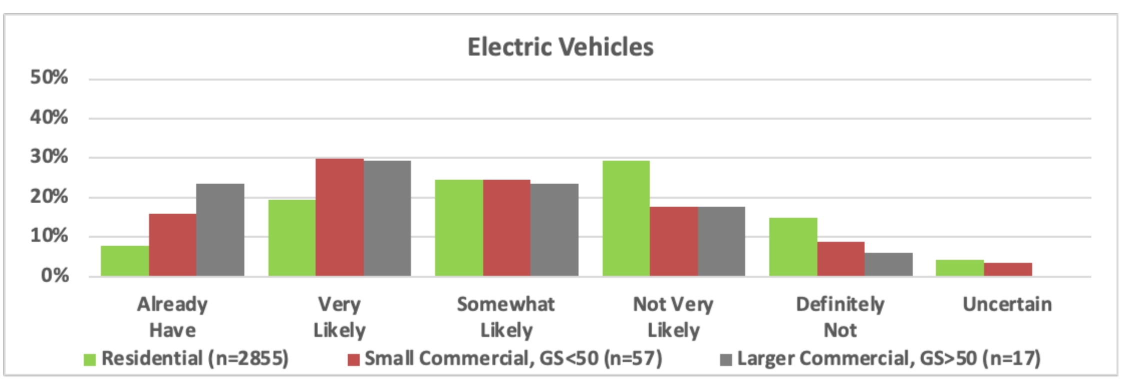


Figure 3

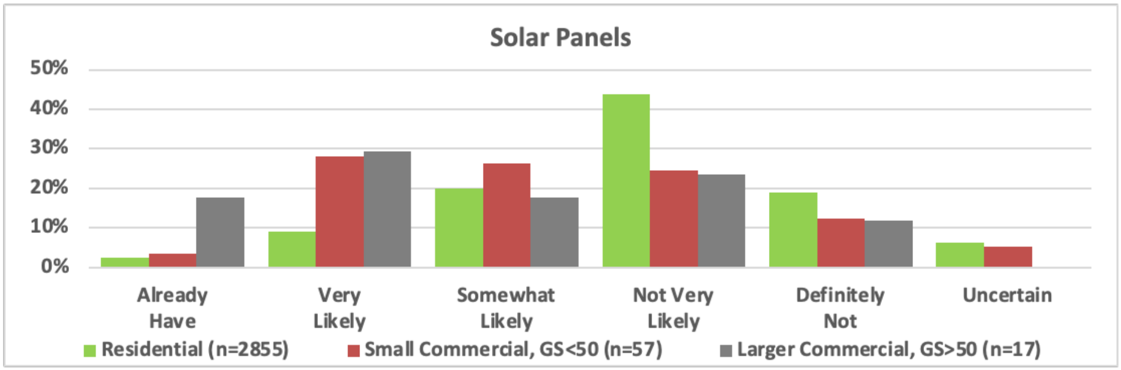
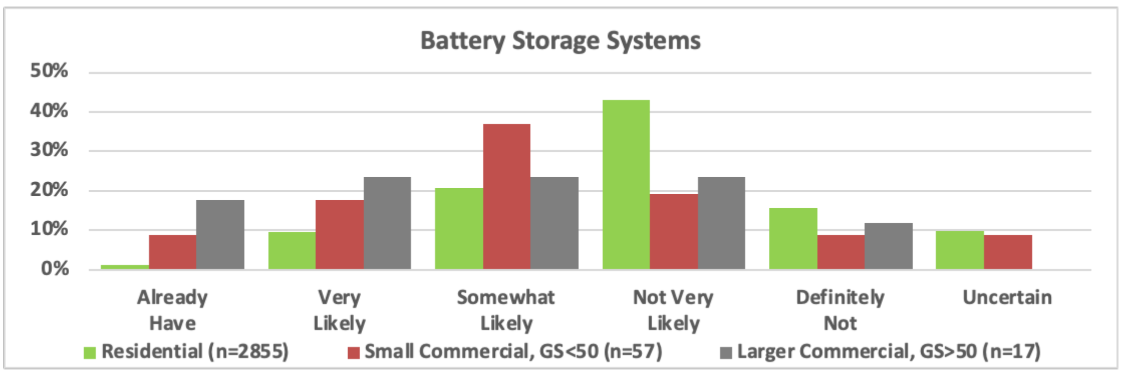


Figure 4



d) For both the interview and survey phases of customer engagement, PowerPoint slides were prepared for BHI with somewhat more detailed or slightly differently formatted results regarding customer engagement related to EVs, solar panels or battery storage systems. Those slides are provided below as Figures 5-15.

Figure 5

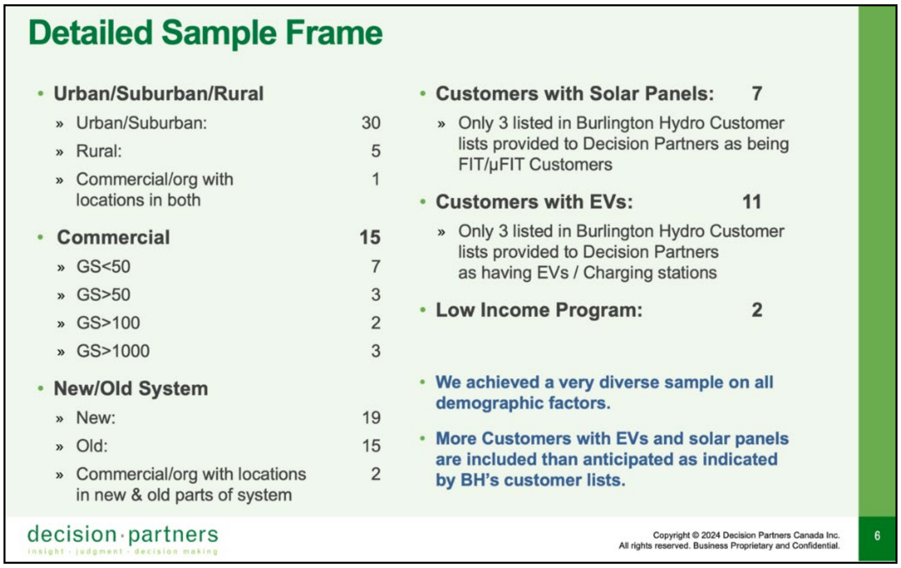


Figure 6

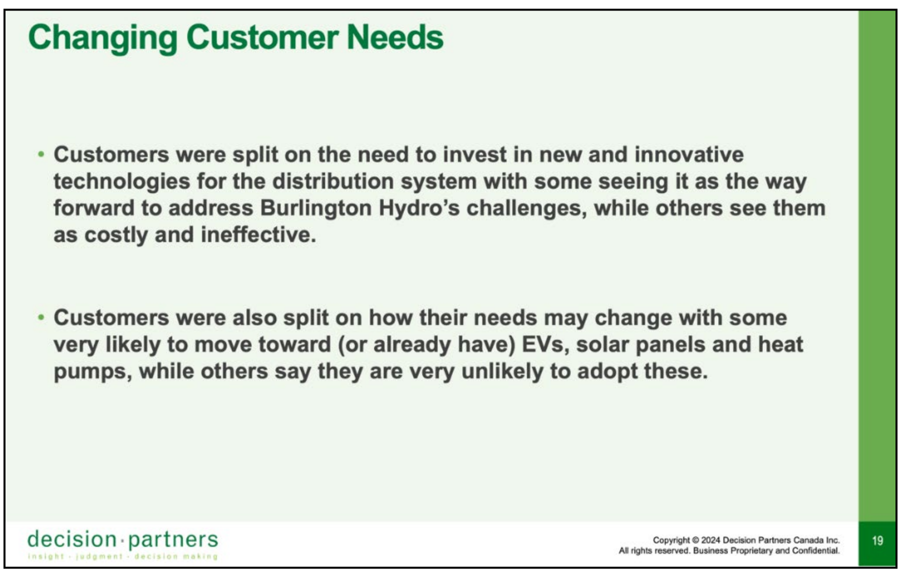


Figure 7

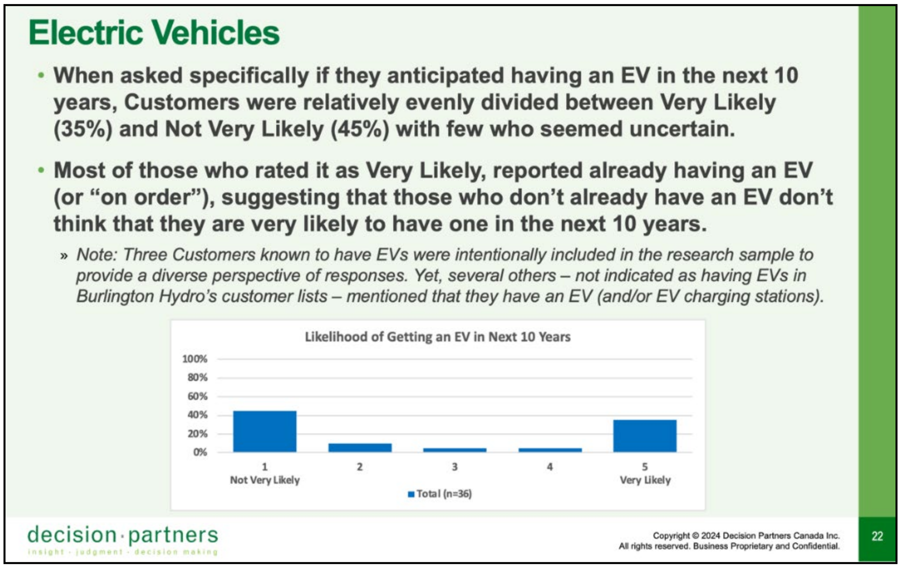


Figure 8

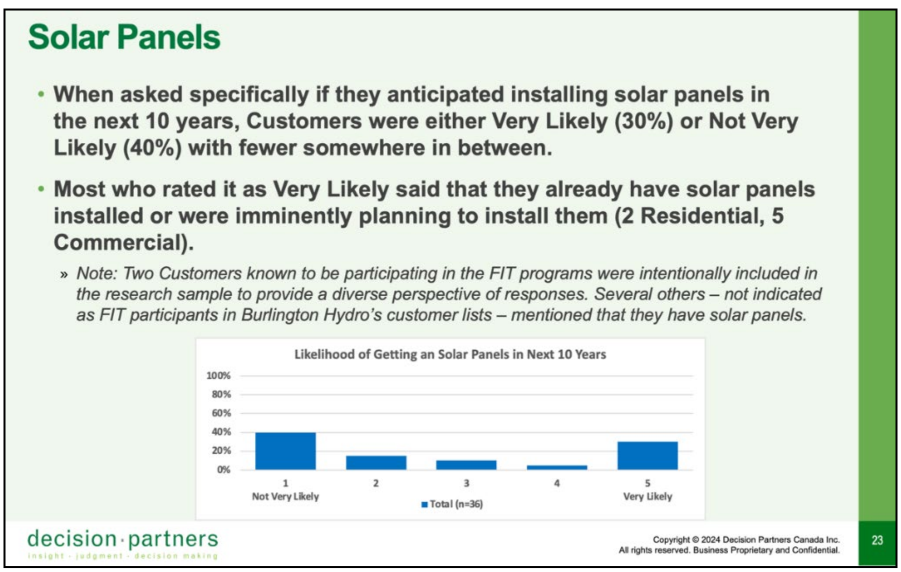


Figure 9

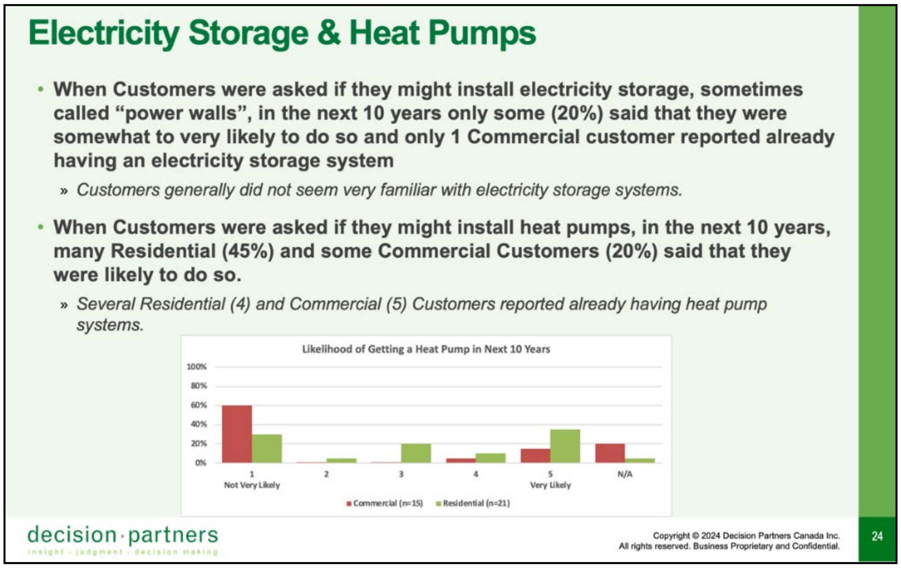


Figure 10

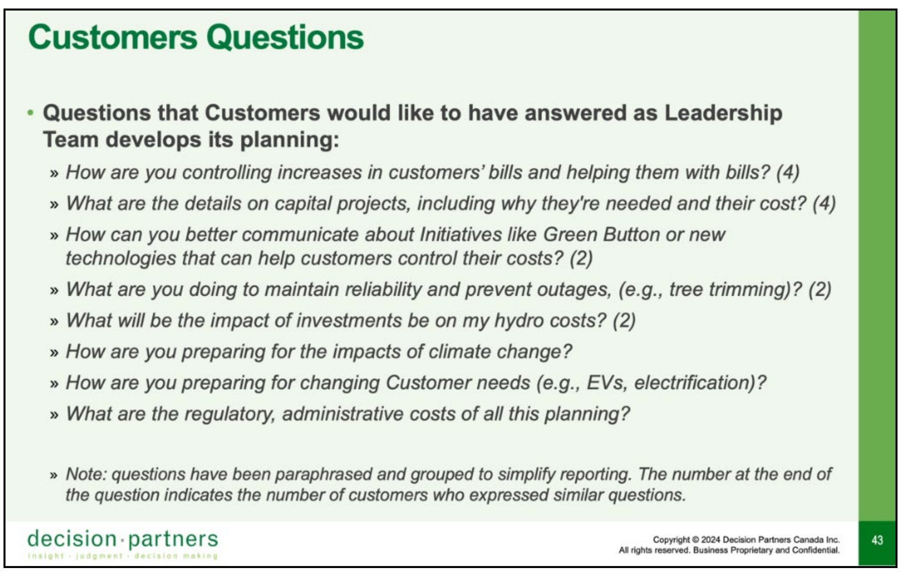


Figure 11

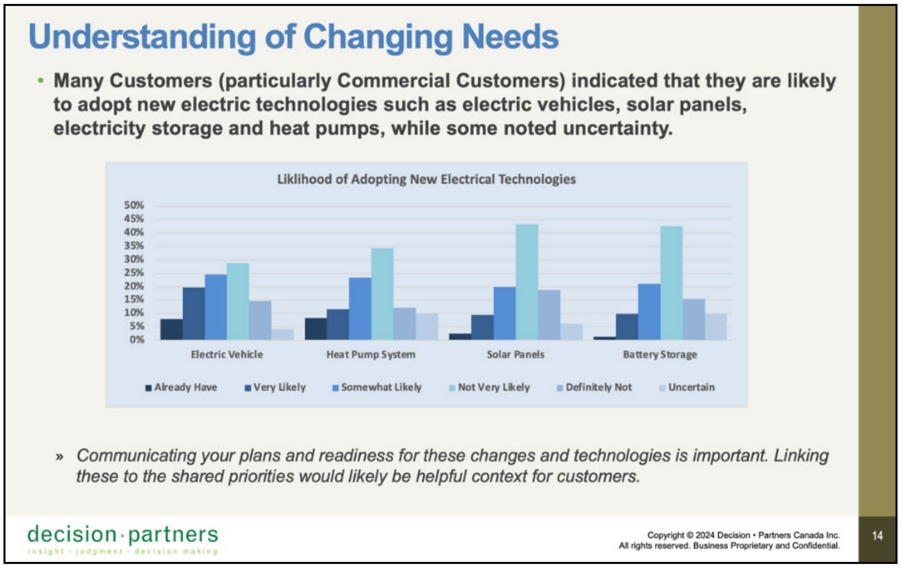


Figure 12

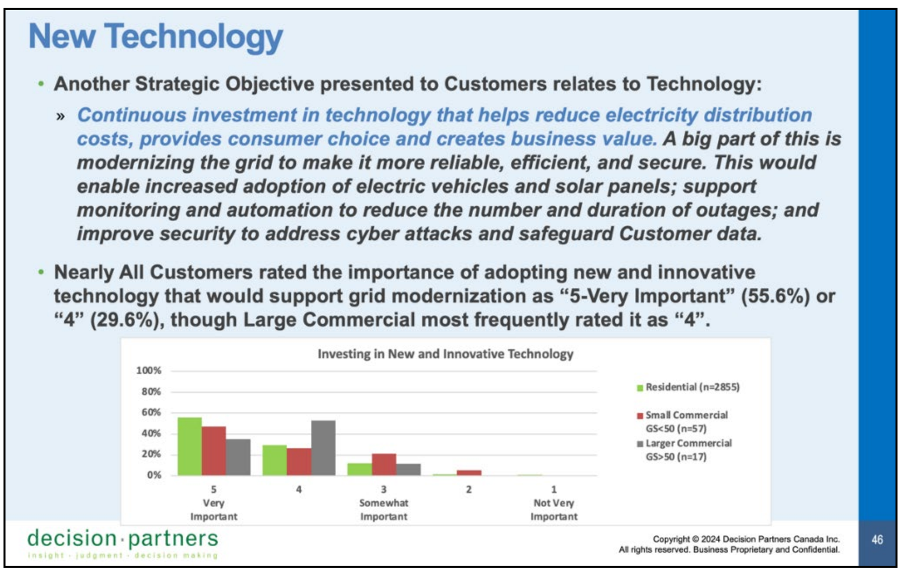


Figure 13

Electric Vehicles

- To better understand how Customer's electricity changing needs, Customers were asked to rate how likely they were to have electric vehicles, solar panels, battery storage, and heat pumps in the next 10 years.
- Customers' responses varied widely, with only slightly more indicating that they "Already had" (8.0%), or were "Very" (19.8%), or "Somewhat Likely" (24.5%) to have an EV compared to those who said they were "Not Very Likely" (28.9%) or "Definitely Wouldn't" (14.6%) have an EV.
- Commercial Customers more frequently indicated "Already Having" or "Very Likely" to have EVs.

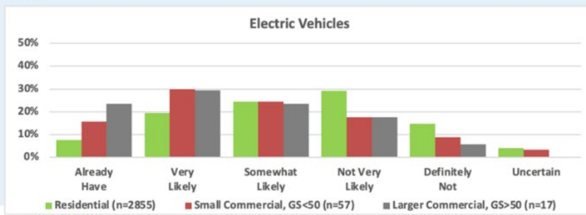


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Figure 14

Solar Panels

- Customers' rating of Solar Panels also varied from "Already Have" to "Definitely Won't" have, though with more Customers, particularly Residential Customers indicating that they were "Not Very Likely" (43.8%) to have Solar Panels.
- Commercial customers were more likely to say that they "Already Have" or were "Very Likely" to have solar panels.

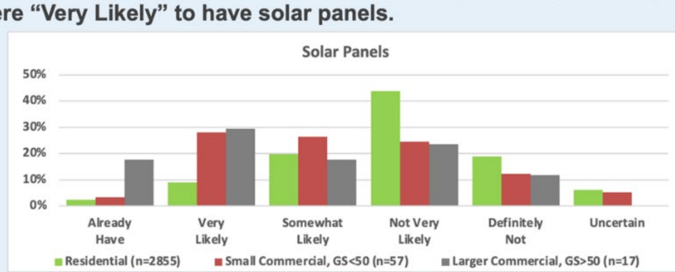

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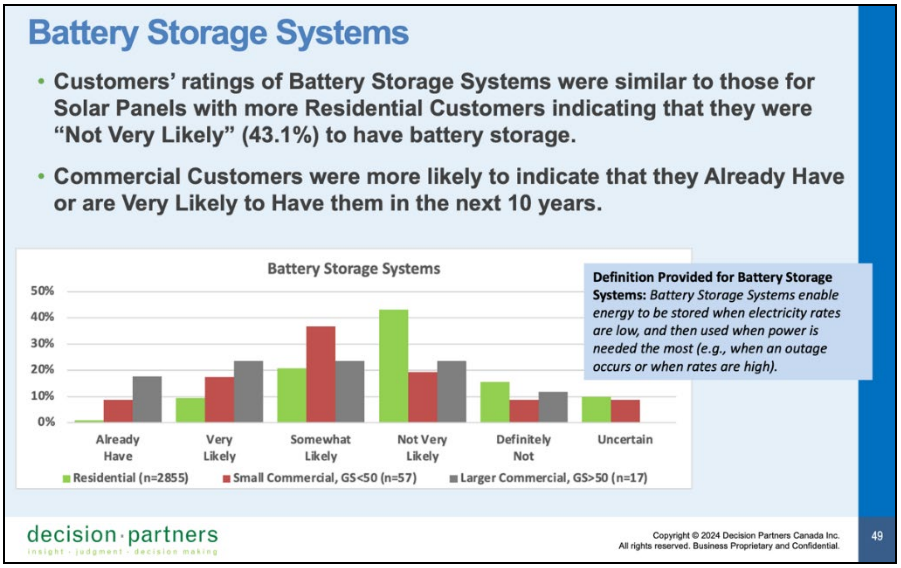
Figure 15



e) Given the broader focus of the Cost of Service customer engagement process, there is only limited opportunity to make comparisons regarding customer priorities related to adoption and integration of technologies such as DERs, EVs and battery storage. Further, given the differing approaches and questions asked in the most recent CoS Engagement processes, it is only possible to make a high-level comparison and not possible to identify specific trends.

Generally, the results of the two most recent customer engagement processes were consistent in that being prepared for changing customer needs (including increasing adoption of Electric Vehicles and Solar Panels) was a priority.

- BHI 2021 CoS Customer Engagement
    - Appendix 1: Section 2.4.2 Greening the Grid: (page 8): Participants noted a desire to "green the grid" and increase focus on renewables, including solar panels.
    - Appendix 1: Section 2.4.3 Electric Vehicles (page 9): Increased adoption of EVs and impact on the distribution system noted as an emerging issue that BHI should plan for
    - Appendix 2: Reference Survey Report on Customer Engagement Grid Modernization (page 44): About 2/3 of customers suggested the BHI should proactively invest in modernizing the grid now (electricity storage, solar energy), knowing it will cost more now, but could eventually save customers money down the road

- BHI 2026 CoS Customer Engagement
  - Changes to the Electricity Industry (page 23-24): Nearly all customers rated the importance of adopting new and innovative technology that would support grid modernization as “5-Very Important” (55.6%) or “4” (29.6%)
  - While only 8% of customers indicated that they “Already had” an electric vehicle, an additional 44.3% indicated that they were “Very Likely” (19.8%), or “Somewhat Likely” (24.5%) to have an EV in the next 10 years.
  - While only 2.5% of customers indicated that they “Already Have” solar panels, an additional 29.5% indicated that they were “Very Likely” (9.5%), or “Somewhat Likely” (20.0%) to have Solar Panels in the next 10 years.
  - Customers’ ratings of Battery Storage Systems were similar to those for Solar Panels with only 1.3% of customers indicated that they “Already Have” Battery Storage systems, but an additional 31.0% indicated that they were “Very Likely” (9.9%), or “Somewhat Likely” (21.1%) to have a Battery Storage system in the next 10 years.

f) Customer priorities and expectations have – and continue to – evolve at a rapid pace, in particular as it relates to the energy transition and the City of Burlington’s commitment to achieving net zero greenhouse gas emissions by 2050.

Through the development of the Burlington Distribution System Sustainability Plan, BHI actively engaged customers, employees, municipal partners, and industry stakeholders to ensure strong multi-directional alignment. BHI has also conducted outreach initiatives, including webinars, surveys, and digital communications, to inform customers about electrification, energy conservation, and climate resilience.

Through these efforts, BHI has observed the following key trends in customer priorities:

- Customers are showing a growing interest in environmentally responsible energy solutions, including electrification, renewable energy integration, and conservation programs.
- Adoption of electric vehicles (EVs), electric space and water heating, and smart home technologies continues to grow.
- Customers increasingly expect clear information about their energy use and better tools to manage their personal consumption.

BHI remains committed to supporting the City of Burlington’s transition to a low-carbon future. To enable this, changes in customer priorities and advances in technology will be monitored and their impacts evaluated and incorporated as key inputs into BHI's strategic and operational planning framework.

g) BHI has not identified emissions reductions targets for the rate period. However, BHI is taking measures to reduce emissions by:

- Implementing a phased approach of electrification of its fleet vehicles (passenger vehicles) as identified on page 105 of Appendix A of the DSP.

- Including expenditures in its capital plan to modify an existing bucket truck with an electronic PowerTake Off (ePTO) as identified on page 103 of Appendix A of the DSP.

- Replacing end-of-life heating equipment with electric heat pumps and electric make up air units for spaces that do not require cooling[2].

h) BHI provides all figures/graphs that show survey response information in a tabular format in IR_Attachment_1-Intervenor-11h_BHI_07242025.

[2] 2-Intervenor-49 a)

1-Intervenor-12

Reference: **Ex. 1, Appendix F**

Question(s):

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

Response:

Please refer to BHI's response to 5-Staff-71.

2-Intervenor-13
Ref: Ex. 2, Appendix 2-AA

Question(s):

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.

Response:

a) Average gross system access capex has increased by 34% for the period 2026-2030 from 2021-2025, yet contributions only increased by 6.6%, due to the completion of the Metrolinx GO Corridor Electrification (MX) project in 2024, which was fully funded through capital contributions. This project is not continuing into the forecast period. The majority of System Access projects in the 2026-2030 period are not expected to be fully funded. As such, the average capital contributions for the period 2026-2030 are not expected to increase by a similar percentage as the average gross system access expenditures. Table 1 provides a comparison between capital contributions as a percentage of gross capital expenditures over the historical period (excluding the impact of the MX project) and the forecast period. The calculations are based on the updated capital expenditures for 2025 and 2026 filed in response to interrogatory 1-Staff-1.

Table 1

Description	2021	2022	2023	2024	2025	Total 2021-2025	Ref
System Access Gross	$13,254,238	$9,617,370	$25,266,594	$17,722,971	$26,077,071	**$91,938,244**	a
Metrolinx Corridor Electrification (MX) Gross	$5,138,539	$1,512,874	$12,408,125	$5,999,061	$93,813	**$25,152,413**	b
System Access Gross excluding MX	$8,115,699	$8,104,496	$12,858,469	$11,723,910	$25,983,257	**$66,785,831**	c = a-b
System Access Capital Contributions	$8,860,577	$5,550,637	$20,323,661	$10,677,037	$15,367,469	**$60,779,381**	d
Metrolinx Corridor Electrification (MX) Capital Contributions	$5,136,900	$1,782,209	$12,233,635	$5,990,527	$111,333	**$25,254,603**	e
System Access Capital Contributions excluding MX	$3,723,677	$3,768,428	$8,090,026	$4,686,510	$15,256,137	**$35,524,778**	f = d-e
Capital Contributions as a % of Gross Capital Expenditures						**53%**	**g = f/c**

Description	2026	2027	2028	2029	2030	Total 2026-2030	
System Access Gross	$37,198,478	$22,696,138	$21,761,761	$23,686,446	$21,519,446	**$126,862,269**	h
System Access Capital Contribution	$21,698,094	$10,394,529	$11,881,636	$11,536,163	$10,329,774	**$65,840,196**	i
Capital Contributions as a % of Gross Capital Expenditures						**52%**	**j = i/h**

Based on the calculations in Table 1 above, capital contributions as a percentage of gross capital expenditures over the forecast period (52%) are consistent with the historical period (53%), excluding the impact of the MX project.

b) Capital contributions for the following categories of System Access projects are forecast as follows:

1. Road-Relocation Projects:
In the absence of a specific cost sharing agreement, contributions are based on the guidelines in the *Public Service Works on Highways Act* (PSWHA). This requires that the road authority contributes 50% of the cost of all labour and labour-saving devices incurred and deployed by BHI to relocate its infrastructure in order to accommodate the road authority.

2. General Service Projects:
Service connections and upgrades, except for a basic overhead connection for residential services, are provided at the Customer's cost per the DSC and BHI's Conditions of Service. BHI provides a basic connection at no charge to all residential Customers. This is equal to the actual or equivalent costs to supply and install overhead distribution transformer capacity and up to 30 meters of overhead service conductor. Any costs over and above the basic connection cost is considered

variable cost and is contributed by the customer (other than replacement of end-of-life connection or distribution assets).

3. System Expansion Projects:
   Contributions for system expansions are forecast using an economic evaluation in accordance with Appendix B of the DSC.

c) Please see BHI's response to interrogatory 2-Intervenor-15a.

d) BHI provides 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 in Table 2 below. The estimated revenue requirement impact is based on an estimated capital expenditure impact of $1,130,889 in 2026.

Table 2

Description	Capital Structure	Calculation	% Rate (as Filed)	Calculation
Deemed STD	4.0%	a	3.91%	e
Deemed LTD	56.0%	b	4.36%	f
Deemed Debt	60.0%	c = a+b	4.33%	g = (a*e/c)+(b*f/c)
Deemed Equity	40.0%	d	9.00%	h
PILS			26.50%	i

Description	$	Calculation
Fixed Assets Opening Balance 2026	**$0**	j
Capital Expenditures	**$1,130,889**	k
Work-in-Progress (example)	0	l
In-Service Additions	**$1,130,889**	m = k +l
Straight Line Depreciation at 2.5% at 1/2 year	(14,136)	n = .025*m/2
Fixed Assets Closing Balance 2026	**$1,116,753**	o = m+n
Average Fixed Assets	**$558,376**	p = (j+o)/2
Rate Base	**$558,376**	q = p
Deemed Interest	$14,520	r = q*c*g
Deemed Equity	$20,102	s = q*d*h
PILS	$7,247	t = y
Revenue Requirement	**$41,869**	**u = r+s+t**

Description	$	Calculation
Deemed Equity	$20,102	v = s
Tax Rate	26.50%	w = i
PILS before Gross Up	$5,327	x = v*w
Gross Up PILS	**$7,247**	y = x/(1-w)

2-Intervenor-14

Reference: **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.

Response:

a) BHI confirms that its actual average net capital cost during the 2021-2024 period was $12.4M. However, in response to part b) of this interrogatory, BHI provides additional information for appropriate comparison between the rate periods.

b) BHI has updated its 2025 and 2026 capital expenditures in response to Interrogatory 1-Staff-1 and has used the updated capital expenditures in this response. BHI's updated forecast average annual net capital cost for the 2026-2030 period is $21.9M.

BHI provides Table 1 below to show the average annual net capital costs between the two periods in 2021 dollars to account for inflation from 2021 to 2030. BHI has used OEB inflation factors for 2022-2026 and BHI's forward looking inflation assumptions for 2027-2030 (approx. 2% annually) to discount the expenditures back to 2021 dollars. BHI has also expanded the historical period to include 2025 to better reflect average costs between the two periods.

Table 1

Description	Ref	2021-2025 Average net CAPEX	2026-2030 Average net CAPEX	Increase $ 2021-2025 vs. 2026-2030	Proportion of Increase
Excluding inflation (in 2021 $)	A	$12,438,242	$17,550,280	$5,112,038	60%
Inflation	B-A	$1,061,542	$4,410,576	$3,349,035	40%
Total Capital Expenditures	**B**	**$13,499,784**	**$21,960,857**	**$8,461,073**	**100%**

As shown in Table 1, inflation accounts for 40% of the increase between the two periods. The remaining 60% is driven by operational factors affecting each of the expenditure categories, as described in section 5.4.1.3 of the DSP.

2-Intervenor-15

Reference: **Ex. 2, Appendices 2-AA, 2-AB and 2-BA**

Question(s):

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)

Response:

a) BHI provides a revised version of Chapter 2 Appendix 2-AA consistent with the updated capital expenditure forecast filed in response to 1-Staff-1. BHI files capital contributions at the program level as IR_Attachment_2-Intervenor-15a_BHI_07242025.

b) BHI has updated its 2025 and 2026 capital expenditures in response to 1-Staff-1 which includes year-end actuals for 2024, and revisions to the 2025 and 2026 forecasts. BHI provides the updated Chapter 2 Appendix 2-AB in Attachment_OEB_Chapter2Appendices_BHI_07242025. No changes were required to the 2024 year-end actuals.

c) BHI provides a revised version of Appendices 2-AA and 2-AB including year-to-date (YTD) actuals for 2023, 2024, and 2025 in Tables 1 and 2 below.

The YTD actuals are based on data up to the end of May for each year. The Plan amounts in Table 2 below reflect a 5-month pro-rated amount of the annual amounts (2023-2025 DSP), as specific YTD Plan amounts for the same period are not available.

Table 1 – Appendix 2-AA (2023-2025 YTD May)

Projects	2023 YTD May	2024 YTD May	2025 YTD May
System Access			
Dundas St Road Widening - (Guelph line to Kerns Rd.)	$0	$0	$12,181
Waterdown Road Widening - City	$164,001	$125,821	$0
General Service - Overhead	$923,112	$564,865	$664,246
General Service - Underground	$1,164,742	$1,007,523	$771,346
Transformers – New Connections	$179,753	$25,813	$34,954
Meters - New Connections	$144,829	$87,427	$209,179
Burloak Grade Separation	$9,046	$76,632	$304,715
Downtown Core Underground Development	$7,782	$387,398	$347,861
Faiview Street Rebuild	$387,034	($9,099)	$0
Burlington TS Wholesale Metering	$0	$565,190	$0
Metering Infrastructure and Systems	$2,917	$20,741	$51,952
Metrolinx Corridor Electrification	$5,659,815	$2,571,829	$23,036
MTO-Northshore & QEW bridge widening	$743	$0	$0
Other - MTO/City/Region/MX Projects	$32,262	$38,635	$0
Smart Meter Replacement/Reverification	$79,078	$71,355	$163,152
Subdivisions	$0	$0	$0
Suite Metering	$62,398	$77,557	$9,546
System Access Gross Expenditures	**$8,817,511**	**$5,611,688**	**$2,592,170**
System Access Capital Contributions	($5,892,665)	($3,137,918)	($734,639)
Sub-Total	**$2,924,846**	**$2,473,769**	**$1,857,531**
System Renewal			
Pole Replacement Program	$526,469	$711,076	$836,467
Underground Rebuilds	$431,944	$306,678	$344,675
Transformer Replacement	$128,487	$441,103	$256,222
Switch Replacement Program	$104,874	$180,416	$210,559
Station Transformer Replacement Program	$102,030	$8,291	$18,543
Switchgear Replacement Program	$1,165	$39,183	$389,792
MS Feeders Cable Replacement	$42,950	$3,558	$53,266
Substation Circuit Breakers Replacement	$113,299	$2,488	$0
Station Relays Replacement	$0	$47,950	$3,857
System Renewal Gross Expenditures	**$1,451,218**	**$1,740,743**	**$2,113,380**
System Renewal Capital Contributions	$0	($36,754)	$0
Sub-Total	**$1,451,218**	**$1,703,989**	**$2,113,380**
System Service			
Intelligent Switches	$245,672	$0	$0
System Service Gross Expenditures	**$245,672**	**$0**	**$0**
System Service Capital Contributions	**$0**	**$0**	**$0**
Sub-Total	**$245,672**	**$0**	**$0**
General Plant			
Buildings	$0	$92,026	$140,205
Business Applications - ERP Enhancements / Upgrades	$17,803	$47,014	$53,673
CIS Capital (on-going)	$45,395	$29,785	$18,200
Vehicles	$0	$3,785	$330,894
OMS Replacement/Upgrade	$0	$80,390	$0
Other Computer Hardware & Software	$176,392	$88,339	$59,310
SCADA / GIS / AMI / OMS (on-going)	$35,956	$31,049	$23,732
Standby Generator, 1340 Brant Street	$0	$0	$57,049
General Plant Gross Expenditures	**$275,546**	**$372,388**	**$683,061**
General Plant Capital Contributions	$0	$0	$0
Sub-Total	**$275,546**	**$372,388**	**$683,061**
Miscellaneous	**$98,204**	**$57,888**	**$144,130**
Total	**$4,995,486**	**$4,608,034**	**$4,798,102**

Table 2 – Appendix 2-AB (2023-2025 YTD May)

CATEGORY	Historical Years								
	2023 YTD May			2024 YTD May			2025 YTD May		
	Plan	Actual	Var	Plan	Actual	Var	Plan	Actual	Var
	$ '000		%	$ '000		%	$ '000		%
System Access	$3,989	$8,831	121.4%	$3,364	$5,615	66.9%	$3,364	$2,592	-22.9%
System Renewal	$1,340	$1,498	11.8%	$1,340	$1,773	32.4%	$1,340	$2,149	60.5%
System Service	$292	$246	-15.8%	$271	$0	-100.0%	$292	$0	-100.0%
General Plant	$772	$314	-59.4%	$487	$400	-18.0%	$449	$791	76.2%
TOTAL EXPENDITURE	**$6,392**	**$10,888**	**70.3%**	**$5,462**	**$7,788**	**42.6%**	**$5,444**	**$5,533**	**1.6%**
Capital Contributions	($1,903)	($5,893)	209.6%	($1,669)	($3,180)	90.5%	($1,669)	($735)	-56.0%
NET CAPITAL EXPENDITURES	**$4,489**	**$4,995**	**11.3%**	**$3,793**	**$4,608**	**21.5%**	**$3,775**	**$4,798**	**27.1%**
System O&M		$ 4,695	--		$ 4,383	--		$ 4,758	--

d) BHI confirms that the reason for not providing a detailed description or explanation in the DSP for the projects listed in part d) above is that these are expected to be fully contributed and therefore have no rate implications.

2-Intervenor-16

Reference: **Ex. 2, p. 4**

Question(s):

a) Please further explain the statement that capital expenditures are equivalent to in-service 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.

Response:

a) BHI completes most of its distribution plant capital projects in the year that the expenditure occurs. BHI is not expecting a material change in WIP from 2024 to 2026 with the exception of Station Transformers and Fleet and therefore forecasted capital expenditures are equal to forecast in-service additions in the 2026 Test Year, with the exception of the previously mentioned categories. These amounts are identified in BHI's response to 2-Intervenor-19.

b) For multi-year capital work (such as IT projects) BHI adjusts its in-service additions forecast based on when the asset(s) are expected to enter service.

2-Intervenor-17

Reference: **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.

Response:

BHI provides example calculations in Tables 1 and 2 below using the materiality thresholds provided on page 7 of Exhibit 2.

Table 1 – Conversion of Rate Base to Revenue Requirement

Description	Capital Structure	Calculation	% Rate (as Filed)	Calculation
Deemed STD	4.0%	a	3.91%	e
Deemed LTD	56.0%	b	4.36%	f
Deemed Debt	60.0%	c = a+b	4.33%	g = (a*e/c)+(b*f/c)
Deemed Equity	40.0%	d	9.00%	h
PILS			26.50%	i

Description	$	Calculation
Rate Base (example)	**$6,700,000**	j
Deemed Interest	$174,226	k = j*c*g
Deemed Equity	$241,200	l = j*d*h
PILS	$40,705	m = v
Revenue Requirement (Rate Base)	**$456,131**	**n = j+k+l**

Description	$	Calculation
Deemed Equity	$241,200	o = l
Tax Adjustments to Accounting Income (estimate)	(125,094)	p
Taxable Income	**$116,106**	q = o+p
Tax Rate	26.50%	r = i
PILS before Gross Up	**$30,768**	s = q*r
Apprentice Tax Credit (estimate)	$850	t
Total PILS before Gross Up	**$29,918**	u = s-t
Gross Up PILS	**$40,705**	v = u/(1-r)

BHI incorrectly stated, on page 7 of Exhibit 2, that a change in rate base of approximately $6,700,000 resulted in a revenue requirement impact of $242,000. As identified in Table 1 above, a change in rate base of approximately $6,700,000 results in a revenue requirement impact of $456,131. A change in rate base of approximately $3,600,000 results in a revenue requirement impact of $242k. Despite the error stated above, BHI ‘s variance analysis for rate base in the application discussed variances in rate base of $2,000,000 and above in all years, below the materiality threshold of $3,600,000.

Table 2 – Conversion of Capital Expenditures to In-service Additions to Rate Base to Revenue Requirement

Description	Capital Structure	Calculation	% Rate (as Filed)	Calculation
Deemed STD	4.0%	a	3.91%	e
Deemed LTD	56.0%	b	4.36%	f
Deemed Debt	60.0%	c = a+b	4.33%	g = (a*e/c)+(b*f/c)
Deemed Equity	40.0%	d	9.00%	h
PILS			26.50%	i

Description	$	Calculation
Fixed Assets Opening Balance 2025	**$0**	j
Capital Expenditures (example)	**$3,000,000**	k
Work-in-Progress (example)	(50,000)	l
In-Service Additions (example)	**$2,950,000**	m = k +l
Straight Line Depreciation at 2.5% at 1/2 year	(36,875)	n = .025*m/2
Fixed Assets Closing Balance 2025	**$2,913,125**	o = m+n
Straight Line Depreciation at 2.5%	(73,750)	p = 2*n
Fixed Assets Closing Balance 2026	**$2,839,375**	q = o+p
Average Fixed Assets	**$2,876,250**	r = (o+q)/2
Rate Base	**$2,876,250**	s = r
Deemed Interest	$74,794	t = s*c*g
Deemed Equity	$103,545	u = s*d*h
PILS	$37,333	v = z
Revenue Requirement (Capital Expenditure)	**$215,671**	**u = r+s+t**

Description	$	Calculation
Deemed Equity	$103,545	w = u
Tax Rate	26.50%	x = i
PILS before Gross Up	$27,439	y = w*x
Gross Up PILS	**$37,333**	z = y/(1-x)

Table 2 calculations are based on expenditures that are prior to the 2026 Test Year i.e. 100% of in-service additions less depreciation are recognized in Rate Base. If the expenditure occurred in the 2026 Test Year, only 50% of in-service additions would be included in Rate Base and revenue requirement would be approximately 50%.

Table 2 generates a revenue requirement of $216k using capital expenditures of $3,000,000. Capital Expenditures of approximately $3,400,000 are required to generate a revenue requirement of $242k. BHI used the lower materiality threshold of $3,000,000 for the purposes of explaining variances in this Application.

Table 2 also assumes no tax adjustments to accounting income and no tax credits.

2-Intervenor-18

Reference: **Ex. 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.

Response:

a) The delayed implementation of BHI's new Customer Information System (CIS) caused capital expenditure increases because it required additional parallel runs and testing of the new CIS prior to going live to ensure accurate billing. This resulted in delays and additional costs associated with CIS project activities. BHI provides the amount of the increase and USofA accounts impacted in Table 1 below.

Table 1

Net Capital Expenditures	2021 COS	2021 Actuals	Variance	Accounts impacted
Customer Information System Implementation	265,870	1,035,824	769,954	1611

b) The integration of BHI's GIS with its OMS caused capital expenditure increases because of unexpected coding changes to proprietary OMS software in order to properly integrate with the new GIS. Software obsolescence impacted the timing of the integration to ensure BHI's OMS and customer facing portal were unaffected and available. BHI provides the amount of the increase and USofA accounts impacted in Table 2 below.

Table 2

Net Capital Expenditures	2021 COS	2021 Actuals	Variance	Accounts impacted
Geographic Information System Integration	70,000	576,277	506,277	1611

2-Intervenor-19

Reference: **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.

Response:

a) BHI provides Table 1 below to explain the difference between the increase in gross assets (net of contribution) i.e. rate base additions relative to the net CAPEX shown in Appendix 2-AB for the years 2025 and 2026.

   BHI has updated its capital expenditures and rate base for 2025 and 2026 and responds to this interrogatory based on the updated information. Please see BHI's response to 1-Staff-1 for the updated Chapter 2 Appendices which include updated CAPEX and rate base.

Table 1

	2025 $000's	Explanation
CAPEX Appendix 2-AB	**$17,904**	
Less:		
2025 ICM project[1]	-$4,762	CAPEX from the approved ICM funding is included in Appendix 2-AB but excluded from gross assets for rate base purposes until the 2026 rebasing year.
Station Transformer deposit	-$50	CAPEX for Station Transformers deposit is excluded until its in-service date in 2026
Large truck Chassis	-$153	CAPEX for Large truck is excluded until its in-service date in 2026
Gross assets (net of contribution) App. 2-BA	**$12,938**	

1 Dundas St Road Widening project

	2026 $000's	Explanation
CAPEX Appendix 2-AB	**$24,871**	
Add:		
2025 ICM project[1]	$4,762	Included in 2026 rebasing year
Station Transformer deposit	$50	Included as expected to be in-service
Large truck Chassis	$153	Included as expected to be in-service
Less:		
Large truck Chassis	-$157	CAPEX for Large truck is excluded until its in-service date
Gross assets (net of contribution) App. 2-BA	**$29,679**	

1 Dundas St Road Widening project

b) Please see BHI's response to part a) above.

2-Intervenor-20

Reference: **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.

Response:

BHI incorrectly stated on pp. 27-28 of Exhibit 2 that it had not made any changes to its depreciation/amortization policy since its last rebasing application (EB-2020-0007). Depreciation included in 2021 rates assumed a service life of 5 years for USoA 1611 – Computer Software. In 2022, BHI changed its depreciation policy to depreciate certain computer software assets, specifically its CIS and GIS assets, over 10 years as this was a more accurate representation of service life. As an example, BHI's new CIS was implemented in July 2021 and BHI has no plans to replace it during the 2026-2030 rate term.

The error regarding computer software service life in Appendix 2-BB in EB-2020-0007 did impact the depreciation expense during the previous rate term. Please refer to BHI's response to 2-Staff-28.

2-Intervenor-21

Reference: **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.

Response:

BHI has updated the ICM depreciation amounts for 2021 actuals in BHI's response to Interrogatory 2-Staff-30 and as such responds to this interrogatory based on the updated information.

The ICM depreciation amounts recorded in the continuity schedule of $128,400 (updated) for the 2021 Actuals relates to the ICM projects approved in the 2021 Cost of Service application[1] for the Tremaine TS Additional Breakers CCRA and the Tremaine TS CCRA true-up.

The ICM depreciation amounts adjusted in the continuity schedule of ($63,772) for the 2025 Bridge Year relates to the ICM project approved in 2025 IRM rate application[2] for the relocation of electrical distribution assets required for road widening work on Dundas Street from Guelph Line to Kerns Road and from Northampton Boulevard to Guelph Line. The $(63,772) is removed from the fixed asset continuity schedule and recorded in the ICM DVA account until approved for disposition.

[1] EB-2020-0007
[2] EB-2024-0010

2-Intervenor-22

Reference: **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.

Response:

BHI provides the explanation, calculation and reference to evidence for the calculation of the growth factor in Table 1 below.

BHI has updated its ACM_ICM model including the 2026 billing determinants in response to interrogatory 1-Staff-1 and responds to this interrogatory based on the updated calculation of the growth factor of (0.87)%.

Please see the updated Attachment_OEB_ACM_ICM_Model_BHI_07242025.

Table 1

Description	Ref	Amount	Explanation	Reference to Evidence
Revenues Based on 2024 Actual Distribution Revenues	a	$49,899,361	Revenues calculated based on 2024 actual billing determinants and proposed distribution rates for 2026	See tab 6 column N total in Attachment_OEB_ACM_ICM_Model_BHI_07242025
Revenues Based on 2026 Test Year Distribution Revenues	b	$49,031,888	Revenues calculated based on proposed billing determinants and proposed distribution rates for 2026	See tab 4 column N total in Attachment_OEB_ACM_ICM_Model_BHI_07242025
Number of Years	c	2	Based on IRM period of 2027 year of service of the project	This is to annualize growth rate
Growth Factor (negative)	**(b/a-1)/c**	**-0.87%**		

2-Intervenor-23

Reference: **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 $13,307,629 expenditure forecast are all higher priority than the SCADA Replacement/ADMS Acquisition ACM project of $3,640,000.

Response:

a) The materiality threshold is based on BHI's outlook for capital projects in 2027. BHI runs its project prioritization process at the execution planning stage, as part of its annual capital budgeting process. Since this process has not yet been completed for 2027, BHI is unable to list the 2027 projects that are below the Materiality Threshold in the order of priority.

b) Please see BHI response to part a). BHI has not yet established the priority ranking for 2027 projects and therefore cannot confirm whether the projects included in the $13,307,629 expenditure forecast are all higher priority than the SCADA Replacement/ADMS Acquisition ACM project.

2-Intervenor-24

Reference: **Ex. 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?

Response:

a) BHI plans to install four ADMS modules initially as identified below, with the potential to add more modules in the future depending on BHI requirements.

- Volt VAR Optimization: Requires Unbalanced Load Flow (UBLF) as pre-requisite.
- Fault Location: Requires Short Circuit (SC) as pre-requisite.
- Restoration Switch Analysis (RSA): Requires UBLF
- FLISR: Requires FL and RSA

b) Yes, the ADMS capabilities will cover the entire BHI service territory.

c) BHI has not assessed whether the need for an ADMS is the same in all parts of its service territory but expects ADMS capabilities to address needs across BHI's service territory including improved reliability, real-time monitoring and grid automation.

d) BHI is phasing in its ADMS solution, starting with the four modules considered to be the main building blocks of an ADMS (Volt VAR Optimization, Fault Location, Restoration Switch Analysis, and FLISR). These modules are all connected (i.e. cannot implement FLISR without having Fault Location module, Volt VAR Optimization has dependency on FLISR, etc.) so they are being implemented at the same time. Additional modules may or may not be considered in the future depending on the pace of the energy transition, customer demands, innovation and evolving regulatory requirements.

2-Intervenor-25

Reference: **Ex 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?

Response:

a) BHI's planned replacement of its Supervisory Control and Data Acquisition ("SCADA") system and procurement of a fully integrated ADMS is required for a number of reasons, as described in the business case, filed as Appendix B to Exhibit 2. One of those reasons is the ability to efficiently manage the bidirectional power flows and increased variability caused by increased DER adoption.

b) BHI is unable to complete the analysis that would be required to answer this question within the timelines for responding to IRs.

2-Intervenor-26

Reference: **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

Question(s):

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 Hitachi OMS system was acquired/implemented in 2024.

f) Please confirm that the cost of the current Hitachi OMS system was approx. $0.6M.

g) Please advise whether the current Hitachi 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 Hitachi 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?

Response:

a) BHI's Load Forecast Model has been updated to reflect the correct historical customer class consumption data and now reconciles with the billing determinants used in Attachment 4, Sheets 3 and 6. BHI files the updated load forecast as Attachment_Load_Forecast_Model_BHI_07242025.

b) Please see BHI's response to part a) above.

c) No, BHI did not ask its customers specifically about its proposed SCADA/ADMS project in its customer engagement activities. BHI described the outcomes of projects like SCADA/ADMS (e.g. supporting day-to-day operations, modernization and more efficient operations) to ensure customers could make an informed decision when assessing the importance and appropriateness of BHI's planned General Plant expenditures. BHI referenced the estimated General Plant costs over the 2026-30 period, which included the SCADA/ADMS project[1].

d) BHI will be seeking $3.64M in ICM funding based on its current forecast. BHI will be seeking the full year of revenue requirement associated with the capital costs, consistent with Section 7.1.1 of the OEB's ACM policy[2].

e) BHI confirms that the current Hitachi OMS system was acquired/implemented in 2024.

f) BHI confirms that the cost of the current Hitachi OMS system was $0.67M.

g) The current Hitachi OMS system was not forecast in BHI's 2021 cost of service application as it did not expect to replace its OMS during the DSP horizon. However, during the years 2021-2023, its previous OMS (AGSI's LiveOps) which was

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[1] EB-2025-0051, Exhibit 1, Appendix C, p58
[2] EB-2014-0219, New Policy Options for the Funding of Capital Investments: The Advanced Capital Module, p23

approximately 10 years old, had proven unreliable during large outage events, it lacked the necessary vendor support and BHI had received repeated customer feedback requesting better communication during outages, which the previous system did not support. To address these issues, BHI decided to replace and upgrade its OMS earlier than anticipated.

h) BHI provides the business case supporting the purchase/implementation of the new OMS system as Appendix 2-Intervenor-26h. BHI confirms vendors other than Hitachi were considered. Please refer to the business case for the full evaluation of why the chosen vendor was selected.

i) The current SCADA cannot be integrated with ADMS without customization and significant risk of running into manufacturer support and incompatibility issues. Introducing customization increases the risk of future upgrades and increases maintenance and overall product lifecycle management costs.

Integrating the current SCADA system with a new ADMS platform presents substantial challenges that extend far beyond routine software compatibility issues. The process would necessitate significant customization work, introducing bespoke interfaces and middleware to bridge the gap between disparate systems. Such customization inherently increases the complexity of the integration, making future upgrades more difficult and costly, as every change could require additional modifications or redevelopment of custom solutions.

Further, this approach introduces substantial risk throughout the product's lifecycle. Manufacturer support may be limited or unavailable for customized integrations, potentially leaving BHI without critical technical assistance in the event of failures or performance issues. Upgrades and patches for either the SCADA or ADMS systems could break compatibility, leading to operational disruptions or the need for further costly development work. Over time, these factors drive up maintenance and lifecycle management costs, as each new version or feature introduced by the vendors may need to be individually assessed and adapted for the customized environment.

Additional reasons why the current SCADA cannot be integrated with the Hitachi ADMS include:

- ADMS applications such as FLISR and DERMS rely on two-way SCADA communication, which is not possible between current SCADA and new ADMS provided by two different vendors. Integration of the existing SCADA system with the Hitachi ADMS involves several technical challenges and operational risks, given the difference in system architecture, data models, protocols and performance expectations. Existing SCADA compatible protocols may require middleware or protocol converters, which introduce complexity, customization and compatibility risks.

- Data mapping between two different systems can be complex and error-prone, for which even the mitigation to develop data transformation layer to map existing SCADA to new format, may make it inoperable or introduce incorrect data mappings.

- Data filtering, aggregation and event-driven mechanisms may cause issues with ingestion of telemetry data even with throttled or filtration layers.

- Security and authentication types differ in the two systems and may cost significantly more to mitigate by use of additional custom developed APIs and compatible firewalls.

- Full end-to-end integration will be challenging due to the complexity of distribution grid operations.

- Accessing support services for two different systems from two different vendors in case of technical issues will complicate fixes beyond the vendor interoperability support matrix, and introduce significant risk of incompatibility.

j) BHI has not yet estimated the annual operational cost savings, if any, resulting from the SCADA/ADMS project.

k) BHI provides the annual cost associated with the maintenance of its SCADA system between 2007 (when it was installed) and 2025 in Table 1 below. Please note that costs prior to 2021 are provided on a best efforts basis as they were not centralized to one budget line until 2021. The below maintenance costs do not include software-related maintenance and support.

Table 1

Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Scada Maintenance Cost	$ 9,590	N/A	$ 13,628	$ 12,042	$ 12,274	$ 44,980	$ 61,340	$ 30,670	$ 77,385	$ 54,487

Description	2017	2018	2019	2020	2021	2022	2023	2024	2025
Scada Maintenance Cost	$ 51,693	$ 54,131	$ 68,672	$ 113,224	$ 63,081	$ 147,905	$ 63,196	$ 72,556	$ 38,318

l) The estimated annual costs associated with the maintenance of the new SCADA system is $175K in 2027, escalated at inflation for 2028-2030. The increased annual maintenance costs reflect the following:

- Inclusion of software maintenance and support (legacy SCADA costs did not include software-related maintenance and support);

- Increased complexity of the new SCADA system including increased integration and two-way communication with newer technologies (e.g. ADMS);

- Enhanced cybersecurity measures, including regular security updates and patches, to reflect the increased interconnectedness of the new SCADA system and cyber vulnerabilities that come with it.

m) The estimated cost of a SCADA only upgrade is $1.2M.

n) BHI confirms that the expected cost of the SCADA/ADMS system will be higher than $3.6M (inclusive of field hardware and integration-related costs). BHI is still evaluating the cost of field hardware and integration, and as such, does not have a high-level estimate of these costs at this time.

2-Intervenor-27

Reference: **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.

Response (a) and (b):

SCADA is integral to both ADMS and OMS because it serves as the primary platform for real-time monitoring and control of the power grid's operations. Without seamless integration of SCADA data, both ADMS and OMS would lack the timely, granular visibility needed to enhance reliability, minimize downtime, and support modern grid management.

BHI's journey to replace its OMS and SCADA, and implement a future ADMS, started with the foundational replacement of its OMS in 2024. This decision was supported by a thorough assessment and determination of which vendor was best equipped to meet BHI's needs. BHI assessed nine vendors, from which it selected four to advance to the RFP process, with regard to their ability to meet BHI's requirements. Based on the RFP responses, three vendors were selected to present their solutions to BHI, and one vendor was ultimately chosen through the competitive procurement process. Further information about the chosen vendor and solution is provided in OMS business case included in BHI's response to 2-Staff-26h).

Integration of other vendors' SCADA/ADMS systems with BHI's current OMS system is not practical or prudent for the following reasons:

- Risk of Higher Cost and Compromised Functionality
    - Risk of higher total costs and reduced functionality due to the potential requirement for, and development of, multiple programming interfaces that may not work correctly, as compared to a simplified design and architecture from the same vendor. The introduction of complex customization may make

the system inoperable due to dependency on manually developed algorithms and issues may be difficult to troubleshoot for any technical challenges in the future.[1]

- Proprietary Protocols and Interfaces
    - SCADA and ADMS platforms frequently employ proprietary protocols and data models that are not inherently compatible with Hitachi OMS, thereby impeding seamless integration. Divergent approaches to data structuring further complicate interoperability; while SCADA prioritizes real-time telemetry, ADMS emphasizes optimization and advanced fault analytics.
- Real-time Data Integration Challenges
    - Achieving synchronization of real-time data between SCADA, ADMS, and Hitachi OMS is fraught with difficulty, owing to disparate data refresh rates and the potential for latency. Such inconsistencies can undermine the precision and timeliness of outage detection and operational response.[2]
- Architectural and Functional Disparities
    - SCADA is fundamentally engineered for grid monitoring and control, whereas ADMS extends these capabilities with advanced analytics and outage management functionalities. These architectural distinctions result in unique data requirements and event-handling methodologies that hinder simple data exchange.
- Vendor Lock-In and System Customization
    - Vendors may employ contractual, technical, or intellectual property constraints to restrict third-party integrations. Furthermore, system customizations tailored to utility-specific needs often yield incompatibility with the data formats and configurations expected by Hitachi OMS.
- Communication Standards and Middleware
    - Support for standard protocols such as IEC 61850 or CIM is not uniformly implemented across platforms, and even minor differences in protocol execution can create significant integration challenges. Middleware solutions are frequently indispensable, yet their development and ongoing maintenance demand substantial resources.[3]
- Complexities in Fault Handling and Data Integrity
    - Disparate methodologies for outage detection, along with varying requirements for data consistency, pose significant obstacles. Hitachi OMS is contingent upon precise, reliable data; deficiencies or inconsistencies in external system feeds can jeopardize outage management efficacy.

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[1] https://www.survalent.com/products/survalentone-adms/
[2] https://www.energycentral.com/home/post/hidden-data-governance-issues-adms-project-brings-energy-delivery-business-APSkx5QYVfO9iU7
[3] https://pmarketresearch.com/it/advanced-distribution-management-systems-adms-solutions-market/

Customization of modules and programming changes to core system code may result in the operational state of these systems operational state to be unsupported by manufacturers, and as such exposing BHI to a significant risk of losing critical technical support from manufacturers.

Response (c):

The ADMS implementation and SCADA replacement is a significant capital investment at $3.6M and represents 15% of BHI’s total capital budget in 2027. Readjusting BHI’s capital plans and accommodating this project within its capital envelope would impact BHI’s ability to deliver outcomes across several capital programs, including:

- renewing of deteriorating infrastructure to address declining reliability trends in defective equipment such as underground cables, which were responsible for approximately 27% of defective equipment related hours of outage from 2020-2024, as outlined in Table 1 of BHI’s response to 2-Staff-20.

- expanding electrical capacity to ensure the grid can meet the demands of public policy changes (e.g. *More Homes Built Faster Act, 2022*), including with respect to the rapidly evolving housing needs in BHI’s service territory, such as development around Major Transit Station Areas ("MTSAs"), which require additional capital investments to build and connect. MTSA capital investments total $8M in 2027.

- accommodating third-party requests related to infrastructure renewal and expansion projects, such as the Dundas Rd Road Widening project, that require BHI to relocate its existing infrastructure.

- transitioning to the next generation Advanced Meter Infrastructure ("AMI") 2.0 system with real-time integration with BHI's Outage Management System ("OMS") and Customer Information System ("CIS")

- maintaining cyber security tools, platforms and protections required to enhance cyber security readiness in accordance with the Ontario Cyber Security Framework ("OCSF").

2-Intervenor-28

Reference: **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.

Response:

a) Please refer to BHI's response to 2-Intervenor-52 a) and b).

b) BHI provides a detailed reconciliation of the actual costs (2025 YTD May) incurred for the Dundas St. Road Widening Project (2025 ICM) relative to the forecast costs included in EB-2024-0010 in Table 1 below. BHI has updated its 2025 and 2026 capital expenditures forecast in response to interrogatory 1-Staff-1 and has included a column reflecting its updated forecast in Table 1 below. BHI has also placed orders for material for the Guelph Line to Kerns Rd. section of the project (e.g. 18 transformers and 8 concrete poles), which are not reflected in the 2025 May YTD Actuals.

Table 1

Dundas St Road Widening	2025 Forecast EB-2024-0010	2025 Updated Forecast 1-Staff-1	2025 Actual YTD May
Guelph Line to Kerns Rd.			
Gross Capex	$8,055,102	$9,178,128	$12,181
Capital Contributions	($3,400,523)	($4,397,477)	$0
Net Capex	*$4,654,580*	*$4,780,651*	*$12,181*
Northampton Boulevard to Guelph Line			
Gross Capex	$2,023,993	$0	$0
Capital Contributions	($1,114,880)	$0	$0
Net Capex	*$909,113*	*$0*	*$0*
Total Net	**$5,563,693**	**$4,780,651**	**$12,181**

2-Intervenor-29

Reference: **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.

Response:

a) BHI uses the definition of DER from the IESO's DER Potential Study[1]:

   "Distributed Energy Resources refers to energy resources that are directly connected to the electricity distribution system, or indirectly connected to the distribution system behind a customer's meter; and generates energy, stores energy, or controls load."

   The two definitions are generally aligned.

[1] Ontario's Distributed Energy Resources (DER) Potential Study, September 28, 2022, p1

b) BHI included EVs and increased electrification of buildings (electric heating) in its load forecast modeling. Please refer to Section 3.1.1.8 of Exhibit 3 for further details on the gross and net impact.

2-Intervenor-30

Reference: **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.

Response:

a) No, BHI has not assessed what portion of the demand increases over the coming decades could be mitigated by CDM or E-DSM as it does not plan on a net load basis. BHI's distribution system planning is based on its gross load forecast, as CDM and eDSM forecasts from the IESO are not granular enough for BHI to determine where these savings will manifest on BHI's system.

b) BHI proposes to maximize e-DSM outcomes in its service territory through a multifaceted strategy that aligns with the IESO's Electricity Demand Side Management (eDSM) Framework. BHI planning to sign its Stream 1 funding agreement with the IESO after which it will develop its eDSM plan based on its allocated funding. BHI is still in the process of evaluating potential Stream 2 programs and their local and bulk system benefits, and has not yet determined how to best maximize e-DSM results over the term.

   BHI will actively engage customers and the community through targeted promotions and involvement in community events – with the goal to increase awareness and participation in the IESO's Save on Energy programs.

   BHI will also actively engage Commercial, Industrial, and Institutional (CII) customers in its service territory through targeted outreach. These efforts will promote program awareness, conduct onsite energy audits, and support CII customers to navigate program requirements and the application process.

   To further enable energy efficiency efforts, BHI also proposes to promote distributed energy resources (DERs) like rooftop solar and battery storage, as well as continue to promote Green Button data access and customer portals to empower greater energy management. BHI will also continue to engage with residents, businesses, and community groups to explore tailored local e-DSM initiatives.

2-Intervenor-31

Reference: **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.

Response:

a) BHI provides the useful life assumptions for conductors and transformers it uses for the average physical lifetime of the conductors and transformers in Table 1 below. These are based on the Kinectrics Report conducted specifically for BHI in conjunction with Enersource, Oakville Hydro, Milton Hydro and Halton Hills Hydro ("the Report"). The report is filed as Appendix 2-Staff-28 a) in BHI's response to 2-Staff-28.

Table 1

Asset Category	Typical Useful Life (Years)
OH Conductor	60
OH Transformers	40
Pad-Mounted Transformers	40
Submersible/Vault Transformers	40

b) BHI cannot 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. As shown in Table 1 above, the typical useful lives of these assets (35-60 years) extend far beyond any demand forecast BHI would be able to reference. BHI plans and designs its distribution system based on the existing and anticipated demand in various parts of its service territory. This forecast is developed using information available from the local development community, City of Burlington population growth projections and housing intensification plans which do not project 35-60 years into the future. This information has guided the investment decisions and the pacing of capital projects in BHI's Capital Plan over the rate period.

c) BHI is unable to complete the analysis that would be required to answer the questions within the timelines for responding to IRs.

d) BHI is unable to complete the analysis that would be required to answer the questions within the timelines for responding to IRs.

2-Intervenor-32
Reference: **Ex. 2, Appendix A – Distribution System Plan**

Question(s):

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).[1]

c) Please discuss the feasibility and potential savings from offering customers seeking a service upgrade an alternative option via a SPAN Edge.[2]

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

Response:

a) BHI provides Table 1 below showing the number of residential service upgrades in the past five years and a forecast for the rate term.

[1] https://www.passivehousecanada.com/wp-content/uploads/2023/08/20231026-Electrification-without-a-service-upgrade-report.pdf
[2] https://www.span.io/blog/span-expands-beyond-smart-electrical-panels-creating-new-category-of-at-the-meter-products

Table 1

Description	2021	2022	2023	2024	2025 Forecast
Residential service upgrades	217	682	385	606	690
Description	**2026**	**2027**	**2028**	**2029**	**2030**
Forecasted Residential service upgrades	711	732	754	777	800

BHI does not track the cost break down of customer requested service upgrades and connections separately so it is unable to provide the information within the timelines of these interrogatories.

b) BHI is unable to complete the analysis that would be required to answer this question within the timelines for responding to interrogatories.

c) BHI is unable to complete the analysis that would be required to answer this question within the timelines for responding to interrogatories.

d) Upstream capacity is impacted by an increase in customer demand and not service size. If the existing service to customers is able to meet the new demand, this could still have an impact on upstream capacity.

BHI is unable to do a complete analysis of the technologies mentioned in part c) above within the timelines for responding to interrogatories.

BHI builds electricity infrastructure based on expected demand and not service size.

2-Intervenor-33
Reference: **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.

Response:

a) BHI cannot confirm that the proposed capital investments are sufficient to ensure that each residential customer would be able to install an EV charger or electric heat pump without delay in any part of BHI's system. Due to the variability of these loads and unknown adoption patterns, BHI cannot guarantee universal readiness so that every residential customer across its entire service territory will be able to install an EV charger or electric heat pump without delay or without infrastructure upgrades. BHI reviews each customer application based on size, location and connection requirements to make a determination whether the new load can be connected to existing infrastructure or a system expansion is necessary.

b) As per BHI's Conditions of Service[1], Section 2.1.1 "BHI provides a Basic Connection at no charge to all residential Customers. A Basic Connection is defined as the actual or equivalent costs to supply and install overhead distribution transformer capacity and up to 30 meters of overhead service conductor," including up to 200 amp.

c) BHI respectfully declines to answer this question because the requested information is not within its purview.

d) Not applicable. BHI does not charge residential customers for the upgrade described in part b).

e) Please see BHI's response to part d) above.

f) Residential service upgrades are completed in an average of 16 weeks for underground service and 8 weeks for overhead service.

[1] https://www.burlingtonhydro.com/conditions-of-service.html

2-Intervenor-34
Reference: **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).

Response:

a) BHI provides the forecast number of new connections for each year from 2025 to 2029 in Table 1 below.

Table 1

Description	2025	2026	2027	2028	2029
Forecasted total New connections	524	612	700	1,139	1,227

BHI does not track the forecast contribution to co-incident system peak demand or total demand for new connections that are gas heated or electrically heated and is unable to provide the information within the timelines for responding to these interrogatories.

b) BHI had 457 new connections in 2024. As identified in its response to part a) above, BHI does not track and is unable to provide the other information within the timelines for responding to these interrogatories.

c) BHI provides a list of all expected connection requests during the rate period in Table 2 below. BHI does not forecast and is unable to provide the other information within the timelines for responding to these interrogatories.

Table 2

Description	2026	2027	2028	2029	2030
Forecasted total connection requests	1,669	1,827	1,985	2,143	2,301

d) BHI is unable to complete the analysis that would be required to answer this question within the timelines for responding to interrogatories.

e) Please see BHI's response to part d) above.

f) Please see BHI's response to part d) above.

2-Intervenor-35

Reference: **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?

Response:

a) Please refer to section *5.3.3.3.3 Strategies for Operating within Budget Envelopes* of BHI's DSP for a description of how BHI would manage higher than forecast costs.

b) BHI does not confirm that the DSC allows utilities to apply a longer revenue horizon beyond the standard horizon for calculating contributions in aid of construction. BHI has never done this. BHI applies methodologies and assumptions for economic evaluations in accordance with Appendix B of the DSC, which specifies the maximum customer revenue horizon under different connection types.

c) BHI does not have visibility into which commercial or residential towers are cooled with geothermal versus traditional air conditioning and therefore cannot complete this comparison.

d) Tables 1 to 5 below provide BHI's 20 highest winter demand hours and summer demand hours for each of the past five years, 2020 to 2024.

Table 1

2020 Historical Year						
Top 20 Winter Demand Hours				Top 20 Summer Demand Hours		
Date	Time	kW		Date	Time	kW
08-Jan-20	17:45	232,509.50		09-Jul-20	15:00	350,364.40
08-Jan-20	18:00	232,265.40		09-Jul-20	15:30	349,007.20
08-Jan-20	18:15	229,866.40		09-Jul-20	16:00	348,633.30
20-Jan-20	18:00	229,432.20		09-Jul-20	15:45	348,561.10
08-Jan-20	18:30	228,871.40		09-Jul-20	14:30	348,346.10
09-Jan-20	17:45	228,265.20		09-Jul-20	14:45	348,225.40
09-Jan-20	18:00	227,947.10		09-Jul-20	15:15	347,986.00
20-Jan-20	17:45	227,545.70		09-Jul-20	14:15	347,464.40
20-Jan-20	18:15	227,443.60		08-Jul-20	14:30	346,839.50
08-Jan-20	17:30	227,409.10		08-Jul-20	14:00	346,365.30
08-Jan-20	18:45	226,792.40		08-Jul-20	14:15	346,046.40
20-Jan-20	18:30	226,781.80		09-Jul-20	14:00	346,007.30
21-Jan-20	18:00	225,897.50		09-Jul-20	16:30	346,007.10
06-Feb-20	18:00	225,529.40		09-Jul-20	16:15	345,935.70
09-Jan-20	17:30	225,280.40		09-Jul-20	16:45	345,756.40
08-Jan-20	19:00	224,988.60		08-Jul-20	13:45	345,645.30
21-Jan-20	18:15	224,933.40		08-Jul-20	14:45	345,290.50
20-Jan-20	18:45	224,897.90		08-Jul-20	13:30	345,195.30
21-Jan-20	17:45	224,853.50		09-Jul-20	17:00	345,092.10
09-Jan-20	18:15	224,762.40		08-Jul-20	13:00	345,069.40

Table 2

2021 Historical Year						
Top 20 Winter Demand Hours				Top 20 Summer Demand Hours		
Date	Time	kW		Date	Time	kW
18-Feb-21	18:00	232,515.00		26-Aug-21	15:45	344,659.40
18-Feb-21	18:15	231,513.10		26-Aug-21	16:00	343,956.50
28-Jan-21	18:00	230,618.30		26-Aug-21	15:30	343,877.90
08-Feb-21	18:00	230,332.30		26-Aug-21	16:30	343,753.00
01-Feb-21	18:00	230,047.40		26-Aug-21	16:15	342,564.00
10-Feb-21	18:00	229,843.70		26-Aug-21	15:15	342,515.60
01-Feb-21	17:45	229,651.10		26-Aug-21	15:00	342,507.00
18-Feb-21	17:45	229,309.60		29-Jun-21	13:15	341,827.00
08-Feb-21	18:15	229,258.00		26-Aug-21	14:45	341,731.50
10-Feb-21	18:15	229,247.20		26-Aug-21	14:30	341,164.20
18-Feb-21	18:30	229,088.90		29-Jun-21	14:15	340,313.50
20-Jan-21	17:45	229,006.10		29-Jun-21	13:30	340,029.50
20-Jan-21	18:00	228,781.90		26-Aug-21	16:45	340,007.20
16-Feb-21	18:30	228,014.80		26-Aug-21	14:15	339,704.60
17-Feb-21	18:30	227,834.60		29-Jun-21	13:00	339,649.10
28-Jan-21	18:15	227,824.00		26-Aug-21	14:00	337,885.30
16-Feb-21	18:15	227,804.20		29-Jun-21	12:45	337,417.70
17-Feb-21	18:15	227,524.90		29-Jun-21	14:00	335,860.20
08-Feb-21	18:30	227,338.40		26-Aug-21	13:45	335,615.80
08-Feb-21	17:45	227,168.30		29-Jun-21	12:30	335,412.40

Table 3

2022 Historical Year						
Top 20 Winter Demand Hours				Top 20 Summer Demand Hours		
Date	Time	kW		Date	Time	kW
11-Jan-22	17:45	243,374.00		22-Jun-22	13:00	344,046.80
11-Jan-22	18:00	242,187.10		22-Jun-22	12:45	343,636.70
11-Jan-22	17:30	240,596.40		22-Jun-22	13:15	343,083.90
10-Jan-22	18:00	240,513.30		22-Jun-22	13:30	342,503.10
10-Jan-22	17:45	239,958.30		22-Jun-22	12:30	342,447.20
24-Jan-22	17:45	238,033.20		22-Jun-22	13:45	341,867.70
20-Jan-22	18:00	237,993.60		22-Jun-22	12:15	341,448.80
11-Jan-22	18:15	237,480.20		22-Jun-22	14:00	341,079.00
24-Jan-22	18:00	237,467.90		22-Jun-22	12:00	340,717.80
26-Jan-22	18:00	236,796.10		19-Jul-22	16:45	340,058.50
25-Jan-22	18:00	236,615.60		22-Jun-22	15:30	340,045.20
20-Jan-22	17:45	236,596.60		22-Jun-22	14:45	339,899.90
10-Jan-22	18:15	236,367.10		19-Jul-22	17:00	339,757.70
11-Jan-22	17:15	236,276.30		22-Jun-22	14:30	339,694.90
10-Jan-22	17:30	235,773.30		22-Jun-22	15:15	339,431.60
26-Jan-22	18:15	235,325.20		22-Jun-22	14:15	339,398.60
11-Jan-22	17:00	235,187.80		22-Jun-22	11:45	339,300.00
27-Jan-22	18:00	235,098.50		22-Jun-22	15:45	339,280.90
03-Feb-22	18:00	234,950.00		19-Jul-22	16:30	339,109.30
20-Jan-22	18:15	234,930.50		19-Jul-22	16:15	338,827.50

Table 4

2023 Historical Year						
Top 20 Winter Demand Hours				Top 20 Summer Demand Hours		
Date	Time	kW		Date	Time	kW
03-Feb-23	18:00	229,680.60		05-Sep-23	16:00	337,024.00
03-Feb-23	18:15	229,513.40		05-Sep-23	15:45	336,791.20
03-Feb-23	18:30	228,044.10		05-Sep-23	16:30	335,858.10
03-Feb-23	18:45	226,310.50		05-Sep-23	16:15	335,702.90
03-Feb-23	17:45	226,186.00		05-Sep-23	16:45	335,643.00
03-Feb-23	19:00	225,099.20		05-Sep-23	15:30	334,882.90
31-Jan-23	18:00	224,321.90		05-Sep-23	17:00	334,876.00
01-Feb-23	18:00	224,041.70		05-Sep-23	14:45	334,776.60
03-Feb-23	17:30	223,165.20		05-Sep-23	14:30	334,711.20
01-Feb-23	18:15	223,096.00		05-Sep-23	15:00	334,628.90
01-Feb-23	18:30	223,039.00		05-Sep-23	15:15	334,426.10
25-Jan-23	18:00	222,956.50		05-Sep-23	14:15	333,721.50
03-Feb-23	19:15	222,705.00		05-Sep-23	14:00	333,087.70
25-Jan-23	17:45	222,695.00		05-Sep-23	13:45	332,406.10
03-Feb-23	19:30	222,327.30		05-Sep-23	17:15	331,213.50
31-Jan-23	18:15	222,131.20		05-Sep-23	13:30	330,590.80
22-Feb-23	18:00	222,114.50		06-Sep-23	14:45	329,819.40
30-Jan-23	18:00	221,814.20		06-Sep-23	15:00	328,793.40
03-Feb-23	19:45	221,559.20		06-Sep-23	14:30	328,525.70
22-Feb-23	18:15	221,392.40		06-Sep-23	15:30	328,523.70

Table 5

2024 Historical Year						
Top 20 Winter Demand Hours				Top 20 Summer Demand Hours		
Date	Time	kW		Date	Time	kW
17-Jan-24	18:00	237,875.90		19-Jun-24	17:00	340,324.80
17-Jan-24	17:45	237,104.80		19-Jun-24	16:45	340,164.60
17-Jan-24	18:15	236,534.00		19-Jun-24	16:30	339,328.20
17-Jan-24	18:30	234,425.00		19-Jun-24	16:00	339,299.90
15-Jan-24	18:00	234,242.00		19-Jun-24	17:15	339,076.80
16-Jan-24	18:00	234,090.80		19-Jun-24	16:15	337,888.90
15-Jan-24	18:15	233,793.20		19-Jun-24	15:30	337,227.60
17-Jan-24	17:30	233,696.50		19-Jun-24	17:30	337,110.20
16-Jan-24	17:45	233,675.50		19-Jun-24	15:45	337,044.60
15-Jan-24	17:45	233,606.20		19-Jun-24	15:15	336,201.10
16-Jan-24	18:15	233,318.50		19-Jun-24	15:00	335,273.80
17-Jan-24	18:45	232,795.90		19-Jun-24	17:45	334,982.00
17-Jan-24	19:00	231,392.60		19-Jun-24	14:45	333,037.50
16-Jan-24	17:30	230,981.40		19-Jun-24	14:00	332,141.90
15-Jan-24	18:30	230,603.40		19-Jun-24	13:45	331,870.70
15-Jan-24	17:30	230,512.90		19-Jun-24	18:00	331,867.30
16-Jan-24	18:30	230,335.50		19-Jun-24	14:30	331,587.30
17-Jan-24	19:15	229,809.60		19-Jun-24	14:15	331,138.10
17-Jan-24	19:30	229,469.20		18-Jun-24	15:30	329,991.30
17-Jan-24	17:15	229,144.30		18-Jun-24	15:15	329,735.90

e) Using the peak demand in each historical year from 2020 to 2024, BHI’s average system peak demand in the summer is 343,284 and in the winter is 235,191.

2-Intervenor-36

Reference: **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?

Response:

a) Barriers to installing EV chargers in existing multi-residential buildings include:

Electrical Capacity Constraints
Limited-service size: Older buildings may have insufficient electrical capacity to support EV charging without a service upgrade.
Transformer limitations: Local transformers may not support the added load from multiple chargers, requiring upgrades.

Customer Infrastructure Limitations
Wiring and conduit: Retrofitting wiring through finished walls, ceilings, or underground parking structures can be complex and expensive.
Panel space: Electrical panels may be full, requiring replacement.
Parking layout: Not all parking spots are near electrical rooms or panels, increasing installation costs.

Costs and Funding
High upfront costs: Installation costs requiring major upgrades, may be cost prohibitive
Cost contributions: Where distribution system expansions are needed, a contribution from the customer may be required (as per Appendix-B of the DSC).
Limited incentives: Rebates and grants may not fully cover costs or may be difficult to access.

Condominium Governance and Legal Barriers
Condo Board approval: Condo boards may delay or deny requests due to cost, liability, or perceived fairness.
Bylaws and declarations: Some buildings require amendments to allow charger installations or shared infrastructure.

Regulatory and Policy Gaps
Lack of mandates: there are no building code or other regulatory requirements for existing buildings to support EV charging.
Permitting delays: Municipal permitting processes and requirements may vary for different neighborhoods within the City.

b) BHI facilitates the installation of EV chargers through a technical review of the design (type of chargers, typical usage, impact on the distribution system etc.) and layout, determination of servicing requirements, and regulatory guidance including cost responsibilities as per the DSC.

c) BHI provides 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 in Table 1 below. BHI does not specifically track the number of multi-residential buildings and provides this estimate based on the available information in its CIS.

Table 1

Rate Class	Count	%	Distribution Charges
GS < 50kW	196	56%	per kWh
GS > 50kW	155	44%	per kW
Total	**351**	**100%**	

d) Under the Distribution System Code (DSC), when a multi-residential building requests an upgrade to support EV chargers, the required distribution system upgrades (other than connection assets) are considered an expansion and cost responsibility is determined as per Appendix B of the DSC (economic evaluations). Forecast incremental revenue from the incremental load would be considered as part of those calculations. The same methodology is applicable to both cases of bulk metered and individually metered connections.

e) BHI estimates that 57% of its multi-residential buildings have a meter for each unit. BHI does not specifically track the number of multi-residential buildings that are individually metered and provides this estimate based on the available information in its CIS.

f) BHI could take the following steps to facilitate connection of EV chargers in multi-residential buildings:

Technical Enablement

- Capacity mapping to identify areas with available capacity for EV charging to assist building owners, plan for such upgrades.
- Support load management solutions as part of eDSM.
- Support EV-ready retrofit designs for fast approvals.

Financial Incentives

- Direct customers to sources of available federal/provincial grants.

Regulatory and Policy Support

- Clarify and communicate how revenue offsets are applied under the DSC.
- Support provincial policies that make it easier for condo owners to install chargers.

Customer Engagement

- Upon request, provide technical and regulatory guidance to condo boards and property managers.
- Explain the process, costs, and benefits of EV charger installation to proponents.

2-Intervenor-37

Reference: **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?

Response:

a) BHI plans to replace 100% of its 67,077 smart meters with AMI 2.0 meters as they become due for reverification. BHI plans to replace 44,892 of 67,077 smart meters (67%) with an AMI 2.0 meter over the DSP period.

b) BHI only installs bi-directional meters for customers that require bi-directional metering, which is less than 1% of its meter population.

c) BHI has not yet made a determination on whether all new AMI 2.0 meters will be bi-directional or not. Having all meters as bi-directional carries higher maintenance and re-verification costs in the future. All new AMI 2.0 meters will have the capability of being programmed and sealed as bi-directional.

d) No, BHI does not 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. BHI will prioritize the rollout of AMI 2.0 meters as existing meters become due for reverification.

2-Intervenor-38

Reference: **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.

Response:

a) The costs associated with office equipment and tools can be found in the "Miscellaneous" line in Appendix 2-AA.

b) Please refer to BHI response to interrogatory 2-Staff-25 a).

2-Intervenor-39

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

Question(s):

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.

Response:

a) BHI provides the km of cable tested in each year 2021 to 2025 in Table 1 below. No cables have been tested in 2025 yet because BHI requests this service to be completed after summer peak load season.

Table 1

	2021	2022	2023	2024	2025
Length of Cable Tested (km)	-	9.28	-	8.40	-

b) BHI provides the forecast km of cable to be tested in each of the years 2026 to 2030 in Table 2 below.

Table 2

	2026	2027	2028	2029	2030
Length of Cable to be Tested (km)	8	8	8	8	8

2-Intervenor-40

Reference: **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.

Response:

a) BHI provides the Energy Storage Feasibility Study referenced in the DSP as Appendix 2-Intervenor-40a.

b) BHI does not agree with any of the Recommended Next Steps (see page 49) from the Energy Storage Feasibility Study and is not proceeding with the project at this time.

2-Intervenor-41

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

Question(s):

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.

Response:

a) AMI 2.0 meters allow customers to utilize home analytics, V2G and vehicle to home charging, battery storage and other DERs by enabling faster and more reliable access to real-time data. They also support more frequent reads which allows for better demand response and customer energy usage insights in near real-time. They are capable of collecting and analyzing data and providing more granular visibility into energy consumption, which is a key enabler of home analytics, battery storage and other DERs.

b) Customer interest in DERs and the associated increase in DER penetration in BHI's service territory will impact BHI's plan as follows:

(i) DSP

Please see BHI's response to 4-Staff-59 b).

(ii) Load Forecast

Electric Vehicle (EV) load growth is addressed in the load forecast section of the pre-filed evidence (see Section 3.1.1.8), with further clarification in interrogatory response 3-Intervenor-88 b).

(iii) Productivity

Investments in SCADA and ADMS systems are intended to improve operational productivity and system visibility as DER penetration increases. Refer to BHI's response to Interrogatory 1-Intervenor-2 for further details.

(iv) OM&A

Please see BHI's response to 4-Staff-59 b).

c) BHI does not have any other analysis, reports, studies, presentations, data or other documentation with respect to past and forecast DER uptake in its service territory.

2-Intervenor-42

Reference: **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.

Response:

a) BHI provides a further breakdown of Defective Equipment (Total Interruptions) by equipment/asset type in Table 1 below.

Table 1

Equipment/Asset Type	2020	2021	2022	2023	2024	Total (2020-2024)	%
Defective Equipment - Line Hardware	45	37	42	47	34	**205**	**25.3%**
Defective Equipment - Transformer	50	35	36	27	41	**189**	**23.3%**
Defective Equipment - U/G Cable	20	25	36	37	22	**140**	**17.3%**
Defective Equipment - Switch	16	25	14	17	16	**88**	**10.9%**
Defective Equipment - Secondary	14	7	11	16	17	**65**	**8.0%**
Defective Equipment - Arrester	5	7	4	7	9	**32**	**3.9%**
Defective Equipment - Pole	6	8	6	5	7	**32**	**3.9%**
Defective Equipment - Insulator	5	6	5	6	2	**24**	**3.0%**
Defective Equipment - Termination	6	4	3	4	1	**18**	**2.2%**
Defective Equipment - Switching Cubicle	-	2	2	3	4	**11**	**1.4%**
Defective Equipment - Elbow	1	1	1	-	3	**6**	**0.7%**
Defective Equipment - Relay	1	-	-	-	-	**1**	**0.1%**
Defective Equipment Total	169	157	160	169	156	**811**	**100.0%**

b) BHI provides a further breakdown of Defective Equipment (Customer Interruptions) by equipment/asset type in Table 2 below.

Table 2

Equipment/Asset Type	2020	2021	2022	2023	2024	Total (2020-2024)	%
Defective Equipment - Switch	7,371	392	464	11,941	4,490	**24,658**	**20.3%**
Defective Equipment - Line Hardware	4,567	1,204	7,309	1,937	7,940	**22,957**	**18.9%**
Defective Equipment - U/G Cable	1,930	2,559	5,191	6,899	5,130	**21,709**	**17.8%**
Defective Equipment - Termination	1,252	6	2,483	1,772	3,503	**9,016**	**7.4%**
Defective Equipment - Switching Cubicle	-	418	736	571	7,227	**8,952**	**7.4%**
Defective Equipment - Pole	4,442	550	1,149	248	1,921	**8,310**	**6.8%**
Defective Equipment - Transformer	1,742	1,953	1,157	1,530	1,493	**7,875**	**6.5%**
Defective Equipment - Insulator	1,028	2,969	1,871	628	948	**7,444**	**6.1%**
Defective Equipment - Arrester	25	262	5,024	12	2,013	**7,336**	**6.0%**
Defective Equipment - Elbow	1	94	49	-	2,394	**2,538**	**2.1%**
Defective Equipment - Secondary	294	87	128	144	145	**798**	**0.7%**
Defective Equipment - Relay	89	-	-	-	-	**89**	**0.1%**
Defective Equipment Total	22,741	10,494	25,561	25,682	37,204	**121,682**	**100.0%**

c) BHI provides a further breakdown of Defective Equipment (Customer Hours of Interruption) by equipment/asset type in Table 3 below.

Table 3

Equipment/Asset Type	2020	2021	2022	2023	2024	Total (2020-2024)	%
Defective Equipment - U/G Cable	5,494	11,564	14,973	14,943	5,388	**52,361**	**27.1%**
Defective Equipment - Line Hardware	4,590	1,776	12,550	3,155	21,287	**43,358**	**22.4%**
Defective Equipment - Transformer	4,306	4,227	2,220	5,309	5,019	**21,080**	**10.9%**
Defective Equipment - Switch	8,602	596	884	6,908	2,435	**19,425**	**10.0%**
Defective Equipment - Switching Cubicle	-	1,414	2,218	4,599	9,046	**17,277**	**8.9%**
Defective Equipment - Termination	873	44	2,527	2,163	7,970	**13,576**	**7.0%**
Defective Equipment - Pole	752	3,346	2,801	1,482	2,086	**10,466**	**5.4%**
Defective Equipment - Insulator	590	1,185	3,296	1,093	3,597	**9,762**	**5.0%**
Defective Equipment - Arrester	33	75	2,148	18	524	**2,798**	**1.4%**
Defective Equipment - Elbow	2	614	83	-	1,250	**1,948**	**1.0%**
Defective Equipment - Secondary	451	59	406	213	317	**1,445**	**0.7%**
Defective Equipment - Relay	40	-	-	-	-	**40**	**0.0%**
Defective Equipment Total	25,733	24,900	44,105	39,881	58,917	**193,537**	**100.0%**

2-Intervenor-43

Reference: **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.

Response:

BHI's is unable to track the percentage of the capital budget undertaken by internal compared to external resources due to limitations in its ERP. As such, it is unable to provide the requested data for 2021-2024.

BHI provides the percentage of the capital budget undertaken by internal compared to external resources for the 2025 Bridge and 2026 Test Years in Table 1 below (based on gross capital expenditures).

BHI does not have this information for 2027-2030.

Table 1

Description	2025 Bridge Year	2026 Test Year
Internal resources	13.8%	12.5%
External resources	86.2%	87.5%
Total	**100.0%**	**100.0%**

2-Intervenor-44

Reference: **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.

Response:

Table 1 below shows the number of work orders that resulted from maintenance activities from 2021 to 2024 and 2025 (YTD June)

Table 1

Description	2021	2022	2023	2024	2025*
Number of Work Orders Generated from Maintenance Tasks	91	149	140	143	90

*YTD June

2-Intervenor-45

Reference: **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.

Response:

BHI provides copies of the Annual System Performance Reports for 2021, 2022 and 2024 as Appendix 2-Intervenor-45.

2-Intervenor-46

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

Question(s):

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).

Response:

a) Yes, BHI will continue to consider whether NWS would be appropriate in lieu of capacity investments during the rate period for projects that exceed the $2M threshold established by the OEB in the NWS Guidelines. Where NWS can offer a viable and cost-effective alternative to the required capital investments, BHI intends to assess whether it can leverage these solutions to defer or displace the need to build new infrastructure.

b) If BHI decides to pursue an NWS during the rate period, it will assess whether an application in accordance with the OEB's Non-Wires Solutions Guidelines for Electricity Distributors would be appropriate[1].

c) As noted in Section 5.3.5 of the DSP, BHI considered the applicability of NWS for each of the MTSA system expansion projects and determined them to be non-viable solutions. Please refer to the Material Investment Summary documents in Appendix A of the DSP for more information.

d) Please refer to the response to part c) above.

e) Please refer to the response to part c) above.

f) No, BHI did not formally approach any third-party developer or aggregator in considering NWS. BHI conducted an Energy Storage Feasibility Study, which provided BHI with insight as to the potential of a BESS as a NWS to manage future capacity constraints. Please refer to the response to 2-Staff-14 for further details. Over the rate period, BHI will continue to investigate the viability of NWS solutions.

[1] EB-2024-0018, Non-Wires Solutions Guidelines for Electricity Distributors, March 28, 2024

2-Intervenor-47

Reference: **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.

Response:

a) BHI provides the average connection costs per lot for residential developments in Table 1 below.

Table 1

Connection Type	Connection Cost per Lot	Portion Paid by Developer	Net Connection Cost per Lot
Residential Subdivision	$ 1,590	$ 1,065	$ 525

Assumptions:

- Cost estimates are based on typical service length of 40m from transformer to the meter base.
- Cost estimates are based on the 2020-24 average cost for connecting residential units in a subdivision.

- As per BHI standard design, both electric and gas heated residential units in a development are serviced via a standard service size (200A)
- Developer contributions are based on historical estimates from the economic evaluation model for use cases of subdivision with gas heated homes.

BHI is unable to provide the average cost of connection without gas heating as it does not have historical data on how residential connections were heated.

b) BHI's average connection costs per lot for residential developments is lower than the figures on page 14 of the PwC report prepared for the OEB. However, BHI is unable to analyze the driver of this variance within the timelines for responding to interrogatories.

c) BHI's investment plan for the 2026-2030 rate plan supports the Ontario Government's goal of reducing the cost of electrical connections for housing in the following ways:

Invest in System Capacity

- BHI plans to expand its 27.6kV feeders to bring additional capacity to identified growth areas of the city in the next rate period. BHI will make additional capital investments to build and connect, in order to ensure the distribution system can meet the demands of public policy changes (e.g. More Homes Built Faster Act, 2022), including with respect to the rapidly evolving housing needs in BHI's service territory, such as development around Major Transit Station Areas ("MTSAs"). Please refer to Exhibit 2, Section 5.1.4.2.1 and Exhibit 2, Appendix A MISD pages 30-51.
- BHI will look for opportunities to incorporate the latest revision to the DSC for allocating Capacity Allocation Models (CAMs) in designated growth areas, to bring additional significant capacity through proportional cost sharing with housing developers to reduce their cost burden to connect to the distribution system.
- Through major road relocation project of Dundas St. Road widening, BHI plans to bring affected infrastructure to current standards which will enable further load transfers between stations and feeders while providing redundancy of supply for residential developments. (Exhibit 2, Appendix A, MISD pages 1-7)

Invest in Grid Modernization

- BHI' grid modernization efforts include consideration of energy transition timelines, DSO implementation readiness and the technology landscape. Investment in core grid modernization technologies, including SCADA/ADMS, intelligent switches and AMI 2.0, will provide BHI with better data analytics and operational capabilities to plan for and serve future electricity demand in a cost-effective manner. This can include the integration of renewable energy sources and implementing peak demand management strategies to complement grid expansion investments. The investment also supports customer access to more reliable real-time data through BHI's customer portal and enables potential new programs that would allow customers to make informed choices about their energy usage. For more information, please see Exhibit 2, Section 5.4.1.2.3, Section 5.4.2 and Appendix A MISD pages 87-89, 108-115.

Invest in People

BHI recognizes the need to invest in people in order to contribute to the Ontario Government's objective of lowering the cost of electrical connections for housing developments. According to the City of Burlington's Vision 2040 Strategic Plan[1] significant population, employment and housing growth is anticipated by 2031. These factors will require BHI to strengthen its workforce by both upskilling existing employees and creating new positions to ensure BHI has the capacity to efficiently manage the surge in new housing units, introduce innovative solutions to connecting customers and continue to effectively maintain and harden the grid. Investing in people will contribute to cost effective electrical connections for housing developments in the following ways:

- Streamline connection processes, adopt modern grid technologies, and accelerate anticipated intensive project timelines.
- A well-prepared, adaptable workforce enables BHI to minimize delays and reduce costly omissions that can contribute to increased project expenses.
- Upskilling existing employees and adding new positions, particularly in Engineering, System Planning, Grid Modernization, and Energy Transition, creates a team capable of designing innovative, cost-effective solutions that keep pace with rapid changes in housing development and electrification.
- Enhanced resource capacity allows for better and faster coordination with stakeholders such as developers, municipalities, and other utilities. This collaboration is crucial for implementing standardized designs, joint-use infrastructure, and efficient permitting and approvals—each a key factor in reducing overhead and simplifying the connection experience for housing developers.
- Ability to anticipate and proactively respond to evolving customer needs and policy changes.

Streamline Connection Process

- Coordinate the permitting and approvals process with the City and other service providers (e.g. communication companies).
- Where applicable, advise developers of previously approved design for common subdivision layouts.

[1]https://www.burlington.ca/en/council-and-city-administration/resources/Plans-Reports-and-Studies/Burlington%E2%80%99s-Plan-From-Vision-to-Focus/23-516-CM-Burlingtons-Plan-From-Vision-to-Focus_FINAL_WEB.pdf

Standardized Infrastructure Design/Specification

- Adopt standard service conductor sizes for specific applications and configurations, for cost effective designs.
- Where applicable, align system renewal needs with future capacity requirements (e.g. replacing ageing infrastructure in older 4kV network, with equipment that can support future 27.6kV conversions)

Joint-Use Planning and Infrastructure

- Coordinating the construction and sharing of infrastructure (e.g. joint trenching with telecom)
- Support the use of common Engineering consultants for better coordination of design and approvals

Promote Electrification-Ready Designs

- Encourage developers to install EV-ready infrastructure to support long-term electrification goals and avoid costly retrofits,

Participate in eDSM programs

- Support the adoption of new technologies such as load sharing devices, or EV energy management systems (EVEMS) in new developments to reduce peak demand and potentially defer future upgrades, thereby lowering connection costs.

Coordinate with Municipal and Provincial Planning

- Continue to work with the City of Burlington to align electrical infrastructure planning with priority housing and associated zoning approvals.

2-Intervenor-48

Reference: **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?[1] 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?

Response:

a) BHI has no electricity system constraints preventing customers from connecting a distributed energy resource.

b) BHI has no technical restrictions on connecting DERs.

c) Not applicable.

[1] For a description of Flexible Interconnection Capacity Solutions and their benefits see https://restservice.epri.com/publicdownload/000000003002022432/0/Product.

d) BHI does not offer Flexible Interconnection Capacity Solutions and is not planning to offer them in the near future.

e) BHI does not have a DERMS in place. BHI does not have a specific plan to implement a DERMS in the near future but will consider this if the need arises.

2-Intervenor-49

Reference: **Ex. 2, Appendix A – Distribution System Plan, p. 143, 149**

Question(s):

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 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.

Response:

a) BHI is planning on replacing end-of-life heating equipment with electric heat pumps and electric make up air units for spaces that do not require cooling.

b) Not applicable.

c) Not applicable.

2-Intervenor-50

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

Question(s):

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 Table 5.4-7 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).

Response:

a) BHI confirms that the costs associated with asset refurbishment are treated as capital cost.

b) BHI provides the underlying data supporting the unit cost analysis shown in Table 5.2-7 of the DSP in Table 1 below.

Please note that BHI has corrected the pole replacement costs from 2022-2024 in response to Interrogatory 2-Intervenor-62 a) and provides the underlying data supporting the updated unit costs.

Table 1

Program	2021			2022			2023			2024		
	Qty	Amount	Unit Costs	Qty	Amount	Unit Costs	Qty	Amount	Unit Costs	Qty	Amount	Unit Costs
Wood Poles (updated)	84	$1,117,942	$13,309	77	$1,092,660	$14,190	109	$1,390,655	$12,758	93	$1,631,007	$17,538
Station Primary Switchgear Replacement	2	$292,930	$146,465	1	$100,102	$100,102	0	$2,048	N/A	2	$158,826	$79,413
UG Primary Cable (per meter)	2,562	$735,892	$287	3,746	$768,460	$205	7,610	$1,694,952	$223	2,987	$960,022	$321

c) Please refer to the following responses for a reconciliation of the average unit costs in Table 5.2-7 to the information in Table 5.2-6:

- 2-Intervenor-62 a) – Pole Replacement
- 2-Intervenor-63 a) – Station Primary Switchgear Replacements
- 2-Intervenor-61 a) – Underground Primary Cable Replacement

Note that the unit costs in Table 5.2-7 include secondary cable replacement, which isn't included in the information in Table 5.2-6, and as such these tables won't reconcile.

d) The costing assumption for forecasting takes into account the actual costs of replacement of assets from the previous (typically 5) years. A linear regression method is used to extrapolate these costs to future years to determine the estimated costs.

e) BHI does not track unit count between replacement and refurbishment. The opportunity to refurbish rather than replace is reflected in historical information of unit counts and costs, which include both replacement and refurbishment of assets. This informs forecasted capital expenditures.

f) In 2025, two sections of primary underground cables totaling 530 meters were selected for injection as part of the pilot program. The cables were re-energized at the operating voltage and have been holding power on load, as of June 2025 (i.e. no incidents of cable faults).

g) BHI confirms that it treats cable injection costs as a capital expenditure.

h) The pole reinforcement pilot program is expected to start in Q4 of 2025.

i) BHI confirms that it treats pole reinforcement costs as a capital expenditure.

j) The $18.2M of 2025 budget CAPEX in Table 5.4-1 of the DSP was an error.
BHI has updated its 2025 capital expenditures in response to interrogatory 1-Staff-1 and provides an updated Appendix 2-AB in
Attachment_OEB_Chapter2Appendices_BHI_07242025.

k) BHI provides a detailed variance analysis of the approved budget compared to actual costs for the CIS project in Table 2 below. The cost overrun was driven by delays in the project caused by COVID-19 and staff turnover which resulted in additional parallel runs and testing to ensure smooth cut-over and accuracy of billing prior to going live.

Table 2

Program	2021 approved budget	2021 actual costs	Variance
CIS (Replacement)	$265,870	$1,035,824	$769,954
Total	**$265,870**	**$1,035,824**	**$769,954**

l) BHI provides the total number of wood poles tested in each of the years 2021 to 2024 in Table 3 below.

Table 3

Year	Number of Poles Tested
2021	3,785
2022	3,289
2023	1,203
2024	2,106

m) BHI is forecasting to test 2,596 wood poles per year over the 2025 to 2030 period.

n)

i) BHI had previously formed sample groups, which in 2024 were non-compliant with Measurement Canada SS-06 compliance sampling requirements. As a result, BHI had no option but to reverify 100% of the meters in those groups rather than just a small portion. In 2024, the additional removal and reverification of 7,188 meters was completed at a cost of $406,000.

ii) BHI cannot provide a unit cost differential between installing cable in conduits relative to directly buried cable as BHI does not install direct buried cable. Construction standards at BHI changed many years ago requiring the installation of underground cable within duct, although legacy direct buried cable still exists within the BHI service territory.

o)

i) BHI provides an update to the budget figures and variance explanations in Table 5.4-7, where applicable, in Table 4 below. BHI would like to correct the record that the System Access, Net amount in the Plan column in Table 5.4-7 in the DSP was $4,069k instead of $4,094k.

Table 4

Category	2025 Plan	2025 Budget	2025 Var	2025 Plan	Variance Explanation
	$ '000		$ '000	%	
System Access, Net	$4,069	$10,729	$6,660	163.7%	Please refer toTable 5.4-7 in the DSP, variance explanation is still valid as main drivers of the variance are same with updates to their costs.
System Renewal, Net	$3,215	$5,059	$1,844	57.4%	Please refer toTable 5.4-7 in the DSP, variance explanation is still valid as main drivers of the variance are same with updates to their costs.
System Services, Net	$700	$0	($700)	-100.0%	No change, please refer Table 5.4-7 in the DSP.
General Plant, Net	$1,077	$2,116	$1,039	96.5%	This variance is primarily driven by: (a) higher than planned costs for receiving dock renovation to address safety concerns; (b) higher than planned Computer Hardware and Software costs for computer server replacements due to end-of-life equipment, and for disaster recovery and business continuity tools; (c) higher than planned expenditures for deferred investments in large fleet vehicles (>4,500kg) from previous years as supply chain constraints have improved; and d) higher than planned expenditures for upgrades to Outage Management System (OMS).
Total Expenditure, Net	$9,061	$17,904	$8,843	97.6%	
Capital Contributions	($4,005)	($15,367)	($11,362)	283.7%	This variance is driven by higher than forecasted capital contributions for the Burloak Grade Separation and the Dundas St. Road Widening project (Guelph line to Kerns Road)
Total Expenditure, Gross	**$13,066**	**$33,271**	**$20,205**	**154.6%**	

ii) BHI had previously formed sample groups, which in 2024 were non-compliant with Measurement Canada SS-06 compliance sampling requirements. As a result, BHI had no option but to reverify 100% of the meters in those groups rather than just a small portion. In 2025, the additional removal and reverification of 4,738 meters will be completed at a cost of $275,000. The reverification of the non-compliant groups will be completed by the end of 2025.

iii) The additional costs expected to be incurred with respect to computer hardware and software are primarily driven by a combination of server and storage hardware replacement costs and BHI's Disaster Recovery and Business Continuity planning. 2025 is expected to include the following critical investments: Server hardware replacements of $90,000, Disaster Recovery and Business Continuity investments of $70,000, and website development of $41,000.

iv) The additional costs expected to be incurred with respect to large fleet vehicles are driven by fleet replacements originally planned for earlier in the historical period. Supply chain issues driven by COVID-19 and other geopolitical factors caused significant increases in lead times, specifically with chassis. Deferring the replacement of these large vehicles has allowed BHI to proactively work with select vendors (i.e. POSI+) to pre-order the chassis 1 year ahead of the truck assemblies so that all components can be assembled at the same time. This enabled BHI to plan delivery of its large fleet vehicles within 2 years of planned replacements as per its Fleet Replacement Matrix.

2-Intervenor-51

Reference: **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.

Response:

a) Please refer to Table 1 below for the number of service upgrades (2021-2024) and forecast for the period of 2025-2030.

Table 1

Description	2021	2022	2023	2024
Total Service Upgrades	233	693	396	613

Description	2025	2026	2027	2028	2029	2030
Forecasted total service upgrades	701	722	743	765	788	811

BHI is unable to complete the analysis that would be required to answer the remaining part of the question about storage within the timelines for responding to interrogatories.

2-Intervenor-52

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

Question(s):

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 (Northampton 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 planned period.

Response:

a) The expected in-service date for the Dundas St. Road Widening - Guelph Line to Kerns Rd. section is Q4 2025. The cost of the project has been updated from $8,055,102 (gross) to $9,178,128 (gross) in response to interrogatory 1-Staff-1.

b) The expected in-service date for the 2025 portion of the Dundas St. Road Widening - Northampton Blvd. to Guelph Line project has been delayed to 2026. The cost of the project has been updated from $2,023,993 (gross) to $nil in 2025 and from $2,064,473 (gross) to $3,793,609 (gross) in 2026 in response to interrogatory 1-Staff-1.

c) BHI provides the scope and volume of work, total cost, capital contribution and net cost in Table 1 below for each phase of Dundas St. Road Widening Project (Appleby Line to Tremaine, Tremaine to Bronte and Guelph Line to Kerns Road).

Table 1

Project	Appleby line to Tremaine	Tremaine to Bronte	Guelph Line to Kerns Road
Scope and volume of work	The project involved relocation and installation of 30 poles, 3 transformer, 3000m of U/G cable etc.	The project involved relocation and installation of 5 poles with framing, 250 meters of 7 runs of primary overhead wires, including secondary cables/wires etc.	The project involoves relocation of approximately 117 poles (and associated hardware, cable and wire), 21 transformers and 4500 meters of 10 runs of primary underground cables and overhead wires, including secondary cables/wires etc.
Year of expenditures	2021 actual	2024 actual	2025 forecast
Total cost	$1,285,725	$142,661	$9,178,128
Capital contribution	-$768,410	-$142,661	-$4,397,477
Net cost	**$517,315**	**$0**	**$4,780,651**

d) BHI considers the latter sections of the Dundas St. Road Widening Project (i.e., 2026-2027) as different and unique, with different design and scope that inherently affect their costs (e.g. number of circuits to be relocated, distance by which the utility infrastructure must be set back from the road, whether relocation can be accommodated on the same side of the road, site conditions, etc.). BHI arrived at the cost estimate for these projects based on the available road widening designs from Halton Region and in accordance with O. Reg. 22/04, Canadian Standards Association (CSA) standards, and BHI standards and specifications. Material costs were estimated using BHI's most recent purchase prices. Labour and equipment costs were derived using recent contractor pricing. BHI considered the key cost drivers from earlier Dundas St. Road Widening projects including the configuration of the existing distribution network that was relocated, labour and material pricing, contractor mobilization, utility relocation complexities, and permit requirements in the cost estimate for the later sections.

e) The Halton Region Road widening project involves the expansion of Dundas Street to accommodate increased traffic volumes, improve road safety, and support long-term regional growth. This is a road authority project that BHI must relocate its infrastructure to support, in accordance with the Public Service Works on Highways Act ("PSWHA"). The overall scope includes:

- Full road reconstruction and widening from two to four lanes in certain sections
- Sidewalk and multi-use pathway installations
- Stormwater management infrastructure
- New bus stops and shelters
- New on-road bike lanes
- Street lighting upgrades
- Traffic signal enhancements
- Environmental protection measures
- A new bridge
- Coordination with utilities for relocations and undergrounding

The volume of work along utility corridors has been substantial, requiring significant coordination for pole relocations, underground duct bank installations, transformer relocations, and civil works along several kilometers of the corridor, particularly through urbanized and constrained sections.

The overall scope of the Halton Region Road widening project informed the forecast for the current project.

f) In support of minimizing relocation requirements, BHI provided the Region of Halton with detailed input during the design and coordination phases. Specific examples include:

- Cost implication of the project: BHI reviewed the preliminary road widening plans and provided the Region with detailed cost implications, advising on design adjustments to minimize impacts on existing poles and underground infrastructure, thereby reducing unnecessary relocation costs for the Region and BHI.

- Technical Justifications for Retaining Assets: BHI submitted asset condition assessments to the Region for infrastructure that did not require renewal, emphasizing the cost inefficiency and disruption associated with relocations.

- Early Coordination on Easement Requirements: BHI identified locations where easement acquisition could eliminate the need for costly relocations. This early input allowed the Region to secure necessary easements, particularly where infrastructure was located just outside the existing right-of-way but functionally viable in place.

- Joint Site Meetings and Conflict Reviews: BHI participated in multiple joint field reviews with the Region's design team and other utilities to assess conflicts and recommend practical alternatives, especially in constrained corridors.

g) BHI cannot quantify the future maintenance and asset renewal cost savings associated with assets that are renewed as part of the Dundas St. Road Widening project, but offers the following examples of potential long-term savings in both maintenance and future asset renewal.

Pole Relocation:
Aging wood poles are being replaced with new poles through this coordinated effort. By completing this work alongside the road widening project, BHI avoids future standalone replacements. This proactive approach may result in lifecycle cost savings through reduced emergency repairs, lower inspection requirements, and deferred replacement costs.

Underground Duct Installations:
The installation of new duct banks establishes a standardized conduit system to accommodate future cable installations. This eliminates the need for costly and disruptive civil works during future upgrades or maintenance activities. Other benefits may include reduced trenching, restoration, and permitting costs associated with future underground cable work.

Transformer Installations:
Existing transformers are being replaced with new, higher-efficiency units as part of this renewal initiative. These upgraded transformers require less maintenance and offer enhanced reliability, and may result in reduced inspections, lower maintenance needs, and avoidance of future outages or emergency repairs.

h) BHI did not prepare a cost estimate for the like-for-like alternative as it was not a viable option in this situation (as described below), so it cannot provide the incremental costs of the Upgrade alternative. With respect to project alternatives considered during the Dundas Street Road Widening projects, BHI evaluated two primary options:

1. Like-for-Like Replacement:
A like-for-like replacement is not a viable option in this case because the poles are being relocated to the opposite side of the road, where existing development significantly limits available space and clearance for overhead infrastructure.

Also, the existing line was built over 40 years ago with limited development along the road. The recent commercial development does not give room for relocation of poles and does not permit using the same size of poles either.

Other factors that negate like-for-like replacement are:

- Insufficient Setback and Clearance: The presence of residential and commercial buildings close to the roadway limits the space required for safe pole installation, violating standard clearance requirements for overhead lines from structures.

- Safety Hazards: Installing poles and overhead lines in close proximity to buildings increases the risk of electrical hazards, particularly during storms, maintenance activities, or in the event of a pole failure.

- Restricted Access for Maintenance: Buildings adjacent to the proposed pole locations would obstruct safe and efficient access for hydro crews, increasing operational risks and future maintenance costs.

- Construction Constraints: The limited working space due to existing buildings complicates construction activities, including equipment staging and safe pole erection, potentially leading to traffic disruptions and higher installation costs.

- Code and Regulatory Compliance Issues: Utility regulations often require minimum separation between overhead lines and occupied structures, which cannot be met if poles are relocated directly in front of existing buildings.

Further, the like-for-like option does not address long-term system capacity, reliability, or future growth needs. It also risks duplication of civil work and future disruption when assets require renewal.

2. Upgrade Alternative:
The approach, which was ultimately selected, involves replacing aging infrastructure with higher-capacity and longer-life assets, such as:

- Higher-class poles for improved storm resilience and overhead wire safety clearances
- Increased conductor and duct capacity to accommodate future load growth and system flexibility
- Transformer upgrades to modern, higher-efficiency units
- Strategic undergrounding of assets in high-traffic or constrained corridors

2-Intervenor-53

Reference: **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.

Response:

a) BHI developed the 2026-2030 budget for the General Service – Overhead program based on average historical values, adjusted for the forecasted number of service connections requests (which reflects increased EV adoption, as an example) and trends in the complexity and scope of individual projects. Annual inflationary increases (2% per year) were incorporated into the 2026-2030 General Service – Overhead program.

b) Capital contributions can vary significantly based on the size and complexity of the specific projects as is reflected in the 2021-2023 actuals. As such, the 2026-2030 budget for the General Service – Overhead program was developed based on expected net capital expenditures. As shown in Table 1 below, average annual net capital expenditures over the forecast period are lower than the historical period on an inflation-adjusted basis (i.e. in 2021 dollars).

Table 1

General Service - Overhead	Ref	2021-2025 Average net CAPEX	2026-2030 Average net CAPEX	Increase $ 2021-2025 vs. 2026-2030	Proportion of Increase
Excluding inflation (in 2021 $)	A	$1,008,852	$993,096	-$15,756	-11%
Inflation	B-A	$91,663	$254,049	$162,385	111%
Total Capital Expenditures	**B**	**$1,100,515**	**$1,247,145**	**$146,630**	**100%**

2-Intervenor-54

Reference: **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.

Response:

a) BHI developed the 2026-2030 budget for the General Service – Underground program based on average historical values, adjusted for the forecasted number of service connections requests (which reflects increased EV adoption, as an example) and trends in the complexity and scope of individual projects. Annual inflationary increases (2% per year) were incorporated into the 2026-2030 General Service – Underground program.

b) Capital contributions can vary significantly based on the size and complexity of the specific projects as is reflective in the 2021-2024 actuals. As such, the 2026-2030 budget for the General Service – Underground program was developed based on expected net capital expenditures. As shown in Table 1 below, average annual net capital expenditures over the forecast period are approximately 11% higher than the historical period on an inflation-adjusted basis (i.e. in 2021 dollars), reflecting anticipated growth in underground developments.

Table 1

General Service - Underground	Ref	2021-2025 Average net CAPEX	2026-2030 Average net CAPEX	Increase $ 2021-2025 vs. 2026-2030	Proportion of Increase
Excluding inflation (in 2021 $)	A	$1,362,240	$1,394,561	$32,321	11%
Inflation	B-A	$102,297	$356,749	$254,452	89%
Total Capital Expenditures	**B**	**$1,464,538**	**$1,751,310**	**$286,772**	**100%**

2-Intervenor-55

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

Question(s):

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
Transformers – 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)										

Response:

a) BHI provides capital contributions associated with its Transformers – New Connections program from 2021-2030 in Table 1 below.

Table 1

Program	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Transformers – New Connections - capital contributions	$ 20,942	$ -	$ -	$ -	$ 30,000	$ 234,600	$ 240,032	$ 244,879	$ 249,726	$ 254,803

b) BHI provides the completed information in Table 2 below.

Table 2

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Transformers – New Connections ($)	$193,462	$528,959	$476,393	$335,151	$377,000	$588,540	$600,080	$612,197	$624,314	$637,008
Transformers – New Connections (Units)	38	32	12	35	10	15	15	15	15	15
Transformers – New Connections ($/Unit)	$5,091	$16,530	$39,699	$9,576	$37,700	$39,236	$40,005	$40,813	$41,621	$42,467

2-Intervenor-56

Reference: **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 - New Connections ($)	367,229	272,630	423,832	280,232	360,000	408,000	428,480	450,925	472,834	496,800
Meters - New Connections (Units)										
Meters - New Connections ($/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.

Response:

a) BHI the information with respect to the Metering – new connections program in Table 1 below. BHI does not separately track the meter costs or units by customer type and as such is unable to provide this breakdown. The forecast in 2028 to 2030 does not include the metering requirements resulting from Major Transit Area Developments (MTSAs).

Table 1

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Meters - New Connections ($)	$367,229	$272,630	$423,832	$280,232	$360,000	$408,000	$428,480	$450,925	$472,834	$496,800
Meters - New Connections (Units)	878	688	1,176	558	1,100	1,200	1,100	1,000	1,000	1,000
Meters - New Connections ($/Unit)	$418	$396	$360	$502	$327	$340	$390	$451	$473	$497

b) The referenced program and statement mean the program is comprised of:

1. The cost of the meter and the cost of installation;

2. New customer connections and the replacement of existing customer meters that have become faulty;

3. Residential and commercial customers.

While the program includes both new and replacement meters, BHI does not track costs separately between the two categories. As a result, BHI is unable to provide a breakdown of capital expenditures between new and replacement meters.

c) BHI does not receive material capital contributions related to the Metering – new connections program. BHI provides the annual amounts of capital contributions received in Table 3 below. BHI has not forecast capital contributions for this program due to the immaterial amounts it has collected historically.

Table 3

Description	2021	2022	2023	2024	2025 YTD May
Capital contribution - metering new connections	$12,513	$5,574	$7,648	$8,150	$741

2-Intervenor-57

Reference: **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 Meter Replacement (Units)										
Smart Meter Replacement ($/Unit)										
Smart Meter Reverification ($)										
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.

Response:

a) BHI provides Table 1 below with the completed information with respect to the Smart Meter Replacement/Reverification program.

Table 1

	2021	2022	2023	2024 Actual	2025 BridgeYear	2026 Test Year	2027	2028	2029	2030
Smart Meter Replacement/Reverification	$0	$226,356	$402,556	$406,000	$277,442	$2,600,245	$2,547,332	$2,597,833	$774,996	$747,701
Smart Meter Replacement ($)	N/A	N/A	N/A	N/A	N/A	$1,908,119	$1,855,206	$1,905,707	$540,850	$513,555
Smart Meter Replacement (Units)	N/A	N/A	N/A	N/A	N/A	13,668	13,668	13,668	2,233	1,655
Smart Meter Replacement ($/Unit)	N/A	N/A	N/A	N/A	N/A	$140	$136	$139	$242	$310
Smart Meter Reverification ($)	$0	$226,356	$402,556	$406,000	$277,442	$692,126	$692,126	$692,126	$234,146	$234,146
Smart Meter Reverification (Units)	0	2,450	6,710	7,656	4,738	13,668	13,668	13,668	2,233	1,655
Smart Meter Reverification ($/Units)	N/A	$92	$60	$53	$59	$51	$51	$51	$105	$141

b) The 2025 year-to-date percentage of failed meters is 0.7%. BHI provides life-to-date failure rate data of its original Smart Meter population in Table 2 below, which shows the trending to 15% by the end of 2025.

Table 2

Year	Failures # of meters	Smart Meter population	% failure rate	Cumulative % failure rate
2011	29	65,000	0.0%	0.0%
2012	242	65,000	0.4%	0.4%
2013	292	65,000	0.4%	0.9%
2014	462	65,000	0.7%	1.6%
2015	618	65,000	1.0%	2.5%
2016	744	65,000	1.1%	3.7%
2017	782	65,000	1.2%	4.9%
2018	767	65,000	1.2%	6.1%
2019	773	65,000	1.2%	7.2%
2020	813	65,000	1.3%	8.5%
2021	757	65,000	1.2%	9.7%
2022	974	65,000	1.5%	11.2%
2023	926	65,000	1.4%	12.6%
2024	909	65,000	1.4%	14.0%
2025 YTD	**461**	**65,000**	**0.7%**	**14.7%**

c) The cost differential in labour between proactive and reactive replacement of residential smart meters is approximately $20/meter for proactive and $80/meter for reactive. This excludes other soft costs such as customer dissatisfaction due to increased estimated bills and bill corrections.

d) BHI confirms that all the meters planned for replacement between 2026-2030 will be replaced at their seal expiry date.

e) BHI has not completed a detailed cost analysis on Option #1 as these meters will have been in service for 18 years (initial 10-year seal period, plus 8-year extension). The impact of the increased failure rates and technology obsolescence deemed Option #1 not viable. Option #1 would also delay BHI's implementation of a full next generation AMI solution for all of its customers.

f) The pacing of the Smart Meter Replacement/Reverification program is based on when the meters are due for reverification. BHI cannot further pace these investments beyond 2028, as it would result in non-compliance with Measurement Canada rules and increase meter failure rates to an unmanageable level.

g) BHI does not have a detailed business case for the AMI 2.0 project. However, it has filed a Material Investment Summary Document with its Application as per the filing requirements.

2-Intervenor-58

Reference: **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)											

Response:

BHI provides Table 1 below with respect to the Suite Metering Program.

Table 1 – Suite Metering Capital and Units Installed by Year

	2021	2022	2023	2024	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	$643,356
Suite Metering (Units)	50	139	85	155	364	531	502	464	518	518
Suite Metering ($/Unit)	$1,061	$840	$747	$1,537	$1,125	$1,148	$1,170	$1,194	$1,217	$1,242

2-Intervenor-59

Reference: **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 transit-related 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.

Response:

a) The capital contributions for the MTSAs were derived from the methodology and assumptions for an economic evaluation per Appendix B of the DSC.

b) Yes, BHI still intends to bring assets into service on December 31, 2026 for the Aldershot MTSA and Burlington MTSA projects. BHI also intends to bring assets into service on December 31, 2026 for the Appleby MTSA project – the in-service date of December 31, 2030 in this MISD was an error.

c) Third-party documentation supporting the need for the forecasted expenditures can be found on the City of Burlington's MTSA webpage (https://www.getinvolvedburlington.ca/mtsa).

d) The Major Transit Station Area Development projects are not transit-related projects. The word "transit" comes from the fact that population and housing growth are being concentrated around major transit hubs (i.e. GO Stations) in Burlington. BHI has not undertaken similar projects in the past, and as such does not have comparative analysis regarding the cost relative to other similar projects.

e) BHI provides the quantity and cost of the underground components for each of the Aldershot, Burlington and Appleby projects in Table 1 below.

Table 1

MTSA	U/G length (m)	Costs
Aldershot GO	712	$1,316,433
Burlington GO	1,250	$4,641,676
Appleby GO	1,369	$2,793,419

f) The referenced statement means the final design for the MTSAs are pending approved Municipal Consent permits, rail crossing permits/agreements, and easements and is therefore subject to change. Yes, there is the potential that a different proportion will need to be installed underground.

g) No, the Aldershot GO MTSA development work could not be deferred via an NWS. The project involves extending the physical infrastructure to serve new customers, a requirement that cannot be met through NWS.

h) Please see BHI’s response to part g).

i) Please see BHI’s response to part g).

2-Intervenor-60

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

Question(s):

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.

Response:

a) The SPA information that BHI is relying upon can be accessed through the City of Burlington Interactive Development Application Map. BHI provides a link below to the map.

https://www.burlington.ca/Modules/News/en/Development
https://burlington.maps.arcgis.com/home/webmap/viewer.html?webmap=64655c40535f478b8d3adbbbecdb683e

Please filter “Ward 1” for Major Transit Station Area (Aldershot GO) developments, “Ward 2” for (Burlington GO) developments and Ward “4, 5 & 6” for (Appleby Line GO) developments.

b) BHI’s historical average for subdivisions was $nil in 2021 due to the COVID-19 related economic slowdown and in 2022 - 2023 due to ongoing economic uncertainty and market conditions as discussed in further detail in BHI’s response to Interrogatory 2-Staff-22 f). In 2024, BHI assumed 170 units at a net cost of $372,187 and is expecting to assume on average 300 units for the forecast period.

Please see BHI’s response to 2-Staff-22 for the information BHI is relying upon as the basis for the $748k (net cost) per year from 2025-2030.

c) The information on the status of development based on the SPA is dynamic and can be accessed through the City of Burlington Interactive Development Application Map provided in part a).

Developers contact BHI throughout the pre-consultation, zoning & SPA processes and BHI works with them on expected connection dates in order to prepare timely Offers to Connect. Please see BHI’s response to 2-Staff-22 b for more information on the status of known developer projects.

d) BHI confirms the entire Subdivisions program is driven by transfer price payments for the assumption of Subdivision assets.

2-Intervenor-61

Reference: **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.
Clarification: We are seeking the cable faults per year from 2015-2019 (no change).

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?

Response:

a) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
UG Rebuild ($)	$815,152	$999,997	$1,974,672	$1,281,919	$793,667	$2,091,000	$2,132,000	$2,175,050	$2,218,100	$2,263,200
UG Rebuild Proactive ($)	$180,777	$105,936	$18,124	$246,341	$793,667	$2,091,000	$2,132,000	$2,175,050	$2,218,100	$2,263,200
UG Rebuild Proactive (meter)	1,038	90	-	1,788	2,126	14,500	14,500	14,500	14,500	14,500
UG Rebuild Proactive ($/meter)	$174	$1,178	$-	$138	$373	$144	$147	$150	$153	$156
UG Rebuild Reactive ($)	$634,375	$894,061	$1,956,548	$1,035,578	$-					
UG Rebuild Reactive (meter)	1,549	3,856	7,675	1,199	-					
UG Rebuild Reactive ($/meter)	$410	$232	$255	$864	$-					

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
UG Rebuild Replacement ($)	$815,152	$999,997	$1,974,672	$1,281,919	$715,625	$1,360,578	$1,387,256	$1,415,268	$1,443,280	$1,472,626
UG Rebuild Replacement (meter)	2,587	3,946	7,675	2,987	1,596	5,200	5,200	5,200	5,200	5,200
UG Rebuild Replacement ($/meter)	$315	$253	$257	$429	$448	$262	$267	$272	$278	$283
UG Rebuild Injection ($)					$78,041	$730,422	$744,744	$759,782	$774,820	$790,574
UG Rebuild Injection(meter)					530	9,300	9,300	9,300	9,300	9,300
UG Rebuild Injection ($/meter)					$147	$79	$80	$82	$83	$85

b) The lower cost per unit (on average from 2021-2024) of reactive vs. proactive cable replacements is skewed by the higher 2022 unit cost, which is driven by the low quantity of cable proactively replaced that year. BHI provides the total unit cost of proactive vs. reactive replacements over the 2021-24 period in Table 2 below, which shows that proactive replacement is more cost effective (68% lower than reactive replacement).

Table 2

	2021-24 Total
UG Rebuild Proactive ($)	$ 551,000.00
UG Rebuild Proactive (meter)	$ 2,916
UG Rebuild Proactive ($/meter)	**$ 188.96**
UG Rebuild Reactive ($)	$ 4,520,000.00
UG Rebuild Reactive (meter)	$ 14,279
UG Rebuild Reactive ($/meter)	**$ 316.55**

c) BHI provides the number of cable faults for each of the years 2015 to 2019 in Table 3 below.

Table 3

Description	2015	2016	2017	2018	2019
Cable Faults	34	24	19	23	20

d) BHI does not separately track the unit price of replacing secondary cable.

e) BHI assumptions for the forecast of the Underground Rebuild program are based on its target to reduce the percentage of these assets in poor and very poor condition. BHI is planning to replace ~26km and perform injections on ~50km of underground cable over the forecast period. BHI is planning to minimize the amount of reactive replacement as shown in the decreased unit cost in the forecast period compared to the historical period.

2-Intervenor-62

Reference: **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.

Response:

a) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

BHI has also corrected previously provided Proactive $ for wood poles in table 5.2.6 of the DSP in Table 1 below.

Table 1

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Pole Replace ($)	$1,117,942	$1,092,660	$1,390,655	$1,631,007	$2,292,647	$1,581,000	$1,612,000	$1,644,550	$1,677,100	$1,711,200
Pole Replace Proactive ($)	$915,383	$671,591	$1,050,265	$1,328,642	$1,615,000	$1,581,000	$1,612,000	$1,644,550	$1,677,100	$1,711,200
Pole Replace Proactive (Unit)	69	51	77	75	96	154	154	154	154	154
Pole Replace Proactive ($/Unit)	$13,261	$13,941	$13,403	$15,067	$16,823	$10,266	$10,468	$10,679	$10,890	$11,112
Pole Replace Reactive ($)	$202,559	$421,069	$340,390	$302,365	$677,647					
Pole Replace Reactive (Unit)	15	26	32	18	24					
Pole Replace Reactive ($/Unit)	$13,533	$16,192	$10,625	$16,778	$28,235					

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Pole Replacement ($)	$1,117,942	$1,092,660	$1,390,655	$1,631,007	$2,255,147	$1,504,500	$1,534,000	$1,564,975	$1,595,950	$1,628,400
Pole Replacement (Unit)	84	77	109	93	95	104	104	104	104	104
Pole Replacement ($/Unit)	$13,309	$14,190	$12,758	$17,538	$23,738	$14,466	$14,750	$15,048	$15,346	$15,658
Pole Enforced ($)					$37,500	$76,500	$78,000	$79,575	$81,150	$82,800
Pole Enforced (Unit)					25	50	50	50	50	50
Pole Enforced ($/Unit)					$1,500	$1,530	$1,560	$1,592	$1,623	$1,656

b) BHI provides the number of pole failures for each of the years 2021 to 2024 and 2025 to date in Table 2 below. BHI did not track the number of pole failures prior to 2021.

Table 2

Description	2021	2022	2023	2024	2025 (YTD May)
Pole Failures	8	6	5	7	11

2-Intervenor-63

Reference: **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.

Response:

a) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Switchgear Replace ($)	$292,930	$100,102	$2,048	$158,826	$435,000	$408,000	$364,000	$371,350	$378,700	$386,400
Switchgear Replace Proactive ($)	$292,930	$100,102	$2,048	$158,826	$435,000	$408,000	$364,000	$371,350	$378,700	$386,400
Switchgear Replace Proactive (Unit)	2	1	0	2	4	4	3	3	3	3
Switchgear Replace Proactive ($/Unit)	$146,465	$100,102	N/A	$79,413	$108,750	$102,000	$121,333	$123,783	$126,233	$128,800
Switchgear Replace Reactive ($)										
Switchgear Replace Reactive (Unit)										
Switchgear Replace Reactive ($/Unit)										

b) BHI has not had any switchgear failures over the 2015-2025 (to date) period.

2-Intervenor-64

Reference: **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.

Response:

a) BHI does not track reactive station relay replacements, but provides the remaining information in Table 1 below.

BHI has updated its capital forecast for 2025 and 2026 in response to Interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	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	$260,000	$408,000	$416,000	$424,400	$432,800	$441,600
Station Relay Replace Proactive ($)	$115,375	$224,303	$236,469	$471,346	$260,000	$408,000	$416,000	$424,400	$432,800	$441,600
Station Relay Replace Proactive (Unit)	3	6	4	6	6	8	8	8	8	8
Station Relay Replace Proactive ($/Unit)	$38,458	$37,384	$59,117	$78,558	$43,333	$51,000	$52,000	$53,050	$54,100	$55,200
Station Relay Replace Reactive ($)										
Station Relay Replace Reactive (Unit)										
Station Relay Replace Reactive ($/Unit)										

b) BHI cannot predict changes in condition parameters (with the exception of "Age") with a high degree of certainty and is therefore unable to forecast the number of relays that will be in poor or very poor condition by the end of 2030, in the absence of any replacements.

c) BHI provides the number of station relay failures for each of the years 2015 to 2024 and 2025 to date in Table 2 below. BHI did not track station relay failures prior to 2021.

Table 2

Description	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (YTD May)
Station Relay Failures	n/a	n/a	n/a	n/a	n/a	n/a	1	-	2	3	3

d) BHI is planning to replace about 40 obsolete station relays over the period from 2026 to 2030.

2-Intervenor-65

Reference: **Ex. 2, Appendix A, p. 37 and Material Investment Summary Documents, pp. 69-73**

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.

Response:

a) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	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	$50,000	$408,000	$416,000	$424,400	$432,800	$441,600
Station Transformer Replace Proactive ($)	$319,004	$1,011,123	$204,940	$457,614	$50,000	$408,000	$416,000	$424,400	$432,800	$441,600
Station Transformer Replace Proactive (Unit)	1	1	1		1		1		1	
Station Transformer Replace Proactive ($/Unit)	$319,004	$1,011,123	$ 662,554		$ 458,000		$ 840,400		$ 874,400	
Station Transformer Replace Reactive ($)				$32,398						
Station Transformer Replace Reactive (Unit)				0						
Station Transformer Replace Reactive ($/Unit)				N/A						

BHI has corrected the proactive costs for 2024 in table above vs. Table 5.2-6 of the DSP.

b) The 2023 amount of $205k in proactive spending was a deposit for the transformer replaced in 2024. BHI confirms this amount was in WIP until the transformer went into service in 2024. BHI has merged the cells for the units in Table 1 above where applicable for clarity.

c) The 2024 reactive spending relates to the repair of the On-Load Tap Changer (OLTC) on Transformer T2 at Lowville Municipal Station, which developed electrical issues.

d) BHI has not undertaken significant station transformer repairs in recent years. Minor on-site repairs may be considered if system conditions permit e.g. in 2024 as identified in part c). High-level assessments have been conducted on transformers identified for potential replacement. While repair options were evaluated, several factors have rendered them non-viable:

- **Age**: All transformers planned for replacement over the forecast period are over 40 years old.
- **Efficiency**: Existing units operate at lower efficiency compared to modern transformers.
- **Cost**: Detailed testing/assessment and actual repair at specialized repair facilities are costly.
- **System impact**: Extended repair times negatively impact system reliability and integrity. BHI does not have backup station transformers to install while the unit is out of service and being repaired.

e) BHI's last quote for a dry-type transformer was in 2020, so it does not have up-to-date data in order to complete this analysis.

f) The age of the four station transformers that BHI is currently monitoring is 43 years, 49 years and two that are 50 years old. BHI has not made a final decision on the type of transformers that will be used for replacement for three of the transformers because required studies and designs are not fully completed. The 43-year old transformer will be replaced with an Oil Type transformer.

g) BHI provides the number of power station transformer failures per year for the 2015 to 2024 period and 2025 to date in Table 2 below.

Table 2

Description	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (YTD May)
Power Station Transformer Failures	1	2	1	2	-	2	1	-	-	-	-

2-Intervenor-66

Reference: **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.

Response:

a) BHI confirms that Table 5.2-6 in the DSP was transposed correctly and that there were no reactive replacements of substation circuit breakers for 2021-2024.

b) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	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	$100,000	$255,000	$260,000	$265,250	$270,500	$276,000
Circuit Breaker Replace Proactive ($)	$117,923	$158,046	$113,299	$93,742	$100,000	$255,000	$260,000	$265,250	$270,500	$276,000
Circuit Breaker Replace Proactive (Unit)	3	3	2	2	2	4	4	4	4	4
Circuit Breaker Replace Proactive ($/Unit)	$39,308	$52,682	$56,649	$46,871	$50,000	$63,750	$65,000	$66,313	$67,625	$69,000
Circuit Breaker Replace Reactive ($)										
Circuit Breaker Replace Reactive (Unit)										
Circuit Breaker Replace Reactive ($/Unit)										

c) BHI cannot predict changes in condition parameters (with the exception of “Age”) with a high degree of certainty and so cannot forecast the number of circuit breakers to be in poor or very poor condition by the end of 2030, in the absence of any replacements.

d) BHI provides the number of substation circuit breaker failures for each of the years 2015 to 2024 period and 2025 to date in Table 2 below. BHI did not track the number of substation circuit breaker failures prior to 2021.

Table 2

Description	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (YTD May)
Circuit Breaker Failures	n/a	n/a	n/a	n/a	n/a	n/a	-	1	-	-	1

2-Intervenor-67

Reference: **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.

Response:

a) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI does not separately track units and unit costs by transformer type, and as such, information is provided without this breakdown.

BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Transformer Replace ($)	$621,879	$336,158	$613,611	$1,007,389	$464,550	$473,841	$483,132	$492,888	$502,643	$512,863
Transformer Replace Proactive ($)	$200,562	$51,542	$193,371	$273,502	$241,805					
Transformer Replace Proactive (Unit)	14	1	14	16	19					
Transformer Replace Proactive ($/Unit)	$14,326	$51,542	$13,812	$17,094	$12,727					
Transformer Replace Reactive ($)	$421,317	$284,616	$420,240	$733,888	$222,745	$473,841	$483,132	$492,888	$502,643	$512,863
Transformer Replace Reactive (Unit)	32	37	32	75	18	38	38	38	38	38
Transformer Replace Reactive ($/Unit)	$13,166	$7,692	$13,132	$9,785	$12,375	$12,470	$12,714	$12,971	$13,227	$13,496

BHI has corrected the proactive costs in Table 1 above vs. Table 5.2-6 of the DSP.

b) BHI cannot predict changes in condition parameters (with the exception of "Age") with any degree of certainty and so cannot forecast the number of transformers to be in poor or very poor condition by the end of 2030 in the absence of any replacements.

c) BHI provides the number of transformer failures for each of the years 2015 to 2024 period and 2025 to date in Table 2 below. BHI did not track these failures prior to 2021.

Table 2

Description	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (YTD May)
Distribution Transformer Failures	n/a	n/a	n/a	n/a	n/a	n/a	35	36	27	41	12

2-Intervenor-68

Reference: **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.

Response:

a) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
Switch Replace ($)	$349,370	$375,449	$617,278	$412,657	$282,755	$183,600	$187,200	$190,980	$194,760	$198,720
Switch Replace Proactive ($)	$204,932	$37,916	$146,005	$140,946	$158,596					
Switch Replace Proactive (Unit)	17	3	29	9	12					
Switch Replace Proactive ($/Unit)	$12,055	$12,639	$5,035	$15,661	$13,216					
Switch Replace Reactive ($)	$144,438	$337,534	$471,273	$271,711	$124,159	$183,600	$187,200	$190,980	$194,760	$198,720
Switch Replace Reactive (Unit)	15	16	27	17	2	22	22	22	22	22
Switch Replace Reactive ($/Unit)	$9,629	$21,096	$17,455	$15,983	$62,079	$8,345	$8,509	$8,681	$8,853	$9,033

b) BHI cannot predict changes in condition parameters (with the exception of “Age”) with a high degree of certainty and so cannot forecast the number of switches to be in poor or very poor condition by the end of 2030, in the absence of any replacements.

c) BHI confirms, corrects where applicable and completes the information in Table 1 below. BHI has updated its capital forecast for 2025 and 2026 in response to interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 2

	2021	2022	2023	2024 Actual	2025 Bridge Year	2026 Test Year	2027	2028	2029	2030
MS Feeder Cable Replace ($)	$223,946	$305,056	$134,661	$3,558	$225,000	$198,900	$202,800	$206,895	$210,990	$215,280
MS Feeder Cable Replace Proactive ($)	$128,856	$11,698	$134,661	$-	$225,000	$198,900	$202,800	$206,895	$210,990	$215,280
MS Feeder Cable Replace Proactive (meters)	1,784	-	1,381	-	1,956	1,695	1,695	1,695	1,695	1,695
MS Feeder Cable Replace Proactive ($/meter)	$72	N/A	$98	$-	$115	$117	$120	$122	$124	$127
MS Feeder Cable Replace Reactive ($)	$95,090	$293,359	$-	$3,558	$-					
MS Feeder Cable Replace Reactive (meters)	520	3,113	-	-	-					
MS Feeder Cable Replace Reactive ($/meter)	$183	$94	$-	N/A	$-					

d) BHI cannot predict changes in condition parameters (with the exception of “Age”) with a high degree of certainty and so cannot forecast the number of underground cables to be in poor or very poor condition by the end of 2030, in the absence of any replacements.

2-Intervenor-69

Reference: **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.

Response:

a) A slower pace of smart meter replacement would not allow for a slower pace of installing the upgraded collector system. Although the AMI Collector System upgrade is related to the AMI 2.0 meter upgrade project, the principal driver of the AMI Collector System upgrade is that the existing collectors are obsolete, at end of life (installed in 2009) and are starting to fail. The vendor no longer manufactures the original first-generation collectors and only provides the new next-generation collectors.

   The new next-generation collectors have the added benefit of having a dual radio, which allows them to act as an AMI 1.0 or AMI 2.0 collector. This ties in with the rollout of BHI's new smart meters, which also have a dual radio and can communicate on the AMI 1.0 mesh radio network or the AMI 2.0 network. With both the new collectors and the new meters having the ability to communicate on either network, it gives BHI the ability to pace its smart meter replacements over a longer period and mitigate customer bill impacts.

b) Yes, BHI's existing collector system is compatible with the planned upgraded smart meters as long as they are ordered with a dual radio, which BHI plans on doing.

2-Intervenor-70

Reference: **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

Response:

BHI provides Table 1 below that outlines the requested information for 2021-2030.

Table 1

	2021	2022	2023	2024	2025
Intelligent Switches (O/H) $	$-	$171,906	$82,397	$11,329	$-
Intelligent Switches (O/H) Units	-	3			-
Intelligent Switches (O/H) $/Unit	$-	$88,544			$-
Intelligent Switches (U/G) $	$-	$4,722	$182,993	$1,094	$-
Intelligent Switches (U/G) Units	-	-	1	-	
Intelligent Switches (U/G) $/Unit	$-	$-	$182,993	$-	$-

	2026	2027	2028	2029	2030
Intelligent Switches (O/H) $	$204,000	-	$212,200	-	$220,800
Intelligent Switches (O/H) Units	2	-	2	-	2
Intelligent Switches (O/H) $/Unit	$102,000	$-	$106,100	$-	$110,400
Intelligent Switches (U/G) $	$-	$312,000	-	$324,600	-
Intelligent Switches (U/G) Units	-	2	-	2	-
Intelligent Switches (U/G) $/Unit	$-	$156,000	$-	$162,300	$-

BHI installed three overhead units in 2022, however, there was subsequent labour and equipment costs associated with the installed units in 2023 and 2024. Hence, BHI has shown the combined unit costs for these three units.

BHI would also like to correct the evidence in “Intelligent Switches Material Investment Summary Document” in the DSP, where it double counted and said “six overhead and one underground switch were installed in the historical period”. BHI only installed three overhead and one underground switch in the historical period. This has been corrected in Table 1 above.

2-Intervenor-71

Reference: **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.

Response:

a) Please refer to BHI's response to 2-Staff-24 a).

b) There was no insurance claim/payment associated with the roof damage resulting from the storm.

2-Intervenor-72

Reference: **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.

Response:

a) BHI provides a detailed breakdown of the other computer hardware and software spending by year for the 2026-2030 period including the project priority rankings for 2026 in Table 1 below.

   BHI has updated its capital forecast for 2026 in response to Interrogatory 1-Staff-1 and provides the information based on the updated forecast.

Table 1

Program	2026 Priority Ranking	2026 Test Year	2027	2028	2029	2030
Cyber Security Controls (Implementation)	1	$25,500	$24,960	$25,464	$25,968	$26,496
Technology End User Compute (Workstations)	25	$48,960	$52,000	$53,050	$54,100	$55,200
Business Continuity and Disaster Recovery (BCPDR)	27	$24,480	$24,960	$25,464	$25,968	$26,496
Technology End User Compute (Tablets)	28	$10,200	$12,480	$12,732	$12,984	$13,248
IT Productivity Tools	32	$12,240	$12,480	$12,732	$12,984	$13,248
Digital Transformation for Improved Value/Efficiencies/Innovation	37	$61,200	$62,400	$63,660	$64,920	$66,240
SharePoint Implementation	38	$48,960	$0	$0	$0	$0
OKTA IAM Solution Implementation	39	$20,400	$0	$0	$0	$0
Environmental and Electrical - Server Rooms	41	$12,240	$0	$0	$0	$22,080
Technology Networking Equipment (Replacement)	43	$51,000	$0	$0	$0	$88,320
Website development	46	$44,000	$0	$0	$0	$0
Server Virtualization for Back-ups	47	$3,060	$0	$0	$0	$0
Server & Storage Device Replacement Program (5 years per server)	48	$30,600	$156,000	$31,830	$0	$33,120
Inventory Management Controls	49	$51,000	$0	$0	$0	$0
Accounting & Budgeting Software	50	$76,500	$0	$0	$0	$0
HR/Payroll Replacement Project	52	$5,100	$0	$0	$0	$0
Corporate Phone System	53	$3,060	$5,200	$5,305	$5,410	$5,520
Customer Portal	N/A	$0	$10,400	$15,915	$10,820	$16,560
Daffron Cust. Programming	N/A	$0	$0	$15,915	$16,230	$16,560
Microsoft (Licenses Other)	N/A	$0	$10,400	$10,610	$10,820	$11,040
Business Intelligence Enhancements / Development (COGNOS)	N/A	$0	$10,400	$10,610	$10,820	$11,040
Total		**$528,500**	**$381,680**	**$283,287**	**$251,024**	**$405,168**

b) i) Please refer to 4-Staff-53a).

ii) Please refer to 4-Staff-53a).

2-Intervenor-73

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

Question(s):

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?

Response:

a) BHI provides an update regarding the types of vehicles purchased or planned to be purchased in 2025 including updated cost figures, where applicable, in Table 1 below. Further, BHI confirms that no trucks listed on page 105 having a score over 27 were replaced in 2025 or are planned for replacement over the 2026-2030 period.

Table 1

Vehicle Classification	Vehicle Type	2025 count	2025 updated costs
Rolling Stock (>4500 kg)	Single Bucket Truck*	-	$154,000
	Dump Truck	-	$0
	Flatbed Truck	-	$0
	Radial Boom Derrick	1	$424,000
	Cable Reel Trailer	-	$0
	Equipment	-	$0
	Single Bucket Truck - Repair	-	$0
Rolling Stock (>4500 kg) - Total		1	$578,000
Rolling Stock (<4500 kg)	Pickup Truck	1	$67,000
	Van/SUV	3	$170,000
	Trucks/Vans/Cars	2	$75,000
Rolling Stock (<4500 kg) - Total		6	$312,000
EV Charger			$10,000
Total		**7**	**$900,000**
**Represents deposit for chassis*			

b) Please see BHI's response to 2-Staff-23 d.

c) BHI provides details of vehicles purchased between 2021 to 2024 in Table 2 below.

Table 2

Vehicle	Unit #	2021	2022	2023	2024
Honda Civic	T1	0	1	0	0
Ford F150	T44	0	1	0	0
Ford F150	T45	0	1	0	0
Ford F150	T46	0	1	0	0
Ford F150	T47	0	1	0	0
Ford F150	T48	0	1	0	0
Chev Bolt - EV	T60	0	0	1	0
Chev Bolt - EV	T61	0	0	1	0
Ford Etransit - EV	T65	0	0	1	0
Ford Etransit - EV	T66	0	0	1	0
Mobile Ramp Trailer	T85	0	0	1	0
F150 Lightning - EV	T67	0	0	0	1
F150 Lightning - EV	T68	0	0	0	1
F150 Lightning - EV	T69	0	0	0	1
Total Vehicles		**0**	**6**	**5**	**3**

d) BHI has already purchased a chassis in 2025 for a large utility vehicle that is planned to be replaced in 2026. All other planned 2026 vehicle purchases have not been ordered yet.

2-Intervenor-74

Reference: **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 Electric**	**Hybrid**	**Non-EV/Hybrid**	**Total**
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.

Response:

a) BHI completes the chart below indicating the breakdown of vehicle type in BHI's current vehicle fleet.

Vehicle Type	**Fully Electric**	**Hybrid**	**Non-EV/Hybrid**	**Total**
Heavy Duty Vehicles	0	0	10	10
Medium Duty Vehicles	2	0	0	8
Light Duty Vehicles	6	0	12	18

b) BHI completes the chart below indicating the proportion of BHI's planned fleet renewal investment involving fully electric vehicles.

Year	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Heavy Duty Vehicles	0	0	0	0	0	0
Medium Duty Vehicles	0	1	1	0	0	0
Light Duty Vehicles	4	3	1	1	1	1

As discussed in the MISD for Vehicles, BHI is planning to modify an existing bucket truck with an electronic smart Power Take Off (ePTO). This technology is particularly beneficial for commercial and industrial vehicles, such as bucket trucks, by enabling them to operate more efficiently and sustainably. Trucks that are planned for this modification are part of the Heavy Duty Vehicles category, but are not reflected in the numbers above as this is only a partial conversion (i.e. electric power is used for operation of booms only).

c) For each newly added EV vehicle to BHI's Fleet, BHI estimates annual savings of approximately $10k. This is based on assumption that each new EV fleet vehicle will travel at least 19,000km per year and that each new EV vehicle is being charged at BHI charging facilities.

2-Intervenor-75

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

Question(s):

Please provide the Business Case for this project.

Response:

BHI has not prepared a Business Case for the ERP Replacement Project. As explained on page 43 of Section 2.7.5 of Exhibit 2, it is still too early in the planning process for this project to develop a business case.

2-Intervenor-76

Reference: **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.**"**

Question(s):

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.

Response:

a) BHI confirms it is the local source of information on demand and integrated planning, including all stages of the Regional Planning process. However, IRRPs are led by IESO staff, and they are responsible for coordinating the engagement meetings with local communities and stakeholders.

b) BHI actively participates in all stages of the regional planning process as a member of the working groups relevant to specific Sub-Regions that the municipality of Burlington belongs to. In addition, BHI provides comments on assessments and studies as required, and supplies necessary data such as a load forecast, which include all requests for more energy by existing or new customers and proposed population, employment and household growth by the City of Burlington and Region of Halton.

c) BHI considers the input provided by customers as well as municipal and regional initiatives in its system planning. This is reflected in the DSP through proposed capital investments including distribution system modifications and feeder expansions (e.g. MTSAs).

2-Intervenor-77

Reference: **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.

Response:

a) The identified Regional Planning needs in the reports (e.g. Appendix D, p. 8, Appendix E, p. 36, and Appendix F, p. 10) are not driven by BHI customers, therefore the contribution of BHI customers to the overall need is 0%.

b) The total installed capacity of DERs to BHI's distribution system is approximately 9.5MW (9.25MW Solar and 0.25MW CHP).

c) The generation capacity of the total number of DERs that are connected to BHI's distribution system, even if controllable (most of them are generating on a regular basis), is not material enough to be used to address any transmission constraints as identified in Appendix D, E, and F.

2-Intervenor-78

Reference: **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.

Response:

The needs identified in Appendix E of the DSP (e.g. on page 36) are not driven by BHI customers therefore the contribution of BHI customers to the overall need(s) is 0%.

2-Intervenor-79

Reference: **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.

Response:

a) BHI is unable to complete the analysis that would be required to answer the questions within the timelines for responding to IRs. At a minimum, responding to this question would require lab testing on different transformer sizes under different loading conditions, the results of which would then have to be verified by transformer manufacturers and analyzed by BHI.

b) BHI is unable to complete the analysis that would be required to answer the questions within the timelines for responding to IRs. BHI is fed from different Transformer Stations owned by Hydro One Networks Inc. (HONI), who set the short circuits constraints at the Station Level. Short circuit analysis would require BHI to take into consideration different scenarios (fault type, system configuration, etc.) of its power system, run analysis with engineering software (i.e., CYME) to provide conclusions/recommendations, and validate them with HONI.

2-Intervenor-80

Reference: **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.

Response:

a) BHI provides a copy of the ACA that underpinned its 2021 Cost of Service application as Appendix 2-Intervenor-80 a).

b) BHI provides Table 0-2 of Appendix I of the DSP on the basis of quantities for each asset category as Table 1 below.

Table 1

Asset Category	Population	Health Index Distribution {units)					
		Very Good	Good	Fair	Poor	Very Poor	Unknown HI
Station Assets							
Power Transformers (Liquid Filled)	36	13	22	1	-	-	-
Power Trans!ormers (Dry Type)	8	6	2	-	-	-	-
Medium-Voltage Circuit Breakers	132	26	57	49	-	-	-
Station Egress Cables (km)	23	3	5	11	3	-	-
Station Battery Banks	32	18	5	7	1	-	1
Station Primary Switchgears	44	4	6	14	12	8	-
Station Protective Relays	127	19	-	37	66	5	-
Station Buildings	32	0	16	12	4	0	0
Distribution Assets							
Wood Poles	15,037	8,436	5,353	226	15	1,007	-
Concrete Poles	227	191	32	4	-	-	-
Steel Poles	26	10	16	-	-	-	-
Overhead Primary Voltage Conductors (km)	830	305	432	93	-	-	-
Underground Primary Voltage Cables (km)	686	98	17	345	68	159	-
Pole-Mount Transformers	3,179	1,574	1,241	347	16	-	-
Pad-Mount Transformers	4,066	3,192	789	81	4	-	-
Vault Trans!ormers	66	32	23	11	-	-	-
Submersible Trans!ormers	768	348	218	202	-	-	-
Distribution Switchgear	239	72	106	56	3	3	-
SCADA Switches	71	47	19	1	4	-	-
Overhead Switches	4,049	1,259	494	2,296	-	-	-
Overhead Line Reclosers	14	14	-	-	-	-	-

c) BHI does not track the quantity of Distribution Assets replaced – historical or forecast – at the level of detail presented in Table 0-2 of Appendix I of the DSP.

Table 2 below provides reference to the relevant interrogatory responses where information regarding quantities replaced is available.

Table 2

BHI Asset Category (Programs/Projects)	Asset Category	Comments/Reference
Distribution Assets		
Pole Replacement Program	Wood Poles	Please see BHI's response to 2-Intervenor-62a for quantity replaced from 2021-2024 and forecast for 2025-2030.
	Concrete Poles	
	Steel Poles	
Miscellaneous	Overhead Primary Voltage Conductors	BHI does not track this.
Underground Rebuilds	Underground Primary Voltage Cables	Please see BHI's response to 2-Intervenor-61a for quantity replaced from 2021-2024 and forecast for 2025-2030.
Transformer Replacement	Pole-Mount Trans!ormers	Please see BHI's response to 2-Intervenor-67a for quantity replaced from 2021-2024 and forecast for 2025-2030.
	Pad-Mount Trans!ormers	
	Vault Trans!ormers	
	Submersible Trans!ormers	
Switch Replacement Program	Distribution Switchgear	Please see BHI's response to 2-Intervenor-68a for quantity replaced from 2021-2024 and forecast for 2025-2030.
	SCADA Switches	
	Overhead Switches	
	Overhead Line Reclosers	

Pole Replacements and Underground Rebuilds

BHI prioritizes assets identified as being in poor or very poor condition for replacement. However, there may be instances such as third-party relocation requests, municipal road widening projects, or asset damage caused by external events (accidents), where assets require replacement irrespective of their condition.

Transformers and Switches

These assets are typically replaced reactively as they fail or become defective, as opposed to proactively targeting assets in poor or very poor condition.

3-Intervenor-81
Reference: **Ex. 3, pp. 17, 32, 49, 51, 53, 54, 62, 67**

Question(s):

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.
Clarification: The reference is table 38 from Exhibit 3. Actual residential consumption (kWh) was provided for 2021, 2022, 2023, 2024 and forecasts were provided for 2025 and 2026.

We are looking for the residential class demand (kW) for those same years, then the amount of that demand that is attributable to heat pumps. We are looking to understand what the contribution of heat pumps is to Burlington Hydro's residential demand.

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.
Clarification: We are looking for 2021-2024 actuals, and 2025 and 2026 forecasts.

s) Does BHI anticipate becoming a winter peaking utility? If yes, when? If not, why not?

Response:

a) BHI provides the year-over-year (YoY) increase of new Residential customers projected between 2024 and 2026 as a proxy for the number of new housing units forecast for BHI's service area between 2024 and 2026 in Table 1 below.

Table 1

Year	Residential Customers	YoY increase
2023	62,207	
2024	62,564	357
2025	62,772	209
2026	63,050	278

b) Please refer to 3-Staff-32 a).

c) BHI provides an updated load forecast using the most recent year-to-date numbers as Attachment_Load_Forecast_Model_BHI_07242025.

d) Please refer to 3-Staff-32 b).

e) In 2024, 40 customers were reclassified from GS > 50 kW to GS < 50 kW and 34 customers were reclassified from GS < 50 kW to GS > 50 kW. A manual adjustment for the reclassifications was considered but was not included in the load forecast because the number of customers reclassified is within the normal range of reclassifications BHI experiences on an annual basis, and as such reclassifications are appropriately considered in long term customer count trends.

f) The 0.15% conversion rate considers that customers will generally consider converting to electric heating only when replacing heating equipment, and BHI's expectation that home heating adoption will remain relatively low to the 2026 Test Year before increasing in the 2030s and 2040s.

g) Please see BHI's response to 3-Staff-36.

h) BHI does not track the number of customers that use electric vs. gas heating so it is unable to provide the amount of incremental consumption (kWh) due to space heating forecasted for 2022 through 2024 that has manifested on the system.

i) Please see BHI's response to part h) above.

j) BHI does not have direct visibility into whether a customer has installed a heat pump, unless the customer voluntarily discloses it or the installation triggers a service upgrade. BHI does not have automatic access to appliance-level data due to privacy regulations.

k) See BHI's response to part j) above.

l) The load forecast assumes full natural gas heating energy will be replaced by electricity space heating kWh for customers who convert to heat pumps. BHI has not assessed whether customers will maintain backup natural gas heating systems.

m) Yes, BHI is assuming that the customers that convert to heat pumps are using electricity for all their space heating needs.

n) BHI does not track demand for the residential customer class as these customers are billed based on consumption.

o) All incremental space heating added to the load forecast is assumed to be heat pump heating.

p) BHI does not track the adoption of heat pumps by residential and GS<50 kWh customers over time. As discussed in part j) above there are limitations in identifying and maintaining the accuracy of such granular data over time compared to the overall benefit e.g. feasibility of using the information to plan future system upgrades etc. In the meantime, BHI monitors the loading on its distribution system and takes appropriate actions to maintain its operability through such measures as load transfers, switching and targeted upgrades.

q) BHI confirms that it is a summer peaking utility.

r) BHI provides its 2021-24 actual and 2025-26 forecast summer and winter peak demands in Table 2 below. Please note the 2021-2024 figures in Table 2 below have been updated vs. the values in Table 5.3-3 of the DSP, which were incorrect. BHI does not track the contributions of the forecasted number of heat pumps to those demands.

Table 2

Year	Winter Peak (kW)	Summer Peak (kW)	Average Peak (kW)
2026 forecast	265,000	365,700	315,350
2025 forecast	258,000	360,100	309,050
2024 actual	237,876	340,325	289,100
2023 actual	229,681	337,024	283,352
2022 actual	243,374	344,047	293,710
2021 actual	232,515	344,659	288,587

s) Yes, BHI anticipates it will become a winter-peaking utility in the early 2040s.

3-Intervenor-82

Reference: **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.

Response:

a) Peak load is in the billing determinant forecast for monthly customer peaks based on historic peak billed demand to consumption ratio basis. This forecast is on a normal weather basis so it does not consider extreme peaks that may arise from high case weather conditions. This forecast does not assume a material change in distributed energy resources from the historic volumes from 2015 to the 2026 test year, outside of the extent that the impact of distributed energy resources on consumption is reflected in historic trends. Peak demand forecast for assessing capital needs considers only (i) the annual peak demand volumes on a locational/feeder basis and (ii) the conditions at peak times which are expected to be summer peaks in the near and medium term. The distribution system, as well as capacity at transmission stations, must consider high case scenarios including extreme weather conditions and relatively low levels of distributed generation.

b) A customer increasing their service, on its own without corresponding increases in peak or annual load, will not impact the various load forecasts.

c) BHI's billing determinant load forecast has changed by including incremental EV and heating loads. This increase is based on a reasonable expectation of incremental loads for the purposes of increasing billing determinants, without considering potential low or high cases. Please refer to the "Total Additional-Lost Loads" tab of the Load Forecast model, filed as Attachment_Load_Forecast_Model_BHI_07242025, for a summary.

d) Per a clarification email on July 2, 2025, intervenors are removing this question and do not require a response[1].

e) BHI does not collect peak demand data for the rate classes billed on consumption. Peak demand data is only available for the demand-billed rate classes GS > 50 kW and Street Lighting, which is not metered. BHI could not obtain data for the full 5-year period in the time available. Peak demands from 2021 to 2023 are provided in Table 1 below.

[1] EB-2025-0051, Intervenor_Response_Clarifications_Burlington Hydro CoS_20250702

Table 1

	GS>50	Street Lighting
Summer Coincident Peak		
2021	144,699	-
2022	154,492	-
2023	140,811	-
Winter Coincident Peak		
2021	112,640	1,290
2022	114,605	1,290
2023	106,758	1,290

Annual demands (billed demand) and customer counts by rate class from 2021 to 2024 and forecasts for 2025 and 2026 are provided in Table 2 below.

Table 2

	Residential	GS < 50	GS > 50	Street Lighting	USL	Total
Annual Demand (Billed Demand)						
2020			2,183,219	15,463		
2021			2,160,311	15,461		
2022			2,180,017	15,480		
2023			2,133,862	15,486		
2024			2,107,341	15,558		
2025			*2,022,624*	*15,655*		
2026			*1,968,903*	*15,655*		
Customer Count						
2020	61,640	5,514	1,002	17,185	576	85,917
2021	61,868	5,605	986	17,189	574	86,221
2022	62,004	5,664	967	17,201	574	86,410
2023	62,207	5,699	944	17,210	575	86,634
2024	62,564	5,712	965	17,310	579	87,130
2025	*62,841*	*5,768*	*959*	*17,329*	*581*	*87,477*
2026	*63,119*	*5,823*	*952*	*17,348*	*584*	*87,827*

3-Intervenor-83

Reference: **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.

Response:

a) BHI's GS>50 kW class volumes have generally declined in recent years and no material electric heating or electrification in the class is expected by the 2026 Test Year.

b) CDM savings was assumed to be the same in 2025 as 2026 because there was insufficient information on the IESO's eDSM plan when the load forecast was developed. A revision to the CDM forecast based on the eDSM plan is provided in 3-Staff-37 d).

3-Intervenor-84
Reference: **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 x HDD value in March 2020, iii) 1.0 x HDD in April to December 2020, iii) 0.75 x HDD in 2021, iv) 0.5 x HDD in 2022 and v) zero thereafter.
- Second is equal to: i) zero for months before March 2020, ii) 0.5 x CDD value in March 2020, iii) 1.0 x CDD in April to December 2020, iii) 0.75 x CDD in 2021, iv) 0.5 x CDD in 2022 and v) zero thereafter.

Response:

a) No, Power Advisory did not test Residential customer count as an explanatory variable for the Residential class model. The statistical equation and results where the model also includes Residential customer count as an explanatory variable, are provided in Table 1 below. The 2026 Residential forecast in this scenario is 578,681,571 kWh.

Table 1

Intervenor 84a Regression Results				
Model 1: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: Res_NoCDM				
rho = 0.407226				
	coefficient	std. error	t-ratio	p-value
const	(104,773,369)	18,868,032	(5.55)	0.0000
HDD14	14,281	1,607	8.89	0.0000
CDD14	81,360	3,233	25.17	0.0000
Shoulder	(2,807,963)	403,180	(6.96)	0.0000
MonthDays	1,577,062	150,399	10.49	0.0000
Residential_Customers	1,561	300	5.21	0.0000
Statistics based on the rho-differenced data				
Sum squared resid	2.89E+14	S.E. of regression		1,592,942
R-squared	0.9610	Adjusted R-squared		0.9593
F(5, 114)	381.90	P-value(F)		1.92E-69
rho	-0.1103	Durbin-Watson		2.1973
Statistics based on the original data				
Mean dependent var	46,569,854	S.D. dependent var		7,889,714

b) The COVID-19 variable was tested as an explanatory variable in the regression analysis in the development of the load forecast, however, it was not re-tested after complete 2024 load, customer, and economic data was available. In BHI's view, the impacts of COVID are better reflected in the economic variables, as they were in BHI's 2021 load forecast in its 2021 Cost of Service application.

c) The statistical results for the three scenarios identified above are provided in Tables 2, 3 and 4 below. The forecast for the scenario with the highest COVID variable statistical significance is Scenario 3, which produces a forecast of 539,568,473 kWh in 2025 and 543,620,703 kWh in 2026.

Table 2

1) COVID 1				
Model 1: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: Res_NoCDM				
rho = 0.494051				
	coefficient	std. error	t-ratio	p-value
const	(22,989,871)	6,051,992	(3.80)	0.0002
HDD14	13,711	1,660	8.26	0.0000
CDD14	80,372	3,304	24.33	0.0000
OEA_GDP	19	6	3.46	0.0008
Shoulder	(2,870,019)	409,076	(7.02)	0.0000
MonthDays	1,553,629	149,473	10.39	0.0000
COVID1	834,852	1,286,512	0.65	0.5177
Statistics based on the rho-differenced data				
Sum squared resid	3.08E+14	S.E. of regression		1,651,801
R-squared	0.9584	Adjusted R-squared		0.9562
F(6, 113)	285.00	P-value(F)		8.63E-66
rho	-0.1301	Durbin-Watson		2.2402
Statistics based on the original data				
Mean dependent var	46,569,854	S.D. dependent var		7,889,714

Table 3

2) COVID 0.5/1				
Model 2: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: Res_NoCDM				
rho = 0.467624				
	coefficient	std. error	t-ratio	p-value
const	(23,108,568)	5,926,753	(3.90)	0.0002
HDD14	13,957	1,655	8.43	0.0000
CDD14	81,003	3,313	24.45	0.0000
OEA_GDP	19	5	3.60	0.0005
Shoulder	(2,858,111)	407,385	(7.02)	0.0000
MonthDays	1,556,730	150,130	10.37	0.0000
COVID2	2,264,966	1,551,590	1.46	0.1471
Statistics based on the rho-differenced data				
Sum squared resid	3.04E+14	S.E. of regression		1,641,102
R-squared	0.9589	Adjusted R-squared		0.9568
F(6, 113)	291.35	P-value(F)		2.69E-66
rho	-0.1240	Durbin-Watson		2.2275
Statistics based on the original data				
Mean dependent var	46,569,854	S.D. dependent var		7,889,714

Table 4

3) COVID HDD/CDD				
Model 3: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: Res_NoCDM				
rho = 0.152774				
	coefficient	std. error	t-ratio	p-value
const	(22,229,134)	5,409,821	(4.11)	0.0001
HDD14	13,401	1,516	8.84	0.0000
CDD14	78,172	3,273	23.88	0.0000
OEA_GDP	17	3	5.16	0.0000
Shoulder	(2,790,620)	401,418	(6.95)	0.0000
MonthDays	1,576,802	162,433	9.71	0.0000
COVID3HDD	7,194	1,884	3.82	0.0002
COVID3CDD	19,033	3,279	5.81	0.0000
Statistics based on the rho-differenced data				
Sum squared resid	2.50E+14	S.E. of regression		1,494,307
R-squared	0.9662	Adjusted R-squared		0.9641
F(7, 112)	382.84	P-value(F)		4.21E-75
rho	-0.0258	Durbin-Watson		2.0073
Statistics based on the original data				
Mean dependent var	46,569,854	S.D. dependent var		7,889,714

<u>3-Intervenor-85</u>

Reference: **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:
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.

Response:

a) The COVID-19 variable was tested as an explanatory variable in the regression analysis in the development of the load forecast, however, it was not re-tested after complete 2024 load, customer, and economic data was available. The COVID variables were rejected because the economic variables were assessed to provide sufficient explanatory value, as they did in BHI's 2021 load forecast in its 2021 Cost of Service application.

b) The statistical results for the three scenarios are provided in Tables 1, 2 and 3 below. The forecast for the scenario with the highest COVID variable statistical significance is scenario 3, which produces a forecast of 174,715,979 kWh in 2025 and 177,886,088 kWh in 2026.

Table 1

1) COVID 1				
Model 1: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: GS_lt_50_NoCDM				
rho = 0.803724				
	coefficient	std. error	t-ratio	p-value
const	(8,639,906)	4,594,185	(1.88)	0.0626
HDD14	4,713	329	14.34	0.0000
CDD14	11,449	630	18.17	0.0000
OEA_GDPChange	6.69	1.91	3.51	0.0007
GS_lt_50_Customers	1,866	821	2.27	0.0250
Shoulder	(167,718)	73,095	(2.29)	0.0236
MonthDays	376,090	25,655	14.66	0.0000
COVID1	(880,349)	263,254	(3.34)	0.0011
Statistics based on the rho-differenced data				
Sum squared resid	1.25E+13	S.E. of regression		334,165
R-squared	0.9195	Adjusted R-squared		0.9145
F(7, 112)	201.13	P-value(F)		2.37E-60
rho	-0.2235	Durbin-Watson		2.4389
Statistics based on the original data				
Mean dependent var	14,756,066	S.D. dependent var		1,137,775

Table 2

2) COVID 0.5/1				
Model 2: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: GS_lt_50_NoCDM				
rho = 0.775776				
	coefficient	std. error	t-ratio	p-value
const	(8,382,069)	4,051,895	(2.07)	0.0409
HDD14	4,692	324	14.48	0.0000
CDD14	11,527	623	18.51	0.0000
OEA_GDPChange	0.58	2.44	0.24	0.8127
GS_lt_50_Customers	1,836	722	2.54	0.0123
Shoulder	(161,817)	72,561	(2.23)	0.0277
MonthDays	374,296	25,429	14.72	0.0000
COVID2	(1,875,656)	459,029	(4.09)	0.0001
Statistics based on the rho-differenced data				
Sum squared resid	1.20E+13	S.E. of regression	327517.424	327,517
R-squared	0.9228	Adjusted R-squar	0.91793135	0.9179
F(7, 112)	209.54	P-value(F)	2.8414E-61	2.84E-61
rho	-0.2249	Durbin-Watson		2.4405
Statistics based on the original data				
Mean dependent var	14,756,066	S.D. dependent var		1,137,775

Table 3

3) COVID 2020-2022				
Model 3: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: GS_lt_50_NoCDM				
rho = 0.346794				
	coefficient	std. error	t-ratio	p-value
const	(11,052,788)	1,606,947	(6.88)	0.0000
HDD14	4,830	294	16.41	0.0000
CDD14	11,729	603	19.46	0.0000
OEA_GDPChange	3.79	1.67	2.27	0.0251
GS_lt_50_Customers	2,436	250	9.74	0.0000
Shoulder	(178,454)	74,961	(2.38)	0.0190
MonthDays	359,074	28,273	12.70	0.0000
COVID3	(2,219,430)	180,141	(12.32)	0.0000
Statistics based on the rho-differenced data				
Sum squared resid	9.40E+12	S.E. of regression		289,644
R-squared	0.9392	Adjusted R-squared		0.9354
F(7, 112)	230.37	P-value(F)		2.05E-63
rho	-0.0302	Durbin-Watson		2.0596
Statistics based on the original data				
Mean dependent var	14,756,066	S.D. dependent var		1,137,775

3-Intervenor-86

Reference: **Ex. 3, pp. 25-29 and 51**

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:

   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?

Response:

a) The COVID-19 variable was tested as an explanatory variable in the regression analysis in the development of the load forecast, however, it was not re-tested after complete 2024 load, customer, and economic data was available. The COVID variables were rejected because the economic variables were assessed to provide sufficient explanatory value, as they did in BHI's 2021 load forecast in its 2021 Cost of Service application

b) The statistical results for the three scenarios are provided in Tables 1, 2 and 3 below. The forecast for the scenario with the highest COVID variable statistical significance is scenario 3, which produces a forecast of 174,715,979 kWh in 2025 and 177,886,088 kWh in 2026.

Table 1

1) COVID 1				
Model 1: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: GS_gt_50_NoCDM				
rho = 0.671579				
	coefficient	std. error	t-ratio	p-value
const	11,769,130	3,733,160	3.15	0.0021
HDD10	17,949	1,534	11.70	0.0000
CDD14	46,176	2,227	20.74	0.0000
Trend	(66,311)	11,511	(5.76)	0.0000
Dec	(2,474,728)	407,636	(6.07)	0.0000
MonthDays	1,940,168	120,100	16.15	0.0000
Tor_FTEAdjChange	6,523	2,272	2.87	0.0049
COVID1	(2,394,721)	1,194,299	(2.01)	0.0474
Statistics based on the rho-differenced data				
Sum squared resid	2.50E+14	S.E. of regression		1,493,114
R-squared	0.9241	Adjusted R-squared		0.9193
F(7, 112)	200.68	P-value(F)		2.67E-60
rho	-0.2090	Durbin-Watson		2.4126
Statistics based on the original data				
Mean dependent var	72,738,785	S.D. dependent var		5,253,811

Table 2

2) COVID 0.5/1				
Model 2: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: GS_gt_50_NoCDM				
rho = 0.671772				
	coefficient	std. error	t-ratio	p-value
const	12,539,157	3,700,555	3.39	0.0010
HDD10	17,789	1,540	11.55	0.0000
CDD14	45,967	2,238	20.54	0.0000
Trend	(65,652)	11,507	(5.71)	0.0000
Dec	(2,462,261)	406,789	(6.05)	0.0000
MonthDays	1,918,062	118,782	16.15	0.0000
Tor_FTEAdjChange	5,393	2,388	2.26	0.0259
COVID2	(3,509,131)	1,670,847	(2.10)	0.0380
Statistics based on the rho-differenced data				
Sum squared resid	2.49E+14	S.E. of regression		1,490,604
R-squared	0.9243	Adjusted R-squared		0.9195
F(7, 112)	201.41	P-value(F)		2.20E-60
rho	-0.2110	Durbin-Watson		2.4163
Statistics based on the original data				
Mean dependent var	72,738,785	S.D. dependent var		5,253,811

Table 3

3) COVID 2020-2022				
Model 3: Prais-Winsten, using observations 2015:01-2024:12 (T = 120)				
Dependent variable: GS_gt_50_NoCDM				
rho = 0.481516				
	coefficient	std. error	t-ratio	p-value
const	13,696,308	3,728,840	3.67	0.0004
HDD10	17,361	1,373	12.64	0.0000
CDD14	46,205	1,987	23.25	0.0000
Trend	(58,254)	7,092	(8.21)	0.0000
Dec	(2,212,449)	408,373	(5.42)	0.0000
MonthDays	1,886,802	121,397	15.54	0.0000
Tor_FTEAdjChange	4,983	1,691	2.95	0.0039
COVID3	(5,967,358)	992,486	(6.01)	0.0000
Statistics based on the rho-differenced data				
Sum squared resid	2.09E+14	S.E. of regression		1,364,517
R-squared	0.9365	Adjusted R-squared		0.9326
F(7, 112)	228.48	P-value(F)		3.16E-63
rho	-0.0879	Durbin-Watson		2.1713
Statistics based on the original data				
Mean dependent var	72,738,785	S.D. dependent var		5,253,811

c) The known lost GS>50 kW customer had volumes that were approximately 7 times the volumes of an average customer in the class. The adjustment accounts for the extraordinary billed volumes lost from this customer. The majority of customers exiting the class, which is reflected in the trend variable, have lower than average volumes before being reclassified to the GS<50 kW rate class or ceasing operations.

3-Intervenor-87

Reference: **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)?

Response:

a) BHI provides an updated version of Table 22 as Table 1 below.

Table 1 – Update of Exhibit 3, Table 22

	2017	2018	2019	2020	2021	2022	2023	2024
BHI EVs	246	455	254	251	399	703	850	1,053
ON EVs	8,180	16,758	9,762	10,515	19,716	38,662	50,132	56,600
BHI % of ON EVs	2.69%	2.86%	2.61%	2.48%	2.05%	1.77%	1.69%	1.83%
EVs by Type in Ontario								
ON Passenger EVs	6,191	12,828	7,124	5,699	8,028	13,157	11,001	9,794
ON Multi-Purpose Vehicles EV	1,467	3,055	2,546	4,681	11,406	23,938	36,195	42,094
ON Vans EVs	522	875	92	135	282	695	1,127	632
ON Pickup Truck EVs	-	-	-	-	-	872	1,809	4,080
EV Types as % of Total EVs								
Passenger EV as % of EV	75.7%	76.5%	73.0%	54.2%	40.7%	34.0%	21.9%	17.3%
Multi-Purpose EV as % of EV	17.9%	18.2%	26.1%	44.5%	57.9%	61.9%	72.2%	74.4%
Van EV as % of EV	6.4%	5.2%	0.9%	1.3%	1.4%	1.8%	2.2%	1.1%
Pickup Truck EV as % of EV	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	3.6%	7.2%

b) The assumed increase in the number of vehicles in Ontario is forecast based on Ontario population growth trends, for example: Ontario Long Term Report , Chapter 1: Demographic Trends and Projections: https://www.ontario.ca/document/ontarios-long-term-report-economy-2024/chapter-1-demographic-trends-and-projections-2024.

c) Burlington's share of new EVs in 2025 and 2026 was based on the actual share in 2024 because it best reflects current sales trends. Note that the average share of EVs sold in Burlington between 2020 and 2024 (1.84%) is approximately the same as the 1.83% share sold in 2024.

d) Power Advisory confirms the half year adjustment is double counted. This is corrected in the updated load forecast filed in response to 1-Staff-1.

e) Please refer to BHI's response to 3-Staff-33.

f) The 20% load factor used to determine incremental EV billing demand is based on judgement considering a number of factors including typical EV load factors, different types of charging, and the coincident of charging EVs during the customer's monthly peak demand hour. Single EVs typically have load factors lower than 20%, however, GS>50 kW customers are more likely to have multiple vehicles charging at different times and will manage charging to some extent to avoid charging at their peak hour. Power Advisory notes the OEB has set a load factor threshold of 20% for EV charging stations to be eligible for the EVC Rate. Though this threshold is the upper limit, the 20% factor considers the ability for GS >50 kW customers to manage EV charging loads.

3-Intervenor-88

Reference:
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.

Response:

a) EV data is tracked based on EV sales as provided in the 'EV Data' tab of the load forecast. BHI's Customer Needs and Preferences survey (Appendix C of Exhibit 1) also provided some insight on past and forecast EV uptake (pages 7, 25).

b) The following is an assessment of the specific impacts of growing customer interest in EVs and the associated increase in EV penetration in BHI's service territory:

(i) <u>Distribution System Planning</u>

To date, there have been no significant impacts on BHI's distribution system planning due to EV adoption. However, BHI is actively monitoring trends in EV growth in its service territory. BHI is preparing for future impacts by identifying areas where transformers or feeder upgrades may be needed. Please refer to 4-Staff-59 b) for a broader overview of how BHI will facilitate DER adoption, including EVs.

(ii) <u>Load Forecast</u>

BHI has not yet observed a material impact on its system-wide load forecast from EVs. However, load impacts on the distribution system from localized load growth (e.g., in neighborhoods with high EV adoption) could emerge.

(iii) <u>Productivity</u>

Investments in SCADA and ADMS systems are intended to improve operational productivity and system visibility as DER penetration increases. See response to interrogatory 1-Intervenor-2 for further details.

(iv) <u>OM&A Costs</u>

BHI's application reflects the following impacts to OM&A costs due to growing customer interest in EVs and the associated increase in EV penetration in BHI's service territory:

- Customer support and engineering reviews for EV charger connections will increase with higher adoption rates;
- System monitoring and planning costs will rise as EV penetration grows;
- With increased penetration of commercial EV charging projects, administrative costs would increase in processing a larger volume of applications.

c) BHI has not collected any data on the Ultra-Low Overnight ("ULO") for customers who are EV drivers.

d) As described on pages 43 to 45 of Exhibit 3, the federal zero-emission vehicle sales mandate targets are considered in the forecast of EV loads. The share of vehicles sold in Ontario that were ZEV was 6.5% in 2022, 7.4% in 2023, and 8.1% in 2024. This is below the trajectory needed to reach the 20% federal target by 2026, so an adjustment was made to push the targets out such that 20% of vehicles sold are ZEV by 2031, and 100% by 2038.

e) BHI's forecast ZEV share of total vehicle sales and the federal target are summarized in Table 1 below. The differences arise from the adjustment to the ZEV sales trajectory as noted in response to part d).

Table 1

	BHI Forecast	Federal Target
2024	Actual 8.1%	
2026	12.7%	20.0%
2030	34.0%	60.0%
2035	92.0%	100.0%
2038	100.0%	100.0%

f) For the purposes of the billing determinant load forecast, only one scenario was produced, as provided in tab 'EV Forecast' of the load forecast. Though this forecast is somewhat aggressive given the slow growth in EV adoption from 2022 to 2024, it reflects a reasonable estimate of EV loads in the test year. A single load forecast is appropriate for the purposes of developing the billing determinants used for cost allocation and rate design.

g) BHI did not undertake any formal benchmarking of EV adoption or load forecasts against those of other Ontario LDCs. BHI is aware of and plans for EV load growth in its service territory, and did not allocate resources to analyze the adoption of EVs in other LDC service territories due to other priorities. Power Advisory has reviewed EV load forecasts of other LDCs and believes BHI's forecast is reasonably consistent with those forecasts.

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?

Response:

a) BHI agrees with the general assessment regarding the peak load impact of a typical residential home with a level 2 (or higher level) charger on the distribution system. However, BHI's experience to date has been that residential EV charger usage has generally been limited to off-peak hours of the week, and as such the impact on its distribution system due to this extra load has not been significant. BHI continues to monitor the loading on its feeders and transformers for changes in demand such as this.

b) BHI has not needed to install higher capacity distribution transformers to deal with higher peak loads from customers with Level 2 EV chargers.

3-Intervenor-90

Reference: **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.

Response:

The values in the load forecast are correct. A corrected Table 35 from Exhibit 3 is provided as Table 1 below.

Table 1

	2024 Incremental	2025 Incremental	2026 Incremental
Residential	873,563	930,515	857,248
GS < 50	327,899	279,887	339,669
Total	**1,201,462**	**1,210,401**	**1,196,917**

3-Intervenor-91

Reference: **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)

Question(s):

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.

Response:

a) The source for the savings assumed for the 2021 to 2025 period are based on the "2017_Final_Verified_Results_Report_BHI", "April2019_Participation and Cost Report_BHI", the settlement LRAMVA workform in BHI's 2021 COS (EB-2020-0007), and the LRAMVA workform filed in BHI's 2024 IRM application (EB-2023-0008). The relevant sheets from these files have been compiled and filed as IR_Attachment_3-Intervenors-91a_BHI_07242025. This file includes a 'CDM Summary' tab which references the relevant information from the other tabs. Generally, the majority of savings persisting from 2015 to 2017 programs is based on the 2017 Persistence

Report. The loss of persistence of savings from other programs are based on one of: continuing equal declining persistence based on the loss of persistence in previous years with data, the loss of persistence of the same programs in previous years where there is data available, or no loss of persistence.

Two errors were noted while compiling this attachment due to formula errors. CDM savings of the GS<50 kW class from 2018 programs persisting to 2021 was overstated by 5,170kWh and savings of the GS>50 kW class from 2019 programs persisting to 2020 was understated by 4,332,447kWh. These errors are corrected in the revised load forecast filed with BHI's response to 1-Staff-1.

b) Savings from the Energy Efficiency in Ontario - 2023 Conservation and Demand Management Results report and new eDSM plan are included in the updated load forecast filed with BHI's response to 1-Staff-1.

c) Savings are based on BHI's share of provincial kWh.

d) BHI's share of Residential, GS<50 kW, and GS>50 kW consumption from 2019 to 2023 is provided in Tables 1 to 3 below.

Table 1

i) Residential			
	Burlington Hydro	Total	BHI Share %
2019	509,468,913	40,380,447,498	1.26%
2020	555,286,630	43,245,011,031	1.28%
2021	550,878,085	43,371,552,787	1.27%
2022	543,063,322	43,540,648,596	1.25%
2023	520,495,249	42,711,992,242	1.22%
Average	**535,838,440**	**42,649,930,431**	**1.26%**

Table 2

ii) General Service < 50 kW			
	Burlington Hydro	Total	BHI Share %
2019	169,313,389	13,348,732,845	1.27%
2020	153,322,573	12,530,281,719	1.22%
2021	156,917,865	12,853,976,851	1.22%
2022	167,739,016	13,791,653,391	1.22%
2023	169,521,839	13,740,005,714	1.23%
Average	**163,362,936**	**13,252,930,104**	**1.23%**

Table 3

iii) General Service >= 50 kW			
	Burlington Hydro	Total	BHI Share %
2019	843,009,648	51,307,299,221	1.64%
2020	787,632,948	48,237,791,431	1.63%
2021	797,368,548	48,842,596,891	1.63%
2022	812,199,012	49,862,673,591	1.63%
2023	785,675,948	49,525,695,242	1.59%
Average	**805,177,221**	**49,555,211,275**	**1.62%**

4-Intervenor-92
Reference: **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.

Clarification: We are looking for one version of the Appendices with year-to-date actual values only, however if the incorporation of year-to-date in 2025 changes the forecasts for 2025 and/or 2026 then updated versions of the Appendices should be provided. Otherwise, it is sufficient to state that the forecasts for 2025 and 2026 do not change even with the year-to-date actuals.

Response:
BHI provides a revised version of Appendices 2-JA, 2-JC and 2-K that include 2025 actuals on a May YTD basis, and actuals for the same date in 2023 to 2024 as IR_Attachment_4_Intervenor-92_BHI_07242025.

BHI identifies the changes to the 2025 and 2026 forecasts in its response to 1-Staff-1 in Table 1 under "4-Intervenor-92" (OEB costs) and "4-Intervenor-105d)" (locate volumes), and in Table 1 below.

Table 1

Description	2025	2026
OM&A as filed April 16, 2025	**$26,759,971**	**$30,040,101**
Increase in OEB Costs	$13,745	$70,698
Increase in Locates Volumes [1]	$45,196	$46,515
OM&A as filed July 24, 2025	**$26,818,912**	**$30,157,314**

Description	2025	2026
OEB Cost Assessment as filed April 16, 2025	**$396,856**	**$412,889**
OEB Cost Assessment Increase [2]	$13,745	$70,698
OEB Cost Assessment as filed July 24, 2025	**$410,601**	**$483,584**

1. 4-Intervenor-105d
2. OEB Cost Assessment - Fiscal Year 2025-2026, June 30, 2025, p1

4-Intervenor-93

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

Question(s):

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).

Response:

a) Please refer to 4-Staff-56 a).

b) There is an allocation to "capital/billable" line in the Engineering and Fleet Programs. This line represents the salaries and benefits (Engineering), or vehicle operating expenses (Fleet), that are directly attributable to capital and billable projects. For the historical years (2021-2024) this amount is based on actuals and is not an allocation or estimate.

Engineering Program 2021-2024
The allocation to "capital/billable" amounts are based on actual hours charged to capital or billable work orders, through the payroll system, and as recorded on employees' timesheets. Actual hours are multiplied by salary per hour, by person. A benefit burden rate is applied to salaries to determine benefits. This process determines the engineering salaries and benefits which are directly attributable to capital or billable projects.

Fleet Program 2021-2024

The allocation to “capital/billable” amounts are based on actual vehicle usage hours charged to capital or billable work orders, through the transportation module, and as recorded on employees’ timesheets. The actual vehicle usage hours are multiplied by a per vehicle operating rate to determine the vehicle operating costs that are directly attributable to capital or billable projects.

For the 2025 Bridge and 2026 Test Years, BHI estimates the salaries and benefits (Engineering), or vehicle operating expenses (Fleet), that are directly attributable to capital and billable projects. These amounts are represented on the allocated to “capital/billable” line.

BHI provides the calculation for the amounts calculated for allocated to “capital/billable” for the Engineering Program in Table 1 below and for the Fleet Program in Table 2 below. As stated above 2021-2024 amounts are based on actual hours (employee and vehicle) attributable to capital and billable projects.

Table 1

Description	Calculation	Engineering Time Attributable to Capital	
		2025	2026
Total Salaries	a	1,895,547	2,739,414
% of time attributable to capital projects	b	25%	20%
Total Salaries attributable to capital projects	**c = a x b**	**$475,000**	**$560,244**
% Benefits	d	53%	56%
Total Benefits attributable to capital projects	**e = c x d**	**$250,500**	**$311,995**
Total Salaries and Benefits attributable to Capital Projects	**f = c + e**	**$725,500**	**$872,239**
Total Salaries and Benefits attributable to Billable Projects	g	$150,000	$150,000
Total Capital / Billable	**h = f + g**	**$875,500**	**$1,022,239**

Table 2

Description	2025	2026
Estimated # of Hours	11,900	12,725
Average Hourly Rate Per Vehicle	$28.15	$28.38
Total	**$335,000**	**$361,107**

c) BHI provides the most up-to-date 2025 forecast for OM&A spending at the sub-program level as Appendix 4-Intervenor-93c. Note that the 2026 Test Year OM&A increased by $117,213 as compared to the evidence filed April 16, 2025 to reflect increases to locate costs and OEB costs as identified in 1-Staff-1.

d) In BHI's view, all categories of OM&A expenses - operations, maintenance and administration – can have a direct linkage to capital spending, including in the following manner:

Operations:

- Capital projects (e.g., system upgrades, new substations, pole replacements) require upfront design, analysis, and planning which requires professional resources such as engineers and design technologists that plan capital work
- Capital programs require oversight, scheduling, coordination, and documentation which can translate into more project managers, supervisors and administrative support
- More resources may be required in the control room and in the field for switching, monitoring, system optimization and responding to system events

Maintenance:

- An expanded system and new technologies that are being introduced to facilitate grid modernization require additional expenses to inspect, test, maintain and repair
- New assets require supporting systems such as GIS and SCADA to be updated, maintained, and monitored
- New overhead lines built though undeveloped or forested areas may increase BHI's vegetation management footprint
- Capital investments in an automated grid can require specialized technicians, software support and diagnostics
-

Administration:

- More materials to procure and manage lead to increased administration expenses for inventory management, warehousing, contract management, and procurement and finance
- Capital projects involving new customer connections or system expansions require billing, account management and customer service support
- New capital projects often involve smart grid investments, SCADA upgrades, or GIS improvements which require IT integration, cybersecurity, licensing and support services
- New capital work (especially involving new equipment or technologies) requires updated training, certifications, safety procedures and safety oversight
- Capital projects require finance and regulatory staff to ensure compliance with capitalization policies as more labour and overhead are applied to projects. Workloads associated with tracking time sheets, cost drivers, capital contributions and work orders increase

- Capital spending impacts depreciation, rate base, and revenue requirement and requires accurate financial modeling and tracking. An increase in spending increases time required for capital forecasting, cash flow management, invoicing for capital contributions, budget variance analysis and long-term planning.

4-Intervenor-94

Reference: **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.

Response (a) and (b):

In the 2021 COS, BHI proposed an adjustment (credit) of $572K to the 2021 Test Year to smooth out the impact of the FTE plan, which was forecasted to decrease over the rate term from 107 FTE in 2021 to 100 FTEs in 2025.[1]

This adjustment is captured in the Other and Miscellaneous line items of Appendices 2-JB and 2-JC respectively. The forecasted FTE reduction did not materialize over the rate term for reasons detailed in the evidence at pages 196-206 of Exhibit 4 and in BHI’s response to 4-Intervenor-99. As a result, this adjustment (credit) yields a positive variance (increase) between the 2021 approved budget and the 2026 Test Year.

In Appendix 2-JB, the noted variance in Other between 2021 approved and 2026 is partly mitigated/offset by increases in affiliate intercompany charges. That is why the variance in “Other” is slightly lower than the variance in “Miscellaneous” in Appendix 2-JC.

[1] EB-2020-0007, Exhibit 4, s. 4.3.0.17 at page 136

4-Intervenor-95

Reference: **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 capitalized OM&A		18.7%	24.7%	22.7%	19.9%	12.9%	11.5%

Response:

a) BHI has recast the table provided above using gross capital expenditures which is the more appropriate denominator as it reflects BHI's total capital expenditures before capital contributions.

Table 1

Description	Source	2021	2022	2023	2024	2025	2026	Avg 2021-2024	Avg 2025-2026
Gross Capital Expenditures	2-AB	20,047,142	17,004,090	32,407,199	25,638,262	33,972,897	44,980,145		
Captalized OM&A	2-D	2,088,914	2,832,813	2,738,085	2,969,785	2,386,181	2,798,919		
% of Capitalized OM&A/Gross Capital		10.4%	16.7%	8.4%	11.6%	7.0%	6.2%	11.8%	6.6%

The % of capitalized OM&A in capital expenditures has reduced in 2025 and 2026 from a historical average of 11.8% to 6.6% due to a difference in the nature and type of capital projects in the historical period, as compared to the 2025 Bridge and 2026 Test Years

Projects in the historical period required a higher percentage of OM&A to be capitalized than forecast in the 2025 Bridge and 2026 Test Years as follows:

- Metrolinx Corridor Electrification project

  In 2022-2024, higher than average OM&A costs were capitalized due to the involvement of BHI's Control Room, Engineering, and Stations programs in this project. The project was completed in 2024 and as such the percentage of capitalized OM&A is expected to decrease in 2025 and 2026.

- Switch Replacement program

  From 2021 to 2024, BHI carried out higher reactive replacements of overhead and underground switches to address equipment failures. These activities resulted in the Powerlines and Stations departments recording more time to capital than is expected in 2025 and 2026 as the number of reactive switch replacements is expected to be lower than in 2021 to 2024.

- Burlington TS metering upgrade

  This one-time capital project in 2024 involved revenue metering upgrades at the Burlington TS and required support from Metering, Powerlines, and Stations. Consequently, a higher percentage of time was allocated to capital than in 2023. BHI does not expect a similar project in 2025 and 2026.

- Outage Management System (OMS) upgrade

  The OMS upgrade was completed in 2024 and involved significant input from Engineering, the Control Room and Supervisory staff. This resulted in a higher amount allocated to capital in 2024 as compared to 2023. Similar expenditures are not anticipated in 2025 and 2026.

By contrast, in the 2025 Bridge and 2026 Test Years, BHI's capital plan is weighted more heavily toward projects that typically require lower internal labour. These include:

- Dundas Street Road Widening
- Burloak Grade Separation
- Smart Meter Replacement
- Major Transit Station Area Developments
- Subdivisions
- Suite Metering
- AMI Collector Upgrade
- Vehicles and Buildings

Together, these projects account for approximately 74% (2025) and 68% (2026) of BHI's total gross capital expenditures. Further, in the 2026 Test Year, BHI is proposing an increase of 14 FTEs for whom the average % of time allocated to capital is expected to lower than the historical average as their time cannot be directly attributable to a specific capital project.

4-Intervenor-96

Reference: **Ex. 4, p. 10**

Preamble: BHI prepares an annual budget and ten year plan.

Question(s):

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

Response:

BHI's latest ten year plan approved by its Board of Directors is attached to Exhibit 1 as Appendix B[1].

[1] EB-2025-0051, Exhibit 1, Appendix B, p60-65

4-Intervenor-97

Reference: **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.

Response:

a) BHI provides the calculation that supports the salary/benefit inflationary increase of $2.3M in Table 1 below.

Table 1 – Calculation of Salary/Benefit Inflationary Increase

Description	$	Average Annual Inflation Increase	Union Wage Increase	Non-Union Salary Increase	% Union Staff	% non-Union Staff
		a = b*d + c*e	b	c	d	e
2021 S&B	**$13,713,177**					
2022 S&B (with inflationary increases only)	$14,035,017	2.35%	2.25%	2.50%	61.2%	38.8%
2023 S&B (with inflationary increases only)	$14,365,690	2.36%	2.25%	2.50%	57.6%	42.4%
2024 S&B (with inflationary increases only)	$14,919,508	3.86%	3.75%	4.00%	57.9%	42.1%
2025 S&B (with inflationary increases only)	$15,511,059	3.96%	3.75%	4.25%	57.0%	43.0%
2026 S&B (with inflationary increases only)	**$16,045,614**	3.45%	3.00%	4.00%	55.4%	44.6%
2026 S&B vs. 2021 S&B increase due to inflation	**$2,332,437**					

b) BHI provides the calculation that supports the other operational cost inflationary increase of $1.5M in Table 2 below.

Table 2 – Calculation of Other Operational Cost Inflationary Increase

Description	$	OEB Inflation
2021 All Other Costs Excluding Salaries and Benefits	**$7,414,223**	
2022 All Other Costs (with inflationary increases only)	$7,658,893	3.30%
2023 All Other Costs (with inflationary increases only)	$7,942,272	3.70%
2024 All Other Costs (with inflationary increases only)	$8,323,501	4.80%
2025 All Other Costs (with inflationary increases only)	$8,623,147	3.60%
2026 All Other Costs (with inflationary increases only)	**$8,933,580**	3.60%
2026 All Other Costs vs. 2021 All Other Costs increase due to inflation	**$1,519,357**	

4-Intervenor-98

Reference: **Ex. 4, p. 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.

Response:

a) BHI is unable to provide the requested information as costs and budgets are not tracked in a manner that enables this information to be provided within a reasonable amount of time. BHI tracks implementation costs by G/L, program and sub-program for OM&A expenses, and OEB investment category and capital program for capital expenditures. As such implementation costs for each expectation, directive, initiative, and consultation are embedded within these, and not separately identifiable.

   BHI notes that the priorities identified in the Minister's Letter of Direction and the policy initiatives and consultations launched are broad and touch on most aspects of the utility's capital and OM&A expenditures. Expenditures across BHI's entire plan support these priorities and include investing in reliability and resiliency, delivering capacity to meet customer and load growth, modernizing BHI's grid and operations, supporting electrification and achievement of net-zero targets, facilitating customer choice, and managing technological change including cyber security risk.

b) Please refer to part a) above.

4-Intervenor-99

Reference: 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 2021 cost of service application to actuals.

Response:

BHI provides a list of the positions which were included in the 2021 Actuals but not included in the 2021 Cost of Service application in Table 1 below. Of the ten positions which were included in the 2021 actuals, six were eliminated in 2022. BHI provides a more detailed explanation below.

Table 1 – Positions in 2021 Actuals not included in the 2021 Cost of Service application

Department	Position	Purpose	Added/ (Eliminated) since 2021 CoS	Eliminated in 2022
Accounting	Financial Analyst	CIS transition	1	-1
Administration	VP Engineering Services and Network Operations	Succession Planning	1	
Billing	Billing Representative	CIS transition/RPP Optionaility	1	-1
Billing	Billing Representative	CIS transition/RPP Optionaility	1	-1
Billing	Billing Representative	CIS transition/RPP Optionaility	1	
Billing	Billing Representative	Regulatory Policy e.g. Tiered Pricing, ULO	1	
Control Room	Control Operator	Position Eliminated	-1	-1
Customer Service	Customer Service Representative	CIS transition	1	-1
Customer Service	Cash Clerk	Cash Management	1	-1
Distribution Mtce/Opns	Power Line Apprentice	Succession Planning	1	
Engineering	Director of Engineering	Fill Vacancy	1	
Information Services	IT and Operations Technology Systems Specialist	Manage and Support IT/OT Systems	1	
Total Change			**10**	**-6**
Total Headcount 2021/2022			**112**	**106**

Financial Analyst (one)

- This position became necessary following the implementation of BHI's new CIS, as additional work was required to integrate BHI's new CIS with its legacy ERP including reports, financial statements and accounting processes. This position was not planned for in the 2021 Cost of Service application because at the time of filing, BHI expected the system to be live, and associated integration efforts completed, prior to 2021. This position was eliminated in 2022

VP Engineering Services and Network Operations (one)

- As identified on page 56 of Exhibit 2, in 2021 BHI hired a VP Engineering Services and Network Operations to replace the outgoing Chief Operating Officer who retired in 2022. The cross-over period permitted BHI to proactively plan for succession to facilitate a smooth leadership transition and ensure business continuity. The retirement was unknown at the time of BHI's 2021 Cost of Service application. This extra FTE was not eliminated until 2023 since in 2022, after the COO retired, BHI hired an advance replacement of the Chief Financial Officer position to replace the incumbent who retired in 2023, as identified on page 57 of Exhibit 4. Similar to the VP Engineering Services and Network Operations position, the cross-over period in 2022 permitted BHI to proactively plan for succession to facilitate a smooth leadership transition and ensure business continuity. The headcount in the Administration returned to four FTE in 2023.

Billing Representatives (four)

- Four billing representatives over and above the four budgeted in the 2021 Cost of Service application were required in 2021. Three of these were required to assist with (i) the implementation of BHI's new CIS (referenced on page 112 of the DSP) and were allocated to capital; and (ii) the implementation of the OEB's Customer Choice Initiative discussed on page 41 of Exhibit 9. Two of these positions were eliminated in 2022 when either these projects came to a conclusion (CIS), or workload to meet customer requirements decreased (Customer Choice Initiative). Two of these positions were permanently added due to an increase in the volume of work required to maintain accurate and timely billing, and ensure BHI continues to meet the OEB's billing accuracy metric of 98%. Some of these changes are due to new policy initiatives, regulatory changes and compliance requirements. Others are due to an increase in billing and reporting processing volumes. The changes in the volume of work are discussed in detail on pages 199-200 of Exhibit 4.

Customer Service FTE (two)

- The Customer Service Representative was required to assist with the (i) implementation of BHI's new CIS and was allocated to capital. This position was not planned for in the 2021 Cost of Service application because at the time of filing, BHI expected the system to be live prior to 2021. This position was eliminated in 2022.

- The Cash Clerk was required for cash management including the processing of incoming cheques, primarily for commercial customers. The position became necessary following the implementation of BHI's new CIS, as the cash management function required additional steps and an increased volume of work to facilitate integration with an older CIS module and an ERP system that remained in use. This heightened workload persisted until the ERP upgrade was completed. Once the upgraded system was in place, the need for a dedicated Cash Clerk diminished, and the position was subsequently eliminated, with responsibilities absorbed by other roles within the department.

Powerline Apprentice (one)

- The requirement and workload for this position is explained on page 201 of Exhibit 4.

Director of Engineering (one)

- The requirement and workload for this position is explained on page 202 of Exhibit 4 and in BHI's response to 4-Staff-50.

IT and Operations Technology Systems Specialist (one)

- The requirement and workload for this position is explained on page 204 of Exhibit 4.

4-Intervenor-100

Reference: 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.

Response:

a) The following positions are included in the salary and benefits of the Administration Program:
   a. President and Chief Executive Officer
   b. EVP and Chief Financial Officer
   c. EVP Corporate and Chief People Officer
   d. VP Engineering Services and Network Operations
   e. Corporate Services Advisor

b) Yes, BHI's insurance covers property damage at its head office.

c) BHI's cyber security insurance includes payments, in excess of BHI's applicable deductible, for:
   a. Incident Response Expenses as a result of an actual privacy and network security event, network interruption event or cyber-extortion and ransom event
   b. Direct Network Interruption Event Restoration Expenses
      i. Direct Network Interruption and Business Income – payments for loss of business income, restoration expenses and business continuity expenses incurred as a consequence of a network interruption event of BHI's computer system or a voluntary shutdown of BHI's computer system
      ii. Bricking - hardware replacement costs and software replacement costs incurred as a result of a network interruption event or cyber-extortion and ransom event
   c. Cyber-Extortion and Ransom Expenses
   d. Privacy and Network Security Liability - damages that BHI becomes legally obligated to pay as a result of a claim first made against BHI

d) The deadline for BHI to file its independent cyber security assessment is January 30th, 2026.

e) The time previously spent by BHI staff on the work of BHI's affiliates due to reduced utilization has been reallocated to BHI work. Headcount and associated salaries and benefits in BHI have not changed – these staff are full time, non-union employees who did not earn overtime and as such there is no reduction to salaries and benefits costs. The only change is that the salaries and benefits cost recovery, for work conducted by BHI for its affiliates, is reduced.

4-Intervenor-101

Reference: **Ex. 4, p. 60**

Question(s):

Please discuss what efforts BHI has made to increase the number of customers on e-billing in 2024.

Response:

Building on the success of previous promotional campaigns, BHI undertook several initiatives in 2024 to boost the number of customers enrolled in e-billing. The company launched targeted communication campaigns through email, billing onserts and social media to highlight the convenience, security, and environmental benefits of e-billing. The customer service team was also trained to proactively promote e-billing during customer interactions, and the sign-up process was streamlined on BHI's website and Customer Portal for greater accessibility. As a result, BHI experienced an increase of 7% in the number of customers on e-billing from 2024 to 2025.

4-Intervenor-102

Reference: **Ex. 4, pp. 68-69**

Question(s):

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.

Response:

In 2026, BHI will not incur the one-time cost associated with conducting a review of the company brand. However, this favorability will be offset by an increase in expenses as compared to 2025 as follows:

- BHI plans to hold a customer open house in 2026.
- BHI will implement and adopt the recommendations associated with the brand review in 2026. Costs are expected to cover new communication materials, digital presence enhancements, and revised communication collateral.

BHI expects to continue to incur a similar level of expenditures in future years to enhance customer and employee engagement. These types of activities foster connections with customers, help build relationships, educate customers about pricing and self-serve options, and help BHI to adapt to market shifts and evolving customer expectations.

4-Intervenor-103

Reference: **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.

Response:

BHI ceased providing control room services to BESI in early 2023 as the contract was terminated. BHI reduced its workforce by one FTE as identified in Table 19 of Exhibit 4. The salaries and benefits associated with that FTE were eliminated as was the revenue charged to BESI for providing this service. BHI does not provide BESI with control room services.

4-Intervenor-104

Reference: **Ex. 4, p. 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)?

Response:

a) The specific annual amount of debt collected during the "early stages" of BHI's debt collection process, as it relates to Collection Support costs, cannot be determined. It is important to note that Collection Support is not debt collection. The process involves Accounts Receivable acting on past-due accounts – such as sending reminder letters and making follow-up calls – to encourage payment before formal collection efforts begin.

b) The IVR platform has not resulted in measurable savings at this time. However, the platform has enabled automation of routine inquiries—such as account balances, payment due dates, and basic troubleshooting—the IVR system allows customers to quickly access information without waiting for a live customer service representative (CSR). This not only enhances customer convenience but also frees up CSRs to focus their attention on more complex or high-value tasks that require human judgement and problem-solving skills. As a result, CSRs can handle challenging calls with greater care, and potentially improve overall service quality and customer satisfaction.

4-Intervenor-105

Reference: **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.

Response:

a) BHI provides an estimate 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) in Table 1 below. An explanation of why this is an estimate for 2021 to 2024, and actuals are not available, is provided in part b) below.

Table 1 – Distribution, Maintenance and Operations Compensation

Description	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
Total Salaries, Benefits and Overtime (Capital and OM&A)	**$2,227,854**	**$3,253,505**	**$3,045,195**	**$3,485,794**	**$3,254,743**	**$3,723,246**
Allocated to Capital	($498,663)	($789,839)	($815,659)	($732,609)	($645,326)	($720,590)
Total Salaries, Benefits and Overtime (OM&A) as per Table 30	**$1,729,191**	**$2,463,666**	**$2,229,536**	**$2,753,185**	**$2,609,416**	**$3,002,656**

b) The Distribution Maintenance and Operations program does not show an allocation to "Capital/Billable" similar to the engineering program because this level of detail is not available for 2021-2024 actuals. Actual salaries and benefits allocated to capital are available at the following levels: (i) Engineering program, (ii) all Operations Programs (Distribution Maintenance and Operations, Control Room, Metering, Stations) and (iii) Lines Supervisors, whose time is allocated across all Operations programs. This is a limitation in BHI's work order system. Capital work is recorded to capital work orders at the levels identified above. There is no capability to record capital work directly to the Distribution Maintenance and Operations Program.

In order to assist with providing more detailed information, as requested in part a), BHI provides an estimate of the allocation to Capital/Billable in Table 1 by applying the % budgeted for capital and billable work in the Distribution Maintenance and Operations Program (as a % of all Operations Program) to the 2021-2024 actuals.

In terms of how the 2026 allocation for Distribution Maintenance and Operations – Salaries, Benefits and Overtime is operationalized in the application for rate making purposes:

- 76% of the salaries and benefits and 100% of overtime is recorded in OM&A which is included in revenue requirement at 100%.

- 24% of the salaries and benefits is recorded in capital expenditures in various capital programs as appropriate, and the corresponding in-service additions are included in rate base at 50% (in the 2026 Test Year).

c) BHI provides a breakdown of the contracted labour costs as between: (i) maintenance & repairs; and (ii) asset removal in Table 2 below. With respect to asset removal, the forecast number of half-cut poles to be removed in 2026 is 80.

Table 2 – Breakdown of Contracted Labour Costs

Description	2021	2022	2023	2024	2025 Bridge Year	2026 Test Year
Maintenance and Repairs	$279,188	$178,000	$105,044	$265,558	$215,635	$217,791
Asset Removal	$0	$0	$155,725	$153,195	$200,000	$202,000
Total Contracted Labour Costs	**$279,188**	**$178,000**	**$260,768**	**$418,753**	**$415,635**	**$419,791**

d) BHI provides an updated forecast using the best available information for 2025 locates in a similar format to Table 26 as Table 3 below. The reason for the increase in the amounts in 2025 and 2026 is due to an increase in locate volumes. BHI has reflected this change in its updated forecast for the 2025 Bridge Year as part of its responses to 4-OEB Staff-56a, and 4-Intervenor-93 a) and c). It also included this change in the 2025 Bridge Year and 2026 Test Year in its response to 1-Staff-1.

Table 3 – Locates

Description	2021	2022	2023	2024	2025 Bridge Year	2026 Test Year	% Increase 2026 vs 2021
# of locates	12,905	14,603	14,203	15,775	17,354	17,861	38%
$ Cost of locates	$389,799	$409,406	$408,675	$464,437	$551,119	$567,210	46%
$/locate	$30	$28	$29	$29	$32	$32	5%

4-Intervenor-106

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

Question(s):

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.

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.

Response:

a) The term of the previous vegetation management contract was 2023-2024.

b) The increase in the fixed cost of the vegetation management contracts relative to the 2023-2024 vegetation management contracts is due to the following:

- Short supply of skilled workers including qualified arborists which has driven up wages beyond inflation
- Increase in fuel prices beyond inflation for support vehicles such as bucket trucks and wood chippers
- Increase in capital equipment costs (purchase, maintenance and insurance premiums)

c) Based on its past experience, BHI excluded certain vendors from the RFP due to service quality concerns, including safety and performance issues. The decision to exclude these vendors was made in alignment with BHI's Purchasing & Disposal Policy, filed as Appendix C to Exhibit 4, which balances the objectives of process efficiency, service quality and competitive proposals, among others, to deliver maximum value to BHI.

d) No, BHI did not change its service providers as a result of the contracts awarded for the 2025-2027 period.

e) BHI confirms the scheduled vegetation management services budget for 2025 of $834k reflects the latest contracts.

f) The vegetation management contracts are fixed price for each zone and thus do not contain any price escalation, other than time and material rates for emergency response which may be escalated by a maximum of 2% annually for 2026 and 2027.

g) BHI identified formula errors in the following tables, and supervisory costs should have been a debit not a credit.

   - Table 22 on page 91 of Exhibit 2
   - Table 27 on page 104 of Exhibit 4
   - Table 28 on page 105 of Exhibit 4

   BHI provides corrected tables below.

   The total vegetation management costs in Tables 22 and 23 of Exhibit 4 were correct. The written variance analysis on page 104 (Lines 8 to 14) and page 105 (Lines 17-19) was correct and aligns with the corrected Tables 2 and 3 below respectively.

Table 1 – Corrected Table 22 – Breakdown of Vegetation Management Expenditures

Description	2021 CoS	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
Scheduled Vegetation Management Services	$482,020	$265,256	$388,852	$732,221	$414,285	$834,867	$1,031,183
"As Requested" Line Clearing Work	$121,428	$57,718	$110,557	$170,981	$257,899	$205,000	$206,500
Supervisory Management	$165,054	$122,166	$131,383	$146,644	$148,648	$155,140	$163,041
Total Vegetation Management	**$768,502**	**$445,140**	**$630,791**	**$1,049,846**	**$820,832**	**$1,195,007**	**$1,400,724**

Table 2 – Corrected Table 27 – 2022 to 2023 Vegetation Management

Description	2022 Actuals	2023 Actuals	$ Incr/(Decr)
Scheduled Vegetation Management Services	$388,852	$732,221	$343,369
"As Requested" Line Clearing Work	$110,557	$170,981	$60,424
Supervisory Management	$131,383	$146,644	$15,261
Total Vegetation Management	**$630,791**	**$1,049,846**	**$419,055**

Table 3 – Corrected Table 28 – 2024 to 2025 Vegetation Management

Description	2024 Actuals	2025 Actuals	$ Incr/(Decr)
Scheduled Vegetation Management Services	$414,285	$834,867	$420,582
"As Requested" Line Clearing Work	$257,899	$205,000	($52,899)
Supervisory Management	$148,648	$155,140	$6,492
Total Vegetation Management	**$820,832**	**$1,195,007**	**$374,175**

h) A copy of the vegetation management RFP for the 2025-2027 contract is provided as Appendix 4-Intervenor-106 h).

i) A copy of the contracts awarded for 2025-2027 are provided as Appendix 4-Intervenor-106 i).

4-Intervenor-107

Reference: **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.

Response:

a) BHI provides a figure that further divides the sections into the 17 zones as Appendix 4-Intervenor-107a).

b) BHI provides the planned areas/zones to be addressed, the actual zones addressed and the cost of each zone for 2021 to 2024 in Table 1 below.

Table 1

Year	Planned	Actual	Actual Cost
2021	Zone 1	Zone 1	[redacted]
	Zone 2	Zone 2 (50%)	[redacted]
	Zone 3	Zone 3	[redacted]
	Zone 4	Zone 4	[redacted]
	Zone 5	Zone 5	[redacted]
	Zone 6		[redacted]
2022	Zone 8	Zone 8	[redacted]
	Zone 9	Zone 9 (50%)	[redacted]
	Zone 10	Zone 10	[redacted]
	Zone 11	Zone 11	[redacted]
	Zone 12	Zone 12	[redacted]
	Zone 13		[redacted]
	Zone 15	Zone 15	[redacted]
	Zone 17	Zone 17	[redacted]
2023	Zone 2	Zone 2	[redacted]
	Zone 6	Zone 6	[redacted]
	Zone 9	Zone 9	[redacted]
2024	Zone 3	Zone 3	[redacted]
	Zone 4	Zone 4	[redacted]
	Zone 5	Zone 5	[redacted]
	Zone 7	Zone 7	[redacted]
	Zone 16	Zone 16	[redacted]
		Zone 10	[redacted]
		Zone 11	[redacted]

c) BHI provides the planned area/zones to be addressed in 2025, the actual accomplishments to date and forecast accomplishments in Table 2 below.

Table 2

Vegetation Management	Planned	Actual Accomplishments to Date	Forecast Accomplishments
2025	Zone 1	80%	100%
	Zone 13	100%	100%
	Zone 14	100%	100%

d) BHI provides the planned area/zones to be addressed in 2026 and 2027 and the forecast cost of each zone in Table 3 below.

Table 3

Vegetation Management	Planned	Forecast Cost
2026	Zone 2 (75%)	[redacted]
	Zone 6	
	Zone 8	
	Zone 9	
	Zone 12	
	Zone 15	
	Zone 17	
	Total	**$ 1,031,183**
2027	Zone 2 (25%)	[redacted]
	Zone 3	
	Zone 4	
	Zone 5	
	Zone 7	
	Zone 16	
	Total	**$ 446,533**

e) BHI provides the contractor assigned to each of the 17 zones in the latest 3 year cycle in Table 4 below.

Table 4

Year	Zone	Awarded to
2022	Zone 8	Davey
	Zone 9	OLC
	Zone 10	Davey
	Zone 11	Davey
	Zone 12	Davey
	Zone 13	OLC
	Zone 15	Davey
	Zone 17	Davey
2023	Zone 2	Kodiak
	Zone 6	Kodiak
	Zone 9	Davey
2024	Zone 3	Davey
	Zone 4	Beswick
	Zone 5	Beswick
	Zone 7	Davey
	Zone 16	Beswick
	Zone 10	Davey
	Zone 11	Davey

4-Intervenor-108

Reference: **Ex. 4, p. 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).

Response:

a) BHI confirms that the Distribution Asset Inspection costs of $204k in the test year are directly comparable to the Distribution Asset Inspection costs of $100k to $130k in 2022 and 2023, respectively.

b) BHI provides the 2021-2026 OM&A for computer software in Table 1 below. The Computer Software Costs for the 2026 Test Year are included in the “Software Licensing, Support and Maintenance” sub-program in the Information Services Program. These costs are related to AutoCad design and drafting software.

BHI notes that in the evidence on page 155 of Exhibit 4, line 24, $76,593 of the $137,393 increase in costs was due to the transfer of AutoCAD design and drafting software from the Engineering Program to the Information Services Program and is not an incremental cost.

Table 1 – Computer Software Costs

Description	2021 CoS	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
Computer Software Costs	**61,823**	**18,238**	**34,598**	**48,465**	**46,904**	**76,593**	**76,593**
Recorded in Engineering (Computer Software)	*61,823*	*18,238*	*34,598*	*48,465*	*46,904*	*76,593*	-
Recorded in IS - Software Licensing, Support and Maintenance							*76,593*

c) BHI provides the 2021-2026 OM&A for the GIS/OMS Licensing in Table 2 below. The GIS/OMS Licensing costs for the 2026 Test Year are included in the “Software Licensing, Support and Maintenance” sub-program in the Information Services Program.

Table 2 – GIS/OMS Licensing Costs

Description	2021 CoS	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
GIS/OMS Licensing and Support	**214,000**	**239,044**	**203,431**	**263,728**	**215,342**	**232,975**	**307,701**
Recorded in Engineering	*214,000*	*239,044*	*203,431*	*263,728*	*215,342*	*220,975*	-
Recorded in IS - Software Licensing, Support and Maintenance	-	-	-	-	-	*12,000*	*307,701*

4-Intervenor-109

Reference: **Ex. 4, p. 122**

Question(s):

Please explain how the burden allocated to materials was calculated.

Response:

BHI identified an error in Table 34 on page 122 of Exhibit 4. The burden allocated to materials in 2023 to 2026 was picking up the 2022 Actuals amounts in error. BHI provides a revised Table 34 as Table 1 below. There was no impact to total OM&A or the Facilities Program OM&A as a result of this error.

Table 1 – Revised Table 34 in Exhibit 4

Description	2021 CoS	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
Facilities - Office Building Maintenance	$300,886	$274,891	$279,108	$317,298	$344,744	$336,932	$387,662
Facilities - Service Centre and Stores	$623,009	$590,951	$623,093	$626,359	$863,862	$715,280	$774,077
Total before Allocation	**$923,895**	**$865,842**	**$902,201**	**$943,657**	**$1,208,606**	**$1,052,212**	**$1,161,739**
Burden Allocated to Materials	($460,510)	($418,563)	($470,411)	($445,356)	($685,068)	($529,498)	($565,415)
Total	**$463,385**	**$447,279**	**$431,790**	**$498,301**	**$523,538**	**$522,714**	**$596,324**

The burden allocated to materials in Table 1 is calculated by applying a predetermined burden rate to the material cost used for operating and maintenance activities. This burden rate is calculated by dividing the cost of operating the stores department (included in Facilities – Service Centre and Stores in Table 1 above) by the materials required for operating and maintenance activities, and billable jobs.

4-Intervenor-110

Reference: **Ex. 4, p. 10**

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.

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.

Response:

a) Job descriptions for the following three (3) positions are provided in Exhibit 4 of the Application as follows:

IT and Operations Technology Systems Specialist	Page 204
Information Technology Business Analyst	Page 205
Technical Support Analyst	Page 205

Detailed job descriptions for the remaining eight (8) positions are provided in Appendix 4-Intervenor-110a).

BHI identifies the five (5) positions which were created during the 2021-2025 period in Table 1 below.

Table 1 – IS Roles created during the 2021-2025 period

Position	Year	Type
IT and Operations Technology Systems Specialist	2021	New
Information Technology Business Analyst	2023	New
Technical Support Analyst	2023	New
IT Manager, Projects & Business Applications	2024	Redeployed
Business Applications/Data Specialist	2024	Redeployed

b) BHI has not undertaken a benchmarking exercise with respect to its IT cost relative to other similar businesses.

c) BHI is currently in the early stages of exploring and implementing AI-driven initiatives as part of its broader digital transformation and IT modernization strategy. Recognizing the transformative potential of AI, BHI has taken foundational steps to build organizational readiness and establish a framework for future AI adoption.

These early initiatives include targeted training programs for staff across various departments, with a focus on developing AI literacy and upskilling employees in areas such as data analytics, machine learning fundamentals, and the application of AI in utility operations. This includes both formal training sessions and participation in industry forums to stay informed about advancements in the field. As part of workforce planning, the Human Resources team is collaborating with IT leadership to assess current workforce capabilities, identify skill gaps, and plan recruitment or development of talent with expertise in AI and data analytics. This ensures that future initiatives are supported by the necessary human capital and that teams are aligned with BHI's digital transformation objectives.

In addition, BHI is conducting a comprehensive review of its existing data assets, data quality, and analytics infrastructure. Efforts are underway to centralize critical datasets and implement robust data governance practices, which are essential for the effective deployment of AI-driven tools. This foundational work supports the development of machine learning models by ensuring reliable and secure data. Also, BHI is actively engaging internal stakeholders to identify high-impact use cases for AI applications.

Potential use cases under consideration include predictive maintenance through equipment monitoring, resource optimization, and AI-powered customer support solutions.

d) The software licenses procured by BHI typically include a broad range of vendor support services as part of the agreement. These services commonly cover assistance with software installation, initial configuration, and user onboarding to ensure a smooth deployment process. In addition, vendors provide troubleshooting support, which may be accessed through online portals, help desks, or direct communication with technical representatives. Ongoing maintenance, security updates, and patches are also frequently included within the license agreements. This ensures that the software remains current and protected against emerging threats. Where applicable, vendors also offer documentation, user training resources, and periodic updates to functionality.

   While software licenses often include a layer of cyber security protections, such as regular updates, security patches, vendor technical support, these measures are generic and thus cannot fully address BHI's specific needs and operational requirements without significant customization which would be costly or unavailable in the market.

e) Dedicated in-house resources are necessary to supplement the generic security protections offered by software licenses, address specialized needs and requirements and maintain a robust and agile security posture for resilience against evolving threats. They are essential and cannot be displaced by generic vendor support for the following reasons:

   - Compliance with industry standards and regulations often requires customized controls, documentation, and regular audits. These tasks are more effectively managed internally.
   - In-house resources ensure that BHI takes rapid and targeted action to specific threats and minimize the impact of potential breaches. This can include repairing systems and hardware, and installing patches depending on the type of event.
   - The integration of multiple software systems and platforms demands oversight to ensure comprehensive protection and mitigation of vulnerabilities. In-house resources coordinate security across all applications and infrastructure, reducing exposure to threats arising from system interdependencies. This cannot be achieved through generic vendor support.
   - Internal resources drive ongoing improvement initiatives, conduct employee training, and develop organization-specific policies and practices, fostering a proactive security culture beyond generic vendor measures.

f) BHI has strategically partnered with other Local Distribution Companies (LDCs) through a consortium to enhance its purchasing power and secure more favorable terms on software license agreements. Through this collaborative approach, the consortium is able to negotiate substantial discounts with vendors—discounts that are typically only available to organizations purchasing licenses in much larger quantities. By aggregating licensing needs across multiple utilities, the consortium ensures that each utility benefits from reduced license fees compared to what would be available through individual agreements based on smaller user counts. These discounts are built into BHI's forecast.

   One of the primary focuses of recent consortium negotiations has been the field of cybersecurity and risk management, areas that require both specialized software solutions and vigilant oversight. By leveraging the collective requirements and expertise of all participating LDCs, the consortium has been able to engage in more effective negotiations, securing not only lower costs but also broader service offerings tailored to the specific needs. As a direct result of these joint negotiations, BHI has gained access to several advanced cybersecurity solutions at no direct cost. These solutions, acquired through the consortium's agreements with major software vendors, have not required any upfront investment from BHI.

g) Enhanced vendor support for technology consulting services is required when services are required for specialized tasks or skillsets that are difficult to cultivate in-house. This allows internal IT resources to be redirected toward other business priorities. Increased costs are for modifications to the systems through programming changes in response to evolving regulatory changes, interface developments, troubleshooting and solutions enhancements, all part of the software development life cycle processes provided by vendors through software engineering and systems design and development.

h) BHI attaches its most recent internal IT strategy as Appendix 4-Intervenor 110h).

4-Intervenor-111

Reference: **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 this application."

Response:

BHI implemented Workiva, a cloud-based reporting platform, to support the preparation of this Application. As identified on page 108 of Exhibit 1, this platform simplifies, centralizes and connects both financial and regulatory reporting, resulting in improved data accuracy and collaboration, faster turnaround times, and increased efficiency in preparing rate applications. The costs included in operating expenses are subscription fees, which BHI did not incur during the preparation of its 2021 Cost of Service rate application.

4-Intervenor-112

Reference: **Ex. 4, p. 166**

Question(s):

Please provide a breakdown of the incremental operating expenses associated with other resources allocated to this application.

Response:

BHI provides a breakdown of the incremental operating expenses associated with other resources allocated to this Application in Table 1 below.

Table 1

Incremental operating expenses associated with other resources allocated to this application	2023	2024	2025	Total
Workiva subscription costs	42,436	43,829	49,899	136,164
Temporary Staff	-	20,000	60,000	80,000
Total	**42,436**	**63,829**	**109,899**	**216,164**

4-Intervenor-113

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

Question(s):

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):

   i. 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).

i) (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.

Response:

a) Incremental resources are needed to manage the new OMS system to facilitate the following:
   - the development and integration of AI driven initiatives which necessitates additional training and development;
   - implementation of increased functionality within the OMS to improve business processes, and accommodate changing business requirements;
   - mitigation of cyber risk including compliance with OCSF standards and regulations;

- system integrations with other operational systems such as customer portal, GIS and SCADA with the OMS, ensuring seamless data flows and interoperability, while minimizing disruptions to critical services; and
- continuous monitoring of OMS performance and reliability, alongside analytics to detect anomalies, increase situational awareness, and support rapid incident response.

The staffing related costs associated with managing the new OMS system are included in salaries and benefits in the IT program (Table 37 of Exhibit 4 at page 146). Specifically a portion of the salaries and benefits associated with the newly created roles of IT Manager, Projects and Business Applications (SCADA, OMS, AMI, GIS) and Business Applications/Data Specialist, as identified on page 155 of Exhibit 4, are attributable to managing the new OMS.

b) OCSF standards mandate robust governance, risk management, and stringent measures pertaining to cybersecurity, privacy, and regulatory compliance across diverse organizational domains, all underscored by systematic processes and meticulous documentation. Inadequate allocation of resources to address these imperatives may precipitate heightened vulnerability to cyber threats, complications in fulfilling statutory obligations, impediments in safeguarding sensitive data, and disruptions to operational continuity. Furthermore, deficient resourcing can compromise BHI’s capacity to sustain accurate, current documentation, thereby exacerbating both compliance and security risks. Specifically, the OCSF has created incremental work to meet ongoing requirements such as:

- Enhancements to required documentation such as cybersecurity policies, protocols and incident response plans
- Conducting and preparing for internal audits, risk assessments, and compliance checks to ensure adherence to OCSF standards across organizational units.
- Designing and delivering ongoing staff education initiatives to embed OCSF principles in day-to-day operations and maintain organizational readiness.
- Reviewing and implementing processes for data classification, storage, and access controls to strengthen privacy and reduce exposure to data breaches.
- Establish robust systems for incident tracking, investigation, and remediation, with detailed root cause analyses and follow-up documentation as mandated by OCSF.
- Regularly reviewing and revising internal policies and procedures to reflect evolving OCSF guidelines and ensure consistency across departments.
- Increased and ongoing cross-functional collaboration required to ensure compliance.

c) BHI provides an updated 2025 FTE count in Table 1 below. Distribution Maintenance and Operations FTE has increased by 1 FTE with an offsetting decrease to Stations Maintenance and Operations. The change will carry forward into the 2026 Test Year.

Table 1 below also includes an updated 2024 Actuals column which was inadvertently not updated for 2024 actual results in the Application.

Table 1

Department	2021 Test Year	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
Accounting	5	6	5	5	5	5	6
Administration	4	5	5	4	5	5	5
Billing	4	8	6	7	7	6	6
Communications	2	2	2	2	1	2	2
Control Room	10	9	8	8	8	8	9
Customer Service	7	9	7	8	7	7	7
Distribution Maintenance and Operations	20	21	21	20	21	23	23
Engineering	18	19	20	19	17	17	24
Human Resources	4	4	4	4	5	4	5
Information Services	6	7	7	9	10	11	11
Metering	5	5	5	4	4	5	6
Purchasing	3	3	2	3	3	3	3
Regulatory	3	3	3	2	4	3	5
Safety	3	3	3	3	3	3	4
Stations Maintenance and Operations	8	8	8	8	5	7	7
Total	**102**	**112**	**106**	**106**	**105**	**109**	**123**
YoY Increase/(Decrease)		**10**	**(6)**	**-**	**(1)**	**4**	**14**
Cumulative Change since CoS		**10**	**4**	**4**	**3**	**7**	**21**
Cumulative Change since 2021 Actuals			**(6)**	**(6)**	**(7)**	**(3)**	**11**

d) The basis for the figures shown in Table 5 is headcount at year end. The basis for the figures in Appendix 2-K is average FTE count for the year. This difference in measurement accounts for the difference.

e) BHI provides a full listing of all position titles (broken out by category) for each of the 2024 actuals and 2026 forecast as IR_Attachment_4-Intervenor-113e_BHI_07242025. There are no positions proposed to be created between 2024 and 2025.

f) BHI confirms 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. Please refer to BHI's response to 4-Staff-64b).

g)

i. The total percentage increase in EV chargers in Burlington between 2024 and 2026 is expected to be 154%. This is estimated based on the EV charging infrastructure installations (including upgrades) which were connected through the ESA permit process.

ii. BHI does not have a forecast for the total percentage increase in DER connections between 2024 and 2026. BHI's total DER connections were 351 as of June 2025.

iii. BHI will require additional resources to respond to customer requests for service upgrades to enable home heating conversions and monitor, study and manage the evolving system conditions associated with these conversions. Average load increases per home (driven by heating) could affect service adequacy and may require upstream distribution asset upgrades. Assessments must consider the timing, location, and scale of conversions, as well as potential system redesign needs (including process and workflow changes) to accommodate increased and shifting demand in a cost-effective manner. Ongoing forecasting and scenario analysis will also be essential for identifying and addressing system impacts.

iv. Below is a summary of the work responsibilities that will be handled within these new positions to address growth and electrification, advance grid modernization and enable DSO readiness.

Load Forecasting and Modeling: Model the impact of electrification on feeders, transformers and substations. Work in 2026 includes:

- Modify existing workflows to account for more frequent future forecasts (seasonal, daily peaks)
- Identify feeders and substations loading patterns for potential electrification impacts (e.g. EVs, heat pumps).
- Develop database of different types of DERs (solar, BESS etc.) for load flow analysis

Grid Capacity and Constraint Management: Identify and mitigate thermal and voltage constraints. Work in 2026 includes:

- System monitoring for EV clustering, rapid load growth impacts.
- Integrate processes for evaluating NWAs (non-wires alternatives) as part of System and Investment planning
- Evaluate feasibility of Capital Project prioritization tool/method with constraint severity as a risk parameter.

DER and Electrification Coordination: Study how to coordinate electric loads (heating) with solar, batteries and EVs. Work in 2026 includes:

- Scenario modeling for grid impacts with combined DER and heating loads

- Develop the technical expertise to educate and advise customers on their DER options and applications, including design support and approvals
- Enhance stakeholder engagement, including municipalities, DER aggregators, and BHI customers
- Participate in provincial consultations on DSO market reforms

Data Integration and Digital Tools: Enhance, develop and operationalize technology platforms (e.g. ADMS, GIS, Load Flow tools) to support system planning and grid management. Work in 2026 includes:

- Develop processes for data collection, validation and integration from smart meters, sensors with back-end platforms (ADMS)
- Coordinate with IT to secure data flows, DER interfaces, and customer information
- Compliance with evolving IESO standards
- Investigate new technologies as part of DSO readiness.

For additional discussion on the role that the Supervisor of System Planning and Grid Modernization will assume with respect to this function, please refer to 4-Staff-65(a).

Customer and Program Management: Support customer enrollment in DER programs including development, modification and execution of operating agreements to facilitate market participation and load dispatch objectives. Provide technical guidance on eligible equipment and configurations. Work in 2026 includes:

- Documentation for field verification of various types of DER installations (e.g. acceptance testing)
- Develop DER enabling technical guidelines and specifications.
- Coordination with ESA to ensure connection authorization requirements are aligned with evolving distribution system needs (e.g. new grid-sense inverter technologies, anti-islanding controls and disconnects)
- Assist in developing customer contract and agreement templates for different DER applications
- Engage third-party consultants through long-term engineering and support agreements to fast-track DER integration.
- Communicate and interface with customers on service requests and participation in new offerings (DERs).

Regulatory Reporting and Compliance

Report aggregated DER performance, ensure compliance with inter-operability standards for customer equipment. Work in 2026 includes:

- Develop processes for data collection/ analysis for evolving regulatory reporting requirements

- Enhanced coordination with regulators and system operators
- Regular industry environmental scans to support and validate benefit and cost assumptions

h) Yes, 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), until they are backfilled in 2026 to address the increasing work volume relating to GIS, and to allow the existing positions to address the growing demands relating to IT/OT, as explained in Exhibit 4, pp. 215-216.

i) While specific employee retirement dates may not be determinable with absolute certainty, it is estimated that these employees will retire within the next 3 to 5 years. Factors that were considered in predicting the retirement dates are employees' age, years of service, pension eligibility and personal circumstances..

j) BHI directly participated in 15 of the 27 policy consultations. However, BHI notes that proceedings and policy consultations which BHI does not directly participate in can materially impact BHI, and, as such, require efforts to monitor, analyze, implement, and where applicable, liaise with its representative organization (e.g., EDA).

k) Specific examples of the work that BHI's regulatory team would now need to complete that it did not need to complete previously with respect to the new reporting and procedural changes include, but are not limited to:

- Stress-testing the impact of specific changes on BHI's operations (e.g. borrowing requirement impacts of Capacity Allocation Model for system expansions, earnings impact of proposed Performance Incentive Mechanisms);

- Ensuring compliance with new Electric Vehicle Charging Connection Procedures (EVCCP) and Distributed Energy Resources Connections Procedures (DERCP) including documentation and data validation;

- Supporting the development of customer-facing material (e.g. bill presentment changes from the IESO's Market Renewal Program, changes to Offer to Connect letters driven by the new Capacity Allocation Model for system expansions);

- More detailed tracking, analysis and reporting on outage sub-cause codes to ensure compliance with OEB outage definitions, including providing subject matter expertise to Control Room operators and other stakeholders;

- Working with the Control Room to establish feeder-level reliability reporting definitions and processes;

- Maintaining a current understanding of evolving regulatory and legislative requirements, analyzing their impact on BHI and updating internal reporting procedures to reflect new requirements (e.g. proposed changes to setting distributor reliability targets);

- Working with stakeholders to ensure processes and systems are established to record data required for new reporting and procedural changes;

- Communicating changes to key stakeholders including interpretation of key impacts on various departments (e.g. Distribution System Capacity Information Map);

- Addressing risks associated with reporting or procedural changes (e.g. data availability, resource constraints);

- Supporting the integration of Vulnerability Assessments into BHI's Capital Planning and Asset Management processes;

- Supporting the implementation of the Benefit-Cost Analysis (BCA) Framework in assessing system needs (ensuring compliance with the OEB's guidelines);

- Supporting the establishment of Non-Wires Solutions screening criteria and assessment processes (scenario analysis, supporting calculations, researching industry statistics to support benefit and cost assumptions);

- Supporting increased reporting and auditing of governance policies (e.g. cyber security controls); and

- Data review and error-checking on an increasing volume of data being reported externally (e.g. additional seven data points and eight new APB metrics introduced in 2025 Reporting and Record-keeping Requirements).

l) BHI confirms that, in accordance with the Ontario Energy Board (OEB) directive, the independent cyber security assessment will be carried out by a qualified external resource. While the primary responsibility for executing the assessment lies with this external party, BHI's internal staff plays a proactive and collaborative role throughout the process.

Internal personnel will coordinate all aspects of the assessment, including the following:

- managing timelines, facilitating access to relevant systems and documentation, and ensuring that the external assessors fully understand BHI's organizational context and technical environment.

- provide clarifications on existing systems, processes, and controls, reducing the risk of misinterpretation or oversight that may occur if external reviewers work in isolation.
- support the external resource by promptly addressing requests for additional information and facilitating interviews or walkthroughs as needed.
- as assessment findings are developed, internal teams will assist in reviewing and validating results.
- ensure results and gaps are reported to the OEB.

m) The Director of Regulatory Affairs, Supply Chain and Capital Planning is currently responsible for evaluating, prioritizing and optimizing BHI's capital plans and addressing supply chain issues. This role does not have the capacity to oversee all three departments given the increasing regulatory, capital planning, and supply chain demands described on pages 224-226 of Exhibit 4.

n) The 2026 capital spend on buildings includes the replacement and restoration of aging building infrastructure. This will include end-of-life internal and external building systems. The specific building systems that are being replaced or restored as part of this capital expenditure are expected to require less reactive maintenance. BHI's buildings capital program will be conducted in a targeted manner based on the condition of the facilities and the related risk, and, as such, BHI expects that building systems that are not being addressed through the planned capital expenditures will continue to be the source of reactive maintenance calls in addition to ongoing inspection and maintenance activities. BHI notes that reactive maintenance calls have been increasing as indicated in 4-Staff-67(a).

BHI further notes that the evidence referenced in the question concerns a proposed new Facilities Coordinator role. To clarify, this role will be responsible for activities in respect of BHI's facilities that include but that go beyond reactive maintenance, as discussed in as discussed in Exhibit 4, pp. 126-127. This includes supervising capital expenditures related to the facilities, and to address an increased volume and complexity of work requirements relating to the facilities portfolio, as discussed in 4-Staff-67(b).

o) The % salary ranges for Executive, Management and Non-union employees for 2026 are between 80% and 120%..

4-Intervenor-114

Reference: **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?

Response:

a) The following positions in Table 49 are Management positions:
   - Supervisor, Energy Transition Integration
   - Supervisor, GIS
   - Supervisor, Planning and Grid Modernization
   - Senior Manager, Capital Planning and Supply Chain

b) Over the next rate term, Burlington anticipates substantial progress in critical initiatives such as grid modernization, preparations for increased electrification, and the integration of emerging energy technologies. Introducing the proposed management roles concurrently at the start of the rate term is essential for ensuring a unified strategy in planning and executing key initiatives that support electrification. Staggering these hires over several years would likely result in leadership gaps, reducing BHI's ability to address and respond efficiently to swiftly changing government policies, regulatory demands, and customer needs across relevant portfolios. Such delays could impede project milestones and implementation schedules, ultimately affecting customer satisfaction. Furthermore, the ongoing energy transition, driven by technological innovation, is evolving rapidly. It is crucial that leadership resources are engaged collectively during this initial phase to build the necessary skills, experience, judgment, and expertise required to guide the organization through the accelerating pace of change in the energy sector.

c) The two new apprentices are considered incremental FTEs as they will replace employees who will be retiring in the future, after which they will still be required due to increased growth and workload. BHI identified in Table 24 of Exhibit 4 that it will take five years (until BHI's next rebasing application in 2031) for each of these apprentices to become fully competent and reach proficiency.

4-Intervenor-115

Reference: 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.

Response:

a) BHI has identified an error in the FTE reported in the 2024 Actual Year of OEB Appendix 2-K. BHI provides an updated OEB Appendix 2-K in Attachment_OEB_Chapter2Appendices_BHI_07242025, as identified in 1-Staff-1. The 2024 Actual Year FTE reported as 115.5 should have been 106. Based on the revised OEB Appendix 2-K, non-management FTEs are expected to increase, not decrease from 2024 to 2025.

b) BHI provides its 2021 to 2024 vacancy rates in Table 1 below.

Table 1

Year	Vacancy Rate
2021	7.27%
2022	4.63%
2023	5.63%
2024	8.66%

c) 0% vacancy rate has been assumed for 2025 and 2026.

d) BHI provides Number of Employees, Total Salary and Wages, Total Benefits and Total Compensation by the following categories: Executive, Management, Union, and Non-Union, including a further breakdown of overtime and incentive pay, as IR_Attachment_4-Intervenor-115d_BHI_07242025.

e) There were no part-time employees at BHI for the years 2021 through 2026. All positions during this period were full-time roles.

f) BHI provides an organizational chart to the Supervisor level for the 2021 Actuals and the 2026 Test Year as Appendix 4-Intervenors-115f.

4-Intervenor-116

Reference: **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.

Response:

a) BHI has identified an error in the FTE reported for 2024 in OEB Appendix 2-K. BHI provides an updated OEB Appendix 2-K as Table 1 below and in Attachment_OEB_Chapter2Appendices_BHI_07242025.

BHI also provides an updated and correct Table 5 (page 19 of Exhibit 4) as Table 2 below. The 2024 Actuals column was inadvertently not updated for 2024 actual results.

Based on Tables 1 and 2 below, the number of employees is increasing from 2024 to 2025 which contributes to an increase in the number of employees eligible for incentive pay. In addition, the below factors are also contributing to the number of employees eligible for incentive pay in 2025:

- The transfer of 7 employees from union to non-union status who are now eligible for incentive compensation.
- A change in employment length. As per the design and requirements of the incentive plan, in some cases a new hire or terminated employee would not be eligible for incentive pay. New hires in 2024 become eligible for incentive pay in 2025 and employees terminated in 2024 become ineligible in 2025.

Table 1 – Corrected OEB Appendix 2-K

Description	2021 CoS	2021 Actual	2022 Actual	2023 Actual	2024 Actuals	2025 Bridge Year	2026 Test Year
Number of Employees (FTEs including Part-Time)							
Management (including executive)	29.0	31.0	30.0	29.0	30.0	31.0	35.0
Non-Management (union and non-union)	71.0	79.0	78.0	77.5	76.0	78.0	88.0
Total	**100.0**	**110.0**	**108.0**	**106.5**	**106.0**	**109.0**	**123.0**
Total Salary and Wages including overtime and incentive pay							
Management (including executive)	$4,725,173	$4,699,979	$5,258,472	$5,015,326	$5,200,781	$5,714,438	$6,515,535
Non-Management (union and non-union)	$7,249,403	$7,955,295	$8,191,751	$8,412,948	$8,470,721	$9,297,645	$10,672,784
Total	**$11,974,576**	**$12,655,274**	**$13,450,222**	**$13,428,274**	**$13,671,502**	**$15,012,083**	**$17,188,319**
Total Benefits (Current + Accrued)							
Management (including executive)	$1,186,731	$1,197,237	$1,312,928	$1,288,751	$1,411,135	$1,429,945	$1,655,885
Non-Management (union and non-union)	$1,779,190	$1,768,552	$1,814,092	$1,969,773	$2,073,288	$2,327,876	$2,775,332
Total	**$2,965,921**	**$2,965,789**	**$3,127,020**	**$3,258,524**	**$3,484,423**	**$3,757,821**	**$4,431,218**
Total Compensation (Salary, Wages, & Benefits)							
Management (including executive)	$5,911,904	$5,897,216	$6,571,399	$6,304,077	$6,611,916	$7,144,383	$8,171,421
Non-Management (union and non-union)	$9,028,593	$9,723,847	$10,005,843	$10,382,722	$10,544,009	$11,625,521	$13,448,116
Total	**$14,940,497**	**$15,621,063**	**$16,577,242**	**$16,686,799**	**$17,155,925**	**$18,769,904**	**$21,619,537**
Total Compensation Breakdown							
OM&A	$12,769,771	$13,835,642	$14,139,345	$14,267,242	$14,479,391	$16,683,724	$19,120,618
Capital	$2,170,726	$1,785,421	$2,437,897	$2,419,556	$2,676,534	$2,086,181	$2,498,919
Total	**$14,940,497**	**$15,621,063**	**$16,577,242**	**$16,686,799**	**$17,155,925**	**$18,769,904**	**$21,619,537**

Table 2 – Revised Table 5 in Exhibit 4

Department	2021 Test Year	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year
Accounting	5	6	5	5	5	5	6
Administration	4	5	5	4	5	5	5
Billing	4	8	6	7	7	6	6
Communications	2	2	2	2	1	2	2
Control Room	10	9	8	8	8	8	9
Customer Service	7	9	7	8	7	7	7
Distribution Maintenance and Operations	20	21	21	20	21	23	23
Engineering	18	19	20	19	17	17	24
Human Resources	4	4	4	4	5	4	5
Information Services	6	7	7	9	10	11	11
Metering	5	5	5	4	4	5	6
Purchasing	3	3	2	3	3	3	3
Regulatory	3	3	3	2	4	3	5
Safety	3	3	3	3	3	3	4
Stations Maintenance and Operations	8	8	8	8	5	7	7
Total	**102**	**112**	**106**	**106**	**105**	**109**	**123**
YoY Increase/(Decrease)		**10**	**(6)**	**-**	**(1)**	**4**	**14**
Cumulative Change since CoS		**10**	**4**	**4**	**3**	**7**	**21**
Cumulative Change since 2021 Actuals			**(6)**	**(6)**	**(7)**	**(3)**	**11**

c) BHI provides the Average Pay per FTE and the Year over Year changes for both management and non-management in Tables 3 and 4 respectively. These tables are based on the revised Appendix 2-K referenced in part (a) above.

Table 3 – Average Pay per FTE

Average Pay per FTE	2021 CoS	2021 Actual	2022 Actual	2023 Actual	2024 Actuals	2025 Bridge Year	2026 Test Year
Total Salary and Wages including overtime and incentive pay							
Management (including executive)	$162,937	$151,612	$175,282	$172,942	$173,359	$184,337	$186,158
Non-Management (union and non-union)	$102,104	$100,700	$105,022	$108,554	$111,457	$119,201	$121,282
Total	**$119,746**	**$115,048**	**$124,539**	**$126,087**	**$128,976**	**$137,726**	**$139,742**
Total Benefits (Current + Accrued)							
Management (including executive)	$40,922	$38,621	$43,764	$44,440	$47,038	$46,127	$47,311
Non-Management (union and non-union)	$25,059	$22,387	$23,258	$25,416	$27,280	$29,845	$31,538
Total	**$29,659**	**$26,962**	**$28,954**	**$30,596**	**$32,872**	**$34,475**	**$36,026**
Total Compensation (Salary, Wages, & Benefits)							
Management (including executive)	$203,859	$190,233	$219,047	$217,382	$220,397	$230,464	$233,469
Non-Management (union and non-union)	$127,163	$123,087	$128,280	$133,971	$138,737	$149,045	$152,819
Total	**$149,405**	**$142,010**	**$153,493**	**$156,684**	**$161,848**	**$172,201**	**$175,769**

Table 4 – Year over Year Changes in Average Pay per FTE

Change in Average Pay per FTE	2021 CoS	2021 Actual vs 2021 CoS	2022 vs. 2021 Actual	2023 vs. 2022 Actual	2024 vs. 2023 Actual	2025 vs. 2024	2026 vs. 2025
Total Change		**($7,395)**	**$11,483**	**$3,191**	**$5,165**	**$10,353**	**$3,568**
Salaries and Wages Change		($4,698)	$9,491	$1,548	$2,889	$8,749	$2,017
Increase vs PY		*-3.9%*	*8.2%*	*1.2%*	*2.3%*	*6.8%*	*1.5%*
Benefits Change		($2,697)	$1,992	$1,643	$2,275	$1,604	$1,551
Increase vs PY		*-9.1%*	*7.4%*	*5.7%*	*7.4%*	*4.9%*	*4.5%*
Total Change - Management		**($13,626)**	**$28,814**	**($1,665)**	**$3,015**	**$10,067**	**$3,005**
Salaries and Wages Change		($11,325)	$23,670	($2,340)	$417	$10,977	$1,821
Increase vs PY		*-7.0%*	*15.6%*	*-1.3%*	*0.2%*	*6.3%*	*1.0%*
Benefits Change		($2,301)	$5,144	$675	$2,598	($911)	$1,184
Increase vs PY		*-5.6%*	*13.3%*	*1.5%*	*5.8%*	*-1.9%*	*2.6%*
Total Change - Non Management		**($4,077)**	**$5,193**	**$5,691**	**$4,766**	**$10,308**	**$3,774**
Salaries and Wages Change		($1,404)	$4,323	$3,532	$2,903	$7,744	$2,081
Increase vs PY		*-1.4%*	*4.3%*	*3.4%*	*2.7%*	*6.9%*	*1.7%*
Benefits Change		($2,672)	$871	$2,159	$1,864	$2,564	$1,693
Increase vs PY		*-10.7%*	*3.9%*	*9.3%*	*7.3%*	*9.4%*	*5.7%*

The increases in management and non-management are explained as follows:

- **Wages and Salaries –** From 2021 to 2025 wages and salaries for the management and non-management groups have increased by a compounded rate of approximately 13.9% and 12.5% respectively as identified in Tables 51 and 50 of Exhibit 4 respectively. Approximately half of salary and wage increases are inflationary and the remainder is primarily the result merit increases and step progressions for non-union and union staff respectively.
    - **Salaries Increases** - Inflation accounts for approximately 73% of the increase in salaries and benefits as identified in Table 6 at page 20 of Exhibit 4. Increases beyond inflation in 2022 and 2025, are a result of adjustments to maintain alignment with the competitive labour market. Benchmarking studies conducted in 2019 and 2023 indicated that certain positions in IT and certain management roles were below market.
    - **Step Progressions/Other** - account for approximately 27% or $6,649/FTE of total average increases from 2021 to 2026 as identified in

Table 6 at page 20 of Exhibit 4. These progressions vary and fluctuate year over year depending on the timing of earned progression.

- During 2020-2024, BHI experienced a workforce transformation, with more than 50% of its employees turning over during this period. This has resulted in a younger and less experienced staff composition across the organization. As mentioned in Exhibit 4.3.1 page 189, 54% of BHI's workforce has less than 5 years of experience and average tenure is 8.1 years. BHI experienced its highest turnover in 2021 and 2022 of 13.7 and 16.3% respectively, indicating the introduction of newer employees (refer to Figure 12 at page 191 of Exhibit 4)

  As a direct consequence, both management and non-management groups have seen higher than normal wage and salary increases, driven by the need to accommodate step progressions for newer employees and to implement market adjustments that ensure competitive compensation. In particular, step progressions for the non-management group in 2022 increased by 50% or $50K over 2021. In 2025, due to market demand of new hires, BHI saw an increase in salaries for the management group of $30K. Step progressions for the non-management group increased by 40% over 2024. These factors, combined with the imperative to attract and retain talent in an ever-changing labor landscape, have contributed to upward pressure on overall compensation costs.

- **Wage Increases** - BHI negotiated a new collective agreement effective April 1, 2024. The outcome resulted in higher wage increases for its unionized group from the last contract period. In 2025, wage increases of 3.75%, which are effective April 1 each year, reflect full year union contract increases that were higher than the previous contract wage increase of 2.25%.

- **Incentive Pay** - BHI projects incentive pay each year at approximately 100% of target performance. Incentive pay performance was higher than projected in 2022 by approximately $3K per eligible FTE due to high performance.

- **Overtime** - each year overtime can fluctuate and be unpredictable depending on operational requirements, including the impacts of weather and power outages. This can result in higher average wage increases per FTE in the non-management group. BHI experienced higher overtime variances in 2022 of 9% or $1.3K/FTE over 2021 primarily due to power restoration efforts.

- **Benefits** – The benefits program includes includes health and dental insurance, life insurance, vacation and leave policies, Employer health tax, CPP, EI contributions and WSIB insurance. Benefits have increased well beyond inflation each year from 2022 to 2025, which accounts for the increases identified in Table 4 above:

    - **CPP** – The Government of Canada introduced an enhanced CPP plan in 2019 which will be phased in over 2019 to 2025.[1] This has resulted in an increase of $20,000 in Yearly Maximum Pensionable Earnings (YMPE) cost per employee and an increase to the CPP rate from 4.95% to 5.95% representing a total cost of $143K or approximately $1.4k/employee/year.

    - **OMERS** – Employer share cost has increased by $190k over the 2021 to 2025 period due to the change in the YMPE as described above. In addition, effective in 2023, Other-Than-Continuous Full Time (OTCFT) employees must be offered the option to join OMERS. This has resulted in an increase of $30K in employer costs.

    - **Health, Dental, LTD and Life Benefits** - As identified in Table 58 on page 240 of Exhibit 4, benefits have increased well beyond inflation each year from 2022 to 2025 and can fluctuate unpredictably and significantly. Costs have increased by approximately $600K or 26% from 2021 to 2025 with 2023, 2024 and 2025 experiencing the largest increases.

[1] Canada Pension Plan enhancement - Canada.ca

4-Intervenor-117

Reference: **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.

Response:

a) BHI provides support for the statement that the unionized annual wage increases are consistent with other negotiated settlements in BHI's immediate geographic area (and in which BHI competes for resources) in Table 1 below.

Table 1

Wage Settlements						
LDC	2021	2022	2023	2024	2025	2026
BHI	2.25%	2.25%	2.25%	3.75%	3.75%	3.00%
Alectra	2.40%	3.70%	3.00%	3.00%		
Canadian Niagara Power	2.20%	2.25%	3.50%	3.50%	3.00%	
ENOVA	2.10%	3.75%	3.00%	3.00%		
Grandbridge	2.00%	3.00%	3.00%	3.00%	2.75%	2.75%
Hydro One	2.00%	2.20%	4.50%	4.00%	3.50%	
Niagara Peninsula Energy Inc	2.00%	2.00%	3.75%	3.50%	3.50%	
Toronto Hydro	2.30%	3.50%	2.50%	2.50%	2.50%	3.00%

b) BHI attaches its 2024 Short-Term Incentive Plan as Appendix 4-Intervenor-117b.

c) Health and dental benefit costs are projected to increase by $0.4M between the 2024 Actuals and the 2026 Test Year due to (i) the proposed increase in headcount of 14 FTE and (ii) the lingering impacts of the COVID-19 pandemic, and other issues, which continue to present challenges that will significantly impact the costs of benefits plans in 2026 and beyond:

- The treatment and surgery backlogs created in the provincial healthcare system during the pandemic continue and long wait times for certain treatments to extend into 2025 are expected; consequently, we may not see the pandemic's full impact on claims experience for many months and perhaps years to come.

- After several years of limited diagnostic and treatment services for chronic conditions, we are seeing a deluge of claims for chronic diseases such as asthma.

- We continue to see noticeable shifts in the utilization of mental health and depression medications on all plans as there was a greater focus on mental health during the pandemic, resulting in stigma surrounding these issues fading and more people open to seeking help and treatment. The increased prevalence of mental health issues is also having a significant impact on disability claims.

- The prevalence of claims for high-cost specialty drugs to treat rare diseases and chronic conditions continues to put pressure on health pooling/stop loss charges.

- Costs for non-drug health claims, especially paramedical and vision, have generally increased compared to the pre-pandemic period due to the addition of PPE costs and other commercial factors. In particular, there has been a huge increase in claims for mental health practitioners.

- The provincial dental fee guides increased substantially in the past several years and this trend is expected to continue.

- The effects of COVID-19 in reducing dental claims have subsided and we are now seeing higher demand for dental services as employees are more comfortable with returning to the dentist post-pandemic. In addition there were instances of neglected care and postponed treatments during COVID-19 that are now causing issues and contributing to higher costs.

- An increase in the number of individuals claiming for both health and dental.

4-Intervenor-118

Reference: **Ex. 4, p. 231**

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.

Response:

a) BHI provides the number of FTEs in each of the years 2021 to 2025 where payout is at or above target in Table 1 below. BHI also includes the corresponding incremental $ amount in each year over and above the targeted amount.

Table 1

Incentive Plan at/or Above Target		
Payment Year	# FTE	Incremental $
2021	27	$ 73,793
2022	22	$ -
2023	34	$ -
2024	38	$ 185,388

b) The assumptions used for the 2026 payout are based on achieving target and/or historical average performance.

c) The overall design of the incentive plan has not changed since 2021. However there have been some changes to the metrics and targets associated with the plan as follows:

- Changes to Targets/Metrics for the following Corporate Objectives for 2020 Results
    - Operations (Reliability - SAIFI 5 yr avg – 1.02)
    - Financial (EBIT 10% above budget - $6.4M)
    - Customer (Customer Satisfaction - 4% better than Ontario benchmark)

- Changes to Targets/Metrics for the following Corporate Objectives for 2021 Results
    - Operations (Reliability - SAIFI 5 yr avg – 0.97),
    - Financial (EBIT 10% above budget - $5.2M) corporate metrics

- Changes to Targets/Metrics for the following Corporate Objectives for 2022 Results
    - Operations (Reliability - SAIFI 5 yr avg – 0.95)
    - Financial (EBIT 10% above budget - $4.5M)
    - Customer (Customer Satisfaction – historical BHI average – 91%)

- Changes to Targets/Metrics for the following Corporate Objectives for 2023 Results
    - Operations (Reliability - SAIFI 5 yr avg – 0.99)
    - Financial (EBIT 10% above budget - $4.4M) corporate metrics

- Changes to Targets/Metrics for the following Corporate Objectives for 2024 Results
    - Operations (Reliability - CAIDI OEB – 1.59)
    - Financial (EBIT 10% above budget - $7.4M)
    - Employee – added additional metric (Safety – Non lost time frequency 3 yr rolling avg. = 3.5)

d) Please refer to BHI's response to 4-Intervenor-117 b).

4-Intervenor-119

Reference: **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.

Response:

a) BHI confirms that the 2023 Management & Non-Union Employee Pay Report filed as Attachment 6 in the Application was the latest total compensation benchmarking study completed for BHI.

b) The positions that were evaluated by KF were either new positions, or had duties or responsibilities that had changed. Please refer to P. 5 and 6 of Attachment 6 for the methodology that KF used.

c) BHI confirms 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) The projected cumulative 2026 total target direct compensation for all management and non-union positions that were covered by the KF report is $6,412,367. It should be noted that some of the positions in the KF report have changed slightly in scope since the review.

BHI confirms that the KF study covered 40 positions and 56 management and non-union employees will be eligible for the incentive program in 2026.

e) BHI provides the average total direct compensation per employee (for each of Union employees and Non-Union employees) for 2026 in Table 1 below.

Table 1

Total Direct Compensation	Average Per Employee
Union	$ 128,886
Non-Union	$ 152,731

4-Intervenor-120

Reference: **Ex. 4, p. 234 and Attachment 6**

Question(s):

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

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.

c) 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.

Response:

a) BHI provides an estimate of the dollar difference for each of 'Target Total Direct Compensation' and 'Actual Total Direct Compensation' between each of, the total compensation for BHI's employees and the P50 for the Ontario Utilities Market, median used in the study below.

   i. Target Total Direct Compensation: the sum of BHI's compensation is $5,366,300 and the sum of the market P50 compensation is $5,078,900, resulting in a difference of $287,400.

   ii. Actual Total Direct Compensation: the sum of BHI's compensation is $5,336,800 and the sum of the market P50 compensation is $4,912,500 resulting in a difference of $424,300.

Compensation values are reported in statistics (i.e., P75, P50, P25) for BHI's positions within the 2023 study. BHI provides a step-by-step explanation of the calculation of the individual compensation difference between BHI and the market P50.

- Calculate the market P50 values of Target Total Direct Compensation and Actual Total Direct Compensation for each of BHI's positions.
- Calculate the compensation value difference between market P50 and BHI for each position.
- Sum up all individual compensation value differences for all positions to produce the aggregate difference. Alternatively, the aggregate difference can also be calculated by taking the sum of BHI's compensation minus the sum of market P50 compensation.

b) For the 2023 study, Korn Ferry included two markets for compensation analysis. Ontario Utilities market is viewed as the primary market for competitive analysis. It is regarded as the main source of the talent market for BHI, considering industry experience, familiarity of the operating environment as well as the knowledge of the energy market.

All Industrial market was included for a secondary reference, especially for management and executive positions.

All Industrial market could provide Burlington Hydro with market intelligence if BHI were to recruit candidates outside of the Ontario Utilities industry.

c) BHI provides the location of the employees included in the survey, number of employees, and annual revenue for the All Industrial Market in Appendix 4-Intervenor-120c).

4-Intervenor-121

Reference: Ex. 4, p. 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.

Response:

a) For the system programmer 75% of their time is recovered from BESI. For the customer service manager 25% of their time is recovered from BESI.

b) The facilities' costs charged to BESI are based on its proportional use of BHI's head office building (square footage) multiplied by the cost to operate BHI's building.

   BHI's building expenses per year including property tax are approximately $715k. The total square footage of BHI's head office building is 26,690 sq ft. The office space occupied by BESI is approximately 177 sq ft. Using these parameters, the cost of facilities recovered from BESI is approximately $4.7k annually.

c) BHI does not have the resources to promote suite metering for new condominium developments or existing bulk metered buildings; and developers, condominium boards and property managers do not necessarily seek out BHI to install or convert to suite metering.

BHI contracts BESI to perform sales and marketing services to encourage either (i) new condominium developments to install electricity suite meters or (ii) existing bulk metered buildings to convert to electricity suite metering. The benefits of suite metering include the following:

- customers have direct control over their energy costs and can benefit from their individual conservation efforts
- customers can benefit from incentive-based energy conservation programs
- customers are provided with more choice in how they access their electricity data (e.g. Green Button) which in turn can reduce demand on the energy system
- developers, condominium boards and property managers, are better able to manage the electricity used in common areas, including hallways, lobbies, garages and heating, cooling and ventilation systems
- the financial risks associated with bulk electricity costs are eliminated

4-Intervenor-122

Reference: **Ex. 4, pp. 247-248**

Question(s):

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.

Response:

a) BHI provides a copy of its shared services agreement between BHI and its affiliates as Appendix 4-Intervenor-122a.

b) BHI provides the underlying supporting calculations regarding the 2026 forecast of revenue from service provided to affiliates from BHI in Table 1 below.

Table 1

Description	Billing Determinant		Rate		Amount
	Determinant	Amount	$ Rate	Per	
Water/Waste Water billing services	# of bills	346,969	$1.44	Bill	$501,000
BEC Accounting, Audit and Tax Services	Annual Fee	1	$8,000	Year	$8,000
BESI Accounting, Audit and Tax Services	Annual Fee	1	$14,300	Year	$14,300
BESI Invoicing for Water Sub Metering	Monthly	12	$641	Monthly	$7,692
Executive/Management Services	Hours	925	$141	hour	$130,796
Total BHI Affiliate Services Revenue (USoA 4375)					**$661,788**

4-Intervenor-123

Reference: **Ex. 4, p. 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.

Response:

a) BHI provides a revised version of Table 67, broken down into external legal, consulting, expert witness, internal labour, OEB and intervenor and other costs in Table 1 below.

Table 1

Description	2023 Actuals	2024 Actuals	2025 Bridge Year	2026 Test Year	Total
Expert Witness costs	$0	$0	$0	$0	**$0**
Legal costs	$0	$30,000	$301,048	$0	**$331,048**
Consultants' costs	$0	$245,000	$65,809	$0	**$310,809**
Intervenor costs	$0	$0	$0	$90,900	**$90,900**
Incremental operating expenses associated with staff resources allocated to this application.	$0	$0	$0	$0	**$0**
Incremental operating expenses associated with other resources allocated to this application.	$42,436	$63,829	$109,899	$0	**$216,164**
Total	**$42,436**	**$338,829**	**$476,755**	**$90,900**	**$948,920**

b) BHI separates 2025 into actual costs incurred by the time of filing of the application, and the remainder of the year in Table 2 below.

Table 2

Description	2025 YTD (time of filing)	2025 (Remainder)	2025 (Total)
Expert Witness costs	-	-	-
Legal costs	247,555	53,493	301,048
Consultants' costs	20,475	45,334	65,809
Intervenor costs	-	-	-
Incremental operating expenses associated with staff resources allocated to this application.	-	-	-
Incremental operating expenses associated with other resources allocated to this application.	25,919	83,979	109,899
Total	**293,950**	**182,806**	**476,755**

4-Intervenor-124

Reference: **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.

Response:

Appendix 2-M incorrectly listed BHI's Last Rebasing (2021 Actual) costs as $622,809. BHI excluded incremental operating expenses associated with other resources of $47,392 in error. BHI's actual Last Rebasing (2021 Actual) costs were $670,201, consistent with Table 3 and Table 40 of Exhibit 4, where the annual amortized amount of $134,040 over the 2021-2025 period adds up to $670,201. BHI provides the corrected Appendix 2-M in Table 1 below and in Attachment_OEB_Chapter2Appendices_BHI_07242025.

Table 1

Regulatory Costs (One-Time)	Last Rebasing (2021 OEB Approved)	Last Rebasing (2021 Actual)	Sum Of Historical Years (2022-2024)	2025 Bridge Year	2026 Test Year
	(A)	(B)	(C)	(D)	(E)
Expert Witness costs	$ -	$ -	$ -	$ -	$ -
Legal costs	$ 240,145	$ 201,721	$ 30,000	$ 301,048	$ -
Consultants' costs	$ 441,872	$ 338,452	$ 245,000	$ 65,809	$ -
Intervenor costs	$ 125,000	$ 82,637	$ -	$ -	$ 90,900
OEB Section 30 Costs (application-related)	$ -	$ -	$ -	$ -	$ -
Incremental operating expenses associated with staff resources allocated to this application.	$ -	$ -	$ -	$ -	$ -
Incremental operating expenses associated with other resources allocated to this application.	$ 41,828	$ 47,392	$ 106,265	$ 109,899	$ -
Sub-total - One-time Costs	**$ 848,844**	**$ 670,201**	**$ 381,265**	**$ 476,755**	**$ 90,900**

Using the corrected Last Rebasing (2021 Actual) costs of $670,201, or $134,040 per year, the cost to file this Application is forecasted to be 42% greater than that for the 2021 Cost of Service application, as shown in Table 2 below.

A significant portion of this increase is attributable to inflation, as shown in Table 2 below. The rest of the increase is primarily due to operational factors such as Workiva subscription costs as identified in BHI's response to 4-Intervenor-111.

Table 2

Application-Related One-Time Costs	Last Rebasing (2021 Actual)	2026 Test Year	Incr/(Decr) Due to Inflation	Incr/(Decr) Due to Operational Factors	Total Incr/(Decr)
Total One-Time Costs Related to Application to be Amortized over IRM Period	$ 670,201	$ 948,920	$ 137,341	$ 141,380	$ 278,721
1/5 of Total One-Time Costs	$ 134,040	$ 189,784	$ 27,468	$ 28,276	$ 55,744
			20%	21%	42%

4-Intervenor-125

Reference: **Ex. 4, p. 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.

Response:

BHI provides a schedule, in Table 1 below, 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.

Table 1

	2021 Actual	2022 Actual	2023 Actual	2024 Actual
LEAP Funding Available	$88,817	$120,864	$121,350	$132,969
LEAP Funding Provided	$14,952	$46,514	$35,381	$38,399
LEAP Funding Unused at end of Year	$73,864	$74,350	$85,969	$94,570
Month LEAP Funding Exhausted	not applicable	not applicable	not applicable	not applicable

5-Intervenor-126

Reference: **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.

Response:

a) Please refer to 5-Staff-70 a).

6-Intervenor-127

Reference: **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.

Response:

a) BHI provides an updated Table 11 that provides the most up-to-date forecast of full year 2025 other revenues. The forecast includes actuals for January to May and a forecast for June to December. The 2026 Test Year has also been updated to incorporate changes to pole attachment revenues (6-Intervenor-128b), specific service charges (6-Intervenor-129b), the load forecast, and capital contributions. The aforementioned 2026 Test Year changes have been incorporated into the models and OEB appendices filed in response to 1-Staff-1.

Table 1 – 2025 Up-to-Date Forecast Other Revenues

Total	2021 Actuals	2022 Actuals	2023 Actuals	2024 Actuals	2025 Bridge Year (Revised)	2026 Test Year (Revised)
Specific Service Charges	$573,808	$331,511	$296,899	$286,312	$201,203	$283,109
Late Payment Charges	$256,382	$211,688	$215,218	$175,021	$217,000	$270,000
Government and Other Assistance Directly Credited to Income	$771,811	$921,624	$1,195,728	$1,529,431	$1,825,032	$2,243,476
Retail Services Revenues	$31,891	$31,606	$30,771	$29,548	$30,527	$31,656
STR Revenue	$256	$346	$408	$361	$364	$379
SSS Revenue	$203,036	$202,926	$202,504	$204,127	$205,821	$206,790
Rent from Electric Property	$343,188	$406,535	$406,535	$406,535	$406,535	$372,957
Other Electric Revenue	$16,506	$0	$0	$0	$0	$0
Regulatory Credits	$224,960	$336,179	$104,561	$0	$0	$0
Gain/(Loss) on Disposition	($113,723)	($91,606)	($65,028)	($95,934)	($146,050)	($146,050)
Revenue from Non-Utility Oper.	$631,540	$682,736	$567,294	$619,847	$654,286	$673,788
Expenses from Non-Utility Oper.	($811,225)	($685,249)	($509,914)	($651,463)	($683,096)	($610,563)
Miscellaneous Income	$364,081	$433,863	$2,189,411	$1,680,741	$864,390	$901,923
Interest & Dividend Income	$49,732	$198,440	$430,837	$478,680	$257,093	$111,553
Total	**$2,542,243**	**$2,980,599**	**$5,065,225**	**$4,663,207**	**$3,833,106**	**$4,339,019**
Increase/(Decrease) vs. PY		**$438,356**	**$2,084,626**	**($402,018)**	**($830,101)**	**$505,913**

b) BHI provides a revised version of Table 11 showing January to May actuals for 2025 and for 2024 as Table 2 below.

Table 2 – 2024 and 2025 May YTD Other Revenues

Total	2025 Actuals Jan - May	2024 Actuals Jan - May
Specific Service Charges	$78,383	$88,372
Late Payment Charges	$96,905	$82,736
Government and Other Assistance Directly Credited to Income	$759,440	$665,070
Retail Services Revenues	$10,218	$9,697
STR Revenue	$104	$97
SSS Revenue	$86,042	$84,911
Rent from Electric Property	$74,571	$74,571
Gain/(Loss) on Disposition	($925)	$19,283
Revenue from Non-Utility Oper.	$267,621	$194,823
Expenses from Non-Utility Oper.	($79,075)	($42,500)
Miscellaneous Income	$59,723	$485,135
Interest & Dividend Income	$129,291	$237,422
Total	**$1,482,298**	**$1,899,616**

c) The methodology applied for forecasting miscellaneous income for 2026 is dependent upon the category as follows:

- Lease revenues are based on agreed upon lease payment in lease agreements (Brant Street Lease and BEC Forestry Lease).
- Materials handling and contract management revenues are based on a % of forecasted materials and contract administration activities respectively, for third party, 100% contributed construction projects.
- Mobilization fees are based on fixed price fees for the use of BHI's property to mobilize third party crews working on 100% contributed construction projects when applicable.
- Scrap material, Stale dated cheques, Inactive Deposits, Exchange Rate, and Other categories are typically based on historical experience less one-time anomalies/adjustments. The Other category includes recoverable staffing costs associated with the implementation of the Region's AMI project which is coming to a conclusion in 2025.

BHI provides a breakdown for this sub-category of other income for the historical period, the 2025 Bridge Year and the 2026 Test Year in Table 3 below. Table 3 includes both the 2025 Bridge Year as filed, and the 2025 Bridge Year updated forecast, as identified in Table 1 above.

Table 3 – Miscellaneous Income

Miscellaneous Income	2021	2022	2023	2024	2025 Bridge Year (as Filed)	2025 Bridge Year (Forecast)	2026 Test Year
Scrap Material	$57,221	$50,097	$91,458	$112,838	$50,000	$50,000	$50,000
Brant Street Lease	$14,879	$28,948	$28,610	$23,755	$35,239	$35,240	$35,913
Materials Handling	$165,656	$10,982	$453,219	$222,610	$219,544	$470,812	$264,296
Contract Mgmt	$0	$149,909	$1,341,887	$758,045	$372,743	$149,069	$410,789
Mobilization Fee	$84,000	$84,000	$60,000	$60,000	$60,000	$15,000	$60,000
Stale Dated Cheques/Inactive Deposits	$32,838	$77,628	$104,178	$298,100	$15,000	$50,000	$15,000
Xchg Rate / Other	$9,487	$32,298	$31,041	$123,294	($20,000)	$10,766	($20,000)
BEC Forestry Lease	$0	$0	$79,017	$82,099	$83,504	$83,503	$85,925
Total	**$364,081**	**$433,863**	**$2,189,411**	**$1,680,741**	**$816,031**	**$864,390**	**$901,923**

d) BHI explains the methodology applied for forecasting 2025 and 2026 as follows:

a. Interest & dividend income – includes interest income only (there is no dividend income in 2021-2026). Interest income is based on BHI's budgeted average cash surplus for the month, incorporating cash receipts and disbursements, multiplied by the forecasted bank deposit interest rate.
b. Late payment charges – are based on a three-year historical average adjusted for year over year growth in total service revenue
c. Gains/Loss on disposition – is based on historical experience and is equal to gain/loss on the disposal of fixed assets, net of any proceeds or costs of disposition.

6-Intervenor-128

Reference: **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.

Response:

a) BHI provides 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) as Table 1 below.

Table 1

Pole Attachment Revenue	2021 Actual Jan to Apr	2021 Actual May to Dec	2022 Actual Year	2023 Actual Year	2024 Actual Year	2025 Bridge Year	2026 Test Year
Number of attachments (in Rates)	11,199	11,199	11,199	11,199	11,199	11,199	11,198
Pole Attachment Charge (in Rates)	$22.35	$44.50	$44.50	$44.50	$44.50	$44.50	$40.59
Pole Attachment Revenue (in Rates)	$83,432	$332,237	$498,355	$498,355	$498,355	$498,355	$454,527
Number of attachments paid to Carriers (in Rates)	2,140	2,140	2,140	2,140	2,140	2,140	2,140
Pole Attachment Charge paid to Carriers (in Rates)	($27.39)	($54.53)	($54.53)	($54.53)	($54.53)	($54.53)	($49.74)
Pole Attachment Costs paid to Carriers (in Rates)	($19,538)	($77,796)	($116,694)	($116,694)	($116,694)	($116,694)	($106,444)
Net Pole Attachment Revenue (in Rates)	$63,894	$254,441	$381,661	$381,661	$381,661	$381,661	$348,083
Other Pole Attachment Revenue (in Rates)	$8,291	$16,583	$24,874	$24,874	$24,874	$24,874	$24,874
Total Pole Attachment Revenue (in Rates)	$72,185	$271,023	$406,535	$406,535	$406,535	$406,535	$372,957

b) BHI updates the 2026 Rent from Electric Equipment to $372,957 to reflect the revised Pole Attachment Rate for 2026 (EB-2025-0200). This update and the corresponding update to Other Revenue for 2026 is included in BHI's response to 1-Staff-1.

c) BHI updates the 2026 Test Year Other Revenue for the rate change effective January 1, 2026, for both Retail Services revenue to $31,656 and STR revenue to $379 These updates are included in BHI's response to 1-Staff-1.

6-Intervenor-129

Reference: **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.

Response:

a) BHI provides the details for Specific Service Charges for each year from 2021 to 2026 in Table 1 below. The Specific Service Charges in 2025 and 2026 is updated to include microFIT monthly service charge revenue which was inadvertently missed in the Application filed April 16, 2025. BHI also provides an updated Appendix 2-H in Attachment_OEB_Chapter2Appendices_BHI_07242025 to include the microFIT monthly service charge revenue for 2025 and 2026 in Specific Service Charges.

Table 1 - Specific Service Charges 2021 to 2026

Specific Service Charges	Rate	2021		2022		2023		2024		2025 Bridge Year Forecast		2026 Test Year	
Customer Administration		Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
Arrears certificate	$15.00	371	$5,568	251	$3,766	169	$2,534	162	$2,428	163	$2,446	163	$2,446
Credit reference/credit check	$15.00	192	$2,876	86	$1,289	121	$1,808	104	$1,563	138	$2,064	138	$2,064
Statement of account	$15.00	13	$190	8	$120	17	$255	18	$270	16	$240	16	$240
Account set up charge / change of occupancy charge	$30.00	6,798	$203,925	5,586	$167,594	5,171	$155,126	5,186	$155,566	4,999	$149,963	4,999	$149,963
Returned cheque	$15.00	520	$7,801	470	$7,050	459	$6,882	645	$9,669	483	$7,242	483	$7,242
Collection Charge Lost Revenue (DVA Account Entry-Jan to Apr)	$30.00	8,315	$249,450	-	$0	-		-	$0	-	$0	-	$0
Non-Payment of Account													
Reconnection at meter - during regular hours	$65.00	79	$5,129	170	$11,050	328	$21,320	338	$21,940	218	$14,170	218	$14,170
Reconnection at meter - after regular hours	$185.00	-	$0	-	$0	-	$0	-	$0	-	$0	-	$0
Other													
Temporary service - install & remove - OH - no transformer	$500.00	172	$85,800	257	$128,542	194	$96,820	166	$83,012	188	$93,905	188	$93,905
microFIT Service Classification													
Monthly service charge (Rate for 2021 to 2024)	$4.55	2,872	$13,069	2,659	$12,099	2,671	$12,154	2,607	$11,863				
Monthly service charge (Rate for 2025 to 2026)	$5.00									-	$0	-	$0
Subtotal per Rate Application			**$573,808**		**$331,511**		**$296,899**		**$286,312**		**$270,029**		**$270,029**
microFIT Service Classification													
Monthly service charge (Rate for 2025 to 2026)	$5.00									2,616	$13,080	2,616	$13,080
Total			**$573,808**		**$331,511**		**$296,899**		**$286,312**		**$283,109**		**$283,109**

b) BHI provides a revised version of Appendix 2-H that includes 2025 actuals year-to-date for January to May and actuals for 2023 and 2024 for this same period as IR_Attachment_6-Intervenor-129b_BHI_07242025.

7-Intervenor-130

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

Question(s):

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?

Response:

a) The LTNCP4 and SNCP4 values were calculated based on the LTNCP4 and SNCP4 volumes from BHI's 2021 COS relative to DNCP4 and PNCP4 volumes from BHI's 2021 COS. The relative difference in those figures was applied to the updated DNCP4 and PNCP4 volumes derived in Attachment11_Load_Profile_Derivation_BHI_04162025.

b) No, there are no Residential customers in BHI's service territory that own their transformers.

7-Intervenor-131
Reference: **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?

Response:

a) Electricity pricing in New York State differs by utility, but the majority of utilities, including all major utilities, offer TOU rate options. The two largest utilities, Con Edison and National Grid, have "Super Peak" rates similar to ULO that are applicable only in the summer months.

b) The percentage of BHI's residential customers on:
   i) TOU pricing is 90.92%; and
   ii) ULO pricing is 0.45%.

7-Intervenor-132

Reference: **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.

Response:

The residential EV demand profile was provided in column M of the 'Additional Loads' tab in Attachment11_Load_Profile_Derivation_BHI_04162025.

7-Intervenor-133

Reference: **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.

Response:

a) BHI provides a copy of the analysis used to derive the Billing and Collecting weighting factors in Table 1 below.

Table 1

USoA	Description		Total	Residential	GS<50	GS>50	USL	Street Lights
5315	Customer Billing		$ 1,253,858	$ 1,125,906	$ 103,997	$ 23,447	$ 449	$ 59
5320	Collecting		$ 238,406	$ 141,702	$ 53,825	$ 42,878	$ -	$ -
5330	Collection Charges		$ 188,189	$ 111,854	$ 42,488	$ 33,846	$ -	$ -
5340	Misc Customer Accounts Expense		$ 669,222	$ 549,356	$ 79,771	$ 39,892	$ 179	$ 24
	Total	***(A)***	**$ 2,349,674**	**$ 1,928,818**	**$ 280,081**	**$ 140,064**	**$ 628**	**$ 83**
	Number of Bills	***(B)***	**832,655**	**752,045**	**68,896**	**11,407**	**270**	**36**
	$/bill	*(C) = (A)/(B)*	$ 2.82	$ 2.56	$ 4.07	$ 12.28	$ 2.33	$ 2.28
	Weighting Factor - $/bill data	***vs. Residential***		**1.00**	**1.59**	**4.79**	**0.91**	**0.89**

b) BHI confirms that for the GS>50 kW class there are no wires/cables that were paid for by BHI and service only one customer.

7-Intervenor-134

Reference: **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?

Response:

a) No, to BHI's knowledge it does not have any customers who generate their own power to take advantage of ICI.

b) Not applicable per BHI's response to part a).

8-Intervenor-135

Reference: **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.

Response:

a) The customer class consumption data used in Attachment 12, Tab 3 is based on the 2024 historical year.

b) The billing data used in Attachment 12, Tab 5 is based on the 2024 historical year.

c) Attachment 5 has been updated to reflect the correct historical customer class consumption data used in Attachment 12, Tab 3. BHI files the updated load forecast as Attachment_Load_Forecast_Model_BHI_07242025.

8-Intervenor-136

Reference: **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.

Response:

a) BHI provides a revised version of Appendix 2-R in Attachment_OEB_Chapter2Appendices_BHI_07242025 to incorporate the formula for Row K, as provided in notes to the Appendix.

8-Intervenor-137

Reference: 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.]

Response:

a) BHI is unable to provide the requested table because calculating the ceiling (Minimum System with PLCC Adjustment) by rate class for each year in the rate term requires access to five years of models (e.g. revenue requirement, cost allocation, and rate design). A Price Cap IR rebasing application is predicated on a single forward Test Year (in this case 2026), and as such BHI has not prepared the models required to forecast its fixed monthly service charges and the ceiling by rate class beyond the 2026 Test Year.

b) For the reasons noted above in part (a), BHI's does not believe it would be appropriate or feasible to implement this proposal in a standard Price IR rate-setting term where rates are set in year 1 and escalated by an inflationary index in the outer years. This proposal entails a notable departure from standard Price Cap IR OEB policy should be considered on a generic basis to ensure appropriateness and consistency.

8-Intervenor-138

Reference: 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 %).

Response:

a) BHI is not proposing to change the manner in which it charges RTSRs or any other rates to its customers in this Application. BHI does not have any customers with behind the meter generation that is subject to gross load billing for the purposes of HONI's RTSRs charged to BHI.

b) BHI provides the total transmission charges paid by BHI over the past five years and estimated for 2025 and 2026 in Table 1 below. It does not have a forecast for transmission charges past 2026.

Table 1 – Total HONI Transmission Charges

Description	2020	2021	2022	2023	2024	2025	2026
Total Transmission Charges	$11,208,074	$11,035,477	$12,584,749	$13,333,817	$13,831,468	$14,596,188	$14,596,188

BHI does not have any customers that are subject to billing on a gross load versus a net load basis, and as such there is no difference between charges levied on a net load basis instead of a gross load basis.

8-Intervenor-139

Reference: **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).[1]

Response:

a) BHI does not have approved or proposed service charges that are related to or triggered specifically by DER connections. BHI does have standard charges it applies to services required to evaluate and ultimately connect DERs, which include Connection Impact Assessments and variable connection charges that are determined on a case-by-case

[1] https://irecusa.org/wp-content/uploads/2023/08/IREC-Model-Interconnection-Procedures-2023-FINAL-8.23.23.pdf

basis per the DSC and BHI's Conditions of Service. See BHI's response to part b) for further details.

b) BHI provides a list of charges it levies on customers connecting distributed energy resources and the average amounts for variable charges in Table 1 below.

Table 1

DER Connection Costs	Fee Type	Micro (<10kW)	Small (10kW - 250kW)	Medium (250kW - 500 kW)
Application Fees	Fixed	$ 500	n/a	n/a
Meter Replacement	Variable	$ 185	$ 6,500	$ 9,000
Connection Impact Assessment	Fixed	n/a	$ 5,413	$ 5,413
Commissioning	Variable	$ 1,500	$ 1,500	$ 1,500
Other variable costs (e.g. Engineering, materials)	Variable	n/a	$ 3,500	$ 3,500

c) BHI provides the total amounts charged, the kW of generation connected, and the $/kW on average each year for generation connection customers in the small facility category from 2020-2024 in Table 2 below.

Table 2

Year	# of Connections	kW Connected	Connection Cost +CIA	$/kW	Comments
2020	0	-	$ -	$ -	
2021	1	30	$ 40,000	$ 1,333	BHI required Scada for greater than 10kW in 2021
2022	2	355	$ 62,000	$ 175	
2023	0	-	$ -	$ -	
2024	2	275	$ 53,500	$ 195	

d) BHI applies variable connection charges as per Section 3.1.6 of the DSC.

e) BHI uses Hydro One's Technical Interface Requirements as the basis for technical requirements for connecting distributed energy resources, filed as Appendix 8-Intervenor-139e. BHI has not reviewed the Interstate Renewable Energy Councils Model Interconnection Procedures (2023) and is unable to do a proper comparison under the timelines permitted for responding to interrogatories.

8-Intervenor-140

Reference: **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 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.

Response:

a) BHI is unable to complete the analysis that would be required to answer the questions within the timelines for responding to IRs.

b) BHI has completed the following actions as a direct result of the distribution system loss analysis.

   Load Balancing and System Optimization (2021 to 2025):

   - Appleby MS feeders F1, F4, F5 and F6,
   - Brant MS feeders F2, F3,
   - Howard MS feeders F1, F2
   - Palermo TS feeders A4M5 and A4M6,

Distribution Feeder Reconfiguration (2021 to 2025):

- Cumberland TS feeders 76M25 and 76M26
- Burlington TS feeders 39M5 and 39M35

Voltage Conversion (2021 to 2025)

- Fairview MS feeders F2 and F3 conversion from 13.8 KV to 27.6 KV

BHI plans to continue implementing cost-effective loss reduction measures over the 2026-2030 period. It will conduct regular power system analyses, including system loss estimation using CYME software, and take cost effective corrective actions as needed. BHI's strategy for the 2026-2030 period will focus on load balancing, system optimization, distribution feeder reconfiguration, and voltage conversion as part of broader system investments. BHI does not undertake projects solely for loss reduction but instead incorporates these measures into broader system improvement plans that consider asset condition, load balancing, feeder congestion, and other operational priorities.

c) Below is the list of recommendations and conclusions provided by CIMA+ and BHI's corresponding comments.

<u>CIMA+ Conclusions</u>:

- For the existing feeders that have good power factor and a reasonable load balance of 10% or less, Burlington Hydro is operating according to the standard best practices of Ontario LDCs.
    - BHI agrees with this conclusion and will continue to maintain a reliable distribution system.

- Of the ten (10) feeders selected by Burlington Hydro for the Loss Mitigation Review, one of the 4.16kV feeders (HARV F2) was found to offer no significant options to reduce the feeder losses in the current state. The difference between HARV F2 and EAST F3, both being 4.16kV feeders with same loading, but higher line losses at HARV F2 is the fact that the bulk of the higher current is transmitted through the single circuit while in EAST F3 the current is split among multiple sub-circuits at the station/beginning of the feeder which results in lower I2R losses. Voltage conversion

would be an option if the feeder is nearing end-of-life which could result in the reduction of the existing line losses of 5% (and total losses of 6.8%) to a lower percentage. Distribution feeder reconfiguration was also explored for this feeder by opening the disconnect switch (section ID 22217088 removing roughly 460kW of load that would need to be transferred to another feeder) could have reduced line losses to only 3.5%. Further analysis is required to determine if other sources/feeders could support the incremental load transferred from feeder HARV F2.
  - BHI agrees with this conclusion and is considering voltage conversion as feeders near end-of-life.

- The HOWD F3 feeder could benefit from efforts to correct phase load imbalances. The estimated impacts of such efforts are calculated to be up to a 1.5% reduction in line losses. Load balancing is a relatively low-cost effort and could be done on a targeted basis and scheduled as "filler work" if necessary.
  - BHI has completed the load balancing on feeders HOWD F1 and F2 and has performed additional analyses as recommended. BHI decided that the best option is to convert the existing single-phase circuit that causes the imbalance to the 27.6 kV voltage level in the future.

- Of the ten (10) feeders selected by Burlington Hydro for the Loss Mitigation Review, one of the 27.6kV feeder (280M6) was found to offer no significant options to reduce the feeder line losses (of 6.4%) in the current state. Distribution feeder reconfiguration was also explored for this feeder 280M6 where the line losses could be reduced to 4.44% by transferring feeders RESV F1 & RESV F2 to another source/TS OR line losses could be reduced to 3.4% by transferring feeders LOWV F1 to F4 to another source/TS. Further analysis is required to determine if other sources/feeders could support the incremental load transferred from feeder 280M6.
  - BHI agrees with the conclusion and has a plan for a feeder expansion and load transfers to the new and adjacent feeders once the regional project "Dundas Road widening project" is completed.

- The remaining seven (7) feeders (except HARV F2, HOWD F3 and 280M6) had lower line losses. However, they were analyzed for improvement in load imbalance and power factor correction to be more in-line with the Ontario LDC's requirement.
    - BHI agrees with this conclusion and will continue to maintain a reliable distribution system.

- A high-level sizing for capacitor (VAR Compensators) installations on the feeders, where power factor is below 95%, is indicated for power factor improvement purposes. Detailed design should be carried out along with manufacturers inputs to choose best technology for the application. Three (3) out of the ten (10) feeders have a power factor below the LDC limit of 95% which are HARV F2, HOWD F3 and 76M30.
    - BHI agrees with the proposed recommendation. It has been working with some industrial customers to improve the power factor at that level or install VAR compensation on distribution lines. As per the DSC, BHI is responsible for keeping the power factor above 90%.

CIMA+ Recommendations:

- For the existing 27.6kV feeders that have good power factor of 95% and reasonable load balance of 10% or less, Burlington Hydro is operating according to the standard best practices of Ontario LDCs and should maintain these efforts into the future. The exception to this being feeder 76M30 which slightly varies from this criteria (i.e., feeder 76M30 has a power factor of 91% which could be improved with VAR compensation).
    - BHI agrees with the proposed recommendation. It has been working with some industrial customers to improve the power factor at that level or install VAR compensation on distribution lines. As per the DSC, BHI is responsible for keeping the power factor above 90%.

- Feeders of all voltage levels in the BHI distribution system could be explored for reconfiguration to minimize the system losses.
    - BHI agrees with this recommendation and is performing analyses on a regular basis for possible feeder reconfiguration.

- For feeders in the system where power factor and/or load balance are outside of the industry best practices, regular review of these characteristics is recommended to ensure the optimum operation of the distribution system with respect to loss reduction.
  - BHI agrees with this recommendation and is performing analyses on a regular basis for possible power factor and load balance correction.

- Any power factor correction efforts should include more detailed analysis to determine the optimum size and placement of pole mounted capacitors.
  - BHI agrees with this recommendation and is performing more detailed analyses as required and is working directly with customers for possible power factor correction.

- Load balancing to a 10% target should be an on-going effort to minimize the feeder losses. These efforts could be planned and implemented in stages, with a monitoring period to gauge the effects before moving more loads.
  - BHI agrees with this recommendation and is performing analyses on a regular basis and identifying opportunities for possible load balance correction.

- Voltage conversion for the sole purpose of reducing losses (such as HARV F2) is not likely to be economic. However, voltage conversion for any feeders nearing end-of-life replacement is recommended from line losses prospect.
  - BHI agrees with this recommendation and is considering voltage conversion for any feeders nearing end-of-life.

d) Yes, BHI will be extrapolating the findings and recommendations to all 160 distribution feeders. BHI is conducting regular power system analyses, including system loss estimation using CYME software, and takes corrective actions as needed. BHI's strategy for the 2026-2030 period will focus on load balancing, system optimization, distribution feeder reconfiguration, and voltage conversion as part of broader system investments. BHI does not undertake projects solely for loss reduction but instead incorporates these measures into broader system improvement plans that consider asset age, load balancing, feeder congestion, and other operational priorities.

e) BHI is unable to complete the analysis that would be required to answer the questions within the timelines for responding to IRs.

8-Intervenor-141

Reference: **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%.

Response:

a) This information is not readily available and BHI is unable to complete the analysis within the timelines for responding to IRs.

b) Yes, CIMA+ recommended taking no action for feeders that did not exceed 4% line losses.

c) Yes, BHI’s incremental loss reduction work is limited only to those feeders with line losses exceeding 4%.

8-Intervenor-142

Reference: **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.

Response:

a) Below are indicated staff positions that are responsible for the loss reduction measures:

   i) Load balancing and system optimization (Supervisor - System Planning and Grid Modernization)
   ii) Voltage profile management (Supervisor - System Planning and Grid Modernization)
   iii) Power factor correction (Supervisor - System Planning and Grid Modernization)

Yes, additional staffing and O&M funding will assist in achieving incremental loss reduction.

b) BHI currently is not experiencing significant issues with the voltage profile of its feeders, and as such does not agree to internally study the option of contracting with customers with existing or new DERs to provide that service.

c) BHI considers losses in its procurement of conductors and transformers through its approved equipment specifications, which vendors must meet. BHI follows the latest CSA standards and requirements in its procurement of conductors and transformers and is below the OEB's filing requirement threshold for mitigation of losses. BHI provides its Specification for Three-Phase Pad-Mounted Loop Feed Transformers as an example (section 8 discusses losses) as Appendix 8-Intervenor-142c.

d) Yes, BHI's procurement process includes a comparison of transformer losses using an evaluation formula from its approved specifications. Please refer to part c) for an example of documentation that identifies this.

8-Intervenor-143

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

Response:

BHI declines to pose this question to CIMA+ because it is beyond the scope of work undertaken as part of their study. Producing this analysis would be costly and time-consuming.

8-Intervenor-144

Reference: **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.

Response:

BHI declines to pose this question to CIMA+ because it is beyond the scope of work undertaken as part of their study. Producing this analysis would be costly and time-consuming.

8-Intervenor-145

Reference: **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.)?

Response:

a) BHI provides the load factor for the past five years and the forecast load factor for the next five year in Table 1 below.

Table 1

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Load Factor (LF)	70%	71%	69%	71%	70%	70%	70%	70%	70%	70%

b) In theory yes, but in practice the extent to which a higher load factor would yield a lower cost per MWh depends on numerous factors, such as type of load, profile of the load, location of the load, capacity of the existing system to accommodate the load, cost of the investments necessary to serve the higher load, etc. This determination must be made based on specific facts, which BHI is unable to do under the timelines for responding to interrogatories.

c) The extent to which increased off-peak electricity demand could potentially assist in lowering volumetric distribution charges depends on a number of factors including the type of load, profile of the load, location of the load and capacity of the existing system to accommodate the load. This determination must be made based on specific facts, which BHI is unable to do under the timelines for responding to interrogatories.

d) Identifying how to increase the load factor in a way that supports efficiency outcomes requires additional analysis and modelling, enabled by enhanced operational data and capabilities. Investments in foundational technology solutions such as ADMS and AMI, along with investment in talent with the digital skills and expertise to operationalize these systems and extract data insights from them is required to unlock these capabilities.

8-Intervenor-146

Reference: **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?

Response (a), (b) and (c):

BHI's demand charges for each customer class are listed on its tariff sheet, filed as Attachment14_Excel_Current_Tariff_Sheet_BHI_04162025 to BHI's application. Consistent with standard OEB methodology, the proposed peak demand charges are based on non-coincident (rather than co-incident) peaks.

To assess the benefits and other impacts of co-incident peak demand charges, further detailed analysis and modelling would be needed, which cannot be completed within the timelines of this application.

Furthermore, it is BHI's view is that it would be most appropriate and efficient for the OEB to conduct that analysis and consider the merits of co-incident peak demand charges on a generic policy basis rather than ad-hoc through individual rate applications.

8-Intervenor-147

Reference: **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., :

> "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 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.

Response:

a) BHI respectfully declines to answer these questions because they are beyond the scope of this proceeding, and require BHI to comment on matters that it has not conducted in-depth analysis on, and that are beyond its purview as a distributor of electricity.

b) Please see BHI's response to part a).

c) Please see BHI's response to part a).

d) Please see BHI's response to part a).

e) Please see BHI's response to part a).

f) BHI does not 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.

g) Please see BHI's response to part a).

9-Intervenor-148

Reference: **Ex. 9, p. 31-32**

Question(s):

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.

Response:

a) "CCA in Rates" is the CCA calculated using the same AIIP factor from BHI's 2021 Cost of Service application. This factor was applied to 2024 actual additions and projected 2025 additions from the 2025 Bridge Year in the PILS Model.

   "Actual CCA" amounts represent the CCA based on the AIIP rules in effect in the 2024 and 2025 taxation years. The 2024 "Actual CCA" is the actual CCA claimed in the 2024 Corporation Income Tax Return, and the 2025 "Actual CCA" is the CCA calculated by applying the AIIP factor in effect for the 2025 taxation year on the capital additions included in the 2025 Bridge Year.

   The difference between "CCA in Rates" and "Actual CCA" is the impact of the phasing out period of the AIIP in 2024 and 2025.

b) The CCA calculations have been updated to reflect the actual CCA claim on the 2024 tax return that was filed in June 2025, and the revised 2025 capital additions as updated in response to 1-Staff-1. BHI provides an updated Table 20 as Table 1 below, and an updated CCA by Class as IR_Attachment_9-Intervenor-148b _BHI_07242025.

Table 1

Description	2024	2025	Total
CCA in Rates	10,274,262	10,098,152	20,372,414
Actual CCA	9,564,197	9,630,462	19,194,659
Difference in CCA	**710,065**	**467,690**	**1,177,755**
Tax Impact @ 26.5%	188,167	123,938	312,105
Grossed up PILS	**$ 256,010**	**$ 168,623**	**$ 424,633**
Add: Carrying Charges	5,765	10,863	**16,628**
Total Requested for Disposition	$ 261,775	$ 179,486	**$ 441,261**

9-Intervenor-149

Reference: **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 OEB Report 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%

Response:

a) Please see BHI response to interrogatory 9-Staff-93, Section B, part a) i).

b) BHI previously included 100% of the amounts in the COVID-19 Account, However, it has now updated its DVA Continuity Schedule to reflect a 50% recovery rate to the amounts recorded in the Account, filed as Attachment_DVA_Continuity_Schedule_BHI_07242025.

c) BHI confirms on an annualized basis, its 2021 ROE as reported in the RRR is 6.06%. BHI does not have a “weighted deemed ROE”; its deemed ROE from January 1 to April 30, 2021 was 9.36% and from May 1, 2021 to December 31, 2021 was 8.34%. A weighted average of these numbers is 8.68%.
Please see BHI response to 9-Staff-93 Section A a) for its understanding and applicability of the means test framework and calculation of ROE %.

9-Intervenor-150

Reference: **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.

Response:

a) Burlington seeks the continuation of the Incremental Cloud Computing Costs DVA to ensure the company can effectively respond to ongoing changes and advancements in the technology market. This may necessitate investments in cloud computing solutions during the rate term that exceed those funded by base rates. Without this account, BHI would be required to expense and self-fund incremental cloud computing costs in the upcoming rate term. This could adversely impact the company's financial performance and/or discourage the adoption of cost-effective, cloud-based technology solutions during the rate period.

b) The cloud computing costs included in the 2026 Test Year are provided in 9-Staff-88 a) i).

9-Intervenor-151

Reference: **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.

Response:

Please refer to BHI's response to 9-Staff-90 a).

9-Intervenor-152

Reference: **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.

Response:

Please refer to BHI's response to 9-Staff-91 a).

9-Intervenor-153

Reference: **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.

Response:

a) The $512,305 revenue offset related to collection of account charges was included in the Specific Service Charges revenue of $817,981 from BHI's 2014 Cost of Service rate application[1]. BHI identified the specific amount related to collection of account charges as part of its Request for an Accounting Order to Establish a New Deferral Account[2].

b) The number of collection notices issued by BHI in each full year from 2018 to 2024 in Table 1 below.

[1] EB-2013-0015, Exhibit 3, Tb 3, Schedule 1, Attachment 1, Appendix 2-H Other Operating Income.
[2] EB-2019-0179, p9, Table 1

Table 1

Year	Number of Collection Notices Issued
2018	25,838
2019	19,869
2020	22,067
2021	29,611
2022	37,356
2023	36,296
2024	29,109

c) For the 2020 to 2021 period, BHI's protocol for issuing customer collection notices was to send a notice when an account became 11 days past due. To date there has been no change to this protocol.

d) The savings from process changes reflected in the Collection Charge Lost Revenue account represent BHI's change from hand delivery of Collections Notices to mailing via Canada Post[3].

[3] EB-2020-0007, 9-Staff-77