Welland Hydro
ELECTRIC SYSTEM CORP.
POWERING WELLAND'S FUTURE

# COS APPLICATION
# WHESC INTERROGATORY RESPONSES

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# Exhibit 1 - Administration

## OEB Staff Interrogatories

### 1-Staff-1

#### Updated Revenue Requirement Work Form (RRWF) and Models

Upon completing all interrogatories from Ontario Energy Board (OEB) staff and intervenors, please provide an updated RRWF in working Microsoft Excel format with any corrections or adjustments that the Applicant wishes to make to the amounts in the populated version of the RRWF filed in the initial applications. Entries for changes and adjustments should be included in the middle column on sheet 3 Data_Input_Sheet. Sheets 10 (Load Forecast), 11 (Cost Allocation), and 13 (Rate Design) should be updated, as necessary. Please include documentation of the corrections and adjustments, such as a reference to an interrogatory response or an explanatory note. Such notes should be documented on Sheet 14 Tracking Sheet and may also be included on other sheets in the RRWF to assist understanding of changes.

In addition, please file an updated set of models that reflects the interrogatory responses. Please ensure the models used are the latest available models on the OEB's 2024 Electricity Distributor Rate Applications webpage.

#### WHESC's Response

WHESC has provided an updated RRWF in working Microsoft Excel format with all corrections and adjustments that were made to the amounts in the populated version of the RRWF filed in the initial application. A summary of changes has been documented on Sheet 14 Tracking Sheet. All models have been refiled to reflect the interrogatory responses. A list of model updates has been provided in Attachment D of this document.

### 1-Staff-2

#### Reference 1: Exhibit 1, Activity and Program Based Benchmarking, pp. 48-54
#### Reference 2: 2023 Unit Cost Calculations, October 17, 2024

#### Question(s):

a. For Metering O&M, please provide an explanation for the high year-over-year rate of increase for unit costs (references 1 and 2) which occurred in 2021 and was maintained until 2023?

b. Please provide more details regarding Welland Hydro-Electric System's investigation into the cost components for Lines O&M unit costs. Has this investigation been concluded? If so, what were the findings? If not, when is the planned completion date?

## WHESC's Response

a. The Metering O&M increase that occurred in 2021 was largely attributed to Meter Operation Program costs. The table below combines data from Exhibit 4, Table 4-25 and Table 4-27.

**Table 1-1: Metering O&M Costs**

| Expenses | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual |
|---|---|---|---|---|---|---|---|---|
| Meter Operation | 301,979 | 284,307 | 136,500 | 159,668 | 201,400 | 270,883 | 284,236 | 297,975 |
| Meter Maintenance | 93,774 | 112,024 | 112,858 | 112,358 | 118,559 | 122,844 | 121,390 | 129,924 |
| **Total** | **395,753** | **396,331** | **249,358** | **272,026** | **319,959** | **393,727** | **405,626** | **427,899** |

The 2021 Meter Operation program costs are lower than both the 2017 Board Approved and 2017 Actuals. A significant decrease in program costs occurred in 2018 due to a maternity leave for part of the year and a retirement of the meter foreperson at the end of the previous year. Meter re-verification requirements were also fewer than normally experienced due to minimal meter seal expiries in that year. The impact of the maternity leave continued into 2019. In 2020, the staff compliment and the volume of meter seal expiries returned to historical levels. In 2021, the $69,483 increase is attributed to material cost increases through and post-COVID along with an increase in staff allocation and vehicle usage to support increased meter re-verification requirements. Both cost influences persisted into 2023.

b. As evident in Exhibit 1, Table 1-36, WHESC has the largest density of customers per kilometer of line than any other LDC serving electricity customers in the Niagara Region. WHESC's customer density per kilometer of line is 50 in comparison to an average of 19 for the remaining six LDC's in the region (based on 2022 data). The increased density results in an increased cost per km due to the number of connection points and asset utilization.

WHESC has not yet completed a formal investigation into other factors contributing to higher Lines O&M unit costs when comparted to the regional and industry average for the 2018 – 2022 period. WHESC suspects that there may be differences in how peer LDCs are capturing O&M costs, since WHESC's cost per customer is the lowest in the region.

WHESC is aware that the OEB recently completed a continuous improvement survey on Activity and Program-Based Benchmarking (APB) and will be discussing APB enhancements as part of the annual Reporting and Recordkeeping Requirements consultations, which are underway. WHESC received some preliminary feedback from the survey and understands one key issue for consideration is "Gaps and Ambiguities in USoA Definitions". WHESC believes it may be prudent

to wait for the outcome of consultations and APB enhancements before acquiring the necessary resources to conduct a review of costs allocated to benchmarked programs.

## 1-Staff-3

### PPE

Reference 1: Exhibit 1, Appendix 1-D - 2023 Audited Financial Statements, p. 99
Reference 2: Exhibit 1, Appendix 1-E - 2022 Audited Financial Statements, p. 139
Reference 3: Appendix 2-BA

### Preamble

OEB staff has complied the following table to compare the PP&E on the Audited Financial Statements (AFSs) with the fixed assets in Appendix 2-BA and noted some differences.

**Property, Plant and Equipment & Intangible assets**

| (in thousands of dollars) | 2021 | 2022 | 2023 |
|---|---|---|---|
| **Financial Statements** *(Notes 7 & 8)* | 38,712 | 40,882 | 43,729 |
| **Appendix 2-BA** *NBV (Total PP&E + Account 1995)* | 38,356 | 40,545 | 43,412 |
| **Difference** | 356 | 337 | 317 |

### Question(s):

a. Please explain and reconcile the noted differences in the table above.

b. Please update Appendix 2-BA as needed.

### WHESC's Response

a. The following table reconciles the differences noted above

**Table 1-2: PP&E Reconciliation**

**Property, Plant and Equipment & Intangible Assets**

| *(in thousands of dollars)* | 2021 | 2022 | 2023 |
|---|---|---|---|
| NBV Financial Statements | 38,712 | 40,882 | 43,729 |
| NBV Appendix 2-BA | 38,356 | 40,545 | 43,412 |
| **Difference** | **356** | **337** | **317** |

| **Reconciling Items:** | | | |
|---|---|---|---|
| Capitalized inventory IFRS | -100 | -100 | - 100.00 |
| Non-distribution Assets NBV | -130 | -118 | - 105.00 |
| NBV MIST Meters | -63 | -58 | - 52.00 |
| NBV Renewable Expansion Investment - Provincial Portion | -63 | -61 | - 60.00 |
| **Total reconciling items** | **-356** | **-337** | **-317** |
| **Remaining difference** | **-** | **-** | **-** |

The differences are related to four items:

1. Inventory included in capital for IFRS purposes

2. Assets that are included in IFRS Financial Statements but are not related to distribution and are therefore not included in Appendix 2-BA.

3. Investment in MIST meters that is included in Account 1860 for IFRS Financial Statements but has been recorded to Account 1557 Meter Cost Deferral for regulatory purposes.

4. Renewal Expansion Investment that is included in Account 1830 for IFRS Financial Statements but only the 17% direct benefit portion has been included in Account 1830 for regulatory purposes. This investment is included in Appendix 2-FC.

b. Welland Hydro does not believe that any updates to Appendix 2-BA are required.

## 1-Staff-4

### DVA Balances

### Reference 1: Exhibit 1, Appendix 1-E - 2023 Audited Financial Statements, p. 162
### Reference 2: DVA Continuity Schedule, Tabs 2a and 2b

### Preamble

OEB staff notes that the sum of the DVA balances in the 2023 Audited Financial Statements does not reconcile with the sum of the RRR Reporting balances in the DVA Continuity Schedule. OEB staff has complied a table below to show the difference.

EB-2024-0058

**DVA balance**

| (in thousands of dollars) | 2023 debit balance | 2023 credit balance | Total |
|---|---|---|---|
| Balance per 2023 F/S | 2765 | (2,031) | 734 |
| | Group 1 | Group 2 | |
| RRR Reporting as of Dec 31-23 | 781 | (1,203) | (422) |
| Difference | | | 1,156 |

## Question(s):

a. Please explain and reconcile the difference noted in the table above.

## WHESC's Response

a. Welland Hydro has reconciled the difference noted in the table above in the detailed table below.

**Table 1-3: DVA Balance Reconciliation**

| Description | USoA | 2023 RRR | 2023 F/S | Difference |
|---|---|---|---|---|
| **Group 1** | | | | |
| Smart Metering Entity Charge Variance Account | 1551 | - 121,104 | - 121,104 | - |
| RSVA - Wholesale Market Service Charge | 1580 | 383,516 | 366,254 | - 17,262 |
| Variance WMS – Sub-account CBR Class B | 1580 | 17,262 | 17,262 | - |
| RSVA - Retail Transmission Network Charge | 1584 | 477,058 | 477,058 | - |
| RSVA - Retail Transmission Connection Charge | 1586 | 316,238 | 316,238 | - |
| RSVA - Power (excluding Global Adjustment) | 1588 | - 287,209 | - 287,209 | - |
| RSVA - Global Adjustment | 1589 | - 72,353 | - 72,353 | - |
| Disposition and Recovery/Refund of Regulatory Balances (2019) | 1595 | 23,930 | 23,930 | - |
| Disposition and Recovery/Refund of Regulatory Balances (2020) | 1595 | - 13,598 | - 13,598 | - |
| Disposition and Recovery/Refund of Regulatory Balances (2021) | 1595 | 10,033 | 10,033 | - |
| Disposition and Recovery/Refund of Regulatory Balances (2022) | 1595 | - 9,256 | - 9,256 | - |
| Disposition and Recovery/Refund of Regulatory Balances (2023) | 1595 | 56,492 | 56,492 | - |
| | | **781,008** | **763,746** | **- 17,262** |
| **Group 2** | | | | |
| Pole Attachment Revenue Variance | 1508 | - 649,075 | - 649,075 | - |
| Retail Service Charge Incremental Revenue | 1508 | - 42,716 | - 42,716 | - |
| Green Button Initiative Costs | 1508 | 70,900 | 70,900 | - |
| Other Regulatory Assets, sub-account OEB Cost Assessment | 1508 | 37,661 | 37,661 | - |
| OPEB Actuarial Gains or Losses Deferral Account | 1508 | - 444,687 | - 444,687 | - |
| PILs and Tax Variance for 2006 and Subsequent Years- Sub-account C | 1592 | - 388,307 | - 388,307 | - |
| Meter Cost Deferral Account (MIST Meters)[3] | 1557 | 213,335 | 130,625 | - 82,710 |
| Deferred income tax on regulatory balances | | | 1,256,029 | 1,256,029 |
| | | **- 1,202,889** | **- 29,570** | **1,173,319** |
| | | | | |
| **Total** | | **- 421,881** | **734,176** | **1,156,057** |

| **Reconciling Items:** | |
|---|---|
| CBR Class B - included in WMS Balance for RRR | 17,262 |
| MIST Meter capital cost | 82,710 |
| Deferred income tax on regulatory balances - for FS presentation purposes | - 1,256,029 |
| | **- 1,156,057** |

There are three items that contribute to the difference between the 2023 balances reported in RRR and those reported in the Financial Statements.

1. Account 1580 RSVA – WMS: As described in Exhibit 9, page 7, the $17,262 difference is equal to the balance reported for Account 1580 Sub-account CBR Class B. The amount reported on the 2.1.7 Trial Balance for Account 1580 was $383,516 which is inclusive of the CBR Class B balance.

2. Account 1557 Meter Cost Deferral: As described in Exhibit 9, page 9, the $82,710 difference is related to the capital purchase of MIST meters in 2018. This capital amount is included in Property, Plant and Equipment for Financial Statement purposes but is included in Account 1557 Meter Cost Deferral for RRR reporting.

3. Deferred Income Tax: Deferred income tax on regulatory balances has been calculated in the amount of $1,256,029. This amount has been included in regulatory balances for Financial Statement purposes.

## Coalition of Concerned Manufacturers and Businesses of Canada Interrogatories (CMBCC)

### 1-CCMBC-1

Reference: Exhibit 1, Page 54, Section 1.7.1 Grid Modernization

Question(s):

a. What is the definition of Grid Modernization that WHESC uses to categorize capital expenditures?

b. Please file an itemized list of the forecast of 2025 capital expenditures on Grid Modernization separately showing expenditures on SCADA, SmartMAP, GIS, ADMS, and Outage Management Systems if possible.

WHESC's Response

a. Grid modernization investments are captured within the System Service category of investments. The following table is an excerpt from WHESC's DSP, Table 5.4-13 on Page 96:

**Table 1-4: DSP Table 5.4-13 in Exhibit 2**

| System Service | Test Year | Forecast Period | | | | Total | Percentage of Total |
|---|---|---|---|---|---|---|---|
| | 2025 | 2026 | 2027 | 2028 | 2029 | | |
| | *$ '000* | *$ '000* | *$ '000* | *$ '000* | *$ '000* | *$ '000* | |
| **Grid Modernization** | 242 | 249 | 257 | 264 | 272 | 1,285 | 69% |
| **Grid Reinforcement** | - | 250 | 225 | 100 | - | 575 | 31% |
| **Gross Capital** | **242** | **499** | **482** | **364** | **272** | **1,860** | **100%** |

The annual expenditure on Grid Modernization shown in the table above includes:

1. The installation of three SCADA devices per year, capable of operating as a recloser, sectionalizer, or fault indicating switch. Additional detail regarding the deployment of these devices is provided in WHESC's response to interrogatory 2-Staff-24. The annual capital expenditure includes installation of the devices, field commissioning, SCADA configuration, and SmartMAP integration.

2. The installation of three sets of fault indicators per year. These devices are integrated into SCADA. The expenditure includes installation, commissioning, SCADA configuration, and SmartMAP integration. The devices provide a map-based representation in SCADA of fault current, load current, and disturbance detection.

The following table summarizes the planned investment in the forecast period:

**Table 1-5: Grid Modernization Investments in Forecast Period**

| Investment | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| SCADA Device Deployment | $ 231,750 | $ 238,703 | $ 245,864 | $ 253,239 | $ 260,837 |
| Fault Indicators | $ 10,300 | $ 10,609 | $ 10,927 | $ 11,255 | $ 11,593 |
| **Total** | **$ 242,050** | **$ 249,312** | **$ 256,791** | **$ 264,495** | **$ 272,429** |

b. The table above captures the required capital investments in support of WHESC's grid modernization initiatives. WHESC's SCADA system costs in the forecast period are related to maintenance and communications expenses all captured within O&M. GIS costs are also related to maintenance are captured within O&M. SmartMAP is a hosted application with subscription costs managed in O&M.

## 1-CCMBC-2

Reference: Exhibit 1, Appendix 1-A, WHESC Business Plan, Page 14, Table 2.5: Distribution Revenue and Page 15, Table 2.6: Other Revenue

### Question(s):

a. Please explain why the Late Payment Charges revenue is shown as $106,410 in Table 2.6 for each year from 2024 to 2029 why the Total Distribution Revenue shown in Table 2.5 is increasing for each year from 2024 to 2029?

b. Please explain why there is a $4,000 loss shown in the Gain on Disposition of Property in Table 2.6 for every year from 2024 to 2029. Is WHESC planning to dispose of equivalent properties each year from 2024 to 2029?

c. Please explain the Rent from Solar Facility of $10,000 shown for each year from 2024 to 2029 and how does it relate to Solar Expense of $4,000 and Solar Revenue of $23,385 in 2024.

### WHESC's Response

a. Although distribution revenue is forecast to increase, there are other factors that impact Late payment charges, such as WHESC's management of customer arrears and assistance programs (such as LEAP) available to customer. There is not a direct correlation between distribution revenue and late payment charges. For example, distribution revenue increased by 6.6% in 2023 from 2022, however late payment charges decreased by 5.5% over the same period. LEAP funding available to customers was increased in 2024 as a result of the OEB removing the maximum funding threshold. WHESC felt that with continued emphasis on arrears management, as well as an increase in assistance available to customers, an estimate of Late Payment Charges in line with the most recent historical period was appropriate.

b. WHESC's gain/loss is mostly attributed to scrap meters and transformers. There are times where a more recently acquired piece of equipment fails and leads to a larger write-off, but WHESC does not incorporate that into the plan as it's not a consistent occurrence year-over-year. WHESC has used $4,000 as a placeholder and does not expect actual experience to be materially different.

c. Rent from Solar Facility of $10,000 relates to the rental charged for a non-LDC owned solar facility. This is unrelated to the Solar Expense and Solar Revenue. The Solar expense of $4,000 and Solar Revenue of $23,385 relate to the operation of 4 microfit accounts owned by WHESC.

# School Energy Coalition Interrogatories (SEC)

## 1-SEC-1

Reference: [Ex. 1, p. 10]

Question(s):

a. Please provide a copy of the Electrification Strategy Study referred to in Exhibit 1.

b. Please provide copies of all benchmarking studies, reports, and analyses that Welland has undertaken or participated in since the filing of its last rebasing application, that are not already included in the Application.

WHESC's Response

a. Please refer to WHESC's response to interrogatory 2-CCMBC-3.

b. WHESC has not undertaken benchmarking studies, reports, or analyses that are not already included in the Application.

## 1-SEC-2

Reference: [Ex. 1, Appendix 1-A] Welland has provided a copy of its 2025 -2029 Business Plan.

Question(s):

a. When was the 2025 Business Plan prepared?

b. On page 10 of the Business Plan when speaking of customer numbers, Welland states that 'Given the continued economic development activity in the City of Welland, the five-year plan for both General Service customer classifications should be considered conservative'. Please explain further.

c. For the new residential developments listed in Table 2-2, please provide details on the expected in-service date for each one.

d. Please provide any other materials reviewed by Welland's Board of Directors regarding its approval of the Application and the underlying budgets.

WHESC's Response

a. The 2025 Business Plan was finalized in August of 2024.

b. The statement relates to the fact that the 2025 forecast for General Service connections aligns with WHESC's load forecast model. The forecasted connection counts beyond 2025 represent the best available conservative estimates. WHESC acknowledges that the actual numbers could be higher/lower than forecasted beyond 2025.

c. The following table summarizes the energization status for the developments listed in Table 2-2 of the 2025 Business Plan:

**Table 1-6: New Residential Development Energization Status**

| SA # | Name | Total Lots | Energization Status |
|---|---|---|---|
| 93 | Harvest Oak | 57 | Energized |
| 92 | 175 Southworth - Phase 1 | 15 | Energized |
| 91 | Stoneybrook Crescent | 7 | Energized |
| 90 | Dain City East Phase 2 | 173 | Energized |
| 87 | 162 Hagar Street Development | 10 | 2025 |
| 86 | 201 Ontario Rd Phase 1 | 106 | Energized |
| 84 | The Residences of Lochness - North Village phase 5 Stage 2 &3 | 52 | Energized |
| 83 | Residences of Lochness North Village Phase 5 Stage 1 | 27 | Energized |
| 82 | Hansler Village Condomimium | 43 | Energized |
| 80 | 200 West Main St Phase 2 | 43 | Energized |
| 79 | Kingsway Subdivision | 167 | 2026 |
| 73 | Fourth Street @ Canal Bank | 8 | Energized |
| 72 | Gorge Meadows | 25 | Energized |
| 71 | Canal Trail Estates | 31 | Energized |
| 69 | Dain City East Phase 1 | 288 | Energized |
| 67 | Murdoch Estates Phase 1 | 66 | Energized |
| 66 | Westwoods on the Creek Phase 2 | 74 | Energized |
| 65 | Chaffey St Phase 3 | 17 | 2026 |
| 61 | The Residences of Lochness -North Village Phase 4 | 27 | Energized |
| 60 | Welland Rivera Estates | 8 | Energized |
| 59 | Vanier Estates Phase 4 | 44 | Energized |
| 54 | Pines Estates | 11 | Energized |
| 51 | Vanier Estates - Phase 3 | 34 | Energized |
| 49 | The Residences of Lochness -North Village Phase 3 | 65 | Energized |
| 48 | The Residences of Lochness - Lochness Central Phase 2 | 39 | Energized |
| 47 | The Residences of Lochness - Lochness Central Phase 1 | 80 | Energized |
| 42 | Sparrow Meadows Phase 3 & 4 | 101 | Energized |
| 36 | Vanier Estates - Phase 1 & 2 | 34 | Energized |
| **Totals** | | **1652** | |

d. Additional materials include a 2025 COS Application Overview presentation, included as Attachment A.

## 1-SEC-3

### Reference: EX 1

### Question(s):

a. Please provide details of all productivity and efficiency measures Welland has undertaken over the last five years, and any it plans to undertake in the test year and subsequent four years. Please quantify the forecasted savings and explain how they were calculated.

### WHESC's Response

a. Please find below a list of productivity initiatives and efficiency measures that were implemented over the 2017-2023 period and/or planned for the 2024 and 2025 forecast period:

**Table 1-7: Productivity and Efficiency Measures Summary**

| Productivity/Efficiency Improvement | OM&A/Capital | Effective/Planned Date | Cost Impact | Calculations/Assumptions |
|---|---|---|---|---|
| Billing & Collecting FTE Reduction | OM&A | 2023 | Persistent | In 2023, WHESC transitioned to outsourced bill processing, resulting in a reduction 1.4 FTEs. The total cost reduction on OM&A net of outsourcing costs is: $60K (2025) |
| 24 x 7 System Control Shared Service | OM&A | 2024 | Avoided Annually | WHESC's implementation of a 24x7 control room avoided cost that would be present for WHESC to achieve this on its own. The avoided cost based on FTE and system costs is calculated at $271,519 (2025) |
| Cybersecurity Shared Services | OM&A | 2025 | Avoided Annually | WHESC's has evaluated using a shared services resource to cover the LDC's cybersecurity needs rather than hire an FTE for that purpose. Avoided cost from not acquiring an additional FTE is estimated at $70K. |
| Migration from SCADA Legacy Data Circuits | OM&A | 2020-2029 | Persistent | WHESC started migrating SCADA communications medium from legacy data circuits to an APN in 2020. 2017 Cost for legacy data circuits was $53K in 2017. Cost associated with SCADA communicatiosn is forecasted to be $45K in 2025, reducing to $30K by 2029. The reduction in OM&A is $8K (2025) annually. |
| Implementation of On Premise IT Infrastructure | OM&A | 2021 | Persistent | Migration from fully hosted CIS/financial platforms from 2017 through to 2021 resulted in elimination of hosting costs through a third party provider. Taking the reduction in OM&A from elimination of hosted solution service contracts offset by increased OM&A for maintenance of on-premise systems, WHESC reduced OM&A $93K (2021) from 2017 levels. |
| Substation Maintenance with Internal Staff | OM&A | 2024 | Persistent | WHESC reduced OM&A by performing oil sampling, electrical testing, and substation maintenance with internal qualified system control staff instead of contract services. WHESC's annual savings in OM&A is $7500. |
| Application Specific Customer Engagement | OM&A | 2024 | One-Time | WHESC historically used contract services to perform customer engagement in support of the DSP and COS Application. WHESC deployed the customer engagement survey with internal staff for this application. Based on responses to RFQ for the outsourcing of this work, the one-time OM&A savings is $25K. |

## Vulnerable Energy Consumers Coalition (VECC)

### 1-VECC-1

### Reference: Exhibit 1, page 30-
### Question(s):

a. Please provide the cost of the UtilityPulse survey.

b. Was the Application specific survey undertaken by WHESC internal staff? If not what was the cost of this survey.

### WHESC's Response

a. The cost of the Customer Satisfaction Survey completed by UtilityPulse in 2022 was $22,400.

b. Yes, the Application specific survey was undertaken by WHESC internal staff. There were no third-party costs incurred related to this survey.

## 1-VECC-2

### Reference: Exhibit 1

### Question(s):

a. For the most recent period for which data is available please provide the number of residential customers receiving paper and (separately) e-bills. Please contrast this with the number of ebilled customers in 2017 and provide an estimate of the cost savings due to the migration to ebilling.

b. What initiatives are planned during the rate term to promote ebilling?

c. Does Welland Hydro accept credit card payment? If so please explain if this service is provided through a third party and the cost per transaction of that service.

### WHESC's Response

a. In October 2024, WHESC had 4,094 residential customers receiving e-bills and 20,022 residential customers receiving paper bills. In October 2017, WHESC had 1,145 customers receiving e-bills and 21,093 customers receiving paper bills. WHESC estimates that the cost savings in 2024 due to the current number of customers on e-billing in 2024 compared to the percentage of customers on e-billing in 2017 is approximately $44K.

b. Please see WHESC's response to interrogatory 4-Staff-41 b).

c. WHESC customers can make payments online via credit card using a third-party provider. The third-party charges a 1.95% fee that is paid directly by the customer. Customers are also able to make credit card payments using point-of-sale machines provided through WHESC's bank. These fees are paid by WHESC and are equal to 2.429% of sales for Visa, and 1.853% of sales for Mastercard. WHESC is cognizant of credit card related fees and attempts to limit the amount of payment collected from this method. Credit card payments via the point-of-sale machine are typically reserved for collection of payments when related to non-payment disconnects (i.e. technician is in the field to perform a non-payment disconnect or the customer is at risk of

disconnection and comes into the office to make a payment), or when other payment methods are not feasible in a particular situation.

# Exhibit 2 – Rate Base and Capital

## OEB Staff Interrogatories

### 2-Staff-5

#### Non-Wires Solutions Guidelines for Electricity Distributors / Conservation Demand Management in Distribution System Planning

Reference 1: EB-2024-0118, Non-Wires Solutions Guidelines for Electricity Distributors, March 28, 2024
Reference 2: Distribution System Plan (DSP), Part 1, Attachment 2E, Section 5.3.5

#### Preamble

In reference 1, the OEB recently released its Non-Wires Solutions Guidelines for Electricity Distributors (NWS Guidelines) and the Benefit-Cost Analysis Framework for Addressing Electricity System Needs (BCA Framework). These aim to help distributors assess the economic feasibility of using non-wires solutions (NWS) to address defined electricity system needs. Electricity distributors must incorporate consideration of NWS into their distribution system planning process by evaluating whether a distribution rate-funded NWS may be a preferred approach to meeting a system need, thus avoiding or deferring spending on traditional infrastructure.

In reference 2, Welland Hydro-Electric Systems Corp indicated that its DSP has considered the new guideline and the use of NWS when making investment decisions.

#### Question(s):

a. Please explain how Welland Hydro-Electric System considered the requirement in the OEB's NWS Guidelines to meet its distribution system needs (including evaluating identified non-wires solutions using the methodology outlined in the BCA Framework).

#### WHESC's Response

a. Section 5.3.5, Page 81 of WHESC's DSP confirms that none of the contemplated investments to address a need in the forecast period exceed the NWS Guidelines' suggested project threshold amount of $2M, whereby a non-wires solution should be an evaluated alternative.

   WHESC's single source of supply to its distribution system is Crowland TS, owned and operated by Hydro One Networks Inc. As part of its Application, WHESC included Appendix 5-B of the DSP

containing the Niagara IRRP Report, dated December 22, 2022. The report confirmed that Crowland TS is at end of life (Section 6.4, Page 35) and requires additional Capacity (Section 6.2.2, Page 32).

The IRRP report was produced prior to release of the NWS Guidelines. The IESO and the working group inclusive of WHESC, explored non-wires options to address capacity needs. This is evidenced in Section 7.4.2, Page 47 of the IRRP Report. The following is an excerpt from this section of the report:

"*For the Crowland TS capacity need alone, incremental targeted CDM, battery storage, and gas generation were all considered either as standalone or integrated options. The most cost-effective non-wires solution portfolio for the Crowland capacity need included incremental CDM (approximately 10 MW of additional savings by 2041), plus a 10 MW/40 MWh battery storage facility installed in two phases (2025 and 2038) to match the need profile. The NPV of this portfolio was calculated to be in the range of $17M - $53M. Similar to what was described for the Beamsville TS non-wires options, this cost range is attributed to the provincial CDM assumptions.*

*As the Niagara IRRP progressed and the interplay between the Crowland TS needs and the broader Niagara 115 kV supply capability became clearer, a non-wires option was also considered at a high level. An all-generation, 240 MW alternative was sized to compare to the lowest cost transmission option set; 240 MW is the expected increase in the 115 kV sub-system supply capability enabled by Option Set 2 described previously. However, this non-wires option is not a feasible solution due to various factors. While an all-generation option was identified to compare to the wires option on a MW basis, there are significant challenges to implementing and operating a resource to address the multiple, layered, and local needs. For instance, for 240 MW of generation to address both the Crowland TS capacity and replacement needs, as well as the broader 115 kV supply needs, a portion of the generation must be sited on the distribution system to supply customers currently served by Crowland TS and the remaining must be targeted to the region's 115 kV system. There may also be thermal or short circuit limitations to connecting this amount of generation on the distribution system. Moreover, as described in Section 7.2.3, generation is typically not considered a feasible option to solve load security needs."*

The recommendation indicated in Section 7.4.3 of the IRRP report indicates that the preferred solution to address the needs at Crowland TS is a wires-based solution due to cost among other technical reasons.

## 2-Staff-6

### Reference 1: Exhibit 2, Table 5-4-9, p. 167 of PDF
### Reference 2: Exhibit 9, Table 9-9, p. 13 and DVA Continuity Schedule, Tabs 2b

### Preamble

In reference 1, Table 5-4-9 shows that 2023 budget and actual gross capital expenditures for General Plant. Welland Hydro-Electric System states that computer software upgrades for Green Button were implemented through subscription services rather than on premise ($75K).

In reference 2, Welland Hydro-Electric System proposes to dispose the balance of $76k in the DVA Account 1508 Green Button Initiative Costs and discontinue this account due to no activity.

### Question(s):

a. Please explain why the costs associated with Green Button were included in both the gross capital expenditure for General Plant and the DVA account balance.

### WHESC's Response

a. Table 5-4-9 in reference 1 shows that the planned expenditure in General Plant was $460K and Actual spend was $278K, $182K below plan. Welland Hydro stated that computer software upgrades for Green Button were implemented through subscription services rather than on premise. As a result of the implementation through subscription services, the planned capital spending related to Green Button in the amount of $75K did not occur and explains $75K of the $182K difference between plan and actual capital spend. Costs associated with Green Button have only been recorded to the DVA account.

## 2-Staff-7

### Reference: Distribution System Plan, p. 14

### Preamble

Welland Hydro-Electric System states that The City of Welland has experienced an uptick in housing and commercial development since 2019, resulting in increased expenditure in this category of investment. New development has triggered road relocation work and system expansions to facilitate new connections. The 2025-2029 forecast does not indicate any specific funds for road relocation work.

### Question(s):

a. Please confirm that there are no municipal road works expected in the forecast period requiring Welland Hydro-Electric System investment to relocate its plant.

### WHESC's Response

a. WHESC confirms there are currently no known municipal road works contemplated in the forecast period of 2025 through 2029 that require material System Access based investment. WHESC is aware of contemplated developments that will likely require system expansion investments as identified in Table 5.4-11, Page 93 of the Distribution System Plan (DSP).

   As indicated in Section 5.2.24 of the DSP, WHESC participates in recurring Public Utilities Committee meetings to coordinate with the City of Welland, the Regional Municipality of Niagara, and other utilities on infrastructure requirements. There have been no relocation requirements identified at this time based on plans presented in the latest meeting on September 25th, 2024.

## 2-Staff-8

### Reference: Distribution System Plan, p. 14

### Preamble

Welland Hydro-Electric System states that meter pre-sampling and final sampling for meter seal extensions are expected to have a minor additional cost impact in the years 2025 through 2029.

### Question(s):

a. Please confirm that Welland Hydro-Electric System expect all meters to pass reverification testing over the forecast period and that there are no budget amounts for bulk replacement of meter groups that need to be replaced as a result of reverification testing failure.

b. What is the forecast minor additional costs in the years 2025 through 2029?

### WHESC's Response

a. In 2027, there are approximately 18,500 meters that will reach seal expiration. These are the bulk of WHESC's residential AMI meters. WHESC previously performed compliance sampling on these meters and successfully achieved meter seal extension. WHESC's intention is to perform subsequent compliance sampling on these meters based on performance and a low rate of failure.

In the balance of years in the forecast period, an average of approximately 1,000 meters will reach seal expiry annually. Compliance sampling will be performed on the bulk of these meters. WHESC expects the associated sample groups to pass reverification testing.

WHESC confirms that there are no budget amounts for meter groups that need to be replaced as a result of reverification testing failure.

b. Table 5.4-11, on Page 93 of the DSP includes the expected level of capital expenditures on revenue meters in the System Access category of investment. The annual budgeted amount includes the acquisition of meters necessary to facilitate new residential and general service connections, replace defective meters, and perform meter changes to support reverification.

   Of the $154,000 budgeted in 2025, approximately $46K is required for meters capitalized to support replacements due to defect and in support of reverification activities. This is consistent with the historical capital expenditures on meters for the same purpose. Capitalized meter purchases in the balance of the forecast period from 2026 through 2029 increase by an inflationary rate of approximately 3%.

## 2-Staff-9

### Reference: Distribution System Plan, pp. 15, 19, 41-44, and 50

### Preamble

Welland Hydro-Electric System states that the DSP has incorporated integrating resilience into system planning through the Grid Modernization program. This is supported through customer engagement responses indicating a desire to ready the distribution system in advance of significant weather events.

### Question(s):

a. What specific distribution system hardening activities has Welland Hydro-Electric System considered to complement the improvements in resiliency being undertaken in the DSP forecast period?

b. Has Welland Hydro-Electric System determined or studied what the impact of increased extreme weather events will have on its distribution system? If so, please provide the study or summarize the results.

## WHESC's Response

a. Investments identified in the forecast period of WHESC's DSP are largely aimed at System Renewal investments. WHESC believes that sustaining asset health is a fundamental requirement to ensure its distribution system is ready for future extreme weather events. WHESC has standardized on a minimum class of pole (Class 2) and distribution system designs meet or exceed the requirements of the latest CSA OH and UG Systems Standards. System Renewal investments identified in the forecast period result in the replacement of assets including restricted primary conductor, inaccessible overhead systems, and poles of classifications associated with legacy construction standards. The investments not only restore optimal asset health but improve WHESC's ability to respond and restore service in weather events.

   The System Service investments in the DSP are generally aimed at improving system reliability and resiliency. As identified in Table 5.4-13, Page 96 of WHESC's DSP, approximately $250,000 is budgeted annually for investments that improve grid visibility, enhance protection systems, and provide remote operation capability. These benefits are leveraged directly by WHESC's 24 x 7 control room to immediately respond to system disturbances caused by extreme weather or otherwise. The investments include the deployment of three SCADA controlled devices and three points of remote fault indication annually. All device additions are integrated into WHESC's SCADA and SmartMAP platforms.

   WHESC has also identified investments in 2026, 2027, and 2028 that reinforce the 28kV distribution system, providing intertie capability to other source points within the system. This not only allows WHESC to manage capacity needs due to load growth, but also increases the ability to transfer load under contingency.

b. WHESC has not formally studied the impact of an increase in the quantity or severity of extreme weather events. In the historical period, WHESC has experienced high wind events (with gusts exceeding 100km/h) and an extreme lightning event that interrupted over 50% of WHESC's 28kV distribution system. These events and the associated response provided good indication of WHESC'S ability to manage significant events. In all cases during the historical period, bulk systems were restored within 24 hours of the onset of extreme weather, allowing WHESC to provide mutual aid assistance to other LDC's impacted by the same event. WHESC's post analysis of extreme events in the historical period has driven the identification of where system reinforcement and points of grid visibility and protection system enhancement would provide the most beneficial impact on reliability and response time.

## 2-Staff-10

### Reference: Distribution System Plan, pp. 16, 42, and 46

### Preamble

Welland Hydro-Electric System states that in partnership with GSC member LDCs, procured an Electrification Strategy Study. This study provided insight on potential EV adoption rates and heating fuel source switching, along with recommendations on system preparedness. Welland Hydro-Electric System considered these recommendations in developing its capital investment plan over the forecast period. Welland Hydro-Electric System states that its SmartMap system can identify portions of its distribution system where Level 2 or higher EV charging is deployed.

### Question(s):

a. Please advise what data and process is used to identify EV charging at a particular location.

b. In the 2017 - 2024 period, has there been any EV uptake impact on transformers and cable that has resulted in new build design standards and equipment replacement sizing?

### WHESC's Response

a. WHESC'S SmartMAP system identifies Level 2 or greater charging locations by analyzing load profile data. The SmartMAP platform has access to over three years of historical meter data for WHESC's residential and commercial customers at hourly intervals. The load profile data is current to the previous day. SmartMAP's algorithm identifies patterns in load profile data to determine if the location is likely to have EV charging deployed. EV charging locations are identified in SmartMAP at the meter point location. This assists WHESC engineering and operations staff in determining capacity and utilization at specific locations of the distribution system.

b. In the historical period of 2017 through to 2024, there has not been a significant uptake of EV charging connected to WHESC's distribution system. There has not been a change in design standards or equipment sizing as a result of EV charging impact in the historical period.

## 2-Staff-11

### Reference: Distribution System Plan, pp. 30-31

### Preamble

Welland Hydro-Electric System has experienced a number of serious electrical incidents in 2017 and 2022. Welland Hydro-Electric System states that it has incorporated mitigation of known safety risks into its capital

investment plans. Specifically, there are system renewal projects incorporating the removal of restricted conductor from the distribution system.

### Question(s):

a. How much of the restricted conductor plant will be removed in the forecast period?

b. When will final amounts of restricted conductor be removed from the distribution system?

### WHESC's Response

a. In the forecast period from 2025 through 2029, 6.3 km of restricted conductor will be removed from service.

b. Currently, there is 13.3 km of restricted conductor on WHESC's primary distribution system. Should the rate of replacement continue beyond the forecast period, restricted conductor can be completely removed from WHESC's system in 2035.

## 2-Staff-12

### Reference: Distribution System Plan, p. 42

### Preamble

Welland Hydro-Electric System states that system control service and associated costs are shared between Welland Hydro-Electric System and another GSC partner LDC.

### Question(s):

a. Please provide the relevant report/business case that documents the terms and conditions, including how cost is apportioned between Welland Hydro-Electric System and the other LDC.

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 4-Staff-43 for details on the alternatives WHESC considered to meet its System Control Operation needs. The master service agreement and associated statement of work for WHESC's provision of control room services are included in Attachment B of this document. As identified in this documentation, the approach is to recover costs associated with control of the partner LDC's (EPLC) distribution system.

   During normal working hours, 50% of all system control operations staff are allocated to EPLC. Fully-loaded costs for normal working hour coverage are captured in a billable work order which

represent 50% of the departmental FTE costs. WHESC also apportions SCADA system related costs to EPLC on the same principle of shared actual costs.

An operator on-call is provided to EPLC outside of normal working hours. The same on-call operator provides coverage to WHESC. After hours, 50% of the standby rate for the operator is allocated through the billable work order. All overtime specific to EPLC is also directly allocated through this billable work order.

## 2-Staff-13

### Reference: Distribution System Plan, pp. 51 and 54

### Preamble

Welland Hydro-Electric System has compiled health index assessments for wood poles including those owned by Bell to which Welland Hydro-Electric System assets are attached.

### Question(s):

a. Is Welland Hydro-Electric System aware of whether Bell develops health index assessments for its poles?

b. Does Welland Hydro-Electric System share the health index assessment results of Bell poles with Bell?

c. Is there a cost sharing/assignment between Welland Hydro-Electric System and Bell for health index assessment work done on Bell assets?

d. When a Bell pole requires replacement, what party will replace and own the pole?

### WHESC's Response

a. WHESC is not aware of whether Bell Canada develops health index assessments for its poles.

b. WHESC does not share the health index assessment results of poles with Bell Canada.

c. There is no cost-sharing arrangement between WHESC and Bell Canada for health index assessment work. Bell Canada owned poles are visually assessed for the purpose of confirming the condition of WHESC owned assets on the structure and the capability of the structure itself to support those assets.

d. When a Bell pole requires replacement, Bell covers the associated cost and maintains ownership of the pole.

## 2-Staff-14

### Reference 1: Distribution System Plan, pp. 40-41, 52, 76-78
### Reference 2: Appendix 5-H: Asset Condition Assessment (2023), p. 52

### Preamble

Welland Hydro-Electric System states that for wood poles it started using Polux testing in 2022 which is scheduled on a five-year cycle. The cyclical comprehensive pole testing and overhead inspection on its entire asset base has replaced the previously implemented hybrid approach that incorporated visual inspection methods. Pole testing and OH equipment visual inspection is performed on a five-year cycle by a qualified contractor.

### Question(s):

a. Does Welland Hydro-Electric System still adhere to a minimum 3-year visual inspection cycle (urban) on overhead assets by a qualified person as per the Appendix C of the OEB Distribution System Code or has it shifted to a 5-year cycle?

### WHESC's Response

a. As per Section 5.3.3.2.3, Page 76 of WHESC's DSP, overhead systems are visually inspected annually inclusive of infrared imaging. WHESC continues to adhere to the requirements of Appendix C of the OEB Distribution System code pertaining to lines and associated equipment. WHESC's comprehensive pole testing program is deployed separately and designed to support asset condition assessments at five-year intervals.

## 2-Staff-15

### Reference: Distribution System Plan, p. 110

### Preamble

Table 5.2-2 provides Welland Hydro-Electric System's Forecast Gross Expenditures for the 2025-2029 period. Data from that table is summarized below.

| | Average Annual Gross ($M) | | Increase ($M) | Increase (%) |
|---|---|---|---|---|
| **Budget Category** | **2017-2023** | **2025-2029** | | |
| System Access | 1.0 | 1.7 | 0.7 | 70% |
| System Renewal | 2.1 | 3.1 | 1 | 48% |
| System Service | 0.15 | 0.4 | 0.25 | 167% |
| General Plant | 0.5 | 0.5 | 0 | 0% |
| Overall | 3.75 | 5.7 | 1.95 | 52% |

## Question(s):

a. Please confirm that Welland Hydro-Electric System has the internal and external resources in place to perform this amount of spend?

b. What specific steps is Welland Hydro-Electric System taking to secure internal and external resources to perform this increased level of work.

## WHESC's Response

a. WHESC confirms that it has access to the appropriate amount of internal and external resources to perform this amount of spend. There are two major factors that WHESC must manage as the need for captial investment grows. The first is WHESC's ability to perform engineering design in support of System Access, System Renewal, and System Service based projects. WHESC's current engineering department consists of three Engineering Design Technicians and a GIS Specialist supervised by the Assets and Engineering Supervisor. As identified in Exhibit 4, Section 4.3.1.4, WHESC intends to acquire a Distribution Engineer in part to manage Capital Investments. WHESC has demonstrated that it has the capacity to manage the growing capital requirements throughout the historical period.

   The second factor is WHESC's ability to execute capital projects in the three system-based categories of investment. WHESC maintains a powerline technician complement of 11. WHESC has been successful in increasing the amount of capital work performed by internal staff in the recent historical period. WHESC routinely executes line construction work via pre-qualified contractors that have demonstrated the capacity to handle upcoming capital project requirements.

b. WHESC believes that the Engineering Department staff complement will be able to perform the necessary in-house design work to support the capital investments identified in the forecast period. WHESC has met with Engineering Design Consultants to determine their capacity to accommodate

design work in excess of the department's capacity. Engineering Design Consultants familiar with USF Design Standards are available to WHESC should excess capacity need to be leveraged.

WHESC has experienced turnover of Powerline Technicians in its line department throughout the historical period. Powerline Technician recruitment has been successful in maintaining WHESC's normal complement of 11. WHESC has pre-qualified additional line construction and civil contractors in order to accommodate the increased capital project requirements. WHESC is typically successful in getting three competitive RFQ/RFP responses for line construction projects. WHESC does not anticipate an issue securing contract services to meet the resource requirements for capital projects in the forecast period.

## 2-Staff-16

### Reference: Appendix 5-A: Material Project Narratives, pp. 1-4

### Preamble

The Material Investment Report (MIR) for General Services provides the number of new connections in the 2017 - 2023 period. Historical and Forecast costs for new connections are provided.

### Question(s):

a. Please provide a current forecast of new connections for 2024 and the forecast numbers for each of the 2025 - 2029 years.

### WHESC's Response

a. For 2024 year-to-date as of October 31, 2024, 46 General Service connections have been completed. The forecast of General Service connections for the period 2024 through to 2029 is as follows:

**Table 2-1: General Service Connections 2024 - 2029**

| Year | GS Connections |
|---|---|
| 2024 | 55 |
| 2025 | 44 |
| 2026 | 45 |
| 2027 | 46 |
| 2028 | 47 |
| 2029 | 47 |

## 2-Staff-17

Reference 1: Appendix 5-A: Material Project Narratives, pp. 5-8
Reference 2: Appendix 2-AA
Reference 3: Report Back To The Minister On System Expansion For Housing Developments
Reference 4: System Expansion for Housing Developments Consultation

### Preamble

The Material Investment Report (MIR) for Subdivisions provides the number of new connections in the 2017 - 2023 period. Historical and Forecast cost for new connections are provided. On October 21, 2024, the OEB released Report Back To The Minister On System Expansion For Housing Developments (reference 3) as part of its System Expansion for Housing Developments consultation (reference 4).

### Question(s):

a. Please provide the number of Subdivisions and related new connections expected to be completed for 2024.

b. Please provide the forecast number of Subdivisions, related connections for each of the 2025 - 2029 years.

c. Please provide a listing of known Subdivisions that will have connections in the 2025 forecast year.

d. On October 21, 2024, the OEB released Report Back To The Minister On System Expansion For Housing Developments as part of its System Expansion for Housing Developments Consultation. What analysis has Welland Hydro-Electric System done to date, to evaluate the impact of the report in reference 3 on system access capital contributions forecast in reference 2.

### WHESC's Response

a. The following table summarizes the subdivisions connected or pending connection in 2024:

**Table 2-2: New Residential Development Energization Status**

| SA# | Subdivision | Energization Date |
|---|---|---|
| 92 | 175 Southworth Phase 1 | 2024-05-01 |
| 73 | Fourth St @ Canal Bank St Townhouse Development | 2024-05-07 |
| 90 | Dain City East Phase 2 | 2024-05-14 |
| 91 | Stoneybrook Crescent | 2024-05-22 |
| 86 | 201 Ontario Rd | 2024-05-31 |
| 89 | Superior Road Development | 2024-07-15 |
| 71 | Canal Trail Estates | 2024-08-12 |
| 93 | Harvest Oak Drive | 2024-10-24 |
| 85 | West Creek Condominium | 2024-10-28 |
| 95 | Dain City West Phase 1 | By end of 2024 |

WHESC is forecasting the connection of 353 lots associated with these subdivisions and those with available lots that were connected prior to 2024.

b. The following is a listing of subdivisions and new lot connections forecasted for the period 2025 through 2029. Some new lot connections will occur due to subdivisions energized in a prior year.

**Table 2-3: Subdivision and Lot Connections for the Forecast Period**

| Subdivision Forecast | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| Subdivision Connections | 9 | 8 | 9 | 9 | 9 |
| Lot Connections | 360 | 400 | 400 | 400 | 400 |

c. The following subdivisions are expected to be energized in the 2025 Test Year:

**Table 2-4: Subdivisions to be Energized in 2025**

| SA# | Subdivision | Available Lots |
|---|---|---|
| 87 | Hagar St. Development | 10 |
| 94 | 1030 Niagara Street | 248 |
| 96 | 201 Ontario Road Phase 2 | 96 |
| 97 | Gladstone Trail | 8 |
| 98 | Southwoods Condominium | 86 |
| 99 | Dain City East Phase 3 | 137 |
| TBD | South Village | 200 |
| TBD | Murdoch Estates Phase 2 | 27 |
| TBD | Dain City West Phase 2 | 200 |
| **Total Avail Lots** | | **1012** |

d. WHESC has performed preliminary analysis on the impact of using a 40-year revenue horizon vs. 25 years for the purpose of performing economic evaluations. WHESC estimates that the impact

over the 5-year forecast period is an approximately $460K reduction in capital contributions that will need to be funded by the LDC in the System Access category.

## 2-Staff-18

### Reference: Appendix 5-A: Material Project Narratives, pp. 9-12

### Preamble

The Material Investment Report for Meters program covers capital expenditures related to the supply, installation, and maintenance of retail meters for the purpose of retail settlement and billing purposes. The report provides the number of failed meters replaced in the 2017 - 2023 period. Historical and Forecast costs for the meter program are provided.

### Question(s):

a. Please provide the number of new meters installed in each of the 2017 - 2023 historical period years.

b. Please provide the estimated number of new meters installed and failed meters replaced for the year 2024.

c. Please provide the number of new meter installations, failed meters and reverification costs budgeted for each of the 2025 - 2029 forecast years.

### WHESC's Response

a. The following table summarizes new meters installed during the historical period from 2017 to 2023:

**Table 2-5: New Meters Installed – Historical Period**

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|
| New Meters Installed | 221 | 308 | 387 | 439 | 618 | 515 | 763 |

b. In 2024, the estimated number of new meters installed is 507. The estimated number of failed meters replaced is 110.

c. The following table summarizes the costs budgeted for new meter installations as well as those required to support failed meters and reverification requirements:

**Table 2-6: Meter Qty and Cost Summary – Forecast Period**

| Cost Category | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| New Meter Installation Qty | 381 | 381 | 381 | 381 | 381 |
| New Meter Installation Cost ($ '000) | $ 108 | $ 112 | $ 114 | $ 118 | $ 121 |
| Meters for Failed/Rever. Req. Qty | 80 | 80 | 80 | 80 | 80 |
| Meters for Failed/Rever. Cost ($ '000) | $ 46 | $ 47 | $ 49 | $ 50 | $ 52 |

## 2-Staff-19

Reference 1: Appendix 5-A: Material Project Narratives, pp. 13-17
Reference 2: Appendix 5-H: Asset Condition Assessment, (2023), pp. 20, 42-44, and 54
Reference 3: Distribution System Plan, p. 110

### Preamble

The Material Investment Report for Substation Renewal covers capital expenditures related to the replacement of substation transformer 5T1, associated high voltage cables and terminations. Welland Hydro-Electric System's Asset Condition Assessment (ACA) indicates that the noted transformer is currently in "very good' condition, however independent third-party testing has indicated high levels of moisture ingress and dielectric strength below acceptable limit. The ACA indicated a Data Availability Index of 100% for Power Transformers. The ACA also indicated that one area where the power transformer HI formulation is notably lacking is results of electrical tests.

### Question(s):

a. What was the ACA Health Index points score for 5T1 as originally calculated by METSCO? Provide the original scores for each Power Transformer Condition Parameter.

b. Was dielectric strength testing part of the comprehensive DGA and OQ report that Welland Hydro-Electric System provided to METSCO? If so, what was the difference between these results and those provided by the third party?

c. Have Welland Hydro-Electric System asked METSCO to amend the power transformer HI formulation and recalculate the Health Index for 5T1, and other power transformers if applicable, with the new data provided by third party testing?

d. The MIR states a Gross 2025 cost of $360k. Table 5.4-19 states a Gross cost of $330k. Please reconcile.

e. What does the $360k cost in 2025 cover?

f. What does the $300k cost in 2027 cover?

## WHESC's Response

a. The following table summarizes the health index originally calculated by Metsco:

**Table 2-7: 5T1 Original Health Index Calculation**

| | Degradation Factor Scores | | | | | | | | | | | Health Index Calculation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TX ID | DGA | Oil Quality | Service Age | Load History | Oil Leaks | Condition of Enclosure | Condition of Cooling Equipment | IR Scan | Oil Level | Condition of Foundation | Condition of Grounding | Weighted Sum | Max Possible Score | Health Index Score | Condition |
| MS5-PTX1 | 80 | 64 | 7 | 14 | 20 | 16 | - | 12 | 12 | 4 | 4 | 233 | 268 | 87% | Very Good |

b. Metsco indicated in the ACA report that it used dielectric strength test results in determining the HI score. Table B-47 from the ACA report indicates the following grading criteria:

**Table 2-8: ACA Power Transformer Grading Criteria**

| Test | Station Transformer Voltage Class | Grade |
|---|---|---|
| | U ≤ 69 kV | |
| Acid Number | ≤0.05 | A |
| | 0.05-0.20 | C |
| | ≥0.20 | E |
| Interfacial Tension [mN/m] | ≥30 | A |
| | 25-30 | C |
| | ≤25 | E |
| Dielectric Strength [kV] | >40 (2 mm gap) | A |
| | ≤40 | E |
| Water Content [ppm] | <35 | A |
| | ≥35 | E |

In discussion with Metsco, the formula used did not adhere to the table above and applied a Grade of A for values >= 23 kV for a 2mm gap, conflicting with OQ report recommendations. From the 2022 report that supported the ACA:

## Table 2-9: 5T1 2022 OQ Report

**WEIDMANN**

**WEIDMANN ELECTRICAL TECHNOLOGY**
919 FRASER DR. UNIT 13 + BURLINGTON, ON + L7L 4X8
905-632-8697 + 905-632-8698
WWW.WEIDMANN-ELECTRICAL.COM

**TEST REPORT**
**01-7584925-685540-00**
Page 2 of 2

EPTCON LTD
CAMBRIDGE, ON N1T 0A4 CA
ATTN: JOHN KULASINGHAM
PO#: 1833T-87004
**Project ID:** WELLAND HYDRO
**Customer ID:** T1

**Serial#:** 297811
**Location:** MS5
**Equipment:** TRANSFORMER
**Compartment:** MAIN(BOTTOM)
**Breathing:** SEAL
**Bank:** **Phase:** 3
**Fluid:** MIN

**Mfr:** MOLONEY ELECTRIC
**kV:** 27.6
**kVA:** 5000
**Year Mf'd:** 1977
**Syringe ID:** 8008003
**Bottle ID:**
**Sampled By:** LW

**Control#:** 7584925
**Order#:** 685540
**Account:** 107908
**Received:** 10/03/2022
**Reported:** 10/13/2022

| | | | | | |
|---|---|---|---|---|---|
| | | **Lab Control Number:** | 7584925 | 7471542 | 7386133 |
| | | **Date Sampled:** | 09/29/2022 | 08/04/2021 | 09/24/2020 |
| | | **Order Number:** | 685540 | 658135 | 636931 |
| | | **Oil Temp:** | 25 | 26 | 35 |
| **ASTM D-1533**[1] | **Moisture in Oil** | **(mg/kg):** | 27 | 40 | 31 |
| **ASTM D-971**[1] | **Interfacial Tension** | **(mN/m):** | 36.76 | 36.63 | 36.24 |
| **ASTM D-974**[1] | **Acid Number** | **(mg KOH/g):** | 0.011 | 0.009 | 0.016 |
| **ASTM D-1500**[1] | **Color Number** | **(ASTM):** | L1.0 | L1.5 | 1.5 |
| **ASTM D-1524**[1] | **Visual Exam.** | **(Relative):** | PASS CLR&BRIGHT | PASS CLR&BRIGHT | PASS CLR&BRIGHT |
| **ASTM D-1524**[1] | **Sediment Exam.** | **(Relative):** | ND | ND | ND |
| **ASTM D-1816**[1] | **Dielectric Breakdown 2 mm** | **(kV °C):** | **30 (23 C)** | 16 (24°C) | 38 (23°C) |
| **ASTM D-924** | **Power Factor @ 25°C (Routine)** | **(%):** | | 0.024 | 0.013 |
| **ASTM D-4052**[1] | **Density @15°C** | **(g/mL):** | 0.861 | 0.8615 | 0.8623 |
| **ASTM D-2668** | **Oxidation Inhibitor** | **(wt. %)** | | 0.036 | |

| | | |
|---|---|---|
| **GOQ Diagnostics** | **Moisture in Oil:** | Acceptable for in-service oil (35 mg/kg max). |
| **PER IEEE C57.106-2015** | **Interfacial Tension:** | Acceptable for in-service oil (25 mN/m min). |
| (most recent sample) | **Acid Number:** | Acceptable for in-service oil (0.2 mg KOH/g max). |
| | **Color Number and Visual:** | Diagnostic not applicable. Diagnostic not applicable. |
| | **Dielectric Breakdown ASTM D-1816:** | Below limit for in-service oil (40 kV min @ 2mm). |
| **Comment:** | | |

**End of Test Report**

Authorized By: _____
JANET KAROLAT
SUPV CHEMIST

From the subsequent 2023 report:

## Table 2-10: 5T1 2023 OQ Report

AVO DIAGNOSTIC SERVICES

**AVO DIAGNOSTIC SERVICES**
919 FRASER DR. UNIT 13 + BURLINGTON, ON + L7L 4X8
905-632-8697 + 905-632-8698
WWW.AVODIAGNOSTICS.COM

**TEST REPORT**
**01-7658472-703539-00**
Page 2 of 2

Eptcon Ltd
CAMBRIDGE, ON N1T 0A4 CA
ATTN: JOHN KULASINGHAM
PO#: 1833T-87005
**Project ID:** WELLAND HYDRO
**Customer ID:** T1

**Serial#:** 297811
**Location:** MS5
**Equipment:** TRANSFORMER
**Compartment:** MAIN(BOTTOM)
**Breathing:** SEAL
**Bank:** **Phase:** 3
**Fluid:** MIN

**Mfr:** MOLONEY ELECTRIC
**kV:** 27.6
**kVA:** 5000
**Year Mf'd:** 1977
**Syringe ID:** 8007125
**Bottle ID:**
**Sampled By:** SK SM

**Control#:** 7658472
**Order#:** 703539
**Account:** 107908
**Received:** 07/13/2023
**Reported:** 08/11/2023

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **Lab Control Number:** | 7658472 | 7584925 | 7471542 | 7386133 |
| | | **Date Sampled:** | 07/11/2023 | 09/29/2022 | 08/04/2021 | 09/24/2020 |
| | | **Order Number:** | 703539 | 685540 | 658135 | 636931 |
| | | **Oil Temp:** | 40 | 25 | 26 | 35 |
| **General Oil Quality (GOQ)** | | | | | | |
| **ASTM D-1533**[1] | **Moisture in Oil** | **(mg/kg):** | **44** | 27 | 40 | 31 |
| **ASTM D-971**[1] | **Interfacial Tension** | **(mN/m):** | 35.91 | 36.76 | 36.63 | 36.24 |
| **ASTM D-974**[1] | **Acid Number** | **(mg KOH/g):** | 0.017 | 0.011 | 0.009 | 0.016 |
| **ASTM D-1500**[1] | **Color Number** | **(ASTM):** | L1.0 | L1.0 | L1.5 | 1.5 |
| **ASTM D-1524**[1] | **Visual Exam.** | **(Relative):** | PASS CLR&BRIGHT | PASS CLR&BRIGHT | PASS CLR&BRIGHT | PASS CLR&BRIGHT |
| **ASTM D-1524**[1] | **Sediment Exam.** | **(Relative):** | ND | ND | ND | ND |
| **ASTM D-1816**[1] | **Dielectric Breakdown 2 mm** | **(kV °C):** | **23 (23 C)** | 30 (23 C) | 16 (24°C) | 38 (23°C) |
| **ASTM D-924**[1] | **Power Factor @ 25°C (Routine)** | **(%):** | 0.013 | | 0.024 | 0.013 |
| **ASTM D-4052**[1] | **Density @15°C** | **(g/mL):** | 0.8612 | 0.861 | 0.8615 | 0.8623 |
| **ASTM D-2668**[5,6] | **Oxidation Inhibitor** | **(wt. %)** | **0.036** | | 0.036 | |

| | | |
|---|---|---|
| **GOQ Diagnostics** | **Moisture in Oil:** | Exceeds limit for in-service oil (35 mg/kg max). |
| **PER IEEE C57.106-2015** | **Interfacial Tension:** | Acceptable for in-service oil (25 mN/m min). |
| (most recent sample) | **Acid Number:** | Acceptable for in-service oil (0.2 mg KOH/g max). |
| | **Color Number and Visual:** | Diagnostic not applicable. Diagnostic not applicable. |
| | **Dielectric Breakdown ASTM D-1816:** | Below limit for in-service oil (40 kV min @ 2mm). |
| | **Power Factor @ 25°C (Routine):** | Acceptable for in-service oil (0.5% max). |
| | **Oxidation Inhibitor:** | Acceptable for in-service oil Type I (0.0% min and 0.08% max). Exceeds limit for in-service oil type II (0.08% min and 0.3% max). |
| **Comment:** | | |

**End of Test Report**

Authorized By: _____
JANET KAROLAT
SUPV CHEMIST

c. WHESC has asked METSCO to amend the power transformer HI, however the results were not available at the time this interrogatory response was drafted. WHESC conducts annual oil analysis unless shorter analysis intervals are recommended in diagnostic reports. WHESC will mitigate issues following an analysis cycle and adjust maintenance and capital programs if needed. WHESC included the replacement of 5T1 in its System Renewal investments based on unit age and the repeated oil analysis results indicating dielectric strength is below the acceptable limit for in-service.

d. The table in Part A, Section 3 of the MIR incorrectly included the total planned expenditure for the substation renewal program and not just material investments. The table has been corrected as shown below:

**Table 2-11: Restated Table, Part A, Section 3 of Substation MIR**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | 324 | 199 | 307 | 203 | 33 | 758 | - | - | 330 | - | 300 | - | - |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | 324 | 199 | 307 | 203 | 33 | 758 | 315 | - | 330 | - | 300 | - | - |

In 2025, there is a project below the materiality threshold for replacement of M.S.7 feeder protection systems. This project has an estimated cost of $30K.

e. The $360K cost in 2025 covers:

1. Replacement of 5T1 and associated HV cabling at $330K.

2. Replacement of M.S.7 protection systems at $30K.

f. The $300K cost in 2027 covers:

1. Replacement of 7T1 and associated HV cabling at $300K

## 2-Staff-20

### Reference: Appendix 5-A: Material Project Narratives, pp. 18-25

### Preamble

The Material Investment Report for OH and UG System Renewal - Rear-lot Conversion covers specific areas for rebuilding and voltage conversion. These projects require capital expenditures to replace deteriorated rear lot assets, perform voltage conversion from the 4.16kV to 27.6kV system, and remove restricted conductors from service. Rear-lot conversion requires the removal of overhead primary

infrastructure (transformers, conductors and switches) from rear lot and replacement with assets in the municipally owned road allowance.

## Question(s):

a. How many services are affected for each of the three specified projects?

b. For rear-lot conversions, how are meter and customer service entrance relocation issues factored into project cost?

c. What are the specific projects and individual costs that are planned for the 2026-2029 forecast years?

## WHESC's Response

a. The following table summarizes the services affected in each of the three projects:

**Table 2-12: Rear-lot Conversion – Services Affected**

| Project | Number of Services Affected |
|---|---|
| Bishop Rd., McNaughton Rd. - Rebuild / Conversion | 141 |
| First St., Second St. - Rebuild / Conversion | 118 |
| Dover Rd., Dunkirk Rd. - Rebuild / Conversion | 225 |

b. The intention is to re-locate the rear-lot primary and maintain rear-lot secondary distribution. This results in minimal to no requirement to address service entrance relocations. The project cost estimate factors in any necessary secondary service conductor replacements due to pole relocations that may be required.

c. The following table summarizes the specific projects and associated costs for the period 2026 to 2029:

**Table 2-13: Rear Lot Conversion – 2026 – 2029 Projects**

| Year | Project | Cost |
|---|---|---|
| 2026 | McArther Ave., Morningstar Ave. - Rebuild/Conversion | $ 600,000 |
| 2026 | Leonard Ave., Donna Marie Dr. - Rebuild/Conversion | $ 540,000 |
| 2027 | Summit Ave., Linwood Dr., Home St. - Rebuild/Conversion | $ 570,000 |
| 2028 | St. Andrews Ave., Hagar St. - Rebuild/Conversion | $ 360,000 |
| 2029 | Northgate Dr., Colonial St.- Rebuild/Conversion | $ 380,000 |

It should be noted that the table shown in Part A, Section 3 of the Material Investment Report for the rear lot conversion program incorrectly stated the program costs for 2026. This has been corrected and is shown restated in the below:

**Table 2-14: Restated Table, Part A, Section 3 Rear Lot Conv. MIR**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | - | - | - | - | - | - | - | - | 1,100 | 1,140 | 570 | 360 | 380 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | - | - | - | - | - | - | - | - | 1,100 | 1,140 | 570 | 360 | 380 |

## 2-Staff-21

### Reference: Appendix 5-A: Material Project Narratives, pp. 26-30

### Preamble

The Material Investment Report for OH System Renewal - Thorold Rd. - Clare Ave. to Rose Ave covers capital expenditures related to the replacement assets that are approaching end of life and that have deteriorated in this area.

### Question(s):

a. What are the specific projects and individual costs that are planned for the 2026-2029 forecast years?

### WHESC's Response

a. The following table summarizes the specific projects and the associated cost:

**Table 2-15: OH System Rebuild – 2026 – 2029 Projects**

| Year | Project | Cost |
|---|---|---|
| 2026 | Lincoln St. Rebuild from Plymouth Rd. to King St. | $ 300,000 |
| 2026 | Clare Ave. Rebuild/Conversion from Fitch St. to Thorold Rd. | $ 725,000 |
| 2027 | First Ave. Rebuild/Conversion from Woodlawn Rd. to Quaker Rd. | $ 750,000 |
| 2027 | Ontario Rd. Rebuild/Conversion from Memorial Park Dr. to Hydro Corridor | $ 195,000 |
| 2028 | Lyons Creek Rd./ Darby Rd. Rebuild/Conversion | $ 600,000 |
| 2028 | State St., Kent St., Albert St. Rebuild/Conversion | $ 600,000 |
| 2028 | King Street Rebuild/Conversion from Regent St. to Lincoln St. | $ 192,000 |
| 2029 | Quaker Rd. @ First Ave. Rebuild/Conversion | $ 300,000 |
| 2029 | E. Main St. Rebuild/Conversion from Myrtle Ave. to Scholfield Ave. | $ 300,000 |

## 2-Staff-22

### Reference: Appendix 5-A: Material Project Narratives, pp. 31-36

### Preamble

The Material Investment Report for Pole Replacements, Transformer Replacements and Reactive Replacements covers the capital expenditures related to the renewal of aging live-front switchgear units with current standard dead-front switchgear.

### Question(s):

a. How many switchgear are to be replaced in each of the 2025-2029 forecast years?

### WHESC's Response

a. Two air insulated switchgear replacements are planned in each of the 2025 through 2029 forecast years. The gear will be replaced with dead-front switchgear in the same location. The budget cost includes the cost of the switchgear and the labour/material required for the replacement inclusive of cable re-termination.

## 2-Staff-23

### Reference 1: Appendix 5-A: Material Project Narratives, pp. 37-40
### Reference 2: Distribution System Plan, p. 110
### Preamble

The Material Investment Report for Pole Replacements, Transformer Replacements and Reactive Replacements covers capital expenditures associated with miscellaneous renewals (i.e. individual asset replacements rather than rebuild projects) related to the above programs. The report states that Welland Hydro-Electric System intends to replace 40 poles per year in the forecast period.

### Question(s):

a. The Material Investment Report states a Gross 2025 cost of $666k. Table 5.4-19 states a Gross cost of $614k. Please reconcile.

b. What is the Pole Replacement program cost in each of the 2025 - 2029 forecast years?

c. How many Transformer replacements and associated costs are planned for in each of the 2025-2029 forecast years?

d. What is the annual amount of Reactive Replacement cost in each of the 2025-2029 years?

## WHESC's Response

a. Table 5.4-19 does not include the amount for Miscellaneous Underground Rebuilds which is below materiality, budgeted at $52,000.

b. The annual pole replacement program costs are as follows:

**Table 2-16: Annual Pole Replacement Program Costs**

| Project | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| Pole Replacement Program | $ 302,387 | $ 311,459 | $ 320,803 | $ 330,427 | $ 340,340 |

c. The planned transformer replacements and associated costs in the forecast period are as follows:

**Table 2-17: Annual Transformer Replacement Summary**

| Project | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| Transformer Unit Replacements | 9 | 9 | 9 | 9 | 9 |
| Cost | $ 161,273 | $ 166,111 | $ 171,095 | $ 176,228 | $ 181,514 |

d. Reactive Replacement costs for the forecast period are as follows:

**Table 2-18: Reactive Replacements Cost Summary**

| Project | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|
| Overhead Rebuilds | $ 151,194 | $ 155,729 | $ 160,401 | $ 165,213 | $ 170,170 |
| Underground Rebuilds | $ 51,500 | $ 53,045 | $ 54,636 | $ 56,275 | $ 57,964 |

## 2-Staff-24

### Reference: Appendix 5-A: Material Project Narratives, pp. 41-44
### Preamble

The Material Investment Report for Grid Modernization covers the addition and deployment of new automated devices to replace in-service technology that is antiquated and near end of life, minimize outage duration and impacts via segmentation of grid expansions and provide operators the ability to fully leverage real-time technology to promptly address system disturbances that require management. Welland Hydro-Electric System intends to strategically deploy three automated devices each year during the period of 2025-2029.

### Question(s):

a. How many automated devices were deployed in each of the 2017-2024 years.

b. What is the mix of automated devices deployed as recloser, mid-point sectionalizer, end-point sectionalizer and fault indicating switch in each of the 2025-2029 years.

## WHESC's Response

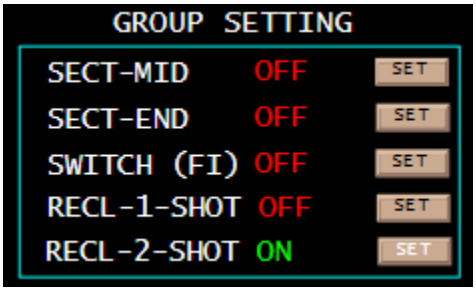
a. There were 16 automated devices deployed between 2017 and 2024 as shown in the following table:

**Table 2-19: Automated Device Deployment Summary**

| Project | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|
| Automated Devices | - | 1 | 2 | 2 | 3 | 4 | 2 | 2 |

b. Welland Hydro has the capability of configuring the automated device into one of five operating modes consisting of two recloser types, two sectionalizing types, and a fault indicating switch. The fault indicating switch is used at tie point locations or mid-feeder where coordination with upstream and downstream protection elements is not possible. The following is a SCADA view of the automated device mode selection which can be altered remotely depending on the needs of the current system configuration:

**Table 2-20: SCADA Automated Device Mode Selection**




The following table summarizes the deployment plan for automated devices for the period 2025 through to 2029:

**Table 2-21: Automated Device Deployment Plan**

| Year | Recloser | Mid-Sectionalizer | End-Sectionalizer | FI Tie-Point | FI Switch |
|---|---|---|---|---|---|
| 2025 | 1 | | 1 | | 1 |
| 2026 | 2 | | | 1 | |
| 2027 | | | 2 | 1 | |
| 2028 | | | | 3 | |
| 2029 | | | 2 | 1 | |

## 2-Staff-25

### Reference: Appendix 5-A: Material Project Narratives, pp. 45-49
### Preamble

The Material Investment Report for Information Systems covers investments in information systems by Welland Hydro-Electric System to address IT and OT hardware and software needs. In the historical period, between 2017 and 2020, Welland Hydro-Electric System brought critical systems (CIS, financial and document management systems) on premise to improve cybersecurity posture and cost control. This was a move from hosted infrastructure. Welland Hydro-Electric System implemented a virtual server environment on premise while implementing some cloud-based solutions. In 2022, Welland Hydro-Electric System solidified agreements with a third-party IT managed service provider which stabilized on-going operating costs associated with maintenance of Welland Hydro-Electric System's environment. In the 2025 Test Year, most of the planned expenditure is related to replacement of the virtualized environment. Welland Hydro-Electric System's forecasted capital costs associated with IT and OT systems reflect the trend of existing software vendors migrating to cloud-based solutions.

### Question(s):

a. What portions of the costs in the 2017-2023 historical period cover the move from a hosted off-premise solution to the on-premise solution?

b. Is the virtual server platform to be replaced part of a physical server on premise?

c. Is this a migration of service from on-premise to a cloud based system?

### WHESC's Response

a. The following table summarizes the expenditures made to migrate from a hosted solution to the on-premise deployment:

**Table 2-22: On-Premise Solution Capital Costs**

| Category | Historical Period | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | 140 | 215 | 367 | 272 | 69 | 24 | 45 |
| Capital Contributions | - | - | - | - | - | - | - |
| Net Capital Expenditure | 140 | 215 | 367 | 272 | 69 | 24 | 45 |
| CIS Software Licenses (Harris) | 127 | | | | | | |
| Financial Software Deployment (Great Plains) | | 215 | 53 | | | | |
| Physical Server Deployment On Premise | | | 132 | | | | |
| CIS Migration/Conversion (Harris) | | | 105 | | | | |
| Document Management Licenses / Conversion (FileNexus) | | | | 125 | | | |

b. Yes, the virtual server platform is currently deployed on physical hardware located on-premise. This is scheduled to be replaced on-premise in 2025.

c. The virtual server platform replacement is on-premise and is not a migration of service from on-premise to a cloud based system. The CIS, financial systems, and document management system will remain on premise on the new virtual server platform. WHESC has migrated to cloud for some Microsoft based applications including e-mail server functionality. As indicated in response to interrogatory 9-Staff-76,WHESC is moving its CIS to a cloud-based solution in 2025.

## 2-Staff-26

Reference 1: Distribution System Plan, p. 98
Reference 2: Appendix 5-A: Material Project Narratives, pp. 50-53
Reference 3: Appendix 5-I: Fleet Assessment
Preamble

The Material Investment Report for Facilities covers investments in vehicle equipment that are essential for efficient construction and maintenance of the distribution system and for the quick restoration of power during outages.

### Question(s):

a. Table 5.4-15 indicates that 4 fleet units are to be replaced with 3 fleet units in 2025. Table 3 in the Material Investment Report indicates 2 vehicles to be replaced in 2025. Please reconcile.

b. Table 5.4-19 indicates a cost for 2 vehicles replacements (light vehicle cost missing) of $614k. What is the additional cost of the light vehicle?

c. The table in Section 3 of the Material Investment Report indicates a 2025 forecast cost of $529. Please update the table in Section 3 with corrected costs for the 2025 and the rest of the forecast period.

d. Please explain to what extent has Welland Hydro-Electric System evaluated hybrid/full electric options against traditional combustion engine vehicles for light duty replacements in the 2025 year?

### WHESC's Response

a. In the Material Investment Report (MIR) for Fleet, Table 1 incorrectly omitted fleet vehicles in the forecast period and should have aligned with Table 5.4-15, on Page 98 of the DSP. This has been revised and Table 1 is restated below:

**Table 2-23: Restated Table 1, MIR Fleet**

| Fleet Asset | Vehicle Model | Vehicle Type | Remaining Life | Health Index Score (%) | Condition |
|---|---|---|---|---|---|
| LV-1 | 2011 GMC Canyon | Pickup Truck | 0% | 45% | Poor |
| LV-3 | 2010 GMC Sierra | Pickup Truck | 0% | 40% | Poor |
| LV-53 | 2011 GMC Sierra P/U | Pickup Truck | 0% | 33% | Poor |
| LV-37 | 2016 Ford F-150 | Pickup Truck | 20% | 73% | Good |
| LV-60 | 2015 Nissan NV200 | Mini Van | 10% | 73% | Good |
| HV-4 | 2010 Freightliner M2 106 | Bucket Truck | 0% | 58% | Fair |
| HV-11 | 2012 Freightliner M2 106 | Bucket Truck | 20% | 64% | Fair |
| HV-15 | 2009 International 4400 | Bucket Truck | 0% | 55% | Fair |
| OT-32 | 2005 New Holland | Wheel Loader | 55% | 63% | Fair |
| TR-35 | 1982 Lge. Reel Trailer | Trailer | 0% | 20% | Very Poor |

Table 2 from the MIR has also been updated to correct a mis-classification of a trailer and to correctly include the total quantity of vehicles classified as "Other":

**Table 2-24: Restated Table 2, MIR Fleet**

| Category | 2025 | 2029 |
|---|---|---|
| Light Duty Vehicles | 12 | 12 |
| Heavy Duty – (Aerial Devices) | 6 | 5 |
| Heavy Duty – (RBD) | 2 | 2 |
| Trailer – (Box) | 1 | 1 |
| Trailer – (Dump) | 3 | 3 |
| Trailer – (Reel) | 2 | 2 |
| Trailer – (Pole) | 1 | 1 |
| Trailer - (Float) | 1 | 1 |
| Other | 3 | 3 |
| **Total:** | **31** | **30** |

Also, in the MIR for Fleet, Table 3 incorrectly omitted the single bucket truck acquisition to replace two Aerial Devices in 2025. This has been revised and Table 3 is restated below:

**Table 2-25: Restated Table 3, MIR Fleet**

| Category | Forecast Period | | | | |
|---|---|---|---|---|---|
| | 2025 | 2026 | 2027 | 2028 | 2029 |
| Light Duty Vehicles | 1 | 1 | 1 | 1 | 1 |
| Heavy Duty (Ariel Devices) | 1 | 0 | 1 | 0 | 0 |
| Heavy Duty (RBD) | 0 | 0 | 0 | 0 | 0 |
| Trailers | 1 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 1 | 0 |
| **Total** | **3** | **1** | **2** | **2** | **1** |

b. Table 5.4-19 did not previously include the light duty vehicle expenditure because it was thought to be below materiality when the document was drafted. The additional cost of the light duty vehicle in 2025 is $66,950. Table 5.4-19 also mis-stated the cost of the 55' Bucket Truck for 2025. The total fleet budget for 2025 is $528,971. The expenditure for the bucket truck in 2025 is $377,021. The table has been corrected and presented below:

**Table 2-26: Restated, DSP Table 5.4-19**

| Category | Program | Project | Score | Project Rankiing | 2025 Planned Expenditure ($ '000) |
|---|---|---|---|---|---|
| System Access | General Services | N/A | N/A | N/A | 240 |
| | Subdivisions | N/A | N/A | N/A | 1,136 |
| | Meters | N/A | N/A | N/A | 155 |
| System Renewal | Substation Renewal | MS 5 TX Replacement, HV / LV Cables | 369 | 4 | 330 |
| | Overhead Line Renewal | Bishop Rd, McNaughtion Rd - Rebuild / Voltage Conversion | 378 | 1 | 300 |
| | | First St, Second St - Rebuild / Voltage Conversion | 378 | 2 | 250 |
| | | Thorold Rd, Clare Ave to Rose Ave - Voltage Conversion | 349 | 7 | 500 |
| | Underground System Renewal | Dover Rd, Dunkirk Rd - Rebuild / Voltage Conversion | 373 | 3 | 550 |
| | | Switchgear Replacement | 355 | 5 | 258 |
| | Pole Replacement | N/A | 346 | 9 | 302 |
| | Transformer Replacement | N/A | 348 | 8 | 161 |
| | Reactive OH System Replacement | N/A | N/A | N/A | 151 |
| System Service | Grid Modernization | SCADA Device Deployment | 344 | 10 | 242 |
| General Plant | Information Systems | Computer Hardware | 343 | 11 | 120 |
| | Fleet | 55' Bucket Truck | 351 | 6 | 377 |
| | | Reel Trailer | 338 | 13 | 85 |
| | | Light Duty Truck | 335 | 14 | 67 |
| | Building Improvements | Operations Renovations | 343 | 12 | 125 |
| Gross Capital Expenditure - Material Projects in the Test Year | | | | | **5,349** |
| Gross Capital Expenditure - All Projects in the Test Year | | | | | **5,658** |

c. The table in Section 5 of the Material Investment Report for Fleet is correct based on the adjustments to the table noted in response b., above. The table is shown below, unaltered:

**Table 2-27: Table, Section 5, MIR Fleet**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | 73 | 220 | 459 | 31 | 361 | 50 | 197 | 65* | 529* | 214 | 466 | 153 | 75 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | 73 | 220 | 459 | 31 | 361 | 50 | 197 | 65 | 529 | 214 | 466 | 153 | 75 |

d. WHESC has received quotations for full-electric / hybrid light duty vehicles and compared those to internal combustion engine based proposals. WHESC has not identified a total cost of ownership justifying the purchase of a full-electric / hybrid light duty vehicle at this time based on the vehicle requirements (pick-up trucks in the forecast period) and forecast usage. WHESC will continue to evaluate light duty vehicle proposals of all available fuel types and make purchase decisions based on the lowest total cost of ownership.

## 2-Staff-27

### Reference: Appendix 5-H: Asset Condition Assessment (2023), pp. 52-55
### Preamble

The 2023 ACA by METSCO provides additional condition parameters that Welland Hydro-Electric System might consider implementing to work towards a best practice HI formulation for each asset class. Recommendations are also provided to improve the quality of data currently available to standardize the data collection process for future iterations of the ACA.

## Question(s):

a. For the recommendations provided, please advise of Welland Hydro-Electric System's acceptance or rejection of the individual recommendations and the time frame in which Welland Hydro-Electric System will institute the recommended practices.

## WHESC's Response

a. For the recommendations provided in Section 5.1 of the ACA, WHESC provides the following comments:

5.1.1 Wood Poles

The report states: *"WHESC should prioritize performing Polux tests on all wood poles in its service territory. Only testing poles above a certain age threshold (e.g., fifteen years) is an approach commonly applied in the industry."*

WHESC accepts the recommendation to perform Polux testing on all wood poles owned by the LDC. WHESC has provided a pole inspection schedule in Table 5.3-15, on Page 78 of the DSP. Following the schedule, all poles will be tested using the Polux methodology by the end of 2027. WHESC will further consider only testing poles above a certain age threshold. WHESC would like the opportunity to validate the suggestion that 15 years of age is an appropriate threshold for Polux testing of a wood pole. In WHESC's experience, factors such as insect infestation potential may necessitate a lower age threshold and test frequency.

5.1.2 Concrete Poles

The report does not make any specific recommendation related to concrete poles.

5.1.3 Pad-mounted and Pole-Trans Transformers

WHESC now tracks peak loading information via SmartMAP and is positioned to start using the data as a condition parameter in the HI formulation. WHESC accepts this recommendation.

5.1.4 Distribution Switchgears

The report does not make any specific recommendation related to Distribution Switchgear.

5.1.5 Overhead Conductors

The report does not make any specific recommendation related to Overhead Conductors.

5.1.6 Underground Cables

The report states: *"Although several test techniques, such as partial discharge testing, have become available over recent years, it is still very difficult and expensive to obtain accurate condition information for buried cables. WHESC may consider collecting the following condition parameters for UG cables to advance the HI formulation for the asset class:*

- Field Tests
- Loading History"

WHESC has considered field testing underground cables to aid in determining asset condition but has not concluded that this provides a cost benefit. WHESC's primary distribution system is loop supplied, meaning that restoration of load following a faulted section of cable is expedient. Historically, a combination of cable age correlated with cable fault occurrence data provides a good indication of asset health and a basis to prioritize asset replacement. WHESC does not currently have the capability of compiling loading history for existing cable assets in service.

5.1.7 SCADA Switches

Contrary to the report's inference, WHESC does cover inspection of these switches under its annual infrared inspection program and has historically reacted to identified issues. WHESC also monitors the condition of battery systems and the device control through SCADA.

5.2.1 Power Transformers

WHESC's accepts the recommendation and has acquired the necessary equipment to perform the recommended electrical tests. WHESC has in-house staff capability to conduct these tests at a managed cost. WHESC will further augment its cyclical inspection and oil analysis programs to adopt the recommended additional condition parameters.

5.2.2 Circuit Breakers

WHESC intends to continue its substation maintenance program as it relates to circuit breakers, covering the balance of its substation fleet through the forecast period. The three-year cycle is identified in Table 5.3-14, on page 74 of the DSP. WHESC will evaluate the cost impact of adding vacuum bottle integrity testing to its cyclical program and intends to adopt collection of the balance of condition parameters recommended.

5.2.3 Substation Switchgear and Reclosers

WHESC intends to continue its substation maintenance program as it relates to switchgear and reclosers, covering the balance of its substation fleet through the forecast period. WHESC agrees with the recommendation to collect the additional condition parameter, equipment failures.

## 2-Staff-28

### Renewable Enabling Improvements

Reference 1: Exhibit 2, Section 2.10, pp. 50-51
Reference 2: Appendix 2-FA
Reference 3: Appendix 2-FB
Reference 4: Appendix 2-FC
Preamble

In reference 1, Welland Hydro-Electric System states that the approval for Renewable Generation Connection Rate Protection (RGCRP) in its 2017 rebasing application related to an investment in 2014 at an actual cost of $88,852 and confirms that no additional costs related to this investment have been incurred. Welland Hydro-Electric System also states that it has completed Appendix 2-FA and 2-FC to update depreciation and calculate a new up-to-date rate protection amount for the 2025 Test Year through to 2030.

OEB staff notes that Appendix 2-FA shows a list of renewable connection projects which presents a capital cost of $71,082 related to renewable enabling improvement connection project for 2025. Appendix 2-FB and Appendix 2-FC show the revenue requirement calculations for direct benefits and provincial amounts based on the renewable enabling improvement investment associated with the $71,082 capital cost and the renewable expansion investments of $88,852 respectively for the 2025 to 3030 period. OEB staff also notes that it appears that the annual revenue requirement amounts for RGCRP (shown in Appendix 2-FB, row 44) for the 2025 to 2030 period are not included in Welland Hydro-Electric System's updated RGCRP amounts for the same period as shown in Table 2-27 in reference 1.

### Question(s):

a. Since Welland Hydro-Electric System confirms that there are no additional costs related to the original investment (approved in the 2017 rebasing application), please explain the capital cost of $71,082 for the renewable enabling improvement investment in Appendix 2-FA and the associated revenue requirement amounts for RGCRP for the 2025 to 3030 period that are presented in Appendix 2-FA and Appendix 2-FB. What is this information intended for?

b. If Welland Hydro-Electric System is not requesting recovery for any new investments, please update Appendix 2-FA and Appendix 2-FB to exclude the $71,082 investment from the spreadsheets.

c. Please revise Appendix 2-FA by extending the historical years starting from 2014 and also add the capital cost of $88,852 to Part B, Capital Costs line (row 71) and Total Capital Costs line (row 99).

### WHESC's Response

a. The capital cost of $71,082 was inadvertently included in Part A of Appendix 2-FA and was intended to be included in Part B. The $71,082 represents the 2025 opening Net Book Value of the original 2014 investment of $88,852.

b. Welland Hydro is not requesting recovery for any new investments. Appendix 2-FA has been revised (per 2-Staff-28, Part c.) by extending the historical years starting from 2014 and including the capital cost of $88,852 to Part B. The $71,082 opening NBV in 2025 has been removed from Appendix 2-FB.

c. Appendix 2-FA has been revised to extend the historical years starting from 2014 and adding the capital cost of $88,852 to Part B, Capital Costs line (row 71) and Total Capital Costs line (row 99).

## 2-Staff-29

### Renewable Expansion Investments

### Reference 1: Exhibit 2, Section 2.10, pp. 50-51
### Reference 2: Appendix 2-FC
### Reference 3: EB-2016-0110, 2017 Chapter2 Appendices_Settlement_20170419, Appendix 2-FC
### Preamble

In reference 1, Welland Hydro-Electric System states that it is proposing to update its annual rate protection amount from the current amount of $5,172 to a revised amount of $5,107 in 2025. Table 2-27 in reference 1 shows a summary of the 2017 OEB-approved amount, and the updated 2025 to 2030 amounts.

OEB staff notes that the updated 2025 to 2030 amounts are calculated based on the actual capital cost of $88,852 for renewable expansion investment in Appendix 2-FC. OEB staff also notes that Appendix 2-FC in reference 2 shows RGCRP calculations from 2020 to 3030 while the approved Appendix 2-FC from the 2017 cost of service application (reference 3) shows the RGCRP calculations from 2014 to 2017.

## Question(s):

a. Please extend the RGCRP calculations in Appendix 2-FC (reference 2) to include the period 2014 to 2019. Please update the spreadsheet using the short-term interest rate, long-term interest rate, and ROE from the following sources:

- The period 2014 to 2016: Approved 2013 cost of service application (EB-2012-0173).
- The period 2017 to 2024: Approved 2017 cost of service application (EB-2016-0110).
- The period 2025 to 2030: Proposed 2025 cost of service application (EB-2024-0058).

b. Based on the updated calculations in (a), please calculate the total annual RGCRP amount (row 44) for the 2014 to 2024.

c. Please calculate the difference between the total RGCRP amount in (b) and the total RGCRP amount of $52,360 received from IESO in Table 2-26 in reference 1.

## WHESC's Response

a. Welland Hydro has updated Appendix 2-FC to include the period 2014 to 2019. Appendix 2-FC has been updated using the short-term interest rate, long-term interest rate, and ROE from the following sources:

- The period 2014 to 2016: Approved 2013 cost of service application (EB-2012-0173).
- The period 2017 to 2024: Approved 2017 cost of service application (EB-2016-0110).
- The period 2025 to 2030: Proposed 2025 cost of service application (EB-2024-0058).

Below is Exhibit 2, Section 2.10, Table 2-27 restated:

## Table 2-28: Restated Table 2-27, Exhibit 2, Section 2.10

| | 2017 Board Approved | | | 2025 Test Year | | | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Direct Benefit | Provincial | Total | Direct Benefit | Provincial | Provincial | Provincial | Provincial | Provincial | Provincial |
| | | 17% | 83% | | 17% | 83% | 83% | 83% | 83% | 83% | 83% |
| **Average NBV** | **83,521** | **14,199** | **69,322** | **69,305** | **11,782** | **57,523** | **56,048** | **54,573** | **53,098** | **51,623** | **50,148** |
| Deemed ST Debt | 4% | 568 | 2,773 | 4% | 471 | 2,301 | 2,242 | 2,183 | 2,124 | 2,065 | 2,006 |
| Deemed LT Debt | 56% | 7,951 | 38,821 | 56% | 6,598 | 32,213 | 31,387 | 30,561 | 29,735 | 28,909 | 28,083 |
| Deemed Equity | 40% | 5,679 | 27,729 | 40% | 4,713 | 23,009 | 22,419 | 21,829 | 21,239 | 20,649 | 20,059 |
| ST Interest | 2.08% | 12 | 58 | 5.04% | 24 | 116 | 113 | 110 | 107 | 104 | 101 |
| LT Interest | 3.78% | 301 | 1,467 | 4.66% | 307 | 1,501 | 1,463 | 1,424 | 1,386 | 1,347 | 1,309 |
| ROE | 8.93% | 507 | 2,476 | 9.25% | 436 | 2,128 | 2,074 | 2,019 | 1,965 | 1,910 | 1,855 |
| **Cost of Capital Total** | | **820** | **4,001** | | **767** | **3,745** | **3,649** | **3,553** | **3,457** | **3,361** | **3,265** |
| OM&A | | | | | | | | | | | |
| Amortization (50 years) | 1,777 | 302 | 1,475 | 1,777 | 302 | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 |
| Grossed-up PILs | | - 62 | - 304 | | 84 | 412 | 463 | 509 | 549 | 585 | 616 |
| **Revenue Requirement** | | **1,059** | **5,172** | | **1,154** | **5,632** | **5,588** | **5,537** | **5,482** | **5,421** | **5,356** |
| Income Tax | | | | | | | | | | | |
| Net income (ROE) | | 507 | 2,476 | | 436 | 2,128 | 2,074 | 2,019 | 1,965 | 1,910 | 1,855 |
| Depreciation | | 302 | 1,475 | | 302 | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 | 1,475 |
| CCA (8%) | - 5,776 | - 982 | - 4,794 | - 2,964 | - 504 | - 2,460 | - 2,263 | - 2,082 | - 1,916 | - 1,763 | - 1,622 |
| Taxable Income | | - 173 | - 843 | | 234 | 1,143 | 1,285 | 1,412 | 1,524 | 1,622 | 1,709 |
| Income Taxes Payable (26.5%) | | - 46 | - 223 | | 62 | 303 | 341 | 374 | 404 | 430 | 453 |
| **Grossed up PILs** | | **- 62** | **- 304** | | **84** | **412** | **463** | **509** | **549** | **585** | **616** |

b. Based on the updated calculations in (a), the total RGCRP amount for 2014 to 2024 is $53,828 as can be seen in the table below:

## Table 2-29: Appendix 2-FC – Total RGCRP Amount

| Year | Annual RGCRP Amount |
|---|---|
| 2014 | 2,517 |
| 2015 | 5,067 |
| 2016 | 5,126 |
| 2017 | 5,084 |
| 2018 | 5,120 |
| 2019 | 5,145 |
| 2020 | 5,159 |
| 2021 | 5,165 |
| 2022 | 5,162 |
| 2023 | 5,151 |
| 2024 | 5,132 |
| **Total** | **53,828** |

c. There is a $1,468 difference between the total RGCRP amount in (b) and the total RGCRP amount received from the IESO in Exhibit 2, Table 2-26 in reference 1.

**Table 2-30: Difference in RGCRP Amount**

| | |
|---|---|
| Total RGCRP Amount 2014 to 2024 | 53,828 |
| Total RGCRP Amount Received from the IESO | 52,360 |
| Difference | 1,468 |

## 2-Staff-30

### RGCRP - Short-term and Long-term Interest Rates

### Reference 1: Appendix 2-FC
### Reference 2: EB-2016-0110, 2017 Chapter2 Appendices_Settlement_20170419, Appendix 2-FC
### Preamble

In reference 1, OEB staff notes that there are no return on short-term and long-term debt amounts in rows 32 and 33 respectively for the period 2020 to 2024 since the short-term and long term interest rates are 0% (cells B32 and B33).

### Question(s):

a. Please confirm that the short-term and long-term interest rates for the 2020 and 2024 period are updated correctly in response to 2-staff-29 (a).

### WHESC's Response

a. Welland Hydro confirms that it has updated the short-term and long-term interest rates for the 2020 to 2024 period correctly in response to interrogatory 2-Staff-29(a).

## 2-Staff-31

### RGCRP - Opening Accumulated Amortization

### Reference 1: Appendix 2-FC
### Reference 2: EB-2016-0110, 2017 Chapter2 Appendices_Settlement_20170419, Appendix 2-FC
### Preamble

In reference 1, the opening accumulated amortization amount of 9,774 is input into cell E76 for the year 2020 and the amount in 2021 is calculated as $11,551 (cell F76). In reference 2, the opening accumulated amortization depreciation amount in 2018 is calculated as $9,774 (cell K75) and the amount in 2019 is calculated as $11,551 (cell L75).

OEB staff notes that the opening accumulated amortization amounts between the two references appear to be shifted by two years.

### Question(s):

a. Please explain how the depreciation amount of $9,774 in reference 1 is derived.

b. Please confirm OEB staff's observation noted above. If confirmed, please ensure that the opening accumulated amortization amounts are updated correctly in response to 2-staff-29 (a).

### WHESC's Response

a. The opening depreciation amount of $9,774 in reference 1 is calculated as $889 of depreciation in 2014 ($88,852 cost x 50% half year / 50-year life) plus $8,885 of depreciation for 2015 to 2019 ($88,852 cost / 50 year-life = $1,777 x 5 years).

b. In reference 2, Welland Hydro confirms that in Appendix 2-FC the years indicated in Row 69 are shifted by 2 years. Cell E69 indicated the year as 2012 but should have been 2014. The correct years and opening accumulated amortization amounts have been updated correctly in response to 2-Staff-29 (a).

## 2-Staff-32

### RGCRP - Opening UCC

### Reference 1: Appendix 2-FC
### Reference 2: EB-2016-0110, 2017 Chapter2 Appendices_Settlement_20170419, Appendix 2-FC
### Preamble

In reference 1, the opening UCC amount of 56,218 is input into cell E88 for the year 2020 and the amount in 2021 is calculated as $51,721 (cell F88). In reference 2, the opening UCC amount in 2018 is calculated as $56,218 (cell K87) and the amount in 2019 is calculated as $51,721 (cell L87). OEB staff notes that the opening UCC amounts between the two references appear to be shifted by two years.

### Question(s):

a. Please explain how the opening UCC amount of $56,218 in reference 1 is derived.

b. Please confirm OEB staff's observation noted above. If confirmed, please ensure that the opening UCC amounts are updated correctly in response to 2-staff-29 (a).

### WHESC's Response

a. The opening UCC amount of $56,218 in reference 1 is calculated based on a cost of $88,852, a CCA rate of 8% per year, with half year CCA in 2014 and full year CCA from 2014 to 2019. Total

cost of $88,852 less total CCA of $32,634 from 2014 to 2019 results in an opening 2020 UCC balance of $56,218.

b. In reference 2, Welland Hydro confirms that in Appendix 2-FC the years indicated in Row 85 are incorrectly labelled. Cell F85 indicates the year 2014 but should state 2015. Cell G85 also indicates the year 2014 but should state 2016. As a result, cells H85 to L85 are shifted by 2 years. The opening UCC amounts have been updated correctly in response to 2-Staff-29 (a).

## Coalition of Concerned Manufacturers and Businesses of Canada Interrogatories (CMBCC)

### 2-CCMBC-3

#### Reference: Exhibit 2, Appendix 2-E, Distribution System Plan, Page 16
#### Preamble

"The energy transition of transportation and heating sources is at the forefront of planning processes. WHESC in partnership with GSC member LDCs, procured an Electrification Strategy Study. This study provides insight on potential EV adoption rates and heating fuel source switching, along with recommendations on system preparedness. WHESC considered these recommendations in developing its capital investment plan over the forecast period."

#### Question(s):

a. Is the Electrification Strategy Study in evidence? If it is, please provide the reference. If it is not, please file it.

b. Please file the list of recommendations referred to in the quoted text.

c. Please explain how WHESC considered these recommendations.

#### WHESC's Response

a. The Electrification Strategy Document is included as Attachment C to this document.

b. The Electrification Strategy Report's recommendations are listed below with an explanation of WHESC's considerations:

1. System Planning
    1.1. Incorporate the impact of electrification technologies in system planning such as a periodic load forecast of EV chargers and electric space heating.

WHESC considered EV connection and fuel switching forecast rates to determine the impact on distribution system planning in the forecast period. Based on data available from the EDA and SmartMAP analytics on EV registrations, and Level 2 or greater charger connections to date, WHESC has not observed a material adjustment to its load forecast.

1.2. Assess the locational value of DERs and its role in optimizing distribution, transmission, and system operational priorities.

WHESC has visibility of existing DER's on the distribution system through SCADA and SmartMAP. WHESC's approach to this recommendation is to enhance visibility through grid modernization, readying the distribution system and LDC operation for a DSO environment.

1.3. Develop a business case approach for electrification-related investments.

WHESC's existing DSP process uses alternative analysis to determine the most appropriate approach to addressing an investment need. WHESC has reviewed the OEB's BCA Framework for Addressing Electricity System Needs and will follow the guidelines should a need result in a level of investment above the expected capital cost threshold.

1.4. Improve coordination between distribution, transmission, and system operators.

WHESC currently has SCADA based integration with its transmitter for the purposes of acquiring data through ICCP and providing telemetry data for DER's on the distribution system. WHESC also monitors the status and progress of IESO's Transmission-Distribution Coordination Working Group.

1.5. Build visibility into the deployment and location of EVs in service territory, standardize EV asset and operational data capture, and assess opportunities for e-mobility services.

WHESC's SmartMAP platform provides EV charger detection capability as identified in Section 5.3.1.4 of WHESC's DSP. WHESC also uses the SmartMAP's analytic capabilities to determine changes in utilization on distribution transformers and equipment to determine operational and system planning needs.

1.6. Engage with real estate developers in the community to understand electrification plans. Develop a formalized process for innovation projects and collaboration with third parties.

WHESC actively participates in weekly pre-consultation meetings with developers and stakeholders. The meetings are facilitated by the City of Welland. WHESC gathers an understanding of upcoming developments and high-level electricity distribution needs. This aggregate of this information is an input to investment planning in the System Access category.

2. Grid Operations

2.1. Implement scenario-based long-term forecasting that considers consumer choice, such as how DER incentives will impact the load forecast.

WHESC believes that it needs the visibility, data, and toolsets to perform this type of load forecasting as DER penetration increases. The grid modernization investments being made and the SmartMAP deployment provide a good foundation for WHESC to implement

scenario-based load forecasting. The SmartMAP platform is capable of scenario based and real time load flow analysis.

2.2. Consider the impact of winter peaking on operations.

WHESC's winter peak must grow 36% to reach the level of its summer peak (based on 2020 data). WHESC does not anticipate winter peak growth to this level in the forecast period. The replacement of Crowland TS also adds significant capacity to meet the needs of WHESC'S current long term load forecast, even with the possibility of fuel switching.

2.3. In the near term, utilize the existing AMI 1.0 technology with improved data analytics and meter data management to have increased visibility of the grid.

WHESC has AMI and C&I meter data fully integrated into its SmartMAP platform. SCADA data is also integrated to improve the validity of real time analysis.

2.4. In the longer term, implement next-generation smart meters, the supporting infrastructure, and the use cases for advanced functionalities.

WHESC's current deployment of AMI infrastructure provides outage notification, voltage, load profile, and meter performance alarming. With the capabilities and integration of its AMI 1.0 system, WHESC has not identified a need to deploy next-generation smart meters in the DSP forecast period.

2.5. Build visibility into EV charging data, perform analytics on the data and consider customer charging patterns for load forecasting and operational planning purposes.

WHESC has described its visibility into EV charging data in the System Planning Section above.

2.6. Develop capabilities to control customer EV charging directly or indirectly.

WHESC does not anticipate this requirement in the DSP forecast period. However, WHESC believes that it has deployed foundational systems in support of DSO concepts where this level of control can improve operational flexibility.

3. Design Practices

3.1. Perform a detailed secondary distribution load estimation, considering the impact of electrification on the customer peak demand load and service panel size.

3.2. Re-assess the critical parameters that determine the appropriate size and loading of secondary distribution equipment, including fault current, voltage drop, and system losses.

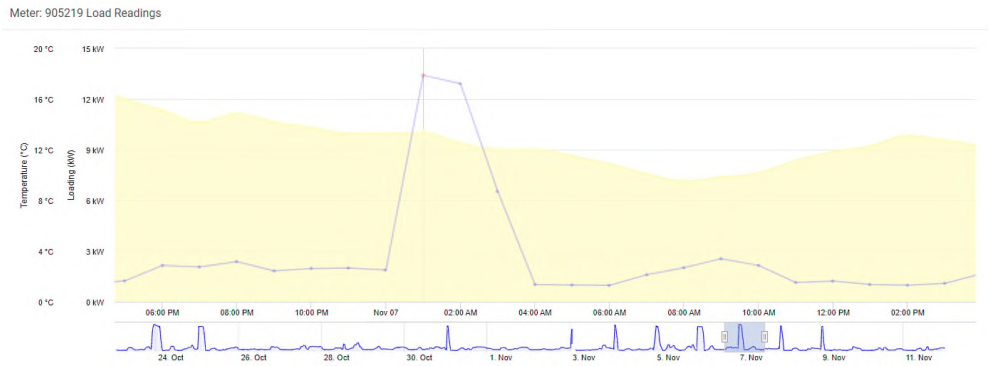
3.3. Study changing the process of service connection and service upgrades to collect data on loads that may cause significant shift in electrical demand or usage pattern.

3.4. Consider reviewing the conditions of service to add requirements for fault current withstand of service panels that coordinate with the available fault current.

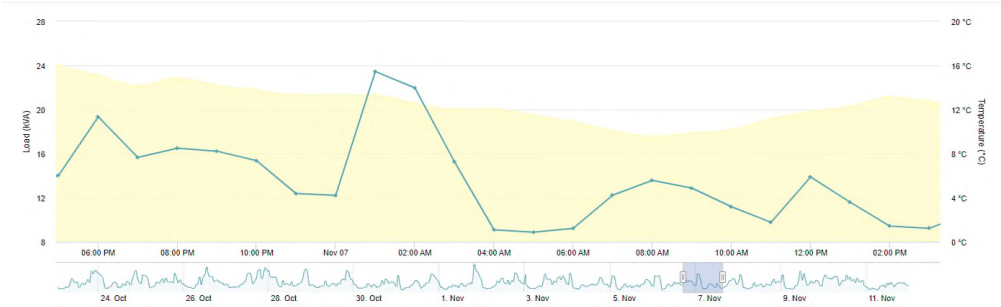
Regarding the above four recommendations under Design Practices, WHESC provides a holistic response to how it has considered these items. WHESC's SmartMAP software has visibility into the secondary system and analyzes asset utilization. WHESC's

engineering department uses the software to support capital project design and to right-size distribution equipment. The impact a customer's historical utilization, including exiting impacts from EV charging locations are inherent in the process.

An example is this customer load profile:




And the impact on the supplying distribution transformer:




This type of analysis continues through to the primary level of the distribution system to analyze current and historical utilization. WHESC uses the system to conduct load flow and fault level analysis to determine appropriate equipment sizing. WHESC continues to build on its three years of aggregated historical data to support engineering analysis in this platform.

c. WHESC has provided an explanation of WHESC's considerations following each recommendation or grouping provided above.

## 2-CCMBC-4

### Reference: Exhibit 2, Appendix 2-E, Distribution System Plan, Page 54
### Preamble

"WHESC also monitors the HI of wood poles owned by Bell Canada. Although these pole assets are not owned or maintained by WHESC, they support distribution assets. WHESC must ensure that the pole owner maintains the integrity of the asset sufficiently to manage overall distribution system performance."

### Question(s):

a. What is the business arrangement between WHESC and Bell Canada for the use and monitoring of poles owned by Bell Canada?

b. How many poles are involved?

c. What is the annual cost and revenue impact?

### WHESC's Response

a. WHESC has a joint-use agreement with Bell Canada for attachment of electrical distribution plant to their poles. WHESC describes the rational for monitoring the condition of Bell Canada owned poles in the response to interrogatory 2-Staff-13.

b. WHESC monitors the condition of 795 Bell Canada owned poles that support WHESC distribution equipment.

c. There is no revenue impact related to WHESC's monitoring of Bell Canada owned poles for the purpose of meeting its inspection requirements. WHESC estimates the annual cost of visually inspecting Bell Canada owned wood poles is approximately $3K.

## School Energy Coalition Interrogatories (SEC)

### 2-SEC-4

### Reference: EX 2, APPENDICES 2-AA, 2-AB AND 2-BA

### Question(s):

a. Please update 2-AA and 2-AB showing actuals to date for 2024, and an updated forecast for 2024 and 2025, if required.

b. If the forecast for either year changes, please update 2-BA.

c. Please provide actuals for 2022 and 2023, in 2-AA and 2-AB format, to the same date as provided in part a.

d. Please provide the source for the planned amounts for 2020 to 2024 (e.g. internal budget documents).

### WHESC's Response

a. Capital expenditures for the 2024 Bridge Year are updated in Appendix 2-AA and Appendix 2-AB in file 'WHESC_2025_Chapter2_Appendices_IRR_2024_11_21.xlsm'. The data is actual to October 31st; the total year budget remains the same and therefore any remaining amount from actual to budget is forecast. The 2025 Test Year budget remains the same.

b. The forecast for 2024 and 2025 has not changed.

c. The actuals for 2022 and 2023 to the same date as in Part a. are contained in the file 'WHESC_2025_Chapter2_Appendices_IRR_2024_11_21.xlsm'.

d. The source of the planned amounts in 2020 and 2021 is the 2017 DSP. The source of the planned amounts in 2022, 2023, and 2024 are internal budget documents.

## 2-SEC-5

### Reference: Ex 2, Appendix 2-BA

### Question(s):

a. Please provide details on what assets were included in the 2023 CWIP Closing Balance of $132,465 which is forecasted to go into service in 2025.

### WHESC's Response

a. The $132,465 balance included in 2023 CWIP is related to purchase of a Bucket Truck. The chassis was purchased in 2023 and the vehicle will be completed and delivered in 2025.

## 2-SEC-6

### Reference: Ex 2, Section 27

### Question(s):

a. Please confirm that no funds have been included in Welland's 2025 to 2029 capital forecast related to connecting to the upgraded Crowland Transformer Station, scheduled for completion as part of the Niagara Regional Infrastructure Plan.

b. If not confirmed, please provide details on which projects and amounts.

### WHESC's Response

a. WHESC confirms that no funds have been included in WHESC'S 2025 to 2029 capital forecast related to connecting to the upgraded Crowland Transformer Station, scheduled for completion as part of the Niagara Regional Infrastructure Plan.

## 2-SEC-7

### Reference: Ex 2, Distribution System Plan (DSP), Appendix 5-A, p 1 & 5

### Question(s):

a. How many new general services connections is Welland forecasting for each year 2024 to 2029?

b. How many actual new general services connections has Welland installed to date in 2024?

c. How many new connections for subdivisions is Welland forecasting for each year 2024 to 2029?

d. How many actual new connections for subdivisions has Welland installed to date in 2024?

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 2-Staff-16.

b. Please refer to WHESC's response to interrogatory 2-Staff-16.

c. Please refer to WHESC's response to interrogatory 2-Staff-17.

d. Please refer to WHESC's response to interrogatory 2-Staff-17.

## 2-SEC-8

### Reference: Ex 2, DSP, Appendix 5-D, Appendix 2-AA

### Question(s):

a. The Customer Engagement Survey states that Welland requires $20.7 million of investment to meet Its objectives from 2025 through 2029. Appendix 2-AA shows total CapEx for 2025 to 2029 to be $22.9M. Is this increase solely a response to the survey results or for another reason? Please explain.

b. Please provide details on what specifically was changed as a result of the survey, including dollar amounts and # of assets.

## WHESC's Response

a. WHESC's change in Capex for the forecast period based on the Customer Engagement Survey accounts for a $2.7M increase. Additionally, there was a $433K reduction in Capex due to the following:

**Table 2-31: Change in Capex Unrelated to Customer Engagement**

| Categorty | Description | Adjustment |
|---|---|---|
| System Access | Updated Captial Contribution Forecast | -$ 589,837 |
| General Plant | Updated Plan based on Fleet/Facilities Estimates and Delivery | $ 157,051 |
| Total Adjustment | | -$ 432,786 |

b. The following table summarizes the additions to the capital investment plan as a result of the customer engagement survey:

**Table 2-32: Capital Investment Plan Additions from Survey**

| Year | Description | OH Line Renewal | UG System Renewal | Grid Modernization | Total |
|---|---|---|---|---|---|
| 2025 | Asset Description | 20 Poles, 5 Transformers, 0.25km of line | 1 Dead-Front Switchgear Replacement | 1 SCADA Controlled Recloser | |
| | Cost | $ 300,704 | $ 128,750 | $ 77,250.00 | $ 506,704 |
| 2026 | Asset Description | 20 Poles, 5 Transformers, 0.25km of line | 1 Dead-Front Switchgear Replacement | 1 SCADA Controlled Recloser | |
| | Cost | $ 309,725 | $ 132,613 | $ 79,567.50 | $ 521,905 |
| 2027 | Asset Description | 20 Poles, 5 Transformers, 0.25km of line | 1 Dead-Front Switchgear Replacement | 1 SCADA Controlled Recloser | |
| | Cost | $ 319,017 | $ 136,591 | $ 81,954.53 | $ 537,562 |
| 2028 | Asset Description | 20 Poles, 5 Transformers, 0.25km of line | 1 Dead-Front Switchgear Replacement | 1 SCADA Controlled Recloser | |
| | Cost | $ 328,588 | $ 140,689 | $ 84,413.16 | $ 553,689 |
| 2029 | Asset Description | 20 Poles, 5 Transformers, 0.25km of line | 1 Dead-Front Switchgear Replacement | 1 SCADA Controlled Recloser | |
| | Cost | $ 338,445 | $ 144,909 | $ 86,945.56 | $ 570,300 |
| Category Impact | System Renewal/Service | $ 1,596,479 | $ 683,551 | $ 410,130.74 | |
| **Total** | | **100 Poles, 25 Transformers, 1.25km of Line** | **5 Dead-Front Switchgear Replacements** | **5 SCADA Controlled Reclosers** | **$ 2,690,161** |

WHESC's approach was to balance customer feedback with the cost impact of additions to plan, balanced with maximizing the benefit to system reliability.

## 2-SEC-9

### Reference: [Ex. 2, DSP, Appendices 5-A and 5-D]
### Preamble

The Customer Engagement Survey states that 'Approximately $7.3M of investment is planned to rebuild sections of the overhead system. This includes the replacement of approximately 550 poles, 120 transformers, and 24km of deficient conductor.'

### Question(s):

a. Please confirm which programs are included in the $7.3M investment.

b. Please provide the number of poles replaced each year between 2017 and2023 and forecasted for 2025 to 2029, by program.

### WHESC's Response

a. The survey included an estimate of capital expenditure associated with projects categorized as Rear Lot Conversions and OH System Renewal as documented in the Material Investment Report, Appendix 5-A of the DSP.

b. The following table summarizes the number of poles replaced each year of the historical and forecast periods:

**Table 2-33: Poles Replaced by Program**

| Program | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Totals |
|---|---|---|---|---|---|---|---|---|---|
| Rear Lot Conversion | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OH System Renewal | 58 | 18 | 33 | 71 | 89 | 81 | 53 | 79 | 482 |
| Total # of Poles | 58 | 18 | 33 | 71 | 89 | 81 | 53 | 79 | 482 |
| | | | | | | | | | |
| **Program** | **2025** | **2026** | **2027** | **2028** | **2029** | **Totals** | | | |
| Rear Lot Conversion | 106 | 95 | 59 | 54 | 38 | 352 | | | |
| OH System Renewal | 28 | 47 | 47 | 50 | 28 | 200 | | | |
| Total # of Poles | 134 | 142 | 106 | 104 | 35 | 552 | | | |

## 2-SEC-10

### Reference: [Ex. 2, DSP, Appendices 5-A and 5-D]
### Preamble

The Customer Engagement Survey states that 'Approximately $5.1M of investment is planned to rebuild sections of the underground system. This includes the replacement of approximately 4km of deficient cable, 60 transformers, and 5 switching cubicles.'

### Question(s):

a. Please confirm which programs are included in the $5.1M investment.

b. In the Material Investment Report for Rear-lot conversion, Project 3 is classified as underground, yet page 22 of Appendix 5-A shows 0 meters of underground cable to be replaced. Please explain.

c. Please allocate the total dollars for the Rear-lot conversion program between the three projects.

### WHESC's Response

a. The 5.1M investment quoted in the Customer Engagement Survey was associated with projects in the Underground System Renewal program. Project classifications include Underground System Rebuilds and Switchgear Replacements.

b. Project 3 in the narrative is classified as underground based on the fact that the rear-lot overhead primary system is being replaced by pad-mounted equipment and underground cable. Although the resulting primary distribution system is underground, there are no existing underground assets being replaced.

c. Costs for the three specific projects related to the rear-lot conversion material investment report are as follows:

**Table 2-34: Rear-Lot Conversion Project Costs**

| Program | Project | Cost ($'000) |
|---|---|---|
| Overhead Line Renewal | Bishop Rd., McNaughton Rd. - Rebuild / Conversion | 300 |
| Overhead Line Renewal | First St., Second St. - Rebuild / Conversion | 250 |
| Underground System Renewal | Dover Rd., Dunkirk Rd. - Rebuild / Conversion | 550 |
| Total | | 1100 |

## 2-SEC-11

### Reference: [Ex. 2, DSP, Table 5.4-15 and Appendices 5-A and 5-I]

### Question(s):

a. Table 1 on page 50 of the Material Investment Reports shows seven vehicles scheduled to be replaced in the forecast period, including 3-LV (light duty vehicles), 2-HV (heavy duty vehicles) and 2-T (trailers). Table 3 on page 51 shows 5 light duty vehicles, 1 heavy duty vehicle, 1 trailer and 1 other. Table 5.4-15 shows 10 vehicles to be replaced during 2025-2029 period. Please reconcile these three tables.

b. Please explain why Welland is proposing to replace two bucket trucks which are listed as being in fair condition.

c. Please breakout the forecasted $529k for Fleet in 2025 between the 2 vehicles scheduled for replacement.

d. What is the status of ordering the two vehicles scheduled for 2025?

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 2-Staff-26.

b. The two bucket trucks listed as being in fair conduction are being replaced because they were manufactured in 2009 and 2010. Both will arrive at the Typical Useful Life (TUL) of 15 years in 2025. WHESC has provided a summary of TUL for fleet assets in per Table 5.3-11 on Page 69 of WHESC's DSP. Both HVS-4 and HVS-15 have required overhaul on a hydraulic system and fuel delivery system in the historical period to extend their use to the 15-year mark.

c. Please refer to WHESC's response to interrogatory 2-Staff-26.

d. For the bucket truck replacing HV-4 / HV-15, the chassis was purchased in 2023 and the vehicle will be completed and delivered in 2025. WHESC will issue an RFQ for the replacement of LV-53 in early 2025. In the historical period, the delivery time for light duty trucks has been minimal based on regional dealership inventories having stock meeting specification requirements.

## 2-SEC-12

### Reference: [Ex. 2, Appendix 2-AA]

### Question(s):

a. Please explain the increase in spending on tools in 2025.

### WHESC's Response

a. WHESC requires replacement of cable fault finding equipment as the existing apparatus is at end-of-life. The estimated replacement cost for a time-domain-reflectometer (fault-finder) is $35K.

   WHESC also initiated procurement for a meter test board for delivery in 2025 at a cost of $65K. WHESC will be removing a large meter test console previously used for calibration that is no longer required. This is occurring as part of the building improvements in the operations area.

   Approximately $11K is budgeted for replacement of line department tools.

## 2-SEC-13

### Reference: [Ex. 2, DSP, Table 5.2-16]

### Question(s):

a. Please break down the outages caused by defective equipment by type of asset.

### WHESC's Response

a. WHESC has assumed that this interrogatory is related to Table 5.2-15 from the DSP. The following table breaks down the customer hours of interruption by defective equipment type:

**Table 2-35: Customer Hours of Interruption by Defective Equipment Type**

| Row Labels | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total Customer Hours | % |
|---|---|---|---|---|---|---|---|---|---|
| **Breaker** | | 207 | | 351 | | 284 | | 842 | **2.2%** |
| **Fuse** | | 2 | 95 | 254 | 579 | | 19 | 949 | **2.5%** |
| **Insulator** | | | | | 9 | | | 9 | **0.0%** |
| **LBE/Insert** | | | 58 | 4 | | | | 62 | **0.2%** |
| **Lightning Arrester** | | 31 | 1,579 | 2,227 | | | 2,006 | 5,844 | **15.6%** |
| **Overhead Wire** | 22 | 506 | 25 | 1,376 | 1,690 | 6,154 | 142 | 9,915 | **26.5%** |
| **Pole** | | | | 1 | | | | 1 | **0.0%** |
| **Primary Drop Lead** | 131 | 23 | 119 | 106 | 443 | 44 | 257 | 1,124 | **3.0%** |
| **Switch** | 7,775 | 654 | 385 | 810 | 46 | 95 | 86 | 9,850 | **26.3%** |
| **Transformer** | 158 | 297 | 247 | 132 | 32 | 153 | 47 | 1,065 | **2.8%** |
| **U/G - Primary** | 961 | 1,653 | 214 | 1,038 | 306 | 760 | 451 | 5,383 | **14.4%** |
| **U/G - Secondary** | 24 | | | | | 39 | 9 | 72 | **0.2%** |
| **Switchgear** | | | | | | 1,190 | 1,158 | 2,349 | **6.3%** |
| **Grand Total** | **9,071** | **3,371** | **2,723** | **6,300** | **3,105** | **8,719** | **4,175** | **37,464** | **100.0%** |

## Vulnerable Energy Consumers Coalition (VECC)

### 2-VECC-3

### Reference: Exhibit 2, Appendix 2-E, DSP

### Question(s):

a. WHESC significantly overspent its previous 2017 distribution system plan (DSP) estimates. Please explain what material unanticipated projects were undertaken in the category of General Plant between the years 2017 and 2021 that were not anticipated in the prior DSP.

b. WHESC significantly overspent as compared to the 2017 DSP in the category of System Renewal beginning in 2019. Please describe (and provide the cost) of the system renewal projects which were unanticipated during this period of the prior plan.

c. What changes has WHESC implemented to be better manage its ability to be within the budged plan presented in this application?

### WHESC's Response

a. The following table summarizes General Plant expenditures that were not in the 2017 DSP or where the cost materially exceeded the DSP estimate:

**Table 2-36: General Plant Expenditures Not in DSP**

| Item | Project | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| 1 | CIS Software Licenses (Harris) | $ 76,550 | | | | |
| 2 | Drainage / Oil-Water Separation System | $ 128,428 | | | | |
| 3 | Financial Software Deployment (Great Plains) | | $ 215,087 | | | |
| 4 | Altec Used Bucket Trucks (2) | | $ 182,183 | | | |
| 5 | Physical Server Deployment On Premise/CIS Migration | | | $ 244,479 | | |
| 6 | Radial Boom Derrick Truck | | | $ 239,496 | | |
| 7 | Document Management Licenses / Conversion (FileNexus) | | | | $ 125,151 | |
| Exceeded DSP Budget | | | | | | |
| Not in 2017 DSP | | | | | | |

Items 1, 3, 5, and 7 relate to WHESC's migration from hosted infrastructure to an on-premise deployment as described in interrogatory 2-Staff-25.

Item 2 was replaced due to the unanticipated failure of an oil/water separator and drainage system in the truck bay and garage area of the facility.

Item 4 was the acquisition of two used bucket trucks to supplement WHESC's aerial device fleet. These additional vehicles were acquired to introduce bucket trucks with material handling capability into the fleet in support of internally executed capital work.

Item 6 was the purchase of a radial boom derrick truck to replace an existing 1990 unit. The truck was in plan for 2021/2022, however the 1990 unit failed in 2018. The replacement unit was advanced in the capital plan to 2019.

b. WHESC's DSP, sections 5.4.1.1.3 to 5.4.1.1.5, provides DSP to Actual variance analysis in the System Renewal category in the specific years 2019 through to 2021. Capital investment in individual pole and transformer replacements exceeded the 2017 DSP by $1.174M for the period 2019 through 2021. Individual pole changes in excess of plan were required based on comprehensive pole test results through the period and updated asset health index data from the 2018 Asset Condition Assessment.

c. Unlike the DSP that supported the 2017 COS, the DSP in this application is fully supported by the Asset Condition Assessment in 2023. WHESC completed its first formal asset condition assessment in 2018 following the 2017 COS. The 2018 ACA identified 17% of WHESC's pole population in very poor condition with an additional 10% in poor condition. WHESC refined its investment strategy in the system renewal category, partially shifting focus to overhead installations where conditional issues required immediate remedy.

WHESC has stabilized asset condition and protection systems in its 13 substations. Investment planned in the forecast period include replacement of two power transformers and associated cable

systems at end of life. WHESC also refined its underground system renewal plan in the historical period to focus on installations with very poor health indices, primarily based on age coupled with fault experience.

WHESC's current DSP assessed projects by not only priority ranking but any sequencing required in order to execute the overall five-year plan. As described in Section 5.3.3.3.2, project execution budgets supporting DSP estimates are derived based on projected material, labour, and third-party service costs. WHESC's Quadra Work Management system is used for this purpose, containing historical data on project execution costs.

For General Plant based investments, WHESC's current DSP is supported by formal Facility and Fleet Condition Assessments, unlike the previous DSP. Investments in fleet have been planned to sustain the asset population, aligning health indices with a replacement schedule. Information System investments for the five-year period have been formulated in conjunction with WHESC's Managed Service Provider. Specific equipment replacement estimates for on-premise assets have been obtained for the forecast period and alternative analysis has been conducted. WHESC has selected the lower cost asset replacement alternative for its virtual server environment located on premise, with detailed budget amounts in the Information System Program of the DSP.

## 2-VECC-4

### Reference: Exhibit 2, Appendix 2-E, DSP

### Question(s):

a. Given the proposed large increase in the average annual amount spend on overhead line renewal (i.e., 828k on average spending between 2017 and 2023 as compared to $1.122 million on average between 2024 and 2029) why are the forecasts for reactive replacements of overhead during the rate period significantly increasing (i.e., from 72k on average between 2017 and 2023 as compared to an average spend between 2025 and 2029 of $160.5k)?

b. Similarly, WHESC is forecasting an average increase in the reactive spending on underground replacements not withstanding it is also proposing to significantly increase its underground renewal spending during the rate period. Please explain why.

### WHESC's Response

a. WHESC referenced the recent historical period to budget for reactive replacements in the 2025 Test Year. In the period from 2021 to 2023, reactive overhead replacements required an average of $121K of expenditure, and as high as $149K in 2021.

b. Underground line renewal spending has increased due to:

- Introduction of the Switchgear Replacement Program - $258K (2025)
- Rear-lot voltage conversion projects where existing overhead assets are replaced with underground primary distribution $550K (2025)

## 2-VECC-5

### Reference: Exhibit 2,

### Question(s):

a. Please explain the methodology used to estimate capital contributions during the rate plan period.

### WHESC's Response

a. Capital contributions are received in aid of new subdivision construction, new general service construction, municipal relocations, and line expansions. With growth in the recent historical period, contributions received in 2020 through 2024 were used as the baseline to determine contribution amounts in the forecast period. In 2024, there was a contribution for a line expansion of a significance not typical in the baseline period. Noting that there are no line expansions or municipal locations known for the forecast period, this 2024 line expansion contribution amount was removed from the baseline.

   The average contribution amounts received from the adjusted baseline period is $962K. Contribution amounts in the forecast period were scaled up from this average amount.

## 2-VECC-6

### Reference: Exhibit 2, Appendix 5-A Material Investments - Meters

### Question(s):

a. A number of Ontario electricity utilities are implementing wholesale smart meter replacements (so called Smart Meter/AMI 2.0 see for example Essex Powerlines Corporation EB-2024-0002). Does Welland Hydro have any plans to upgrade its current AMI system?

### WHESC's Response

a. WHESC's current deployment of AMI infrastructure provides outage notification, voltage, load profile, and meter performance alarming. With the capabilities and integration of its AMI 1.0 system,

WHESC has not identified a need to deploy next-generation smart meters in the DSP forecast period.

## 2-VECC-7

### Reference: Exhibit 2, Appendix 5-A Material Investments - Meters

### Question(s):

a. What explains the lack of any investments in Substations in 2023 and 2024 (whereas there was annual spending in this category in all years before)?

### WHESC's Response

a. In 2017 through 2022, WHESC completed the following substation upgrades:

1. MS1, 4, 5, 10, 12: Replacement of protection systems.

2. MS3, MS8, MS9: Station replacement with pad-mounted equipment

WHESC's fleet of 13 substations now all have electronic relay-based protection systems. WHESC's substation requirements for the forecast period involve the replacement of two power transformers and associated HV cabling due to age and condition in 2025 and 2027. No substation upgrades are planned for the forecast period years: 2026, 2028, and 2029.

## 2-VECC-8

### Reference: Exhibit 2, Appendix 5-A Material Investments - Rear Lot Conversions 3. Historical and Future Capital Expenditures

### Preamble

**3. Historical and Future Capital Expenditures**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | - | - | - | - | - | - | - | - | 1,100 | 1,440 | 570 | 360 | 380 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | - | - | - | - | - | - | - | - | 1,100 | 1,440 | 570 | 360 | 380 |

### Question(s):

a. It is unclear how the forecast spending shown in the table above reconciles with the amounts shown in Appendix 2-AA (presumed to be included in lines 29 and 30 - Overhead Line and Underground Line Renewal respectively). Please reconcile.

b. For each of the three projects described under this category (i.e., Bishop Rd, First St, Dover Road) please provide the forecast spending in each of the rate plan years and indicate whether the replacement is forecast to be new overhead or new underground plant.

c. Please provide the criteria for choosing underground versus overhead replacement.

d. What is the incremental cost for replacement of overhead with underground plant?

## WHESC's Response

a. Please refer to WHESC's responses to interrogatories 2-Staff-20 and 2-SEC-10.

b. Please refer to WHESC's response to interrogatory 2-SEC-10.

c. WHESC reviews the project areas on a case-by-case basis to determine the optimal installation type of the primary distribution system. The availability of space within the municipal road allowance is a key factor in determining whether an overhead or underground system is required. Where space permits an overhead primary distribution system, this approach is chosen provided it is also the lowest cost alternative.

d. The answer to this question varies depending on a few factors in specific project locations. If an underground solution is required due to space constraints, factors that affect the overall cost of replacement are:

- Available points of egress into the existing rear-lot distribution locations
- Available locations for transformation and any necessary switchgear
- Required routing from the 28kV system source points

The variability of these factors for various project locations leads to differences in the number of transformers, switching apparatus, and cable length required to re-supply the rear lot area. There is no consistent incremental cost factor associated with transition from overhead to underground primary distribution in the forecast period project areas.

## 2-VECC-9

Reference: Exhibit 2, Appendix 5-A Material Investments-OH Renewal 3. Historical and Future Capital Expenditures

Preamble

### 3. Historical and Future Capital Expenditures

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | - | - | - | - | 992 | 811 | 556 | 800 | 500 | 1,025 | 945 | 1,392 | 600 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | - | - | - | - | 992 | 811 | 556 | 800 | 500 | 1,025 | 945 | 1,392 | 600 |

## Question(s):

a. It is unclear how the forecast spending shown in the table above reconciles with the amounts shown in Appendix 2-AA (presumed to be included in lines 29 and 30 - Overhead Line and Underground Line Renewal respectively). Please reconcile.

## WHESC's Response

a. The table in Part A, Section 3 of the Material Investment Report for OH System Renewal has been corrected for the historical period and re-stated below:

**Table 2-37: Restated Table, Part A, Section 3 of OH Rebuilds MIR**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | 698 | 185 | 391 | 932 | 1,261 | 1,017 | 1,312 | 1,700 | 500 | 1,025 | 945 | 1,392 | 600 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | 698 | 185 | 391 | 932 | 1,261 | 1,017 | 1,312 | 1,700 | 500 | 1,025 | 945 | 1,392 | 600 |

The Overhead Line Renewal program in the forecast period consists of overhead system rebuilds and rear-lot conversions where assets are replaced with an overhead system:

**Table 2-38: Overhead Line Renewal Program Summary**

| Program | Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Overhead Line Renewal | Overhead Rebuilds | 698 | 185 | 391 | 932 | 1,261 | 1,017 | 1,312 | 1,700 | 500 | 1,025 | 945 | 1,392 | 600 |
| Overhead Line Renewal | Rear-Lot Conversions | | | | | | | | | 550 | 600 | | | |
| Total | | 698 | 185 | 391 | 932 | 1,261 | 1,017 | 1,312 | 1,700 | 1,050 | 1,625 | 945 | 1,392 | 600 |
| Overhead Line Renewal | From Appendix 2-AA | 698 | 185 | 391 | 932 | 1,261 | 1,017 | 1,312 | 1,700 | 1,050 | 1,625 | 945 | 1,392 | 600 |

## 2-VECC-10

### Reference: Exhibit 2, Appendix 5-A Material Investments -Pole, Transformer and Reactive Preamble

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | - | - | - | - | - | 33 | - | 250 | 257 | 265 | 273 | 281 | 289 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | - | - | - | - | - | 33 | - | 250 | 257 | 265 | 273 | 281 | 289 |

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | 329 | 721 | 644 | 486 | 852 | 805 | 606 | 355 | 666 | 686 | 706 | 728 | 749 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | 329 | 721 | 644 | 486 | 852 | 805 | 606 | 355 | 666 | 686 | 706 | 728 | 749 |

### Question(s):

a. The above tables are provided in the material investments section. The total spending from both tables in 2025 is $923k. Please reconcile with the amounts shown for 2025 in Appendix 2-AA Capital projects (lines 31 through 34).

### WHESC's Response

a. The table from the Material Investment Report (MIR) contained a rounding error in the 2022 expenditure amount. This has been corrected and the table is restated below:

**Table 2-39: Restated Table, Part A, Section 3, Switchgear Replacement MIR**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | - | - | - | - | - | 34 | - | 250 | 257 | 265 | 273 | 281 | 289 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | - | - | - | - | - | 34 | - | 250 | 257 | 265 | 273 | 281 | 289 |

The switchgear replacements are captured within the Underground Line Renewal Program. These investments have been included along with the balance of Underground Line Renewal Program investments and reconciled to Appendix 2-AA:

**Table 2-40: Underground Line Renewal Program Reconciled to 2-AA**

| Program | Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Underground Line Renewal | Underground Rebuilds | 437 | 348 | 593 | 637 | 292 | - | 411 | 100 | - | - | - | 480 | 1,295 |
| Underground Line Renewal | Rear-Lot Conversions | | | | | | | | | 550 | 540 | 570 | 360 | 380 |
| Underground Line Renewal | Switchgear Replacement | - | - | - | - | - | 34 | - | 250 | 257 | 265 | 273 | 281 | 289 |
| Total | | 437 | 348 | 593 | 637 | 292 | 34 | 411 | 350 | 807 | 805 | 843 | 1,121 | 1,964 |
| Underground Line Renewal | From Appendix 2-AA | 437 | 348 | 593 | 637 | 292 | 34 | 411 | 350 | 808 | 805 | 843 | 1,121 | 1,965 |

The table from the MIR associated with pole replacements, transformer replacements, and reactive replacements contained errors in the historical period and is restated below:

**Table 2-41: Restated Table, Part A, Section 3, Poles, TX, Reactive MIR**

| Category | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Gross Capital Expenditure | 330 | 685 | 644 | 487 | 653 | 805 | 606 | 355 | 666 | 686 | 707 | 728 | 750 |
| Capital Contributions | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Net Capital Expenditure | 330 | 685 | 644 | 487 | 653 | 805 | 606 | 355 | 666 | 686 | 707 | 728 | 750 |

This table shows the total amount of the four investment programs described in the MIR and has been reconciled to Appendix 2-AA:

**Table 2-42: Poles, TX, Reactive MIR Reconciled to 2-AA**

| Program from Appendix 2-AA | Historical Period | | | | | | | Bridge | Forecast Period | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| Pole Replacement | 174 | 526 | 406 | 263 | 311 | 240 | 351 | 150 | 302 | 311 | 321 | 330 | 340 |
| Transformer Replacement | 135 | 123 | 147 | 157 | 175 | 407 | 98 | 80 | 161 | 166 | 171 | 176 | 182 |
| Reactive Overhead System Replacement | 15 | 7 | 43 | 4 | 18 | 68 | 35 | 50 | 52 | 53 | 55 | 56 | 58 |
| Reactive Underground System Replacement | 5 | 29 | 48 | 63 | 149 | 90 | 123 | 75 | 151 | 156 | 160 | 165 | 170 |
| Total | 330 | 685 | 644 | 487 | 653 | 805 | 606 | 355 | 666 | 686 | 707 | 728 | 750 |
| Total from Project Narrative | 330 | 685 | 644 | 487 | 653 | 805 | 606 | 355 | 666 | 686 | 707 | 728 | 750 |

# Exhibit 3 – Customer and Load Forecast

## OEB Staff Interrogatories

### 3-Staff-33

Reference: Exhibit 3, Table 3-17, p. 17

Question(s):

a. Please provide a revised version of Table 3-17 that includes one additional column for year-to-date actual for 2024.

### WHESC's Response

a. WHESC has revised Exhibit 3, Table 3-17 to include year-to-date actuals for September 2024. October 2024 consumption has not yet been billed and accurate data is not yet available for this time period.

## Table 3-1: Revised Table, Exhibit 3, Table 3-17

| | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge Weather Normal | 2025 Test Weather Normal | 2024 September YTD Actual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Purchases** | | | | | | | | | | | |
| Actual kWh Purchases | | 368,596,645 | 393,889,926 | 384,791,777 | 380,093,690 | 383,895,273 | 392,612,236 | 386,633,788 | | | 309,530,892 |
| Predicted kWh Purchases | | 374,426,765 | 390,694,844 | 381,803,843 | 387,589,449 | 388,275,738 | 390,620,164 | 382,872,652 | 395,877,443 | 396,543,028 | |
| % Difference between actual and predicted | | 1.6% | (0.8%) | (0.8%) | 2.0% | 1.1% | (0.5%) | (1.0%) | | | |
| | | | | | | | | | | | |
| Loss Factor | | | | | | | | | 1.0407 | 1.0407 | 1.0433 |
| Total Billed | | 353,716,802 | 379,090,833 | 370,608,216 | 364,637,107 | 368,482,783 | 377,130,671 | 370,827,913 | 380,386,005 | 381,025,544 | 296,688,458 |
| | | | | | | | | | | | |
| **Billing Determinants** | | | | | | | | | | | |
| **Residential** | | | | | | | | | | | |
| Customers | 21,025 | 20,987 | 21,242 | 21,580 | 21,927 | 22,396 | 22,849 | 23,410 | 23,762 | 24,119 | 23,876 |
| kWh | 165,052,031 | 153,825,741 | 170,461,439 | 165,806,296 | 179,914,470 | 182,892,382 | 182,644,897 | 177,391,636 | 184,759,792 | 187,443,401 | 146,010,995 |
| | | | | | | | | | | | |
| **General Service < 50 kW** | | | | | | | | | | | |
| Customers | 1,777 | 1,791 | 1,798 | 1,797 | 1,788 | 1,837 | 1,838 | 1,845 | 1,857 | 1,869 | 1,859 |
| kWh | 53,828,309 | 52,319,962 | 52,983,337 | 50,506,435 | 48,537,507 | 54,230,050 | 55,719,442 | 54,279,425 | 56,052,591 | 56,382,524 | 42,616,828 |
| | | | | | | | | | | | |
| **General Service 50 to 4,999 kW** | | | | | | | | | | | |
| Customers | 154 | 159 | 164 | 166 | 161 | 140 | 139 | 142 | 140 | 137 | 148 |
| kWh | 138,619,965 | 144,490,127 | 152,610,121 | 151,352,404 | 133,284,409 | 128,548,463 | 136,029,471 | 136,432,090 | 136,879,400 | 134,534,275 | 106,106,257 |
| kW | 390,496 | 397,736 | 413,412 | 415,535 | 381,721 | 349,225 | 357,213 | 353,804 | 375,641 | 369,205 | 277,673 |
| | | | | | | | | | | | |
| **Sentinel Lights** | | | | | | | | | | | |
| Connections | 509 | 500 | 487 | 454 | 406 | 378 | 345 | 342 | 326 | 311 | 341 |
| kWh | 749,437 | 729,133 | 675,874 | 583,837 | 535,935 | 481,895 | 422,907 | 419,671 | 400,619 | 382,432 | 307,933 |
| kW | 2,061 | 2,012 | 1,898 | 1,605 | 1,474 | 1,328 | 1,162 | 1,153 | 1,105 | 1,055 | 843 |
| | | | | | | | | | | | |
| **Street Lights** | | | | | | | | | | | |
| Connections | 6,856 | 6,865 | 6,956 | 7,007 | 7,067 | 7,115 | 7,186 | 7,336 | 7,400 | 7,464 | 7,301 |
| kWh | 1,286,433 | 1,393,112 | 1,403,956 | 1,406,314 | 1,423,807 | 1,410,628 | 1,418,460 | 1,453,176 | 1,465,852 | 1,478,639 | 1,010,084 |
| kW | 3,582 | 3,890 | 3,915 | 3,924 | 3,960 | 3,934 | 3,955 | 4,057 | 4,111 | 4,147 | 3,007 |
| | | | | | | | | | | | |
| **Unmetered Scattered Loads** | | | | | | | | | | | |
| Connections | 261 | 262 | 263 | 262 | 258 | 256 | 252 | 200 | 194 | 189 | 196 |
| kWh | 963,825 | 958,727 | 956,107 | 952,930 | 940,979 | 919,365 | 895,494 | 851,915 | 827,752 | 804,273 | 636,361 |
| | | | | | | | | | | | |
| **Total** | | | | | | | | | | | |
| Customer/Connections | 30,582 | 30,565 | 30,910 | 31,266 | 31,606 | 32,121 | 32,609 | 33,276 | 33,679 | 34,090 | 33,721 |
| kWh | 360,500,000 | 353,716,802 | 379,090,833 | 370,608,216 | 364,637,107 | 368,482,783 | 377,130,671 | 370,827,913 | 380,386,005 | 381,025,544 | 296,688,458 |
| kW | 396,139 | 403,638 | 419,225 | 421,064 | 387,154 | 354,486 | 362,331 | 359,014 | 380,857 | 374,407 | 281,523 |

## 3-Staff-34

### Reference: Load Forecast Model

### Question(s):

a. Is embedded generation (e.g. MicroFit) included in the power purchased data in Load Forecast Model? If not, please adjust the power purchased data in the Load Forecast Model to include embedded generation.

b. Please revise the evidence that is affected by the change in (a) as needed.

### WHESC's Response

a. Welland Hydro confirms that embedded generation is included in the power purchased data in the Load Forecast Model.

b. No changes are required as embedded generation is included in the Load Forecast Model previously filed.

## 3-Staff-35

### Reference: Load Forecast Model

### Preamble

In the reference, OEB staff notes that the billed energy consumption for a large use customer is included in years 2014 and 2015. From 2016 to 2023, there was no energy consumption for this customer.

### Question(s):

a. Please confirm whether the power purchase data for 2014 and 2015 used in the Load Forecast Model include the large use customer.

   i. If confirmed, please explain why the power purchases data include this large customer.

   ii. Please comment how the regression model accounts for the difference in energy consumption with no large use customer from 2016 to 2023.

b. As a scenario, please exclude the large use customer from the power purchased and billed energy consumption data, and provide a regression output.

### WHESC's Response

a. WHESC confirms that the power purchase data for 2014 and 2015 used in the Load Forecast Model include the large use customer.

   i. Power purchases include the large use customer because the associated energy consumption data was also reported. In order for the analysis to be accurate, both the energy consumed and power purchased for the same customers would need to be reported.

   ii. The current regression model does not account for the difference in energy consumption with no large use customer from 2016 to 2023. WHESC believes that it obtained a strong

statistically valid regression output without using a variable related to the large use customer. The data related to the large use customer was only apparent for one full year of the 10 years used in the regression analysis and therefore WHESC did not believe a variable related to the large use customer was necessary.

b. WHESC has run a regression model excluding the large use customer from power purchased and billed energy consumption data. WHESC has estimated the large user portion of power purchases at the billed loss factor for primary metered accounts greater than 5,000 kW. WHESC does not have the detailed consumption information from 2014 and 2015 available on a monthly basis. WHESC has therefore assumed that the power purchases related to the large use customer occurred evenly on a monthly basis for 2014, and all occurred in the month of January in 2015. The results of the regression are shown in the following table.

**Table 3-2: Regression Results – Exclusion of Large Use Customer**

| | |
|---|---|
| R Square | 91.2% |
| Adjusted R Square | 90.8% |
| F Test | 235 |
| MAPE (Monthly) | 2.6% |
| **T-stats by Coefficient** | |
| Heating Degree Days | 18.0 |
| Cooling Degree Days | 20.7 |
| Days in Month | 8.4 |
| Spring Fall Flag | (8.1) |
| Number of Customers | 6.2 |
| Constant | (5.1) |

## 3-Staff-36

### Load Forecast Model

### Reference 1: Exhibit 3, p. 9
### Reference 2: Load Forecast Model

### Preamble

In reference 1, Welland Hydro-Electric System states that a multivariate regression model (used to predict total system purchased energy) has determined the drivers of year-over-year changes in its load growth. These drivers are weather (heating and cooling degree days), calendar variables (days in month and seasonal spring/fall flag), and the number of customers in the Residential, GS<50 kW and GS 50 to 4,999 kW rate classes.

OEB staff notes that regression model does not incorporate a COVID-19 variable (a variable that captures lockdown months) or a trend variable (a variable that increases by 1 each month) as an independent variable.

## Question(s):

a. Has Welland Hydro-Electric System tested the regression model using the COVID-19 variable and trend variable? If so, what were the results. If not, please explain why not.

b. As a scenario, please add an additional COVID-19 variable that takes a value of 1 for each month for the lockdown months, and provide the regression output.

c. As a scenario, please add an additional trend variable that increases by 1 each month starting with 1 in January 2014, and provide the regression output.

d. If the variables in (b) and (c) are both statistically significant, as a scenario, please add these variables and provide the regression output.

## WHESC's Response

a. WHESC ran a regression model that incorporated the COVID-19 variable using a value of 1 for the lockdown months of March, April and May 2020, as well as using a trend variable in place of the number of customer variables. The results are shown in the following table.

**Table 3-3: Regression Results – COVID-19 & Trend Independently**

| Variables | COVID-19 | TREND |
|---|---|---|
| R Square | 89.5% | 88.4% |
| Adjusted R Square | 88.9% | 87.9% |
| F Test | 160 | 174 |
| MAPE (Monthly) | 2.7% | 2.9% |
| **T-stats by Coefficient** | | |
| Heating Degree Days | 16.3 | 15.5 |
| Cooling Degree Days | 18.5 | 17.7 |
| Days in Month | 7.8 | 7.6 |
| Spring Fall Flag | (7.3) | (7.4) |
| Number of Customers | 3.8 | |
| Constant | (3.8) | (2.3) |
| Covid | (2.4) | |
| Trend | | 2.8 |

b. WHESC has provided the results of the regression using the COVID-19 variable in response to part a) above.

c. WHESC has provided the results of the regression using the Trend variable in response to part a) above.

d. WHESC has produced a regression output using both the COVID-19 and Trend variables. The results are shown in the following table.

**Table 3-4: Regression Results – COVID-19 & Trend**

| Variables | COVID-19 & TREND |
|---|---|
| R Square | 89.0% |
| Adjusted R Square | 88.4% |
| F Test | 153 |
| MAPE (Monthly) | 2.8% |
| **T-stats by Coefficient** | |
| Heating Degree Days | 15.9 |
| Cooling Degree Days | 18.1 |
| Days in Month | 7.7 |
| Spring Fall Flag | (7.1) |
| Number of Customers | |
| Constant | (2.3) |
| Covid | (2.4) |
| Trend | 3.1 |

## 3-Staff-37

Reference 1: Distribution System Plan, pp. 92, 170, 175 of PDF
Reference 2: Load Forecast Model, Tab Rate Class Customer Model
Reference 3: Exhibit 3, Table 3-6 and 3-7, p. 12

### Preamble

In reference 1, Welland Hydro-Electric System states that “the City of Welland became increasingly proactive in economic development initiatives aimed at increasing housing starts during the historical period. With recent participation by the municipality in the Ontario Government’s Building Faster Fund, it is likely that recently experienced residential growth rates will continue. This will continue to have an impact on the level of system access investment required to facilitate new electricity connections.”

Welland Hydro-Electric System also states that approximately 72% of system access spending in the forecast period is related to subdivision expansions in the service territory. Welland Hydro-Electric System projects that new connection growth will continue to be strong as in recent historical years, particularly due to economic development and accelerated housing initiatives driven by the municipality. The investment plan in the forecast period maintains alignment with year-over-year increases in the recent historical period.

With expected strong connection growth due to economic development and accelerated housing initiatives stated in reference 1 above, OEB staff notes that the ten-year average geomean growth rates used to determine 2024 and 2025 customer numbers especially for residential and GS<50 kW rate classes are lower than annual growth rates for the 2021 to 2023 period (references 2 and 3).

For GS>50 kW rate class, the growth rate in customer numbers shows a sharp decrease in 2021 due to a large decrease in customer numbers in 2021 which continue to remain relatively low for the period 2022 to 2023 compared to the period prior to 2021.

OEB staff has calculated the three-year average growth rate in customer numbers for Residential and GS rate classes using the most recent actual data from 2021 to 2023 and put together a comparison between ten-year average growth rates and three-year average growth rates for these three rate classes shown below.

| Growth Rate in Customer Numbers | Residential Rate Class | GS<50 kW Rate Class | GS>50 kW Rate Class |
|---|---|---|---|
| Ten-Year Average | 1.5% | 0.6% | -1.7% |
| Three-Year Average | 2.2% | 1.1% | -4.2% |

OEB staff also notes that the growth rate in customer numbers for Unmetered Scattered Load rate class has shown a declining trend with a large decrease from -1.5% in 2022 to -20.6% in 2023.

## Question(s):

a. As a scenario, please provide a revised Load Forecast Model by updating the forecast 2024 and 2025 customer numbers for residential, GS<50 kW, and GS>50 kW rate classes using the three-year average geomean growth rates (2021 to 2023) instead of ten-year average.

b. Please explain the sharp decrease in the growth rate of 20.6% in customer numbers for Unmetered Scattered Load rate class in 2023. Does Welland Hydro-Electric System consider the decrease in 2023 to be an outlier? If so, please update the models to exclude the 2023 data.

c. Please also comment whether Welland Hydro-Electric System expects the declining trend in customer numbers for the Unmetered Scatter Load rate class to continue in 2025?

### WHESC's Response

a. WHESC has filed a revised Load Forecast Model that updates the 2024 and 2025 customer numbers for residential, GS<50kW, and GS>50kW rate classes using the three-year average geomean growth rates (2021 to 2023) instead of ten-year average with the responses to these IRs.

b. The sharp decrease in the growth rate of 20.6% in customer numbers for Unmetered Scattered Load (USL) rate class in 2023 is related to one account that eliminated 56 connections. WHESC considers this occurrence to be anomalous. The number of USL connections and consumption level after this sharp decrease is expected to remain stable and the growth rate is expected to return to pre-2023 levels. The OEB has asked for an updated model excluding the 2023 data, however WHESC is unclear as to how this would be executed. The data provided represents actual counts and consumption, and the number of sentinel light connections and consumption after the decline in 2023 is expected to remain consistent into the forecast period.

c. WHESC expects the decline in the USL to continue into 2025 at historical rates prior to the anomalous 2023 rate.

## School Energy Coalition Interrogatories (SEC)

### 3-SEC-14

### Reference: [Ex. 3, Tables 3-8, 3-10 and 3-16]

### Question(s):

a. Please provide actual year-to-date numbers for 2024.

b. Please rerun the load forecast using these most recent year-to-date numbers.

### WHESC's Response

a. Please refer to 3-Staff-33.

b. WHESC has rerun the load forecast model using the September 2024 year-to-date actual number. Revised Tables 3-8, 3-10 and 3-16 are provided below.

**Table 3-5: Exhibit 3, Table 3-8 Updated**

| Year | Residential | General Service < 50 kW | General Service 50 to 4,999 kW | Sentinel Lights | Street Lights | Unmetered Scattered Loads | Total |
|---|---|---|---|---|---|---|---|
| **Forecast Number of Customers/Connections** | | | | | | | |
| 2024 Bridge | 23,945 | 1,863 | 149 | 341 | 7,311 | 196 | 33,805 |
| 2025 Test | 24,305 | 1,874 | 146 | 325 | 7,375 | 191 | 34,216 |

**Table 3-6: Exhibit 3, Table 3-10 Updated**

| Year | Residential | General Service < 50 kW | General Service 50 to 4,999 kW | Sentinel Lights | Street Lights | Unmetered Scattered Loads |
|---|---|---|---|---|---|---|
| **Forecast Annual kWh Usage per Customers/Connection** | | | | | | |
| 2024 Bridge | 7,581 | 29,430 | 961,184 | 1,228 | 198 | 4,256 |
| 2025 Test | 7,648 | 29,687 | 967,730 | 1,228 | 198 | 4,256 |

**Table 3-7: Exhibit 3, Table 3-16 Updated**

| Year | General Service 50 to 4,999 kW | Sentinel Lights | Street Lights | Total |
|---|---|---|---|---|
| **Predicted Billed kW** | | | | |
| 2024 Bridge | 392,901 | 1,154 | 4,062 | 398,117 |
| 2025 Test | 388,946 | 1,101 | 4,097 | 394,145 |

## 3-SEC-15

### Reference: [Ex. 3, Table 3-3]

### Question(s):

a. Please explain the drop in GS > 50 kW customers from 166 to 161 in 2020 and 161 to 140 in 2021.

b. Based on the statement quoted above (1-SEC-2b) from the Business Plan with reference to GS > 50 kW customer #s, what does Welland believe would be a less conservative forecast of customer numbers for that class?

### WHESC's Response

a. The following table summarizes the reduction in the GS > 50 kW class in 2020 and 2021:

**Table 3-8: GS > 50 kW Reductions 2020 and 2021**

| Year | Year End Customer Count | Reclassifications | Customer Additions |
|---|---|---|---|
| 2019 | 166 | | |
| 2020 | 161 | 10 | 5 |
| 2021 | 141 | 25 | 5 |
| 2022 | 139 | | |

b. With reference to WHESC's interrogatory response to 1-SEC-2b, WHESC has observed growth in the aggregate of General Service classes in the period 2021 through 2023. The GS > 50kW class experienced growth of two customers in the same period. The business plan assumed flat growth in the GS > 50 kW class for the period beyond 2025. In WHESC'S view, a "less conservative" forecast would be to carry the actual customer count in 2024 forward to the 2025 Test Years and subsequent years in the forecast period.

## Vulnerable Energy Consumers Coalition (VECC)

### 3-VECC-11

Reference: Exhibit 3, page 6, Table 3-1

Question(s):

a. Please explain the large (greater than 5%) year over year changes in weather normalized billed GWH in 2015, 2018 and 2022?

b. In WHESC's view is the 2020 reduction in billed GWh of 8.6% all due to COVID?

WHESC's Response

a. The decrease of 25.8 GWh in 2015 was primarily due to the loss of a Large User and the associated consumption.

An increase in consumption in 2018 was observed in the GS > 50 kW class where there was customer growth. One of the new GS > 50 kW customers alone counted for 3.3 GWh of billed consumption for the year. Billed consumption grew approximately 8 GWh in the GS > 50 kW class from 2017.

In 2022, billed consumption for the GS > 50 kW class increased by 7.5 GWh over the previous year which was not attributed to growth in customers. WHESC believes that this is due to a return to "normal" consumption patterns within the class, moving out of the COVID period from 2021 to 2022.

b. WHESC's view is that the 2020 reduction in billed GWh is fundamentally due to COVID. Residential billed GWh grew by approximately 14 GWh but was offset by a reduction in billed consumption for the general service classes of approximately 20 GWh.

## 3-VECC-12

Reference 1: Exhibit 3, page 9
Reference 2: DVA Continuity Schedule, Tab 4
Reference 3: Load Forecast Model, Rate Class Energy Model Tab

### Preamble

The Application states (page 9): "An equation to predict total system purchased energy is developed using multivariate regression model with the independent variables outlined below. The DVA Continuity Schedule indicates that WHESC distributes power to one or more whole market participants."

### Question(s):

a. Do the historic system sales used to develop the regression model include: i) purchases from embedded generation (e.g. microFIT) and ii) energy delivered to the wholesale market participant(s) in WHESC's service area?

   i. If yes, please provide a schedule that breaks down the annual actual purchases for 2014-2023 (per Rate Class Energy Model Tab, Column B, Rows 3-12) into the three components.

   ii. If not, please re-do the load forecast with these loads included in the historic purchased power values. Please also provide a schedule that breaks down the annual actual purchases for 2014-2023 into the three components.

### WHESC's Response

a. WHESC confirms that the historic sales used to develop the regression model include purchases from embedded generation and energy delivered to the wholesale market participant in WHESC's service area.

   i. Table 3-9 below for the breakdown of purchases into individual components.

**Table 3-9: Breakdown of Purchases by Component**

| Year | AQEW | WMP | Load Transfers | Generation | Total Purchases |
|---|---|---|---|---|---|
| 2014 | 381,389,978 | 3,701,505 | (746,875) | 7,397,362 | 391,741,970 |
| 2015 | 348,146,909 | 3,536,668 | (693,995) | 21,669,995 | 372,659,577 |
| 2016 | 354,199,175 | 3,344,106 | (619,975) | 23,098,899 | 380,022,205 |
| 2017 | 344,369,635 | 3,162,627 | (370,167) | 21,434,550 | 368,596,645 |
| 2018 | 368,841,239 | 3,062,200 | - | 21,986,488 | 393,889,927 |
| 2019 | 358,980,520 | 2,964,098 | - | 22,847,159 | 384,791,777 |
| 2020 | 353,173,001 | 2,889,043 | - | 24,031,647 | 380,093,691 |
| 2021 | 357,391,017 | 2,875,065 | - | 23,629,191 | 383,895,273 |
| 2022 | 366,492,304 | 2,792,062 | - | 23,327,869 | 392,612,236 |
| 2023 | 361,339,442 | 2,798,343 | - | 22,496,002 | 386,633,787 |

ii. Not applicable, see response to a).

## 3-VECC-13

Reference: Exhibit 3, pages 7-8, Tables 3-2 and 3-3

Question(s):

a. Do the volumes and customer counts for the GS>50 class include the wholesale market participant(s) in WHESC's service area?

b. If not, please provide revised tables that include the wholesale market participant(s).

WHESC's Response

a. Yes, the volumes and customer counts for the GS>50 class include one wholesale market participant in WHESC's service area.

b. See a), WMP included in Tables 3-2 and 3-3.

## 3-VECC-14

Reference 1: Exhibit 3, pages 5 and 9
Reference 2: Load Forecast Model, Inputs Tab

Preamble

The Application states (page 5):

"As a starting point, WHESC used the same regression analysis methodology approved by the Ontario Energy Board (the "Board") in its 2017 Cost of Service ("COS") Application (EB-2016-0110) and updated the analysis for actual power purchases to the end of 2023."

The Application states (page 9):

"The multivariate regression model has determined the drivers of year-over-year changes in WHESC's load growth are:

- weather (heating and cooling degree days);
- calendar variables (days in month and seasonal spring/fall flag);
- the number of customers in the Residential, GS <50kW and GS 50 to 4,999kW rate classes.".

## Question(s):

a. In the current Application, did WHESC use the same independent variables in its regression model as were used in its 2017 COS?

   i. If not, what changes were made and why?

b. Did WHES test any other variables to determine whether they should be used as "drivers" in the regression model?

   i. If yes, what variables were tested and why were they rejected?

c. If not addressed in part (b), did WHESC test whether a COVID-related variable should be included as a "driver"?

   i. If not, please provide the load forecast results where the "drivers" also include a flag for those months when there was a provincial shut-down due to COVID.

## WHESC's Response

a. WHESC used the same independent variables that were used in the 2017 COS with the exception of a CDM variable and a peak hours variable.

   i. WHESC believes that given the long-term presence of CDM, WHESC's load forecast inherently incorporates CDM impacts into the regression through the historical data and therefore has not included it as an independent variable in this application. WHESC ran the regression using peak hours as an independent variable and the peak hour flag

returned a result of what WHESC considered to be not statistically valid (t-stat less than 1). As a result, WHESC excluded this variable from its load forecast model.

b. Yes, WHESC tested other variables to determine if they should be used as "drivers" in the regression model.

   i. WHESC tested the Peak hours variable, as described in part 1)i. WHESC also tested the COVID variable that takes a value of 1 for each month of the lockdown months, as well as the Trend variable that increases by 1 each month. When running the regression using the COVID variable, the result showed an R-square of 89% and the COVID coefficient not being significant. When running the regression using the Trend variable, the result showed an R-square of 88% and the Trend coefficient not being significant.

c. See part b.

## 3-VECC-15

### Reference: Exhibit 3, page 12

### Question(s):

a. Please provide the actual customer/connection count for each customer class for each of the months in 2024 where such data is available.

### WHESC's Response

a. See table below for monthly customer/connection count to October 2024.

**Table 3-10: Customer/Connection Count by Customer Class**

| Month | Residential | GS<50 kW | GS>50 kW | Sentinel Lights | Street Lights | Unmetered Scattered Load |
|---|---|---|---|---|---|---|
| Jan-24 | 23,784 | 1,851 | 146 | 341 | 7,272 | 197 |
| Feb-24 | 23,795 | 1,852 | 146 | 341 | 7,272 | 197 |
| Mar-24 | 23,793 | 1,850 | 148 | 341 | 7,274 | 197 |
| Apr-24 | 23,812 | 1,861 | 149 | 341 | 7,274 | 196 |
| May-24 | 23,832 | 1,861 | 148 | 341 | 7,320 | 196 |
| Jun-24 | 23,864 | 1,855 | 148 | 341 | 7,320 | 196 |
| Jul-24 | 23,908 | 1,859 | 148 | 341 | 7,320 | 196 |
| Aug-24 | 24,018 | 1,871 | 151 | 341 | 7,329 | 196 |
| Sep-24 | 24,080 | 1,869 | 150 | 340 | 7,329 | 196 |
| Oct-24 | 24,116 | 1,865 | 150 | 335 | 7,342 | 196 |

## 3-VECC-16

### Reference: Exhibit 3, page 12, Table 3-7 and page 20

### Preamble

The Application states (page 20):

> "At the same time, 2021 observed the addition of 49 GS<50kW customers, and the loss of 21 GS>50kW customers. Though some GS<50kW additions were the result of growth, and some GS>50kW customer losses were the result of moves and shutdowns, WHESC attributes the majority of these changes in commercial customer composition to the reclassification of customers from GS>50kW into the GS<50kW rate class".

### Question(s):

a. For each of the GS<50 and GS>50 customer classes, how much of the change in customer count between 2020 and 2021 was due to customer reclassification?

b. Has there been any reclassification of customers between the GS<50 and GS>50 customer classes since 2021?

   i. If yes, please set out the reclassifications that have occurred since 2021.

### WHESC's Response

a. Between 2020 and 2021, 25 customers moved from the GS>50 to the GS<50 customer class. No customers moved from the GS<50 to GS>50 customer class.

b. Yes, there have been reclassifications of customers between the GS<50 and GS>50 customer classes since 2021.

   i. Please see table below for summary of reclassifications.

**Table 3-11: Reclassifications between GS>50 and GS<50 Customer Classes**

| Year | GS<50 to GS>50 | GS>50 to GS<50 |
|---|---|---|
| 2022 | 5 | 8 |
| 2023 | 9 | 7 |
| 2024 | 9 | 7 |

## 3-VECC-17

### Reference: Exhibit 3, page 13

### Preamble

The Application states:

> "As can been seen from the above table, usage per customer/connection is variable throughout the historical period. It is WHESC's view that this variability is largely attributed to year-over-year fluctuation in the occurrence of extreme cold/heat periods. The variability in usage per connection can be generally correlated to Heating Degree Day and Cooling Degree Day data."

### Question(s):

a. Please provide any analysis WHESC has undertaken to demonstrate/test whether "variability in usage per connection can be generally correlated to Heating Degree Day and Cooling Degree Day data".

### WHESC's Response

a. WHESC has not performed any analysis to demonstrate that variability in usage per connection can be generally correlated to Heating Degree Day (HDD) and Cooling Degree Day (CDD) data. As a summer peaking LDC, WHESC simply observes that usage per customer tends to increase in the residential customer class when the CDD count is higher in a year. Table 3-10 has been revised and presented below to include annual CDD:

**Table 3-12: Exhibit 3, Table 3-10, Revised**

| Year | CDD | Residential | General Service < 50 kW | General Service 50 to 4,999 kW | Sentinel Lights | Street Lights | Unmetered Scattered Loads | Large User |
|---|---|---|---|---|---|---|---|---|
| **Annual kWh Usage Per Customer/Connection** | | | | | | | | |
| 2014 | 210.1 | 7,727 | 30,928 | 872,132 | 1,478 | 369 | 3,729 | 20,367,511 |
| 2015 | 256.2 | 7,655 | 30,701 | 880,149 | 1,464 | 336 | 3,779 | 0 |
| 2016 | 428.5 | 7,833 | 30,242 | 902,086 | 1,473 | 231 | 3,737 | 0 |
| 2017 | 258.7 | 7,330 | 29,206 | 907,791 | 1,458 | 203 | 3,660 | 0 |
| 2018 | 393.5 | 8,025 | 29,464 | 930,550 | 1,389 | 202 | 3,638 | 0 |
| 2019 | 268.9 | 7,683 | 28,101 | 910,847 | 1,287 | 201 | 3,639 | 0 |
| 2020 | 342.5 | 8,205 | 27,154 | 827,425 | 1,321 | 201 | 3,644 | 0 |
| 2021 | 338.2 | 8,166 | 29,529 | 919,846 | 1,276 | 198 | 3,594 | 0 |
| 2022 | 304.6 | 7,994 | 30,314 | 980,393 | 1,226 | 197 | 3,552 | 0 |
| 2023 | 239.7 | 7,577 | 29,414 | 960,789 | 1,228 | 198 | 4,256 | 0 |

# Exhibit 4 – Operating Expenses

## OEB Staff Interrogatories

### 4-Staff-38

### Inflation

### Reference: Exhibit 4, pp. 17-23

### Preamble

In the reference, Welland Hydro-Electric System provides primary cost drivers for OM&A costs for 2017 to 2025 and states that some of the cost drivers (e.g. postage and store material) are mainly affected by inflationary increases.

OEB staff has put together an annual inflation estimate using the 2017-approved OM&A as the base and escalating each year thereafter using the adjusted inflation value (OEB inflation minus stretch factor).

| | OEB Inflation (%) | Stretch Factor (%) | Adjusted Inflation (%) | OM&A Cost Escalated by Adjusted Inflation ($) | Total OM&A Cost from Appendix 2-JA ($) |
|---|---|---|---|---|---|
| | (A) | (B) | (C = A - B) | (D = Dprevious year x (1+ Ccurrent year)) | (E) |
| 2017 OEB-approved | 1.90% | 0.15% | 1.75% | $6,800,000 | $6,800,000 |
| 2018 | 1.20% | 0.15% | 1.05% | $6,871,400 | $6,796,083 |
| 2019 | 1.50% | 0.15% | 1.35% | $6,964,164 | $6,935,869 |
| 2020 | 2.00% | 0.15% | 1.85% | $7,093,001 | $6,819,834 |
| 2021 | 2.20% | 0.15% | 2.05% | $7,238,407 | $6,784,453 |
| 2022 | 3.30% | 0.00% | 3.30% | $7,477,275 | $7,083,496 |
| 2023 | 3.70% | 0.00% | 3.70% | $7,753,934 | $7,238,271 |
| 2024 | 4.80% | 0.00% | 4.80% | $8,126,123 | $8,090,780 |
| 2025 | 3.60% | 0.00% | 3.60% | $8,418,663 | $8,823,658 |
| **$ Increase from 2017 OEB-approved to 2025** | - | - | - | $1,618,663 | $2,023,658 |
| **% Increase from 2017 OEB-approved to 2025** | - | - | - | 24% | 30% |

### Question(s):

a. Please provide an explanation and details for costs that have escalated at greater than inflation (e.g. due to customer growth, contract costs rising above inflation, etc.)

### WHESC's Response

a. WHESC notes that the OEB inflation factor for a given year is computed based on FDD and AWE statistics from two years prior. The inflation amounts in the table above lag two years from actuals. Additionally, the table above does not account for the OM&A impact of customer growth.

The following table summarizes WHESC's analysis of OM&A cost drivers that have increased in excess of the OEB Cost Escalated by Adjusted Inflation (CEAI) rate of 24%:

**Table 4-1: OM&A Cost Drivers in Excess of Inflation**

| OM&A Expense | 2017 OEB Approved | 2025 Test Year | Difference | Estimated Difference due to Inflation | % Change due to Inflation | Amount in Excess of OEB Inflation |
|---|---|---|---|---|---|---|
| Locates | $ 104,816 | $ 249,853 | $ 145,037 | $ 60,062 | 57% | $ 34,906 |
| Stores Material Issued to O&M | $ 71,871 | $ 194,274 | $ 122,403 | $ 72,403 | 101% | $ 55,154 |
| Tree Trimming | $ 150,377 | $ 230,450 | $ 80,073 | $ 80,073 | 53% | $ 43,983 |
| Postage | $ 143,310 | $ 243,928 | $ 100,618 | $ 48,618 | 34% | $ 14,224 |
| **Total** | | | | | | **$ 148,266** |

1. Locates

   As stated in Section 4.2.2.4 of Exhibit 4, locate volumes have increased since 2017 due to the increase in economic development activity within the City of Welland. WHESC switched service providers in June 2024 through an RFQ process. This process was triggered by unit cost increases from the previous locate service provider. WHESC's agreement with the new service provider results in a per unit cost increase of approximately 1.5x 2017 rates. The increased cost of locates specific to inflation between the 2017 OEB Approved amount and the 2025 Test Year budget is approximately $60,062. This amount is $34,906 in excess of the CEAI rate calculated above.

2. Stores Material Issued to O&M

   As indicated in Section 4.2.2.5 of Exhibit 4, stores material issued to non-capital or billable work experienced cost increases throughout the historical period, particularly post-COVID in 2022. This results in approximately $55,154 of cost in excess of the CEAI rate of 24% identified above. As evidenced in Section 4.1.6, an increase approaching or exceeding 2x pre-COVID unit costs has been experienced for the purchase of poles and cable. Items such as insulators, switches, brackets and other distribution system hardware have unit costs that increased well in excess of the CEAI rate calculated above.

3. Tree Trimming

   Section 4.2.2.8 of Exhibit 4 describes the strategies that WHESC has used to manage cost increases over the historical period related to tree trimming. The cyclical area boundaries identified for the tree trimming program have remained consistent throughout the historical period. WHESC has determined that even with the cost control strategies in use, there is $43,983 of cost exceeding the CEAI rate calculated above.

4. Postage

   Postage rate have increased over the historical period with a pending stamp rate increase scheduled in 2025. WHESC has estimated that inflation accounts for $48,618 of the postage cost increase from the 2017 COS to the 2025 Test Year. This amount is $14,224 in excess of the CEAI rate calculated above.

## 4-Staff-39

### Business Environment Changes

### Reference: Exhibit 4, pp. 13-16

### Preamble

In the reference, Welland Hydro-Electric System provides an explanation of business environment changes that have led to significant cost pressures that impact both the historical and forecast period.

### Question(s):

a. Please provide a detailed list of significant changes (e.g. CIS upgrade, SmartMAP implementation, etc.) specific to Welland Hydro-Electric System that have affected or will affect OM&A costs for the historic period (2017-2023), the 2024 Bridge Year, as well as the forecast period (2025 to 2029).

   i. Please also indicate the year that the change occurred or will occur.

b. Please provide a brief explanation on improvements resulting from upgrades or new implementations that have been made for each of these changes in (a).

c. Please provide the cost increase or savings for each of the changes.

d. Please indicate whether any of the changes is a result of shifting from on-premise solutions to subscription-based or cloud-based solutions.

### WHESC's Response

a. There are three areas of change that affect OM&A in the historical and forecast period. These are related to primary cost drivers and include: 1) CIS Migration to Cloud, 2) the SmartMAP implementation, and 3) Cybersecurity Services.

   1. CIS Migration to Cloud

WHESC's current CIS vendor has indicated their platform is moving to the Cloud for their next major release. WHESC has established budgetary estimates for the changes to maintenance and support along with hosting costs. WHESC has included $36,536 in the 2025 information systems budget to accommodate this migration.

2. SmartMAP Implementation

   WHESC implemented the SmartMAP platform in 2020. SmartMAP was implemented to provide:

   - Operational Data Aggregation
   - Engineering Analysis
   - Outage Management
   - Distribution System Management

   The DSP found in Exhibit 2, Appendix 2-E details the use of the platform in WHESC's engineering, operations, and system control departments. Prior to the implementation of SmartMap, WHESC leveraged engineering consulting services to perform short circuit analysis and load flow studies in support of distribution system design and external requests for fault level studies. WHESC has experienced an annual cost savings of approximately $10,000 by doing this internally. The net annual impact on OM&A in 2025 is $83,863.

3. Cybersecurity Services

   As described in Exhibit 4, Section 4.2.2.9, WHESC requires resourcing to comply with the Ontario Cybersecurity Standard that came into force on October 1st, 2024. WHESC will utilize a shared services agreement with EPLC to obtain cyber-security compliance support in lieu of acquiring an FTE specifically for that purpose. In 2025, WHESC added an annually recurring OM&A expenditure of $65,000 to cover the cost of this shared resource.

b. The improvements resulting from these changes have been described in Part a., above.

c. The cost increase or savings has been described in Part a., above.

d. Item 1) listed in Part a. above is the result of the vendor transitioning their platform to a cloud-based solution.

## 4-Staff-40

### On-premise, Subscription-based, and Cloud-based solutions

Reference 1: Exhibit 1, Appendix 1-A, p. 6 (p. 66 of PDF)
Reference 2: Exhibit 1, Appendix 1-A, p. 17 (p. 77 of PDF)
Reference 3: Exhibit 4, p. 19

### Preamble

In reference 1, Welland Hydro-Electric System states that it continues to acquire the necessary resources to maintain compliance with the Ontario Cyber Security Standard. The maintenance of on premise and cloud-based IT systems via a third-party Managed Service Provider (MSP) continues in an effort to manage recurring OM&A impacts.

In reference 2, Welland Hydro-Electric System explains primary cost drivers of OM&A between 2017 to 2025 which include Advanced Distribution Management System (ADMS) Software and states that the platform is hosted and subscription based.

In reference 3, Welland Hydro-Electric System states that there is a requirement to upgrade its current CIS solution based on the vendor's migration to cloud contributing $36,536 of cost in 2025 and software maintenance and subscription costs have increased by $72,283 since the 2017 rebasing application.

### Question(s):

a. Please complete the following tables on capital and OM&A spending between on-premise solutions and subscription-based model/cloud-based solutions.

**Costs for On-premise Solutions from 2017-2029**

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|
| Capex | $ | $ | $ | $ | $ | $ | $ |
| OM&A | $ | $ | $ | $ | $ | $ | $ |

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|
| Capex | $ | $ | $ | $ | $ | $ |
| OM&A | $ | $ | $ | $ | $ | $ |

**Costs for Subscription-based/Cloud-based Solutions from 2017-2029**

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|
| Capex | $ | $ | $ | $ | $ | $ | $ |
| OM&A | $ | $ | $ | $ | $ | $ | $ |

| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|
| Capex | $ | $ | $ | $ | $ | $ |
| OM&A | $ | $ | $ | $ | $ | $ |

b. If applicable, please explain any cost savings as a result of moving to a subscription-based model or cloud-based solutions which Welland Hydro-Electric System would otherwise being incurring with on-premise solutions.

## WHESC's Response

a. The following tables show capital and OM&A spending between on-premise solutions and subscription-based model/cloud-based solutions:

**Table 4-2: Capital & OM&A Summary – On-Premise and Cloud Solutions**

| Costs for On-Premise Solutions | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Capex | $ 127 | $ 215 | $ 333 | $ 159 | $ 30 | $ 15 | $ 11 |
| OM&A | $ 144 | $ 138 | $ 221 | $ 288 | $ 293 | $ 322 | $ 373 |
| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | |
| Capex | $ - | $ 120 | $ - | $ - | $ - | $ - | |
| OM&A | $ 390 | $ 474 | $ 475 | $ 494 | $ 522 | $ 543 | |

| Costs for Subscription-based/Cloud-based Solutions | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Capex | $ - | $ - | $ - | $ 25 | $ - | $ - | $ - |
| OM&A | $ 396 | $ 347 | $ 359 | $ 230 | $ 154 | $ 156 | $ 161 |
| | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | |
| Capex | $ - | $ - | $ - | $ - | $ - | $ - | |
| OM&A | $ 201 | $ 240 | $ 244 | $ 248 | $ 254 | $ 259 | |

b. This is not applicable in WHESC's environment.

## 4-Staff-41

Reference 1: Exhibit 4, pp. 17 and 20
Reference 2: Exhibit 1, p. 30
Reference 3: Exhibit 1, Appendix 1-F: Customer Engagement Survey, pp. 181 and 183 of PDF

### Preamble

In reference 1, Welland Hydro-Electric System provides a cost driver table and an explanation that includes a postage cost increase of $101k over the 2017 to 2025 period.

In reference 2, Welland Hydro-Electric System states that its SilverBlaze portal is available to customers providing the ability to view usage and billing information. Customers can also view and download historical bill statements along with usage data for a specific billing period.

In reference 3, the customer engagement survey results related to priority within the next five years shows that increasing the use of e-billing and paper-free communication options to reduce environmental impact and improve cost-effectiveness achieved 79% in total respondents with an opinion (ranked 5th out of 7 in the category). In addition, interest in e-billing as a communication option from Welland Hydro-Electric System achieved 89% (ranked 1st out of 7 in the category) in total respondents with an opinion.

### Question(s):

a. What is the current percentage of customers on e-billing?

b. Please describe any cost saving efforts that Welland Hydro-Electric System has made in the past or any plans it has over the next five years to encourage its customers to switch from paper bill to e-bill.

    i. If applicable, please provide any cost savings over the historic period or expected cost savings in the next five years.

### WHESC's Response

a. Currently, WHESC has approximately 19% of customers on e-billing across all customer classes.

b. WHESC has a message on its bill print advising customers to sign up for e-billing and SilverBlaze. Other than the bill print messaging, WHESC has not had any formal initiatives in the past 5 years to encourage customers to switch from paper bill to e-bill. When customers contact WHESC's customer service department enquiring about a missing paper bill, questions on usage, or other

billing and consumption related matters, WHESC's customer service representatives inform them of the e-billing option and encourage them to create a Silverblaze account where they can self-service their enquiry and access their bills online. As was seen in the customer engagement survey results, customers are very interested in the e-billing option. WHESC will be addressing this topic in early 2025 to develop a strategy to encourage customers to convert from paper to e-billing and to sign up for the Silverblaze portal.

i. Please refer to the response to 1-VECC-2. WHESC will evaluate savings in early 2025 as it develops a strategy to encourage transition from paper to e-billing.

## 4-Staff-42

### Reference: Exhibit 4, p. 58

### Preamble

In the reference, Welland Hydro-Electric System states that:

> In 2020, WHESC engaged the services of Marjorie Richards & Associates Ltd. to review Job Descriptions and Job Evaluations for all management positions against the Hay Point methodology. A proposed salary structure based on the job evaluation results was implemented in 2021. For any positional changes that have occurred since the implementation in 2021, Marjorie Richards & Associates Ltd. has been engaged to evaluate the individual position and assign a Hay Point score.
>
> WHESC also participates in MEARIE salary benchmarking surveys annually. The survey results provide insight as to the appropriateness of positional salary levels. This data is used in part to inform the annual management salary review process.

### Question(s):

a. Please explain how Welland Hydro-Electric System compared to the industry average as demonstrated by the MEARIE salary benchmarking surveys and reviewed by Majorie Richards & Associates Ltd.

b. What changes were made to the management staff compensation as a result of the MEARIE survey and reviewed by Majorie Richards & Associates Ltd.?

c. What was an average percentage increase in salary for management staff due to the evaluation in 2021 and thereafter?

### WHESC's Response

a. From the Mearie Survey data used to support the efforts identified in the Reference, the 2018 to 2020 average salary-band adjustment was 2.17%. WHESC's actual adjustments for the same period averaged 2.07%.

   The MR & Associates report found that on average the salary differential was approximately 1.9% below LDC comparators based on the analysis of 2020 data.

b. The MR & Associates recommended a new salary structure that aligned WH positions with LDC comparators (where matched) and a blended market rate consisting of the average of the broader public sector and industrial market levels for a given hay point range. A new salary structure was proposed based on new hay point assessments and the establishment of salary bands. The total 2020 salary based on the recommended structure would result in a total management salary $38,527 less than the previously implemented structure. The recommended structure was implemented in 2021.

c. A summary of management salary increases is presented in the table below:

**Table 4-3: Management Salary Adjustments 2021 - 2024**

| Year | Base Adjustment | Average Increase* | Mearie |
|---|---|---|---|
| 2021 | 2.0% | 2.4% | 2.10% |
| 2022 | 2.2% | 2.4% | 3.07% |
| 2023 | 3.0% | 3.5% | 3.52% |
| 2024 | 3.5% | 4.6% | 3.63% |

*Includes adjustments towards mid-point of band where justified by performance.

## 4-Staff-43

### System Control Program and FTEs

### Reference: Exhibit 4, pp. 28-30, 63

### Preamble

From Table 4-19 in the reference, the year-over-year increase in System Control Operation Program costs was $97k (49%) in 2021 and $115k (35%) in 2023.

Welland Hydro-Electric System states that historically it managed a five day by eight-hour control room operation with one FTE. In 2021, Welland Hydro-Electric System outsourced system control operations to

a third-party service provider which provided a 24 x 7 coverage model, contributing to the cost increase in that year. Welland Hydro-Electric System states that it was not able to achieve the desired results with the third-party and had to reassess the value of continuing without achieving expected outcomes.

In 2023, Welland Hydro-Electric System states that it pursued opportunities to share system control costs with Essex Powerlines Corporation (EPLC). Although Welland Hydro-Electric System started operating its system control operation in house in 2023, there was a period of overlap during which the outsourced service provider continued coverage in parallel with Welland Hydro-Electric System operators, which contributed to the cost increase in 2023. The third-party service terminated at the end of 2023.

In addition, Welland Hydro-Electric System states that of the staff complement of three in the System Control department, 1.6 equivalent FTEs are allocated to the company's activities including substation maintenance and operation and load dispatching while the other 1.4 equivalent cost resides in billable work to EPLC control room services.

## Question(s):

a. Please explain what desired results Welland Hydro-Electric System was unable to achieve with the third-party.

b. How long was the period of overlap in 2023 when the outsourced service provider continued coverage in parallel with Welland Hydro-Electric System operators?

c. Please provide the cost associated with the third-party service during the period of overlap.

d. Please explain what other system control opportunities were evaluated and how Welland Hydro-Electric System determined that partnering with EPLC was the most cost-effective option as stated in reference 2.

e. Please explain what improvements have been made so far and are expected to be achieved in the forecast period by using and sharing the 24 x 7 coverage model with EPLC.

f. With cost increases due to additional FTEs from 1 to 3 in the system control department from the 2017 OEB-approved to 2025, has Welland Hydro-Electric System achieved any overall cost savings by sharing system control costs with EPLC?

    i. If so, please provide cost saving estimates associated with sharing system control costs with EPLC in 2023, 2024 and 2025 compared to what otherwise would have been if

Welland Hydro-Electric System had continued with the five day by eight-hour control room operation.

ii. If not, please explain.

## WHESC's Response

a. WHESC was looking to implement a 24x7 coverage model with the same level of functionality as provided by the previous approach covering only normal working hours. Services desired but not fully provided include:

- Full administration of Utility Work Protection Code in support of capital, operating, and maintenance activities.
- Operation of WHESC's SmartMAP platform for OMS/DMS purposes.
- Remote switching to aid in fault isolation and grid restoration following a protection element operation.
- Provision of crew patrolling instructions.
- Coordination with customers, embedded generators, and other stakeholders during planned or unplanned outages or system disturbances.
- Full storm coverage.

In order to continue use of the third-party service, WHESC would need to supplement the service with internal resources in order to arrive at an adequate level of coverage.

b. The period of overlap was from September 11, 2023 and December 31, 2023.

c. The cost associated with 3rd party services over the period of overlap was $89,514.

d. WHESC solicited other LDC's to determine the potential of an alternate third party service provider covering system control needs on a 24x7 basis. While there were other LDC's providing some aspect of system control services in 2023, none submitted WHESC a proposal and in fact, most were in the process of unwinding control room service provision to other LDC's.

WHESC's remaining alternatives were to:

1. Return to normal working hour coverage and acquiring the necessary resources to do so. This option results in a lack of remote operating capability after-hours leading to increased response times and outage durations. This also does not adequately prepare the LDC to

meet ongoing resiliency and distribution system operator requirements related to DER integration.

2. Acquire the necessary resourcing to acquire 24 x 7 coverage with internal staff. This would result in the same staff compliment requirement as the chosen alternative 3) in order to cover on-call requirements.

3. Enter into a shared services arrangement with ELPC in order to provide 24 x 7 coverage to both entities at approximately ½ of the cost trying to achieve this individually.

e. All of the scope items listed in response a., above are fully implemented, covering both LDC's. A harmonized SCADA operation has been developed and WHESC operators have full visibility of remotely-operable devices in both service territories. WHESC and EPL have adopted similar protection philosophies resulting in optimal outcomes responding to outages and system disturbances through automation and remote operation. The shared services implementation allows both LDC's to maximum the benefit of ongoing grid modernization initiatives.

f. WHESC did not consider it a viable alternative to return to the operating mode associated with alternative 1) in response d., above. These are the estimated costs differences between individually providing 24 x 7 coverage under alternative 2) and the chosen approach with alternative 3):

**Table 4-4: System Control Program Alternatives**

| Alternative | 2025 | 2026 | 2027 | 2028 | 2029 | Total 5 Year Cost |
|---|---|---|---|---|---|---|
| 2 | $ 559,040 | $ 580,704 | $ 604,307 | $ 623,236 | $ 644,385 | $ 3,011,673 |
| 3 | $ 287,521 | $ 298,560 | $ 310,573 | $ 320,254 | $ 331,050 | $ 1,547,958 |
| Avoided Cost 24 x 7 Operation | $ 271,519 | $ 282,144 | $ 293,734 | $ 302,982 | $ 313,335 | $ 1,463,715 |
| Net Cost to WHESC under chosen Alterative 3 | | | | | | |

## 4-Staff-44

## Overhead System Operation Program

## Reference: Exhibit 4, pp. 22-34

## Preamble

In the reference, Welland Hydro-Electric System states that the OM&A cost in Overhead System Operation program decreased by $132k from $311k in 2023 to $179k in 2024 due to an unplanned departure of the Health and Safety Officer in August of 2023 which contributed to a full year reduction of that portion of salary in 2024 as well as a re-allocation of the Line Supervisor duties to cover the duties of the Health and Safety Officer in the Maintenance Supervision and Engineering Program.

Welland Hydro-Electric System states that the OM&A cost in this program is forecast to increase by $188k to $367k in the 2025 Test Year from the 2024 Bridge Year due to the planned new FTE for the Health and Safety Officer position which returns the salary expenditure under this program to be in line with historical levels.

However, OEB staff notes that the highest actual program cost over the historic period (2017 - 2023) was $311k in 2023. The program cost of $367k in 2025 is $56k higher than the 2023 program cost of $311k and does not appear to be in line with historical levels.

### Question(s):

a. Please provide additional cost drivers (if any) for the program cost in 2025 to be higher than historical levels.

### WHESC's Response

a. The highest program cost in the historical period was in 2022. The total Overhead System Operation program cost in that year was $312K. The following table summarizes the cost components between 2023 and 2025:

**Table 4-5: Overhead System Operation Program Costs**

| Cost Component | 2022 | 2023 | 2024 | 2025 | 2025 Test Year vs. 2022 Actual | CAGR |
|---|---|---|---|---|---|---|
| Insurance | $ 49,113 | $ 70,728 | $ 70,729 | $ 72,851 | $ 23,739 | 14.0% |
| Property Tax | $ 2,376 | $ 2,449 | $ 2,547 | $ 2,623 | $ 248 | 3.4% |
| Salaries | $ 221,673 | $ 196,984 | $ 63,169 | $ 247,405 | $ 25,732 | 3.7% |
| Right of Way Access | $ 39,513 | $ 40,707 | $ 42,650 | $ 43,924 | $ 4,411 | 3.6% |

As evidenced in the table, insurance costs have risen by a compound annual growth rate of 14%. This is a major cost driver in addition to inflationary impacts on expenditures associated with the program.

## 4-Staff-45

### Overhead System Maintenance Program

### Reference: Exhibit 4, p. 44

### Preamble

In the reference, the OM&A cost in Overhead System Maintenance program increased by $252k from 2023 to 2024. Welland Hydro-Electric System states that the increase is largely due to salary increases related

to engineering allocations to the program. The progression of union-based Engineering FTE's in 2024 and the addition of an Engineering Technician in 2024 contribute to the increase.

## Question(s):

a. Please provide a breakdown of the $252k increase including progression of union-based Engineering FTE's and the addition of the Engineering Technician.

b. What is the engineering allocation percentage to this program?

c. Please explain work responsibilities of the added Engineering Technician and also why this position was added in 2024.

## WHESC's Response

a. The following table breaks down the $252K increase within the program in 2024 from 2023:

**Table 4-6: Overhead System Maintenance Program Costs**

| Cost Component | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2024 Actual vs. 2023 Actual |
|---|---|---|---|---|---|---|---|
| Engineering Wages and Benefits | $ 265,855 | $ 170,075 | $ 192,973 | $ 181,953 | $ 175,093 | $ 277,894 | $ 102,801 |
| Line Dept. Wages and Benefits | $ 596,958 | $ 460,426 | $ 451,999 | $ 445,526 | $ 446,148 | $ 565,784 | $ 119,636 |
| Vehicle Usage | $ 148,666 | $ 141,969 | $ 177,747 | $ 204,093 | $ 192,173 | $ 197,938 | $ 5,765 |
| Materials and Supplies | $ 306,549 | $ 298,718 | $ 290,094 | $ 351,341 | $ 318,006 | $ 347,761 | $ 29,755 |
| Contract Services, Other | $ 34,553 | $ 10,633 | $ 57,775 | $ 88,195 | $ 56,447 | $ 50,700 | -$ 5,747 |
| Total | $ 1,352,581 | $ 1,081,823 | $ 1,170,587 | $ 1,271,109 | $ 1,187,867 | $1,440,078 | $ 252,210 |

The table has been presented covering the previous five-year period to provide historical context on program spending and aid in the responses to the remaining question covered below.

b. In 2024, approximately 40% of Engineering O&M was allocated to this program.

c. In 2020, WHESC experienced the retirement of an Engineering Technician. Following this, WHESC leveraged the Niagara College Co-Op program, placing a student in the Engineering Department over the period 2021 through 2023. WHESC successfully hired the Co-Op student to return the Engineering Department to its normal staff compliment of four Technicians (three Engineering Technicians plus one GIS Specialist) in January of 2024. The union workforce compliment in the department prior to the retirement in 2020 was three Engineering Technicians and one Engineering Draftspersons. The hire of this Engineering Technician was to aid the department in managing growth affecting both capital and O&M projects.

## 4-Staff-46

### Customer Service and Billing Program

### Reference: Exhibit 4, pp. 47-48

### Preamble

In the reference, Welland Hydro-Electric System states that there is an overall increase of $273k (29%) between the 2017 OEB-approved amounts and the 2025 Test Year in this program. Salaries and benefits have declined by $88k as a result of the company's decision to contract bill processing to a third-party in 2023 to manage future operating cost pressures and gain stability in billing. Subcontracted service costs for bill processing have increased by $168k as a result. This is almost a direct offset of labour costs in comparison to 2017 COS salaries inflated to 2025 levels.

Welland Hydro-Electric System states that the year-over-year program cost increase from 2023 to 2025 are driven by outsourcing of bill processing. For 2025, customer facing enhancements planned for implementation in 2025 also contribute to the cost increase.

### Question(s):

a. Please provide calculations showing the subcontracted service costs for bill processing being almost a direct offset of labour costs in comparison to the 2017 salaries inflated to 2025 levels.

b. Please explain what Welland Hydro-Electric System means by gaining stability in billing. Please also explain any performance improvements by outsourcing the billing process compared to keeping it in-house.

c. Please provide a list of the customer facing enhancements planned for implementation from 2025 to 2029 as well as forecast costs for each type of enhancement. Are the enhancements, budgeted as part of the 2025 OM&A costs, still scheduled to be implemented as planned for 2025?

### WHESC's Response

a. WHESC has inflated the cost of a Billing Administrator (management) and a billing union FTE to 2025 salary levels. The 2025 cost of 1 FTE Billing Administrator and 0.4 FTE of a billing union FTE amounts to $228K. The reduction of the 1.4 FTEs more than offsets the increase of subcontracted billing services of $168K.

b. Stability in billing means that billing will continue to occur without interruption regardless of the circumstance. In order for WHESC to achieve this, additional FTEs would be required. Through

contract services, WHESC is able to manage its FTE count and costs while being assured that billing will continue in the event of an FTE departure. Outsourcing the billing function also provides additional resource and knowledge depth through working with additional individuals who specialize in the billing function.

c. WHESC will be implementing a mobile version of its customer facing portal, Silverblaze. WHESC has budgeted $22,188 annually beginning in 2025, adjusted for inflation. WHESC is also planning website enhancements including an outage map in 2025 at a cost of $18,000 annually, adjusted for inflation. These enhancements are included in 2025 Test Year OM&A and are still planned to be implemented in 2025.

## 4-Staff-47

### FTE - Engineering and Operations Assistant

Reference 1: Exhibit 4, p. 68
Reference 2: Exhibit 1, p. 41

### Preamble

In the reference 1, the FTE increase of 3.2 from 2024 to 2025 is due to the addition of three new positions including Engineering and Operations Assistant. Welland Hydro-Electric System states that:

The Engineering and Operations Assistant will take on existing duties from the Billing and Collections department currently conducted by CSRs. This reallocation accounts for 50% of the new position's duties. The balance of duties for this position are designed to manage growth impacts in the Engineering and Operations departments inclusive of service location request processing, coordination of ESA authorizations, field order dispatching, and records management.

In reference 2, Welland Hydro-Electric System states that: WHESC's performance against the "Telephone Calls Answered on Time" measure has declined over the historical period. Although still exceeding the OEB target of 65% or greater, WHESC attributes the decline in performance to growth and associated workload demand for new/upgrade service processing through the customer service department. WHESC has identified resource adjustments in the COS filing associated with this Application, with the intention of addressing declining performance.

### Question(s):

a. Are the existing duties from the Billing and Collections department currently conducted by CSRs?

b. Please explain growth and associated workload demand for new/upgrade service processing through the customer service department in more detail.

c. Is the hiring of the Engineering of the Engineering and Operations Assistant intended to adjust resources for CSRs to address the declining performance in the "Telephone Calls Answered on Time" measure over the 2025 to 2029?

### WHESC's Response

a. Yes, the existing internal staff duties of the Billing and Collecting department are covered by 3 CSRs supervised by a Customer Service Supervisor and Billing Supervisor. A portion of the departmental workload (bill processing, non-payment field processing, etc.) is covered by contract services.

b. WHESC has experienced an uptick in customer growth in the recent historical period as evidenced by WHESC's DSP on Page 48, Table 5.3-2. Furthermore, the number of new service connections and service upgrades have increased as evidenced in data provided in response to interrogatory questions 2-Staff-16 and 2-Staff-17, associated with this Application.

   WHESC's group of three CSRs currently manage the intake and processing of new connection and service upgrade requests. This includes data administration within WHESC's service location tracking application, processing Electrical Safety Authority (ESA) authorizations, ensuring prerequisites for connection are met, and coordinating with lines and meter departments. In 2023, WHESC's CSRs processed 1,246 ESA Authorizations related to new connections and service modifications.

c. Hiring the Engineering and Operations Assistant is intended to remove the workload described in Part b., currently handled by CSRs. This will increase CSR capacity to process contacts by telephone and online forms, mitigating historical declining performance in "Telephone Calls Answered On Time".

## 4-Staff-48

### FTEs, Wage, and Benefit Analysis

### Reference: Exhibit 4, pp. 65-66

### Preamble

In the reference, Table 4-47 shows FTE, Wage and benefit Variance Analysis from the 2017 actual to the 2025 Test Year. Welland provides an explanation for the variance in FTEs between 2020 and 2021 which shows a reduction of 1.0 FTE.

OEB staff notes that although there is a reduction of 1.00 FTE, the total salary and wages, total benefits, and total compensation (salary, wages and benefits) increased by $79k, $85k and $165k respectively in 2021. It appears that the increases are due to a period of overlap in the hire of a replacement Director of Engineering and Operations and the former Director of Engineering and Operations that replaced the retired President and CEO in 2021.

### Question(s):

a. Please confirm staff's observation. If not confirmed, please explain why the total salary and wages, total benefits, and compensation show increases in 2021 in contrast to the decreased number of FTE.

### WHESC's Response

a. OEB staff's observation is correct that salary, wages, benefits, and total compensation show increases in 2021 in contrast to the overall decrease in the number of FTEs. This is due to the ten-month period of overlap in the Director of Engineering and Operations position, and the two-month period of overlap in the President and CEO position.

## 4-Staff-49

### Pension and OPEBs

Reference 1: Chapter 2 Filing Requirements for Electricity Distribution Rate Applications - 2023 Edition for 2024 Rate Applications, December 15, 2022, p. 31
Reference 2: Exhibit 4, Section 4.2.4, Capitalized OM&A
Reference 3: Exhibit 4, Section 4.3.1.6, Employee Benefit Program
Reference 4: Chapter 2 Appendices Settlement, Appendix 2-D
Reference 5: 2017 Chapter2 Appendices_Settlement_20170419, Appendix 2-D

### Preamble

In reference 1, the Filing Requirements state that:

> The distributor must provide details of employee benefit programs, including pensions, other post-employment retirement benefits (OPEBs), and other costs charged to OM&A. A breakdown of the pension and OPEBs amounts included in OM&A and capital must be provided for in the last OEB-approved rebasing application, and for historical, bridge and test years.

OEB staff has compiled a table below from the above noted references which shows the capitalized employee benefits to OM&A, the burden rates, the OMERS pension expenses, and the Employee Future Benefits.

Table 1: Capitalized OM&A, Pension and Employee Future Benefits

| | 2017 OEB-Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test |
|---|---|---|---|---|---|---|---|---|---|---|
| Capitalized OM&A (Wages and benefits (Appendices 2D_Overhead) | 518,650 | 545,454 | 600,040 | 623,568 | 690,699 | 787,171 | 702,547 | 747,471 | 776,670 | 800,212 |
| Burden rates (Appendices 2D_Overhead) | 7% | 7% | 8% | 8% | 9% | 10% | 9% | 9% | 9% | 8% |
| OMERS Pension Premiums (Table 4-48: Benefit Expenses) | 389,897 | 362,434 | 375,951 | 378,475 | 394,007 | 396,930 | 352,302 | 369,763 | 422,096 | 476,843 |
| Employee Future Benefits (Table 4-48: Benefit Expenses) | 103,766 | 100,999 | 106,533 | 103,766 | 103,766 | 103,766 | 103,766 | 103,766 | 103,766 | 106,455 |

## Question(s):

a. Please provide the breakdown of what is included in the "Capitalized OM&A (Wages and benefits)" in the table above. Does this amount include both OMERS pension premiums and Employee future benefits? If so, what is the percentage of OMERS pension premiums and Employee future benefits respectively being capitalized into OM&A? If not, please explain why they are not included in the capitalized OM&A.

b. Please provide the breakdown of OMERS pension expense & OPEBs amounts between capital and OM&A from the 2017 OEB-approved rebasing application to the 2025 Test Year on a year-by-year basis. In addition, please compute the percentage allocated to capital and percentage allocated to the OM&A respectively year-over-year and explain any significant increase/decrease of the percentage.

c. Please explain any changes in the allocation percentages between the capital and OM&A expenses compared to the 2017 allocation percentages approved in the 2017 rebasing application.

## WHESC's Response

a. Capitalized OM&A (Wages and benefits) includes base wages and burden costs for labour hours charged to Capital. The table below shows the breakdown between base wages and burden from the 2017 OEB-approved to the 2025 Test Year.

**Table 4-7: Capitalized Labour and Burden Breakdown**

| | 2017 OEB Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test |
|---|---|---|---|---|---|---|---|---|---|---|
| Capitalized Labour - Base | 345,767 | 363,636 | 400,026 | 415,712 | 460,468 | 524,847 | 468,367 | 498,315 | 523,451 | 538,352 |
| Capitalized Labour - Burden | 172,883 | 181,818 | 200,014 | 207,856 | 230,231 | 262,324 | 234,180 | 249,156 | 253,219 | 261,860 |
| Capitalized Labour - Total | 518,650 | 545,454 | 600,040 | 623,568 | 690,699 | 787,171 | 702,547 | 747,471 | 776,670 | 800,212 |

Burden costs include OMERS premiums but exclude Employee Future Benefits. Employee Future Benefit premiums are charged directly to Administrative expense as they do not provide any contribution to capital work.

The table below shows the amount and percentage of OMERS premiums allocated to capital and OM&A from the 2017 OEB-approved rebasing application to the 2025 Test Year.

**Table 4-8: OMERS Premium Allocation**

| | 2017 OEB Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test |
|---|---|---|---|---|---|---|---|---|---|---|
| OMERS capitalized ($) | 43,960 | 47,537 | 52,388 | 55,597 | 61,480 | 66,155 | 56,709 | 62,201 | 65,126 | 67,378 |
| OMERS expensed ($) | 345,937 | 314,897 | 323,563 | 322,878 | 332,527 | 330,775 | 295,593 | 307,563 | 356,970 | 409,464 |
| Total OMERS ($) | 389,897 | 362,434 | 375,951 | 378,475 | 394,007 | 396,930 | 352,302 | 369,763 | 422,096 | 476,843 |
| | | | | | | | | | | |
| OMERS capitalized (%) | 11.3% | 13.1% | 13.9% | 14.7% | 15.6% | 16.7% | 16.1% | 16.8% | 15.4% | 14.1% |
| OMERS expensed (%) | 88.7% | 86.9% | 86.1% | 85.3% | 84.4% | 83.3% | 83.9% | 83.2% | 84.6% | 85.9% |
| Total OMERS (%) | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

b. A breakdown of OMERS pension expense between capital and OM&A from the 2017 OEB-approved rebasing application to the 2025 Test Year on a year-over-year basis (both amount and percentage) can be found in the response to a) above. Welland Hydro does not believe that there has been a significant increase or decrease in the percentage year-over-year.

c. The allocation percentage between the capital and OM&A expenses compared to the 2017 allocation percentages approved in the 2017 rebasing application changed by 2.9% (increase to capital, decrease to OM&A). The slight increase in the percentage of labour and burden charged to capital is primarily due to an effort to gain cost efficiencies through the use of line staff on capital projects, without impacting maintenance programs.

## 4-Staff-50

### Pension and OPEBs

Reference 1: Exhibit 1, Appendix 1-D - 2023 Audited Financial Statements, p. 127
Reference 2: Exhibit 1, Appendix 1-E - 2022 Audited Financial Statements, p. 167
Reference 3: Exhibit 4, Section 4.3.1.6, Employee Benefit Program
Reference 4: Regulatory Treatment of Pension and Other Post-employment Benefits (OPEBs) Costs, EB-2015-0040, September 14, 2017

## Preamble

In Reference 3, Welland Hydro-Electric System proposes continuing the cash method for the OPEB expense over 2025 to 2029 term. Welland Hydro-Electric System states that:

The primary reason for WHESC's continued use of the cash methodology is that management has made changes to its OPEB plan that will reduce its annual expense over time. The changes implemented to the OPEB plan result in a significant reduction of offerings and thereby introduce a stable and predictable cost structure associated with a diminishing liability.

In addition, use of the accrual methodology over the past five-year period would have resulted in a material shortfall averaging $75,175 annually. Although the OPEB expense will continue to decline over time, it is expected that over the next five-year rate term actual costs paid for current retirees receiving benefits will outweigh the accrual for active employees whose future expense is being accrued.

In Reference 4, Regulatory Treatment of Pension and Other Post-employment Benefits (OPEBs) Costs states that:

Aligning regulatory treatment with the financial accounting treatment of the costs supports using the accrual method as the default method for calculating the amount of pension and OPEB costs to go into rates.

Regulations and requirements for OPEBs and unregistered pension plans are less rigorous than for registered pension plans. There is no legislative requirement imposed on plan administrators to ensure that these plans are adequately funded. The OEB is not the regulator responsible for ensuring solvency of pension plans. The OEB will not prescribe a set-aside mechanism for OPEBs as part of this policy.

OEB staff has compiled a table (Table 2) below from the references notes above, which shows the difference between employee future benefits expenses and OPEBs under Accrual method.

Table 2: Difference between Employee Future Benefits Future Benefits  Expenses and OPEBs under Accrual Method

| (in thousands of dollars) | Employee Future Benefits expense (Table 4-48: Benefit Expenses) | Actual OPEBs paid (cash method) (Table 4-50: Difference between Accrual and Cash Method) | OPEBs under Accrual method (per RSM) (Table 4-50: Difference between Accrual and Cash Method) | Difference (a-c) |
|---|---|---|---|---|
| | (a) | (b) | (c) | (d) |
| 2017 OEB-Approved | 103,766 | | | |
| 2017 Actual | 100,999 | | | |
| 2018 Actual | 106,533 | | | |
| 2019 Actual | 103,766 | | | |
| 2020 Actual | 103,766 | | | |
| 2021 Actual | 103,766 | 128,850 | 60,317 | 43,449 |
| 2022 Actual | 103,766 | 146,394 | 58,196 | 45,570 |
| 2023 Actual | 103,766 | 146,023 | 56,568 | 47,198 |
| 2024 Bridge | 103,766 | 130,100 | 54,707 | 49,059 |
| 2025 Test Year | 106,455 | 106,455 | 52,160 | 54,295 |
| **Average (2017 Actual – 2025)** | **104,065** | **131,564** | **56,390** | **47,914** |

OEB staff compiles the post-employment benefit plan expense per Note 16 of Welland Hydro-Electric System's 2023 and 2022 AFSs in the table below.

**Table 3: Employee salaries and benefits**

| (in thousands of dollars) | 2023 | 2022 | 2021 |
|---|---|---|---|
| Post-employment benefit plan | 104 | 104 | 104 |

Question(s):

a. Based on Table 2 above:

   i. The amounts of employee future benefits are different from the amounts of actual OPEBs paid (cash method). Please explain the difference.

ii. Please provide the amount of both Actual OPEBs paid (cash method and OPEBs under accrual method (per RSM) from 2017 to 2020.

iii. The average difference between Employee Future Benefits and OPEBs under accrual method is $47,914 for the 2021 to 2025 while Welland Hydro-Electric System states that there is a material shortfall averaging $75,175 annually. Please explain the difference.

b. Per Table 3, based on the 2023 and 2022 audited financial statements, the post-employment benefit plan expense is $104k annually, which is approximately $46,000 higher than the OPEBs under accrual method which is determined by the actuarial report. Please explain the difference.

c. Please elaborate on why it is expected that actual costs paid for current retirees receiving benefits will outweigh the accrual for active employees whose future expense is being accrued over the next five-year rate term.

d. Please provide a table similar to Table 4-50 in Exhibit 4 for the 2026 to 2029 period, comparing the estimated OPEB expense on a cash basis and the estimated OPEB expense on an accrual basis.

e. Please clarify the statement that “the changes implemented to the OPEB plan result in a significant reduction of offerings and thereby introduce a stable and predictable cost structure associated with a diminishing liability” and reconcile to the table requested above in d).

f. Please provide any adjustment needed, including the transitional adjustment, if the OEB orders Welland Hydro-Electric System to use the accrual basis for its OPEB expense starting in 2025 in this proceeding.

g. Please provide pros and cons of transitioning the OPEB to the accrual basis in next proceeding and transitioning the OPEB to the accrual basis in this proceeding.

h. Is Welland Hydro-Electric System aware of any regulated utilities whose OPEB expense are still being recovered from rates on cash basis? If so, please provide the related EB # approving these utilities’ cash method of OPEB.

## WHESC's Response

a.

i. The amount of employee future benefits in Table 2 represents the expense amount approved in the 2017 COS rate application. WHESC records a journal entry annually to reallocate the difference between the 2017 OEB-approved amount and actual cash payments made to Account 1508 Actuarial Gains and Losses.

ii. WHESC has updated OEB Staff Table 2 (Table 4-9 below) to provide the amount of Actual OPEBs paid and OPEBs under the accrual method from 2017 to 2020.

**Table 4-9: OEB Staff Table 2 - Updated**

| | Employee Future Benefits expense (Table 4-48: Benefit Expenses) | Actual OPEBs paid (cash method)(Table 4-50: Difference between Accrual and Cash Method) | OPEBs under Accrual method (per RSM) (Table 4-50: Difference between Accrual and Cash Method) | Difference (a-c) | Difference (b-c) |
|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | |
| 2017 OEB-approved | 103,766 | | | | |
| 2017 Actual | 100,999 | 102,935 | 100,999 | - 0 | 1,936 |
| 2018 Actual | 106,533 | 108,974 | 71,683 | 34,850 | 37,291 |
| 2019 Actual | 103,766 | 105,111 | 72,992 | 30,774 | 32,119 |
| 2020 Actual | 103,766 | 122,367 | 122,213 | - 18,447 | 154 |
| 2021 Actual | 103,766 | 128,850 | 60,317 | 43,449 | 68,533 |
| 2022 Actual | 103,766 | 146,394 | 58,196 | 45,570 | 88,198 |
| 2023 Actual | 103,766 | 146,023 | 56,568 | 47,198 | 89,455 |
| 2024 Bridge | 103,766 | 130,100 | 54,707 | 49,059 | 75,393 |
| 2025 Test Year | 106,455 | 106,455 | 52,160 | 54,295 | 54,295 |
| Average (2017 Actual - 2025) | 104,065 | 121,912 | 72,204 | 31,861 | 49,708 |
| Average (2021 Actual - 2025) | 104,304 | 131,564 | 56,390 | 47,914 | 75,175 |

iii. WHESC added a column to Table 4-9 to calculate the difference between Actual OPEBs paid (column b) and OPEBs under the accrual method (column c). WHESC calculated the amount of the shortfall based on actual cash paid instead of the 2017 OEB approved amount as the comparator. WHESC has added a row at the bottom of the table to calculate the averages from 2021 to 2025, in order to reconcile to Exhibit 4, Table 4-50.

b. The post-employment benefit plan expense included in the audited financial statements is equal to what is included in OM&A expense. OM&A expense is equal to the 2017 OEB-approved amount. WHESC currently follows the cash methodology for OPEBs. The difference between the cash and accrual methodology is currently being captured in a deferral account.

c. The accrual for post-retirement benefits occurs when an individual is actively employed. Once retired, the cost is no longer accrued. The retirees currently receiving post-retirement benefits are the basis for the premiums WHESC is paying (cash). WHESC's post-retirement benefits are comprised of health and dental benefits, and life insurance.

WHESC has requested an update to its Post-Retirement Valuation from RSM to the end of 2030. The report was not available to support further analysis by WHESC in aid of responses to this interrogatory. Based on information available to WHESC at the time of writing, premium costs outweigh the accrual amount by $54,295 in 2025. Based on the inputs to the updated actuarial valuation, WHESC expects that cash payments based on premiums will exceed the accrual amount for the remainder of the rate term.

d. WHESC currently does not have the information available to provide an accurate update to Table 4-50. As stated in part c., WHESC has requested an update to its Post-Retirement Valuation from RSM to the end of 2030 and its intention is to provide an updated Table 4-50 during the settlement process.

e. Please see part c. of this response. WHESC would like to wait for the results of the updated RSM valuation to ensure it is in line with expectations.

f. WHESC has performed additional detailed analysis of its accounting treatment for OPEBs in conjunction with the Accounting Order provided in the 2017 COS Settlement. WHESC has prepared the following Table 4-10 for reference:

**Table 4-10: Summary of OPEB Actuarial Reports and Accounting for OPEBs**

| | Actuarial Reports | | | Expense - GL | Account 1508 | | | |
|---|---|---|---|---|---|---|---|---|
| Year | Defined Benefit Cost Recognized in Income Statement (Accrual) | Actual Premiums Paid (Cash) | Net Actuarial Gain/Loss | Amount in Rates | Net Actuarial Gain/Loss (Account 1508 - A) | Difference between Accrued and Cash (Account 1508 - B) | Difference between Cash and Rates (Account 1508 - C) | Total Account 1508 |
| | a | b | c | d | e = c | f = a - b | g = b - d | h = e + f + g |
| 2017 | 99,423 | 101,359 | - 153,117 | 103,766 | - 153,117 | - 1,936 | - 2,407 | - 157,460 |
| 2018 | 71,426 | 108,717 | - 70,893 | 103,766 | - 70,893 | - 37,291 | 4,951 | - 103,233 |
| 2019 | 72,992 | 105,111 | 116,764 | 103,766 | 116,764 | - 32,119 | 1,345 | 85,990 |
| 2020 | 122,175 | 122,329 | 13,873 | 103,766 | 13,873 | - 154 | 18,563 | 32,282 |
| 2021 | 60,317 | 128,850 | - 71,432 | 103,766 | - 71,432 | - 68,533 | 25,084 | - 114,881 |
| 2022 | 58,196 | 146,394 | - 266,832 | 103,766 | - 266,832 | - 88,198 | 42,628 | - 312,402 |
| 2023 | 56,568 | 146,023 | 170,344 | 103,766 | 170,344 | - 89,455 | 42,257 | 123,146 |
| **Totals** | **541,097** | **858,783** | **- 261,293** | **726,362** | **- 261,293** | **- 317,686** | **132,421** | **- 446,558** |
| | | | | | | | | |
| **2024 Adjustments required :** | | | | | | | | |
| Adjust Account 1508 - C to NIL through Expense | | | | | | | - 132,421 | - 132,421 |
| Adjust Account 1508 - B to NIL through OCI | | | | | | 317,686 | | 317,686 |
| **Adjusted balance** | | | | | **- 261,293** | - | - | **- 261,293** |

In the 2017 COS, WHESC was provided Account 1508 Other Regulatory Assets, Sub Account OPEB Actuarial Gains or Losses Deferral Account (OPEB DVA) effective May 1, 2017. This sub-account is to record the cumulative actuarial gains and losses in Other Post-Employment Benefits

(OPEBs) liabilities as supported by actuarial valuations until its next COS application. Carrying charges are not to apply to this DVA as it pertains to non-cash items.

At the end of each year, WHESC adjusts the balance in Account 2306 Post-employment benefit liability account to the liability balance as stated in the Actuarial Report. The annual change in the OPEB Liability is comprised of net actuarial gains and losses (column c in Table 4-10) for the year, and the difference between the defined benefit cost recognized (accrual amount) and the amount of actual premiums paid (cash amount) as represented in column f of Table 4-10.

In the years 2017 to 2023, WHESC has recorded the following year-end entries to adjust Account 2306 OPEB Liability based on its interpretation of the Accounting Order provided in the 2017 COS.

- Entry 1 - Record Actuarial Gains and Losses per Actuarial Reports: WHESC records an entry in the amount of the Actuarial Gain/Loss through Account 2306 OPEB Liability and Account 7010 Pension Actuarial Gains or Losses – OCI. A subsequent entry is recorded to move the same amount out of Account 7010 and into Account 1508 OPEB DVA ("Account 1508 – A"). The cumulative balance from 2017 to 2023 related to Actuarial Gains and Losses is a credit of $261,293 (Table 4-10, column e).

- Entry 2 – Record difference between Accrual Amount and Cash payment: WHESC records an entry to account for the difference between the Accrued amount per the Actuarial Report and actual amounts paid for post employment benefits through Account 2306 OPEB Liability and Account 1508 OPEB DVA ("Account 1508 – B"). The cumulative balance from 2017 to 2023 related to the difference between the accrued amount and cash payments is a credit of $317,686 (Table 4-10, column f).

- Entry 3 – Record the difference between the Cash payment and the expense approved in the 2017 COS: WHESC records an entry to account for the difference between the actual payments made for post-retirement benefits and the expense amount of $103,766 approved in rates, through Account 1508 OPEB DVA ("Account 1508 – C") and Account 5645 Post Retirement Benefit Expense. The total reduction of expense from 2017 to 2023 amounts to a debit of $132,421 (Table 4-10, column g).

During WHESC's further analysis during the IR process, WHESC has determined that it has misinterpreted the intent of the Accounting Order provided in the 2017 COS Settlement. WHESC believes that the intention of Account 1508 OPEB DVA was to track only the non-cash actuarial gains and losses per the Actuarial Report. This would equate to WHESC's Entry 1 as described above, and column e, or Account 1508 – A, in Table 4-10. It is WHESC's understanding that Entry

2 above should be adjusted through Account 2306 OPEB Liability and directly into OCI. Further, WHESC believes that Entry 3 should not have occurred and that Account 5645 Post Retirement Benefit Expense should have remained equal to actual cash premiums paid.

WHESC will record the following entry in 2024 to correct the ending 2023 balance in Account 1508 OPEB DVA:

- DR Account 1508 – B $317,686
- CR OCI ($317,686)
- DR Account 5645 Expense $132,421
- CR Account 1508 – C ($132,421)

After these entries are recorded, the only balance that will remain is Account 1508 – A, representing cumulative Actuarial Gains and Losses with a credit balance of $261,293 as of December 2023.

If the OEB orders WHESC to use the accrual basis to account for OPEBs starting in 2025 in this proceeding, the transitional adjustment that will be required is to debit Account 1508 – A, Actuarial Gains and Losses in the amount of $261,293 (as of 2023) and credit OCI for the same amount. This would allow WHESC to clear the balance in Account 1508 Actuarial Gains and Losses and discontinue its use effective May 1, 2025.

g. WHESC has experienced a number of retirements in the past few years. These retirements, coupled with the changes WHESC has made to its post-employment offerings has caused a shift in the amount of expense being accrued, and the amount of premiums being paid. WHESC believes it would be prudent to wait for the results of the updated Actuarial Report to better understand the financial impact these changes have made to future years. Once the Report is received, WHESC will be in a better position to assess what it believes would be the more appropriate time to consider a transition from the cash to the accrual method.

h. WHESC is not aware if any regulated utilities are recovering OPEB expense from rates on the cash basis.

## 4-Staff-51

### Regulatory Costs

### Reference: Exhibit 4, pp. 79

### Preamble

In the reference, Table 4-61 shows the one-time regulatory cost of $243k related to this application.

### Question(s):

a. Please explain all assumptions used to forecast the $243k one-time regulatory cost (e.g., number of intervenors, written vs oral hearing, etc.).

### WHESC's Response

a. WHESC used the following assumptions to forecast the $242,775 one-time regulatory cost:

- Assumed 3 Intervenors at $20,000 for a total cost of $60,000.
- Assumed written hearing at a cost similar to the 2017 Rate Application in the amount of $25,000.
- Estimated legal costs in the amount of $100,000.
- Estimated consulting fees based on actual costs to the date of filing and anticipated costs to be incurred in the remainder of the bridge year in the amount of $57,775.

## Coalition of Concerned Manufacturers and Businesses of Canada Interrogatories (CMBCC)

### 4-CCMBC-5

### Reference: Exhibit 4, Page 14, Energy Transition/ Electrification

### Preamble

"The energy transition of transportation and heating sources will have a significant impact on LDCs given their role in meeting the associated electricity demands."

WHESC uses its Advanced Distribution Management System, SmartMap, as a tool to identify portions of its distribution system where Level 2 or higher EV charging is deployed. This tool is also used to identify impacts of EV related load additions to the distribution system, informing planning decisions."

### Question(s):

a. The first quoted sentence seems to indicate that energy transition has so far not had any significant impact on revenues, capital and OM&A expenditures of WHESC but is expected to have in the future. Is that correct? Please explain your answer.

b. The second quoted sentence indicates that WHESC has information on the number and location of Level 2 EV chargers. How many Level 2 EV chargers are there connected to the WHESC distribution system?

c. The third quoted sentence indicates that WHESC has information on the impact of EV chargers. What is the impact of a Level 2 EV charger, specifically what is the peak load of a home with a Level 2 charger compared to the peak load of a home without a Level 2 charger?

### WHESC's Response

a. To date, the energy transition has not had a material impact on distribution revenue, capital expenditures, and OM&A. WHESC anticipates that an increased EV adoption rate will have an impact on Capital and OM&A. To date, WHESC has reacted to EV charger impacts on legacy distribution transformer capability, requiring the cost of replacement. From a heating fuel source switching perspective, WHESC has indicated in its response to 2-CCMBC-3 that it has winter peaking capacity however this is at a primary distribution system level. Localized impacts to legacy installations may also occur due to fuel switching. For WHESC, electrification impacts add to the influences of customer growth on Capital and OM&A, placing upward pressure on both.

b. WHESC's SmartMAP platform has detected 62 level 2 chargers, routinely active on our distribution system.

c. WHESC has observed that a Level 2 Charger adds on average approximately 11.5kW of hourly demand from a residential service. There isn't any observed consistency in the impact to a residential customer's overall peak for a period as this is dependent on the customer's charging pattern.

## 4-CCMBC-6

### Reference: Exhibit 4, Page 20, 4.2.2.7 ADMS Software

### Preamble

"In 2020, WHESC implemented distribution management software (SmartMAP) resulting in a net change in OM&A of $93,863 annually. The software is a subscription based hosted solution. The software provides real-time distribution management capability, enabling WHESC engineering and operations staff optimal visibility into the system. The system also provides engineering analysis capability, offsetting an estimated $10,000 of consulting costs for this purpose, annually."

### Question(s):

a. Please provide more explanation of the estimated saving of $10,000 of consulting costs. What type of consulting work does this refer to?

b. Is the $10,000 consulting saving entirely an OM&A cost?

### WHESC's Response

a. Prior to the deployment of SmartMAP, WHESC outsourced load-flow and short circuit analysis in support of system planning and requests by customers or electricians for service entrance fault level data.

b. The offset historical cost was entirely in OM&A.

## School Energy Coalition Interrogatories (SEC)

### 4-SEC-16

### Reference: [Ex. 4, p. 8 and Appendices 2-JA, 2-JC, and 2-K]

### Question(s):

a. Please update Appendices 2-JA, 2-JC and 2-K for 2024 actuals to date and provide actuals for the same date in 2022 and 2023.

b. Please provide the internal budgets for OM&A for 2018 to 2024.

### WHESC's Response

a. WHESC has updated Appendices 2-JA and 2-JC with October actuals for the years 2024, 2023 and 2022. WHESC does not track the information at a detailed enough level throughout the year to populate 2-K. WHESC's payroll system does not allow selecting a particular point in time, other than year end, when running the reports required to break down employee costs into the detail required for Appendix 2-K. As a result, WHESC is unable to include year-to-date amounts for October 2022 and October 2023. WHESC has manually reconciled reports to October 2024 and populated October 2024 actuals to the best of its ability in Appendix 2-K.

b. The internal budgets to OM&A for 2018 to 2023 are as follows:

2018 - $6,865,945
2019 - $6,946,883
2020 - $7,192,445
2021 - $7,143,631

2022 - $7,263,026
2023 - $7,619,249

## 4-SEC-17

Reference: [Ex. 4, p. 20]

Question(s):

a. What would be the implications be, both financially and for reliability, of moving from a three-year tree trimming cycle to four years?

WHESC's Response

a. Moving from a three-year to four-year trimming cycle would have the following impacts:

- An increase in SAIDI and SAIFI. Outages occurrences caused by tree contact will increase, placing upward pressure on both indices.
- A reduction in the annual OM&A associated with WHESC's Tree Trimming Program Costs. The cost reduction will not be proportional to the reduction in contract services costs for cycle completion. WHESC expects a need to conduct tree clearing at specific locations where Electrical Safety Authority prescribed clearances are not met due to the increased duration between cycles.
- An increase in OM&A in the System Control Operation, Overhead System Operation, and Overhead System Maintenance Program costs. WHESC expects an increase in reactive work after-hours based on an increase in outages due to tree contact.

## 4-SEC-18

Reference: [Ex. 4, Table 4-38 and Appendix 2-M]
Question(s):

a. Does Table 4-38 include one-time regulatory costs as shown in Appendix 2-M?

b. If so, please breakout Table 4-38 into one-time regulatory costs and on-going costs.

c. If so, please explain why expenditures associated with the 2025 COS filing are included in 2024 in Table 4-38 when they are amortized across the rate term in Appendix 2-M.

d. If not, please explain the large increase in Regulatory Costs in 2024.

e. Please adjust Total OM&A if required for 2024 and 2025.

## WHESC's Response

a. Yes, Table 4-38 includes one-time regulatory costs as shown in Appendix 2-M. WHESC has included actual forecasted costs to be incurred in 2024 in the 2024 Bridge Year. WHESC has included one fifth of total one-time regulatory costs related to the 2025 COS in the 2025 Test Year to be incorporated into rate base. One fifth of one-time regulatory costs amounts to $48,555, as seen in Appendix 2-M.

b. Please see revised Table 4-38 to break out regulatory costs between one-time and on-going.

**Table 4-11: Revised Exhibit 4, Table 4-38**

| Expenses | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test Year | Variance (2025 Test Year vs 2023 Actuals) | Variance (2025 Test Year vs 2017 OEB |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Regulatory Expense - On-Going | 110,942 | 106,603 | 109,905 | 101,348 | 113,136 | 99,372 | 121,831 | 126,366 | 141,927 | 133,801 | 7,435 | 22,859 |
| Regulatory Expense - One-time | 35,460 | 94,677 | 3,134 | - | - | - | - | 7,775 | 210,000 | 48,555 | 40,780 | 13,095 |
| **Total** | **146,402** | **201,280** | **113,039** | **101,348** | **113,136** | **99,372** | **121,831** | **134,141** | **351,927** | **182,356** | **48,215** | **35,954** |

c. WHESC was unaware of different treatment of the actual expense incurred in 2024. Although it is included in 2024, the appropriate amount to be amortized over the rate term has been included in the 2025 Test Year, which is used to derive the 2025 rate base.

d. As stated in a) above, the large increase in 2024 Regulatory costs is related to one-time regulatory costs related to the COS application.

e. WHESC does not believe an adjustment to OM&A is required at this time. 2025 Test Year OM&A is used to calculate rate base and rates, and the regulatory costs included in OM&A in the 2025 test year are appropriate.

## 4-SEC-19

### Reference: [Ex. 4, p. 29 and 63 and Appendix 2-K]

### Preamble

Welland notes as of 2024, 1.4 of its FTEs are allocated to cover EPLC's system control requirements.

### Question(s):

a. In Appendix 2-K Welland shows deductions in 2024 and 2025 for Control Room Billings Wages & Benefits. Please confirm that this represents the 1.4 FTEs allocated to Essex.

b. Please explain how Welland has accounted for the revenue received from Essex, i.e. is it included in Other Revenue? If so, in which account is it included?

### WHESC's Response

a. WHESC confirms that the deductions in 2024 and 2025 for Control Room Billings Wages & Benefits represents the 1.4 FTEs allocated to Essex.

b. All costs related to Essex are specifically allocated to the LDC as a third-party and are not included in OM&A or revenue. Labour is charged directly to a billable workorder and therefore does not go to a WHESC labour expense account. Since there is no expense related to Essex in OM&A, there is also no revenue shown in Other Revenue.

## 4-SEC-20

### Reference: [Ex. 4, Table 4-60]

### Question(s):

a. Please explain the decrease in revenue for services provided by Welland to the affiliate, as shown in Table 4-60, from the previous test year to 2025.

### WHESC's Response

a. The decrease in revenue is due to the reduction in streetlight and sentinel light services provided by WHESC to the affiliate from the prior 2017 Test Year to the 2025 Test Year.

## 4-SEC-21

### Reference: [Ex. 4, p. 19 & 67, Table 4-47 and Appendix 2-K]

### Question(s):

a. Welland states that migration to third party billing services occurred in August of 2023 and resulted in a reduction of 1.5 FTEs. Please reconcile this to the variance explanation for 2023 provided on page 67.

b. Welland expects to add 3 FTEs in 2025. What assumptions has Welland made regarding start dates for each of the positions in determining wages and benefits to be included in 2025?

c. Please provide details on Welland's vacancy rate for each year between 2017 and 2024.

d. What vacancy rate has Welland assumed for 2025?

## WHESC's Response

a. With reference to Table 4-45 on Page 61 of Exhibit 4, WHESC's full year Billing & Collecting department complement dropped from 6.7 in 2022 to 5.3 in 2024, an FTE equivalent reduction of 1.4. The following table summarizes the basis for the FTE count reduction:

**Table 4-12: Bill Processing FTE Reduction**

| Bill Processing Resources | 2022 | 2023 | 2024 |
|---|---|---|---|
| Billing Administrator | 1.0 | 0.4 | - |
| Union FTE | 0.4 | 0.4 | - |
| Total | 1.4 | 0.8 | - |

b. WHESC has assumed start dates of January 2nd, 2025.

c. WHESC's vacancy rate between 2017 and 2024 are summarized in the following table:

**Table 4-13: Annual Vacancy Rate**

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|
| Vacancy Rate | 1.0 | 0.2 | - 0.9 | 0.8 | 1.4 | 3.0 | 2.7 | 1.6 |

d. WHESC has assumed a vacancy rate of zero for 2025.

## 4-SEC-22

Reference: [Ex. 4, p. 19]

Question(s):

a. Please provide the number of locates performed and forecast for each year 2017 to 2025.

b. Please provide the budget amount in 2025 for locates.

## WHESC's Response

a. The following table summarizes the number of locates processed or forecasted from 2017 to 2025:

**Table 4-14: Locates Performed/Forecasted**

| Month | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|---|---|
| Total | 8,539 | 12,125 | 9,877 | 10,325 | 9,442 | 9,630 | 13,246 | 9,547 | 11,027 |

b. The budget amount in 2025 for locates is $249,853.

## Vulnerable Energy Consumers Coalition (VECC)

### 4-VECC-18

Reference: Exhibit 1, page 50

Preamble

"WHESC has included a significant component of rear-lot voltage conversion in its DSP, leading to the reduction of rear-lot installed primary. This will place downward pressure on vegetation management costs over time"

Question(s):

a. Given the above statement by WHESC, why is the tree trimming costs for 2025 significantly higher than the 2017-2023 annual average actual amounts?

WHESC's Response

a. The tree trimming program expenditure increases in the forecast period are due to differences in outsourcing costs from 2017 to 2025. Rear-lot conversions result in relocation of primary distribution systems from an inaccessible location. WHESC does expect this to result in a reduction in resource requirements in these locations, however the remaining secondary systems still require cyclical vegetation management. It will take time for the quantity of converted rear-lot primary systems to reduce in significance. It is not expected that this will outweigh the recently experienced cost increases for outsourcing tree trimming.

### 4-VECC-19

Reference: Exhibit 4, pages 19-

Question(s):

a. Does the 2025 OM&A locates forecast include WHESC's estimates of any incremental costs for implementing the Getting Ontario Connected Act? If yes, please explain how those incremental costs were estimated.

WHESC's Response

a. Please refer to WHESC's response to interrogatory 9-Staff-77.

## 4-VECC-20

### Reference: Exhibit 4, page 47

### Question(s):

a. Please provide Welland Hydro's postage costs for each year 2017 through 2025 (forecast).

### WHESC's Response

a. Please see the table below providing WHESC's postage costs for each year 2017 through 2025 (forecast).

**Table 4-15: Postage Costs**

| | Amount |
|---|---|
| 2017 | 204,128 |
| 2018 | 208,134 |
| 2019 | 215,316 |
| 2020 | 219,157 |
| 2021 | 222,991 |
| 2022 | 239,446 |
| 2023 | 232,784 |
| 2024 (forecast) | 236,823 |
| 2025 (forecast) | 243,928 |

## 4-VECC-21

### Reference: Exhibit 4, page

### Preamble

**Table 4-36: Bad Debt Program Costs**

| Expenses | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test Year | Variance (2025 Test Year vs 2023 Actuals) | Variance (2025 Test Year vs 2017 OEB Approved) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bad Debt Expense | 95,222 | 87,698 | 79,375 | 89,561 | 187,175 | 10,471 | 150,177 | 113,684 | 117,094 | 120,607 | 6,923 | 25,385 |

### Question(s):

a. Please describe how the 2025 bad debt estimate of $120,607 was calculated.

## WHESC's Response

b. The 2025 bad debt estimate of $120,607 was calculated by applying the 3% inflation factor used for OM&A expenses in 2024 and 2025 to the 2023 actual bad debt expense of $113,684.

## 4-VECC-22

## Reference: Exhibit 4, page 50

## Preamble

**Table 4-37: Community Relations Program Costs**

| Expenses | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test Year | Variance (2025 Test Year vs 2023 Actuals) | Variance (2025 Test Year vs 2017 OEB Approved) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Community Relations | 144,123 | 136,009 | 164,682 | 153,685 | 60,039 | 37,440 | 48,883 | 53,068 | 60,367 | 62,438 | 9,369 | - 81,685 |

## Question(s):

a. Please modify the above table by showing separately the costs for Energy Conservation (5415).

## WHESC's Response

a. Please see revised Table 4-37 below.

**Table 4-16: Revised Exhibit 4, Table 4-37**

| Expenses | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge | 2025 Test Year | Variance (2025 Test Year vs 2023 Actuals) | Variance (2025 Test Year vs 2017 OEB Approved) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Community Relations | 62,431 | 66,626 | 69,518 | 78,794 | 37,158 | 37,440 | 48,883 | 53,068 | 60,367 | 62,438 | 9,369 | 7 |
| Energy Conservation | 81,692 | 69,383 | 95,164 | 74,891 | 22,882 | | | | | | - | - 81,692 |
| **Total** | **144,123** | **136,009** | **164,682** | **153,685** | **60,039** | **37,440** | **48,883** | **53,068** | **60,367** | **62,438** | **9,369** | **- 81,685** |

## 4-VECC-23

## Reference: Exhibit 4, pages 70-

## Question(s):

a. In the shared service tables 4-51 (2017) through 4-59 (2025) there is a change starting in 2021 in that the "Total Street Light" portions of the table are removed. Please explain the change that occurred between 2020 and 2021.

### WHESC's Response

a. Street Lights are owned by the City of Welland. WHESC's affiliate previously provided services for the reactive maintenance of the City owned street lights. In 2021, the City of Welland took over all reactive maintenance requirements related to their own street lights.

## 4-VECC-24

### Reference: Exhibit 4, page 79 Section 4.3.5

### Question(s):

a. Please provide the OEB Assessment Costs for each year 2017 through 2025 (forecast).

### WHESC's Response

a. Please see table below for Annual OEB Assessment Costs.

**Table 4-17: Annual OEB Assessment Costs**

| Year | Amount |
|---|---|
| 2017 | 103,204 |
| 2018 | 96,258 |
| 2019 | 97,681 |
| 2020 | 97,676 |
| 2021 | 94,508 |
| 2022 | 106,153 |
| 2023 | 120,185 |
| 2024 Forecast | 123,791 |
| 2025 Forecast | 127,504 |

## 4-VECC-25

### Reference: Exhibit 4

### Question(s):

a. IF WHESC is a member of the EDA, CHEC Group, USF or UtilSmart please provide the annual membership fees (separately) for each year 2017 through 2025 (forecast).

### WHESC's Response

b. Please see table below for annual membership fees for groups above which WHESC is associated with.

**Table 4-18: Annual Membership Fees**

| Year | EDA | USF |
|---|---|---|
| 2017 | 48,800 | 8,750 |
| 2018 | 49,800 | 8,900 |
| 2019 | 50,800 | 8,750 |
| 2020 | 51,800 | 8,100 |
| 2021 | 52,300 | 8,750 |
| 2022 | 52,300 | 8,750 |
| 2023 | 54,900 | 9,000 |
| 2024 Forecast | 56,300 | 9,610 |
| 2025 Forecast | 57,989 | 9,898 |

# Exhibit 5 – Cost of Capital and Capital Structure

## OEB Staff Interrogatories

### 5-Staff-52

Reference 1: EB-2024-0063, Notice, March 6, 2024
Reference 2: EB-2024-0063, OEB Letter, April 22, 2024

### Preamble

On March 6, 2024, the OEB commenced a hearing (EB-2024-0063) on its own motion to consider the methodology for determining the values of the cost of capital parameters and deemed capital structure to be used to set rates for electricity transmitters, electricity distributors, natural gas utilities, and Ontario Power Generation Inc. The methodology for determining the OEB's prescribed interest rates and matters related to the OEB's Cloud Computing Deferral Account will also be considered, including what type of interest rate, if any, should apply to this deferral account.

On April 22, 2024, the OEB approved the final Issues List for this proceeding, including the following two issues, amongst other issues:

> 18. How should any changes in the cost of capital parameters and/or capital structure of a utility be implemented (e.g., on a one-time basis upon rebasing or gradually over a rate term)?
>
> 19. Should changes in the cost of capital parameters and/or capital structure arising out of this proceeding (if any) be implemented for utilities that are in the middle of an approved rate term, and if so, how?

### Question(s):

a. Please confirm that Welland Hydro-Electric System proposes to implement the outcomes from the OEB's generic cost of capital proceeding, including the OEB's decision with respect to implementation. If this is not the case, please explain.

### WHESC's Response

a. WHESC will comply with the content of any applicable order of the OEB from the generic cost of capital proceeding. WHESC cannot commit to the outcome(s) of a proceeding that has not yet been decided and for which WHESC has not had an opportunity to review and consider.

## 5-Staff-53

### Updated Revenue Requirement Work Form (RRWF) and Models

### Reference 1: EB-2024-0063, OEB Letter and Accounting Order, July 26, 2024
### Reference 2: EB-2024-0063, OEB Letter, October 31, 2024

### Preamble

On July 26, 2024, the OEB issued a Letter and Accounting Order regarding prescribed interest rates and the deemed short-term debt rate (DSTDR).

### Question(s):

a. Please confirm that Welland Hydro-Electric System will use the 2025 DSTDR as set out on October 31, 2024 (reference 2) on an interim basis.

b. Please confirm that Welland Hydro-Electric System will follow all other direction included in the OEB's Letter and Accounting Order issued on July 26, 2024, including the establishment of a new variance account for the DSTDR.

### WHESC's Response

a. Welland Hydro confirms that it will use the 2025 DSTDR as set out on October 31, 2024 on an interim basis.

b. Welland Hydro confirms that it will follow all other direction related to the DSTDR included in the OEB's Letter and Accounting Order issued on July 26, 2024, including the establishment of a new variance account for the DSTDR, if necessary based on the timing of the OEB's final decision in the Generic Proceeding on the Cost of Capital and Other Matters.

## 5-Staff-54

### 2025 Cost of Capital Parameters

### Reference: EB-2024-0063, OEB Letter, October 31, 2024

### Preamble

On October 31, 2024, the OEB issued a letter updating 2025 Cost of Capital parameters.

### Question(s):

a. Please update the evidence to reflect the 2025 Cost of Capital parameters in the reference.

### WHESC's Response

a. WHESC has updated evidence to reflect the 2025 Cost of Capital parameters in the above reference. WHESC has updated the following models to reflect the updated Cost of Capital Parameters: Revenue Requirement Workform, PILs Model, Chapter 2 Appendices, and Tariff and Bill Impacts Model.

## 5-Staff-55

### Long Term Debts

### Reference 1: Exhibit 5, Section 5.2.5
### Reference 1: Appendix 2 -OB

### Preamble

In Reference 1, Welland Hydro-Electric System states that there is a planned additional third-party debt in the amount of $2,500,000 expected to be issued in January 2025. The noted interest rate on this new debt instruments is forecast to be 4.493%, with a term of 15 years.

### Question(s):

a. Please provide information about the lender of the anticipated new loan.

b. Please confirm the interest rate of the new loan with the lender.

c. Please provide details regarding the purpose of the anticipated new loan. Is the debt funding designated for any particular initiative or capital project(s)?

### WHESC's Response

a. WHESC confirms that the lender of the anticipated new loan will be TD Securities.

b. WHESC has requested and obtained an updated interest rate on a $2.5M loan with similar terms as its most recently acquired loan. The current interest rate is 4.555%.

c. The purpose of the anticipated new loan is to fund capital projects in 2025.

## School Energy Coalition Interrogatories (SEC)

### 5-SEC-23

Reference: [Ex. 5, p. 11 and Appendices 2-OA and 2-OB]

Question(s):

a. Has Welland received an updated quote for the debt rate for the new $2.5M debt which is to be secured January 1, 2025? If so, please provide.

WHESC's Response

a. Please refer to WHESC's response to interrogatory 5-Staff-55.

### 5-SEC-24

Reference: [Ex. 5, p. 12]

Question(s):

a. Welland states that the cause of the increase in ROE in 2023 is primarily related to stronger than normal growth and that this was anomalous. Please explain what Welland means by this statement, especially with respect to its load forecast.

WHESC's Response

a. With reference to Table 3-1 on Page 6 of Exhibit 3, customer growth at the end of 2022 and into 2023 was higher than experienced in the historical period, and what is expected in the forecast period annually. WHESC added 666 connections in 2023 as compared to the 2024 Bridge Year forecast of 404. WHESC's 2024 customer additions as of September 30th equal 346.

# Vulnerable Energy Consumers Coalition (VECC)

## 5-VECC-26

### Reference: Exhibit 5

### Question(s):

a. Please provide WHESC's current forecast for the 2024 regulatory return on equity.

### WHESC's Response

a. WHESC's current forecast for the 2024 regulatory return on equity is 11.33%.

## 5-VECC-27

### Reference: Exhibit 5

### Question(s):

a. In October 2024 the Bank of Canada lowered its key interest rate by 50 basis points. Please provide an updated interest rate forecast for the expected January 1, 2025 long-term note ($2.5 million).

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 5-Staff-55.

## 5-VECC-28

### Reference: Exhibit 5

### Question(s):

a. Please update Table 5-2 (Appendix 2-OA) for updated 2025 cost of capital parameters issued by the Board on October 31, 2024.

b. Please update the revenue requirement request for the parameter update (and for any other changes made in conjunction with responding to the interrogatories of parties).

### WHESC's Response

a. Please see below for updated Table 5-2.

**Table 5-1: Updated Exhibit 5, Table 5-2**

## Appendix 2-OA
## Capital Structure and Cost of Capital

**This table must be completed for the last OEB-approved year and the test year.**

**Test Year:** 2025

| Line No. | Particulars | Capitalization Ratio | | Cost Rate | Return |
|---|---|---|---|---|---|
| | | (%) | ($) | (%) | ($) |
| | **Debt** | | | | |
| 1 | Long-term Debt | 56.00% | $25,793,618 | 3.09% | $797,566 |
| 2 | Short-term Debt | 4.00% (1) | $1,842,401 | 5.04% | $92,857 |
| 3 | **Total Debt** | 60.0% | $27,636,019 | 3.22% | $890,423 |
| | **Equity** | | | | |
| 4 | Common Equity | 40.00% | $18,424,013 | 9.25% | $1,704,221 |
| 5 | Preferred Shares | | $ - | | $ - |
| 6 | **Total Equity** | 40.0% | $18,424,013 | 9.25% | $1,704,221 |
| 7 | **Total** | 100.0% | $46,060,032 | 5.63% | $2,594,644 |

b. Please refer to WHESC's response to interrogatory to 1-Staff-1.

# Exhibit 6 – Revenue Requirement

## OEB Staff Interrogatories

### 6-Staff-56

Reference 1: Exhibit 6, Section 6.3.3, p. 17
Reference 2: Exhibit 4, Section 4.3.2.1, p. 77
Reference 3: Accounting Procedures Handbook for Electricity Distributors, pp. 127-128
Reference 4: Appendix 2-H
Reference 5: Appendix 2-N

### Preamble

In reference 1, Welland Hydro-Electric System states that:

WHESC has historically been capturing mark-up on invoices to its affiliate for sentinel light maintenance to Account 4235 Miscellaneous Services Revenue, sub-account Mark-up. Labour and material are directly charged to a billable invoice and not included in WHESC's OM&A costs. As a result of these transactions not being recorded in account 4375 and 4380, they will not reconcile with the balances recorded in OEB Appendix 2-N. The annual mark-up related to affiliate billings is not material.

In reference 2, Welland Hydro-Electric System states that:

A 7% markup is added to total sentinel light maintenance costs. The difference between the price charged to the Welland Hydro Energy Services Corp. ("affiliate company") for the service and the actual cost for the service is credited to account 4235 Miscellaneous Services Revenue - Sub Account Markup on Work Orders in Welland Hydro Electric Systems Corp ("LDC").

Based on reference 3, Account 4375 shall record revenues from non rate-regulated utility operations and Account 4380 shall record expenses of non rate-regulated utility operations.

## Question(s):

a. Since sentinel light maintenance is considered non rate-regulated operations, why has Welland Hydro-Electricity System historically recorded the mark-up on invoices to its affiliate for this maintenance in Account 4235 instead of capturing the revenues and expenses in Account 4375 and 4380?

b. Please provide a further breakdown of Account 4235 (reference 4) that includes the mark up on sentinel light maintenance invoices for 2025.

c. Please comment whether the mark up amount on sentinel light maintenance in (b) reconcile with the difference in price and cost for the service in reference 5.

## WHESC's Response

a. WHESC has historically recorded the mark-up on sentinel light invoices to Account 4235 and through transition of staff this practice has continued. Due to the immaterial nature of the mark-up, attention was never drawn to this account and the incorrect accounting treatment continued to be an oversight. Welland Hydro commits to updating its accounting treatment for sentinel light maintenance in accordance with the guidance provided in Reference 3 beginning in 2025.

b. WHESC has updated Reference 2, Appendix 2-H to reflect the correct accounting treatment that will be implemented in 2025. The following revisions have been made to Appendix 2-H:

- Account 4375 – Added $9,962 in Sentinel Light Revenue
- Account 4380 – Added $9,310 in Sentinel Light Expense
- Account 4235 – Reduced Mark-up on work orders by $652 which represents the mark-up on sentinel light maintenance ($9,962 less $9,310).

c. WHESC confirms that the mark-up amount ($652) in (b) reconciles with the difference in price and cost for the service in reference 5, Appendix 2-N.

## 6-Staff-57

Reference 1: Exhibit 6, p.16
Reference 2: Appendix 2-H
Reference 3: Exhibit 8, p. 11
Reference 4: Decision and Order, EB-2024-0227, September 26, 2024

### Preamble

In reference 1, Welland Hydro-Electricity System states that:

Rent from Electric Property is forecasted to increase by $74,716 from the 2024 Bridge Year to the 2025 Test Year as the pole attachment charge revenues built into rates in the 2025 Test Year reflect the updated rates as required by the OEB.

In reference 3, Welland Hydro-Electricity System states that:

WHESC is proposing a wireline pole attachment charge of $39.14. This rate is equal to the 2024 rate of $37.78 inflated by the OEB's 2025 inflation factor of 3.6%.

In reference 4 the OEB has issued its Decision and Order on the distribution pole attachment charge for 2025 which is $39.14 per attachment, per year, per pole.

### Question(s):

a. Please explain the derivation of the pole attachment revenue for 2025 in Account 4210 - Rent from Electric Property.

b. Please confirm whether the pole attachment revenue for 2025 in Account 4210 is derived using the 2024 rate of $37.78 or the 2025 rate of $39.14. Please update the evidence to reflect the 2025 pole attachment charge of $39.14 as needed.

### WHESC's Response

a. WHESC estimated the number of poles based on the 2023 actual pole count of 6,675. WHESC has calculated pole attachment revenue in 2025 based on the 2017 OEB approved rate of $22.35 for the months of January to April, and the updated rate of $39.14 for the months of May to December. The calculation of pole attachment revenue can be seen in the table below.

**Table 6-1: 2025 Pole Attachment Revenue - Filed**

| | 2025 Estimate | | |
|---|---|---|---|
| | January to April | May to December | Total |
| # Poles - estimated | 6675 | 6675 | 6675 |
| | | | |
| Rate per pole used for revenue estimate | $ 22.35 | $ 39.14 | |
| **Revenue** | $ 49,729 | $ 174,173 | **$ 223,902** |

WHESC has reviewed the annual change in the number of poles and updated the 2025 estimate from 6675 to 6740 based on October 2024 year-to-date actuals plus an increase based on experience. WHESC has recalculated estimated pole attachment revenue for 2025 as $226,082 as can be seen in the table below.

**Table 6-2: Pole Attachment Revenue - Updated**

| | 2025 Estimate - updated | | |
|---|---|---|---|
| | January to April | May to December | Total |
| # Poles - estimated | 6740 | 6740 | 6740 |
| | | | |
| Rate per pole used for revenue estimate | $ 22.35 | $ 39.14 | |
| **Revenue** | $ 50,213 | $ 175,869 | **$ 226,082** |

WHESC proposes to update the revenue estimate in the 2025 Test Year and has revised evidence based on the revised revenue calculation. WHESC has reflected the update in the RRWF and Appendix 2-N.

b. WHESC confirms that the 2025 rate of $39.14 was used to derive the 2025 pole attachment revenue from May to December, and the 2017 OEB-approved rate of $22.35 was used for the period January to April.

## 6-Staff-58

### Other Revenue-Interest and Dividend Income

Reference 1: Chapter 2 Appendix 2-H
Reference 2: Filing Requirements, Chapter 2, December 15, 2022, Section 2.6.3, p. 43

### Preamble

Appendix 2-H in reference 1 shows a breakdown of Account 4405 - Interest and Dividend Income which records: (i) interest income - bank balance, and (ii) interest income - regulatory accounts (row 236) from 2017 to 2025 Test Year.

In reference 2, the Filing Requirements state that revenues or costs (including interest) associated with deferral and variance accounts (DVAs) must not be included in other revenues.

### Question(s):

a. Please confirm that the balances recorded in Account 4405 - Interest and Dividend Income for 2025 are not related to revenue or costs including interest associated with DVAs.

### WHESC's Response

a. WHESC confirms that the balances recorded in Account 4405 – Interest and Dividend Income for 2025 are not related to revenue or costs including interest associated with DVAs. The interest income recorded in Account 4405 in 2025 is entirely related to interest on bank balances.

## 6-Staff-59

### PILs

Reference 1: Chapter 2 Filing Requirements for Electricity Distribution Rate Applications - 2023 Edition for 2024 Rate Applications, December 15, 2022, p.40
Reference 2: Exhibit 6, section 6.2.1.3 Tax Credits, p.12
Reference 3: PILs model

### Preamble

Chapter 2 Filing Requirements in reference 1 states that: The distributor must provide a calculation of tax credits (e.g., Apprenticeship Training Tax Credits, education tax credits, Ontario Regional Opportunities Investment Tax Credits).

In Reference 2, Welland Hydro-Electricity System states that it occasionally has apprentices and will claim the apprenticeship tax credit when available. It does not expect to have an apprenticeship tax credit available in the upcoming rate term and has not included this credit in the 2025 Test Year PILs calculation.

In Reference 3, OEB staff notes that Welland Hydro-Electricity System does not forecast any tax credits in the test year's PILs.

## Question(s):

a. Please confirm whether there will be education tax credits or Ontario Regional opportunities Investment tax credits available in the upcoming rate term. If so, please provide the estimated amount and explain what the revenue requirement impact would be. If not, please explain why not.

b. Please provide the historical tax credits by year from 2017 Board Approved to the 2025 Test Year.

## WHESC's Response

a. WHESC is not eligible for the Ontario Regional Opportunities Investment Tax Credit as it does not operate in a designated region. Based on the current staff complement and resourcing plans and requirements, WHESC does not believe it will be eligible for education tax credits in the upcoming rate term.

b. Please see the table below for historical tax credits from 2017 to the 2025 Test Year.

**Table 6-3: Historical Tax Credits**

| Year | Total Tax Credit |
|---|---|
| 2017 COS | 20,000 |
| 2017 Actual | - |
| 2018 Actual | 2,671 |
| 2019 Actual | - |
| 2020 Actual | 6,871 |
| 2021 Actual | 2,000 |
| 2022 Actual | 493 |
| 2023 Actual | - |

## 6-Staff-60

### Accelerated CCA

Reference 1: Exhibit 6, section 6.2.1.7 Accelerated CCA, p.13
Reference 2: 1592 Accelerated CCA work form, Detailed Calculations
Reference 3: Appendix 2-BA

### Preamble

OEB staff has compared total cost of acquisitions per Sch 8 in Tab "Detailed Calculations" of excel file for CCA (Reference 2) and additions in Fixed asset continuity schedule in Reference 3 and noted the difference in the table below.

Table 4: Difference between Sch 8 and Fixed Asset Continuity

| **1592 Accelerated CCA** | | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|
| Total Cost of Acquisitions per Sch 8 | (a) | 2,346,598 | 3,371,916 | 3,091,240 | 3,233,751 | 3,455,894 | 3,724,642 |
| Audit Adjustments | (b) | (86,382) | (74,056) | (17,465) | | | |
| **Revised Additions** | (c) | 2,260,216 | 3,297,860 | 3,073,775 | 3,233,751 | 3,455,894 | 3,724,642 |
| **Appendix 2-BAAppendix 2-BA_Fixed Asset Cont_Additions** | (d) | 2,263,881 | 3,371,916 | 3,091,240 | 3,299,903 | 3,474,638 | 3,671,482 |
| Difference (c-d) | (d) | (3,665) | (74,056) | (17,465) | (66,152) | (18,744) | 53,160 |

### Question(s):

a. Please provide the rationale of the audit adjustments in the Table 4 above.

b. Please explain why there are differences between revised additions and Appendix 2-BA.

c. Please update the CCA spreadsheet by including the calculation for 2024 Bridge Year, using forecasted capital additions for 2024.

### WHESC's Response

a. WHESC had a PILs audit completed by the Ministry of Finance (MOF) for the years 2018, 2019 and 2020. The audit adjustments in Table 4 represent differences and required adjustments between tax returns previously filed with the MOF and items identified through the subsequent

audit. WHESC settles the difference in tax with the MOF resulting from audit adjustments. The total tax for a specific year is equal to the tax calculated in the original filing plus the tax adjustment from the audits. In order to calculate the true AIIP impact and balance in Account 1592, WHESC has incorporated the audit adjustments into the calculation in order to account for the total tax for a particular year.

b. After audit adjustments are considered, there are still differences between revised additions and Appendix 2-BA. In 2018, S(8) included an investment in MIST Meters in the amount of $82,710 that was included in Account 1557 and not 2-BA. In some years, OMERS on capitalized labour additions was included on S(1) and not S(8) for tax purposes, however was still a capital additional included in 2-BA. The remaining differences relate to the timing of adjustments for WIP resulting from the tax audits.

c. WHESC is not claiming AIIP in 2024 and therefore no adjustments are required for the 2024 Bridge year.

## 6-Staff-61

### Other Taxes

Reference 1: Chapter 2 Filing Requirements for Electricity Distribution Rate Applications - 2023 Edition for 2024 Rate Applications, December 15, 2022, p. 42
Reference 2: Exhibit 6, section 6.2.2 Other taxes, p.13

### Preamble

In reference 1, the Filing Requirements states that:

Taxes other than income taxes or PILs, as defined in the APH (e.g., property taxes), should only be included in Account 6105. Account 6105 is not an OM&A account and should therefore be excluded from all OM&A totals.

In Reference 2, Welland Hydro-Electricity System states that it includes property taxes in OM&A expenses. No amounts for property taxes are included in account 6105.

### Question(s):

a. Which account in OM&A is the property tax recorded?

b. Please update and resubmit the evidence in accordance with the filing requirements as needed.

## WHESC's Response

a. Property tax expense for 2025 is allocated to the following OM&A accounts:

**Table 6-4: Property Tax Allocation**

| Property Tax Allocation | |
|---|---|
| **Account** | **Amount** |
| 5017 | 58,002 |
| 5025 | 2,623 |
| 5040 | 27 |
| 5065 | 2,082 |
| 5085 | 572 |
| 5110 | 7 |
| 5114 | 288 |
| 5120 | 856 |
| 5125 | 8,872 |
| 5130 | 5,992 |
| 5135 | 1,180 |
| 5145 | 21 |
| 5150 | 885 |
| 5155 | 1,663 |
| 5160 | 1,917 |
| 5175 | 2,623 |
| 5315 | 1,203 |
| 5320 | 2,013 |
| 5410 | 1,115 |
| 5605 | 305 |
| 5610 | 230 |
| 5615 | 267 |
| 5665 | 3,401 |
| Total | 96,144 |

b. WHESC has reallocated property tax expense in the 2025 Test Year out of the OM&A accounts listed in part a) and into Account 6105. WHESC has resubmitted the RRWF reflecting this adjustment.

# Coalition of Concerned Manufacturers and Businesses of Canada Interrogatories (CMBCC)

## 6-CCMBC-7

### Reference: Exhibit 6, Page 18, Table 6-15: Account 4210 Rent From Electric Property

### Question(s):

a. Does the "Rent from Property - Joint use poles attachments" refer to the joint use of poles with Bell Canada?

b. Please explain why the "Rent from Property - Buildings" ended in 2022.

### WHESC's Response

a. "Rent from Property – Joint use pole attachments" refers to the joint use of poles with Bell Canada and 4 other communication carriers.

b. WHESC rented a part of its building to the Welland Fire Department. The Welland Fire Department moved out of WHESC's building during the 2022 year.

## 6-CCMBC-8

### Reference: Exhibit 6, Page 18, Table 6-18: Account 4355 Gain on Disposition of Utility and Other Property

### Question(s):

a. Please explain the 2024 Bridge Year estimate and the 2025 Test Year forecast numbers.

b. What are the year-to-date 2024 actual amounts?

### WHESC's Response

a. Please see WHESC's response to interrogatory 1-CCMBC-2 part b.

b. The October 2024 year-to-date actual amount in Account 4355 is a gain of $1,485. WHESC notes that it has not yet accounted for meters scrapped in 2024 that will not have associated scrap proceeds.

### 6-CCMBC-9

Reference: Exhibit 6, Page 18, Table 6-19: Account 4375 & 4380 Revenues and Expenses from Non-Rate Regulated Utility Ops.

Question(s):

a. Why does solar expense end in 2023?

b. Why do solar revenues end in 2023?

WHESC's Response

a. Solar expense is not included in the 2024 Bridge Year or 2025 Test Year since it does not impact rate base, similar to the treatment in the 2017 COS. Solar expense will continue to be reported in Account 4380.

b. Solar revenue is not included in the 2024 Bridge Year or 2025 Test Year since it does not impact rate base, similar to the treatment in the 2017 COS. Solar revenue will continue to be reported in Account 4375.

### 6-CCMBC-10

Reference: Exhibit 6, Page 19, Table 6-21: Account 4405 Interest and Dividend Income

Question(s):

a. Please explain the reasons for the "Interest Income - Bank balance" of $221,313 for 2023 and $222,520 for 2024, and $100,000 for 2025.

WHESC's Response

a. Please refer to WHESC's response to interrogatory 6-SEC-26.

## School Energy Coalition Interrogatories (SEC)

### 6-SEC-25

Reference: [Ex. 6, p. 17]

Question(s):

a. Please break down the reduction between reduced interest rates and reduced expansion deposits.

b. Please explain why Welland expects the amount of its expansion deposits to decrease.

### WHESC's Response

a. WHESC's estimate was based on the assumption that work related to line expansions would be completed in 2024 and not continue into 2025. Growth related to subdivision development was expected to remain consistent year-over-year. As expansion work is completed in 2024, WHESC will have approximately $1.1M to recognize in capital or return, reducing deposits by the same amount.

b. Please refer to a).

### 6-SEC-26

### Reference: [Ex. 6, Appendix 2-H]

### Question(s):

a. For account 4405, please explain the forecasted reduction in Interest and Dividend Income in 2025.

### WHESC's Response

a. WHESC's forecasted reduction in interest income in 2025 is related to an anticipated reduction in deposits (see 6-SEC-25), as well as the continued reduction of interest rates.

## Vulnerable Energy Consumers Coalition (VECC)

### 6-VECC-29

### Reference 1: Chapter 2 Appendices, Appendix 2-H
### Reference 2: Exhibit 6, pages 14 and 18

### Question(s):

a. With respect to Account #4086, please explain the reduction in SSS Admin revenues between 2023 and 2024.

b. With respect to Account #4210, provide the details supporting the 2023, 2024 and 2025 Joint Pole Use revenues (i.e., number of poles and annual rate).

c. With respect to Account #4210, please explain the change in Rent from Property (Buildings) as between 2021 and 2023.

d. Please explain why there are no values included for Accounts #4375 and #4380 for the years 2024 and 2025.

e. With respect to Account #4405, please confirm that the $100,000 forecast value for 2025 does not include any interest debits/credits related to DVAs.

### WHESC's Response

a. Please refer to Exhibit 6, Section 6.3.4, page 17.

b. Please see table below for details supporting the 2023, 2024 and 2025 Joint Pole Use revenues.

c. Please refer to WHESC's response to interrogatory 6-CCMBC-7 part b.

d. Please refer to WHESC's response to interrogatory 6-CCMBC-9.

e. Please refer to WHESC's response to interrogatory 6-Staff-58.

**Table 6-5: Joint Use Revenue**

| | 2023 Actual | 2024 Estimate | 2025 Estimate | | |
|---|---|---|---|---|---|
| | | | January to April | May to December | Total |
| # Poles | 6655 | 6675 | 6675 | 6675 | 6675 |
| | | | | | |
| Rate per pole | $ 22.35 | $ 22.35 | $ 22.35 | $ 39.14 | |
| **Total Revenue** | **$ 148,739** | **$ 149,186** | $ 49,729 | $ 174,173 | **$ 223,902** |

# Exhibit 7 – Cost Allocation

## OEB Staff Interrogatories

### 7-Staff-62

Reference 1: Exhibit 7, p. 7
Reference 2: Load Profile Model
Reference 3: Cost Allocation Model, Tab I8 Demand Data

### Preamble

In reference 1, in its 2017 COS application (EB-2016-0110), Welland Hydro-Electricity System states that it used the load profiles provided by Hydro One in its cost allocation model based on 2004 data. Those load profiles were scaled to the 2017 consumption forecasts. In this application, Welland Hydro-Electricity System states that it has developed updated load profiles for all rate classes using a Historical Average method based on actual hourly load by rate class for 2021, 2022 and 2023.

In reference 2, Welland Hydro- Electricity System provides the Load Profile Model which includes hourly data by rate class from January 1, 2021 to December 31, 2023.

## Question(s):

a. Please explain in detail why Welland Hydro-Electricity System has chosen the period 2021 to 2023 to derive the load profiles. Please also provide an explanation whether Welland Hydro-Electricity System has considered any impacts of COVID-19 on customer volumes that may be present in 2021 and 2022.

   i. Please describe in detail the data sources, assumptions, and methodology used to produce the hourly data for each rate class (if they are different). Please also explain in detail the following:

   ii. Are the hourly data used in the demand profiles the same as that is used for billing customers? If not, please explain.

   iii. Are the demand profile data based on meters at properties or accounts? If the data are based on meters, please explain how the hourly data are calculated for the same metered property with two different customers. For example, if one customer moves out and another one moves into the same property, are the hourly demand profile data calculated using metered data based on two customers at the same property? Do the hourly demand profile data include zero usage during vacancy unless the meter is disconnected or removed?

   iv. If the demand profile data are based on metered usage, how is an hourly demand calculated (e.g. an average kW demand over 15-minute interval meter reads)? Is there any loss adjustment applied to the metered data?

   v. Please explain how the data are collected/extracted for customers that have been reclassified.

   vi. Is the wholesale market participant customer included in the demand profile? If not, why not?

   vii. Please explain in detail any adjustments made or any validation checks performed to the actual data used to derive the demand profile for the 2021 to 2023 period (e.g. any analysis used to identify outliers).

## WHESC's Response

a. WHESC has chosen the period 2021 to 2023 to derive the load profiles since there is a complete set of granular data across all customer classes for that time period. It is WHESC's intention to have a large enough interval data sample set to best represent future load profiles. WHESC did consider the impacts of COVID-19. The impact on billed volumes appears to be most evident in 2020.

i. The following summarizes the data source for each customer class:

- Residential: Hourly AMI data
- GS < 50 kW: Hourly AMI data
- GS > 50 kW: 15 minute interval meter data is converted to hourly as described in the response to iii., below
- Sentinel: The total monthly billed kWh quantity is allocated based on hourly proportion of the interval / month for Street Lighting.
- Street Lighting: 15 minute interval meter data is converted to hourly as described in the response to iii., below
- USL: The monthly billed kWh quantity is distributed equally to hourly intervals for the period.

ii. Yes, the hourly data in the demand profiles is the same as that used for billing customers.

iii. The demand profile data is based on metered accounts. All customers in the GS > 50 kW class had MIST meters in the period 2021 through 2023. For a scenario where customer A moves out and customer B moves in mid-month, the meter, data acquisition and settlement process remain intact. The demand is derived from load profile data for the partial month separately for each load customer. Each customer has a load profile specific to the partial month from the same meter. The hourly demand profile data does indicate zero usage during a vacancy for the GS > 50 kW class.

iv. Demand profile data is based on metered usage. Hourly demand is computed by taking the average of the four 15 minute intervals that comprise the hour. There is no loss adjustment applied to load profile data.

v. For customer reclassifications, a meter change is required. A customer moving to GS > 50 kW will have the AMI based meter removed and a MIST meter installed on the effective date of the reclassification. A customer moving to GS < 50 kW will have the MIST meter

removed and replaced with an AMI meter on the effective date. The respective load profiles will only contain data up to / following the point of meter change.

vi. The wholesale market participant is included in the demand profile.

vii. Please refer to WHESC's response to interrogatories 7-Staff-63 and 7-Staff-64 for adjustments made and the resulting accuracy analysis.

## 7-Staff-63

### Non-coincident Peak (NCP) and Coincident Peak (CP) Demand

### Reference: Load Profile Model and Exhibit 7, Appendix 7-B, pp. 517-518

### Preamble

Based on the NCP and CP calculations in the reference, OEB staff observes the following:

Residential Rate Class

The NCP demand shows a large value of 62,530 kW (cell O26) in May 2022 relative to 36,666 kW (cell O8) in May 2021 and 39,212 kW (cell O44) in May 2023. Similarly, the CP demand also shows a large value of 62,530 kW in May 2022 relative to the same month in 2021 (which is 35,827 kW in cell X8) and 2023 (which is 38,956 kW in cell X44).

The NCP demand shows a large value of 62,530 kW (cell O26) in May 2022 relative to 36,666 kW (cell O8) in May 2021 and 39,212 kW (cell O44) in May 2023.

The CP demand shows a small value of 22,026 kW (cell X45) in June 2023 relative to 50,963 kW (cell X9) in June 2021 and 45,799 kW (cell X27) in June 2022.

GS < 50 kW Rate Class

The NCP demand shows a large value of 19,710 kW (cell P12) in September 2021 relative to 9,321 kW (cell P30) in September 2022 and 11,215 kW (cell P48) in September 2023.

The NCP demand shows a large value of 34,640 kW (cell P45) in June 2023 relative to 10,732 kW (cell P9) in June 2021 and 11,400 kW (cell P27) in June 2022. Similarly, the CP demand also shows a large value of 34,640 kW (cell Y45) in June 2023 relative to the same month in 2021 (which is 9,379 kW in cell Y9) and 2022 (which is 9,752 kW in cell Y27).

The CP demand shows a large value of 13,948 kW (cell Y13) in October 2021 relative to 6,985 kW (cell Y31) in October 2022 and 8,672 kW (cell Y49) in October 2023.

OEB staff also notes that the Total Sales column (column U) in the Load Profile Model shows the maximum system peak for each month instead of a sum of the monthly NCP demand (which is the peak demand for a customer classification regardless of the time of occurrence) for all the rate classes combined (or a sum of column O to column T).

In addition, OEB staff notes that the Total Sales column (column U) for NCP shows the same values as the Total sales column (column AD) for co-incident peak (CP) (which is the demand of any customer classification at the time of the distributor system peak).

## Question(s):

a. Please explain factors that caused the large variances in NCP and CP demand for the noted months between the three years.

b. Please explain whether any validation checks (e.g. outlier analysis) have been performed.

c. Since NCP is the peak demand for a customer classification regardless of the time of occurrence, why does the Total Sales column show monthly system peak data instead of a sum of NCP demand for all the rate classes each month?

d. Why are the Total Sales data for NCP in Column U the same the Total Sales data for CP in Column AD. Please explain and revise the data as needed.

## WHESC's Response

a. WHESC has reviewed the variances as noted by OEB-staff and worked with its service provider to validate the data. Discrepancies were found in the noted periods and the data has been corrected in the Load Profile Model. WHESC has reviewed the revised summary output and no large variances remain. WHESC has refiled its Load Profile Model and has reflected the revised CP and NCP values in the Cost Allocation Model, also refiled with responses to these IRs.

b. WHESC compared the total kWh derived from the hourly data in the Load Profile Model to the data reported in RRR. WHESC used a threshold of 1% variance, by rate class, by year to deem the data reasonable. The variances by rate class, by year, were all within 1%. After revisions were made in response to part a) above, WHESC confirms that all variances remain withing the 1% threshold.

c. As noted, Column U in the Load Profile Model is titled “Total Sales” and represents the CP for the month in question. This value is the same as the value presented in Column AD, also titled “Total Sales”. Both values represent the CP for the month in question, but are calculated using different methods, providing a calculation check. The total of all rate class NCP by month is not presented in the Load Profile Model, but is provided in Tab I8 Demand Data of the Cost Allocation Model.

d. Please see c) above.

## 7-Staff-64

### Total Consumption

### Reference 1: Load Profile Model
### Reference 2: Load Forecast Model, Tab Load Forecast Summary

### Question(s):

a. OEB staff notes that there are slight differences between total consumption numbers by rate class in the Load Profile Model (columns AG to AM) and those in the Load Forecast Model in reference 2 (columns I to K). Please explain.

### WHESC’s Response

a. The total consumption data in the Load Forecast Model is obtained directly from the billing system and is the same consumption data used in RRR reporting. The consumption data used in the Load Profile Model is based on raw interval data obtained from WHESC’s settlement services provider. WHESC completed a comparison of total consumption by rate class, by year between the data in the Load Forecast Model and the data in the Load Profile Model. WHESC has chosen a variance threshold of 1% that it believes would be an acceptable test of the validity of the Load Profile data. WHESC confirms that all noted variances between the are below 1%. The results of the comparison can be seen in the table below.

**Table 7-1: Comparison of Consumption between LP and LF**

| | 2021 Load Profile | 2021 Load Forecast Model | Variance | % Change |
|---|---|---|---|---|
| Residential | 182,352,291 | 182,892,382 | - 540,091 | -0.3% |
| GS <50kW | 53,921,701 | 54,230,050 | - 308,349 | -0.6% |
| GS >50kW | 127,692,219 | 128,548,463 | - 856,244 | -0.7% |
| Streetlighting | 1,410,628 | 1,410,628 | - 0 | 0.0% |
| Sentinel Lighting | 481,895 | 481,895 | 0 | 0.0% |
| USL | 919,365 | 919,365 | - 0 | 0.0% |
| **Total** | **366,778,098** | **368,482,783** | **- 1,704,685** | **-0.5%** |

| | 2022 Load Profile | 2022 Load Forecast Model | Variance | % Change |
|---|---|---|---|---|
| Residential | 183,999,423 | 182,644,896 | 1,354,527 | 0.7% |
| GS <50kW | 55,681,053 | 55,719,443 | - 38,390 | -0.1% |
| GS >50kW | 135,700,871 | 136,029,472 | - 328,601 | -0.2% |
| Streetlighting | 1,418,460 | 1,418,460 | - 0 | 0.0% |
| Sentinel Lighting | 422,907 | 422,907 | 0 | 0.0% |
| USL | 895,494 | 895,494 | - 0 | 0.0% |
| **Total** | **378,118,209** | **377,130,672** | **987,537** | **0.3%** |

| | 2023 Load Profile | 2023 Load Forecast Model | Variance | % Change |
|---|---|---|---|---|
| Residential | 178,047,957 | 177,391,636 | 656,321 | 0.4% |
| GS <50kW | 54,086,176 | 54,279,425 | - 193,249 | -0.4% |
| GS >50kW | 136,125,267 | 136,432,090 | - 306,823 | -0.2% |
| Streetlighting | 1,454,100 | 1,453,176 | 924 | 0.1% |
| Sentinel Lighting | 419,671 | 419,671 | - 0 | 0.0% |
| USL | 851,915 | 851,915 | 0 | 0.0% |
| **Total** | **370,985,087** | **370,827,913** | **157,174** | **0.0%** |

WHESC revised its Load Profile Data per 7-Staff-63. Table 7-2 below restates Table 7- reflecting the revisions that were made.

**Table 7-2: Comparison of Consumption between LP and LF – Revised for Updated LP Data**

| | 2021 Load Profile | 2021 Load Forecast Model | Variance | % Change |
|---|---|---|---|---|
| Residential | 182,352,291 | 182,892,382 | (540,091) | -0.3% |
| GS <50kW | 53,870,343 | 54,230,050 | (359,707) | -0.7% |
| GS >50kW | 127,692,219 | 128,548,463 | (856,244) | -0.7% |
| Streetlighting | 1,410,628 | 1,410,628 | (0) | 0.0% |
| Sentinel Lighting | 481,895 | 481,895 | 0 | 0.0% |
| USL | 919,365 | 919,365 | (0) | 0.0% |
| **Total** | **366,726,740** | **368,482,783** | **- 1,756,043** | **-0.5%** |

| | 2022 Load Profile | 2022 Load Forecast Model | Variance | % Change |
|---|---|---|---|---|
| Residential | 183,058,997 | 182,644,896 | 414,101 | 0.2% |
| GS <50kW | 55,681,053 | 55,719,443 | (38,390) | -0.1% |
| GS >50kW | 135,700,871 | 136,029,472 | (328,601) | -0.2% |
| Streetlighting | 1,418,460 | 1,418,460 | (0) | 0.0% |
| Sentinel Lighting | 422,907 | 422,907 | 0 | 0.0% |
| USL | 895,494 | 895,494 | (0) | 0.0% |
| **Total** | **377,177,782** | **377,130,672** | **47,110** | **0.0%** |

| | 2023 Load Profile | 2023 Load Forecast Model | Variance | % Change |
|---|---|---|---|---|
| Residential | 178,047,957 | 177,391,636 | 656,321 | 0.4% |
| GS <50kW | 54,059,507 | 54,279,425 | (219,918) | -0.4% |
| GS >50kW | 136,125,267 | 136,432,090 | (306,823) | -0.2% |
| Streetlighting | 1,454,100 | 1,453,176 | 924 | 0.1% |
| Sentinel Lighting | 419,671 | 419,671 | (0) | 0.0% |
| USL | 851,915 | 851,915 | 0 | 0.0% |
| **Total** | **370,958,417** | **370,827,913** | **130,504** | **0.0%** |

## 7-Staff-65

### Weighting Factors - Billing and Collecting

Reference 1: Exhibit 7, p. 6
Reference 2: 2025 Cost Allocation Model, Tab I5.2
Reference 3: 2017 Cost Allocation Model_Settlement, Tab I5.2

### Preamble

In reference 1, Welland Hydro-Electricity System states that it conducted an analysis of the significant components of Billing and Collecting costs and was able to assign a total cost per rate class from which weighting factors were then determined relative to a Residential factor of 1.

OEB staff notes that the proposed 2025 weighting factors for GS > 50 kW and Street Lighting rate classes (references 1 and 2) are different from the approved weighting factors for these rate classes in the 2017 rebasing application (reference 3).

### Question(s):

a. Please provide a spreadsheet that shows the derivation of the updated weighting factors for Billing and Collecting in reference 1.

### WHESC's Response

a. WHESC has filed 'WHESC_2025_Billing_&_Collecting_Weighting_Factors_IRR_2024_11_21.xlsx' showing the derivation of the updated weighting factors in Excel format.

## 7-Staff-66

### Revenue Calculation

Reference 1: 2025 Cost Allocation Model, Tab 6.1
Reference 2: DVA Continuity Schedule, Tab 4

### Preamble

In reference 1, the total kWh excluding kWh from wholesale market participants (WMP) (row 29) shows 378,354,350.

In reference 2, the total metered kWh less WMP consumption (column K) shows 378,391,508. The metered kWh for WMP is 2,634,037 (cell J23).

OEB staff observes that the variance stems from kWh data for GS>50 kW (131,863,081 in reference 1 and 131,900,239 in reference 2). It appears that the WMP consumption data may be different between the two references.

### Question(s):

a. Please explain the variance noted above and revise the evidence as needed.

### WHESC's Response

a. WHESC notes that the value used in reference 1 is equal to 2023 actual WMP kWh and the value used in reference 2 is equal to 2023 actual WMP kWh escalated based on the estimated change from 2023 to 2024, and 2024 to 2025 for the GS>50 kW class in the Load Forecast Model. WHESC has revised the Cost Allocation Model in reference 1 to use the escalated kWh for the WMP (2,634,037). The revised total kWh excluding kWh from WMP (row 29) is 378,391,508.

## Vulnerable Energy Consumers Coalition (VECC)

### 7-VECC-30

Reference 1: Cost Allocation Model, Tab 5.2
Reference 2: Exhibit 3, page 6

### Preamble

The Application states:

"In determining the weighting factors for Billing and Collecting, WHESC conducted an analysis of the significant components of Billing and Collecting costs, such as relative staff time spent on various account types and the cost of postage based on relative e-bill adoption."

### Question(s):

a. Please provide a copy of the referenced analysis that supports the proposed Billing and Collecting Weights?

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 7-Staff-65.

## 7-VECC-31

Reference 1: Cost Allocation Model, Tab 7.2
Reference 2: Exhibit 7, page 6

### Preamble

The Application states:

"All of WHESC's customers now have smart meters or MIST meters. Given that physical meter reading is no longer required, the effort related to meter reading is relatively the same across all rate classes."

### Question(s):

a. Does Welland read its own meters or is metering done by a 3rd party?

b. Please provide additional details to support the claim that meter reading efforts and costs are the same for smart meters and MIST meters.

### WHESC's Response

a. All WHESC meters are read by data acquisition systems hosted by a third party. There are no meters physically read for the purpose of settlement and billing.

b. As part of the 2017 COS settlement (EB-2016-0110), WHESC adjusted OM&A and inputs to the cost allocation model to remove costs associated with metering at the TS from "customer metering". These costs will now be included as a "substation expense". This change has been incorporated in the revised Cost Allocation Model that has been refiled in response to these IRs. As a result, there are no remaining costs associated with physically reading a customer's meter.

## 7-VECC-32

Reference: Exhibit 7, pages 6 and 8

### Question(s):

a. Are the costs associated with maintaining/updating the records regarding the kWh and kW use per device/connection for the Street Lighting, Sentinel and USL classes tracked and allocated to the respective classes?

    i. If yes, in what account(s) are they tracked and where is the allocation done in the CA Model?

ii. If not, in what account(s) are they tracked and how are they subsequently allocated to customer classes?

### WHESC's Response

a. WHESC does not track or allocate costs associated with maintaining/updating the records regarding the kWh and kW use per device/connection for the Street Lighting, Sentinel and USL classes.

i. Not applicable as WHESC does not track this information.

ii. Costs associated with maintaining/updating the records regarding the kWh and kW use per device/connection would be recorded in the general billing and collecting accounts that form part of WHESC's total OM&A costs. Since WHESC does not track these costs, it does not have the information required to allocate to specific customer classes.

## 7-VECC-33

Reference 1: Cost Allocation Model, Tab 6.2
Reference 2: Exhibit 3, pages 6 and 8

### Preamble

The Application states (Exhibit 3, page 6):

"Customer/Connection values are on an average basis for the purpose of rate design. Street Lights, Sentinel Lights and Unmetered Scattered Loads are measured as connections."

### Question(s):

a. Exhibit 3 indicates that Street Lights are measured as connection and there are 7,464 connections forecast for 2025. However, the CA Model shows 3,719 connections and 7,464 devices for Street Lights in 2025. Please reconcile.

### WHESC's Response

a. The reference on Exhibit 3, page 6 was intended to indicate that for the purposes of load forecasting, street lights are measured as devices. In Exhibit 3, Table 3.3, the energy usage per customer/connection is presented per streetlight device.

## 7-VECC-34

### Reference: Cost Allocation Model, Tab 6.2 and Tab 8

### Question(s):

a. For the GS<50 class Tab 6.2 shows the followings values: i) CCP - 1,869, ii) CCLT - 1,859 and iii) CCS - 1,868. This suggests that there are 9 GS<50 customers that own the transformer but WHESC owns the secondary assets on the low side of the customer-owned transformer. Please confirm that this is the case.

b. For the GS<50 class Tab 8 shows that the LTNCP4 value is greater than the SNCP4 value. However, as noted in part (a) the CCLT value is less than the CCS value. Please reconcile.

c. For the GS>50 class Tab 6.2 shows the followings values: i) CCP - 137, ii) CCLT - 112 and iii) CCS - 127. This suggests that there are 15 GS>50 customers that own the transformer but WHESC owns the secondary assets on the low side of the customer-owned transformer. Please confirm that this is the case.

d. For the GS>50 class Tab 8 shows that the LTNCP4 value is greater than the SNCP4 value. However, as noted in part (c) the CCLT value is less than the CCS value. Please reconcile.

### WHESC's Response

a. In the previously filed Cost Allocation Model, WHESC had indicated that the nine customers in question were connected to LDC owned secondary assets. WHESC has reviewed these nine service locations. While WHESC has metering on the secondary side of a customer owned transformer, the secondary is in fact customer owned. Tab 6.2 has been corrected in the Cost Allocation model.

b. The data in Tab 8 has been corrected based on the adjustments to Tab 6.2 noted above.

c. In a similar manner described in the response to a., WHESC meters 15 GS > 50 kW customers on the secondary side of a customer owned transformer but the LDC does not own the secondary assets. WHESC has updated Tab 6.2 of the Cost Allocation Model to correct the data related to the Secondary Customer Base for the GS > 50 kW class.

d. The data in Tab 8 has been corrected based on the adjustments to Tab 6.2 noted above.

### 7-VECC-35

Reference: Exhibit 7, page 7

Question(s):

a. Please provide a schedule that set out the total actual HDD and CDD values for each of 2021, 2022 and 2023 along with the assumed 10-year (2014-2023) average annual HDD and CDD values.

WHESC's Response

a. Please see Table 7-3 below for total actual HDD and CDD values for 2021, 2022 and 2023 along with the assumed 10-year (2014-2023) average annual HDD and CDD values.

**Table 7-3: HDD and CDD Values**

| | HDD | | CDD | |
|---|---|---|---|---|
| Year | Actual | 10-year Average | Actual | 10-year Average |
| 2021 | 3,353.3 | 3,563.2 | 338.2 | 304.1 |
| 2022 | 3,643.1 | 3,563.2 | 304.6 | 304.1 |
| 2023 | 3,179.8 | 3,563.2 | 239.7 | 304.1 |

## Exhibit 8 – Rate Design

## OEB Staff Interrogatories

### 8-Staff-67

Bill Impacts

Reference 1: Tariff Schedule and Bill Impact Model, Tabs 3 and 6
Reference 2: Appendix 2-ZA and Appendix 2-ZB
Reference 3: RPP Price Report
Reference 4: Ontario Electricity Rebate

Preamble

On October 18, 2024, the OEB announced updates to electricity prices under the Regulated Price Plan (RPP) (reference 3) and Ontario Electricity Rebate (OER) which is 13.1% with an effective date of November 1, 2024.

Question(s):

a. Please update the excel models in references 1 and 2 to reflect the RPP and OER updates.

### WHESC's Response

a. WHESC has updated Appendix 2-ZA and Appendix 2-ZB to reflect the RPP and OER updates. WHESC has also updated the Revenue Requirement Workform to reflect the cost of power revision, and the Tariff and Bill Impact Model.

## 8-Staff-68

### Uniform Transmission Rates (UTRs)

Reference 1: RTSR Workform
Reference 2: Appendix 2-ZA and Appendix 2-ZB
Reference 3: Tariff Schedule and Bill Impact Model
Reference 4: Appendix 2-ZB

### Preamble

The OEB is expected to issue a letter in November 2024 which provides calculations for 2025 preliminary Uniform Transmission Rates (UTRs) and facilitates their implementation in applicable 2025 electricity distributor rate applications for distributions with an effective date of January 1, 2025.

### Question(s):

a. If the 2025 preliminary UTRs are available prior to the filing date for interrogatory responses, please update the models in references 1, 2, and 3 to reflect the 2025 preliminary UTRs.

### WHESC's Response

a. The OEB issued a letter on November 1, 2024 providing 2025 Preliminary Uniform Transmission Rates and Hydro One Sub-Transmission Rates (EB-2024-0244). WHESC has updated the models in references 1, 2, and 3 to reflect the 2025 preliminary UTRs.

## 8-Staff-69

### MicroFit

### Reference: Exhibit 7, p. 11

### Preamble

In the reference, Welland Hydro-Electricity System proposes to use the OEB's generic monthly MicroFIT service charge of $4.55, a decrease from $11 which was approved in its 2017 rebasing application. Welland Hydro-Electric System states that the change to the MicroFIT monthly service charge will not have a material impact to any customer group.

### Question(s):

a. Please explain why Welland Hydro-Electricity System is proposing to update the current MicroFit charge to the OEB's generic charge.

### WHESC's Response

a. WHESC did an analysis of the impact of maintaining the previously approved MicroFit charge of $11.00 and adopting the OEB's generic charge of $4.55. The difference between the rates amounted to approximately $8,000, which WHESC deemed immaterial. WHESC's previously approved charge of $11.00 was comprised of a $10.00 settlement service cost plus $1.00 for postage. After further analysis and consideration, WHESC believes that the $11.00 more appropriately represents the actual cost related to MicroFit accounts and that it would be prudent to maintain the previously approved MicroFit charge of $11.00. WHESC is proposing to amend it's proposal to adopt the OEB's generic charge and instead proposes to maintain the current rate of $11.00. WHESC has reflected this in the revised Tariff and Bill Impact Model.

## School Energy Coalition Interrogatories (SEC)

### 8-SEC-27

Reference: [Ex. 8, p. 11]

### Question(s):

a. Please explain why Welland is proposing reducing the MicroFIT charge from $11.00 to $4.55.

b. How many MicroFIT customers does Welland have?

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 8-Staff-69.

b. As of October 2024, WHESC has 105 MicroFIT customers.

# Vulnerable Energy Consumers Coalition (VECC)

## 8-VECC-36

### Reference: Exhibit 8, page 9 RTSR Workform, Tabs 3 and 5

### Question(s):

a. With respect to the RTSR Workform, please confirm that the billing units in Tab 5 are based on the same year as the customer class usage data in Tab 3.

### WHESC's Response

a. With respect to the RTSR Workform, WHESC confirms that the billing units in Tab 5 are based on the same year as the customer class usage data in Tab 3.

## 8-VECC-37

### Reference: Exhibit 8, page 11

### Preamble

The Application states:

"WHESC is proposing to maintain the Specific Service Charges as approved in its 2017 cost of service application (EB-2016-0110) with one exception. WHESC currently has a MicroFIT monthly service charge of $11.00 as approved by the Board in its Decision and Rate Order (EB-2016-0110) effective May 1, 2017. WHESC is proposing to use the OEB's generic monthly microFIT service charge of $4.55 as stated in the OEB's letter dated November 29, 2023 effective May 1, 2025."

### Question(s):

a. What was the rationale for the MicroFIT monthly service charge of $11.00 as approved by the Board in its Decision and Rate Order (EB-2016-0110)?

b. Please explain why the $11.00 charge is no longer appropriate.

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 8-Staff-69.

b. Please refer to WHESC's response to interrogatory 8-Staff-69.

## 8-VECC-38

Reference 1: Exhibit 8, page 12
Reference 2: Load Forecast Model, Rate Class Energy Model Tab

### Question(s):

a. Please reconcile the annual purchases for 2019-2023 as set out in the Rate Class Energy Model Tab (Column B) with the A(1) and A(2) wholesale purchases for the same years set out in Table 8-11.

### WHESC's Response

a. Annual purchases as set out in the Rate Class Energy Tab (Column B) of the Load Forecast Model is the equal to the sum of AQEW, WMP (uplifted) and Generation. Appendix 2-R A(1) Wholesale kWh represents metered wholesale values (AQEW) including Supply Facility Losses. Appendix 2-R A(2) Wholesale kWh represents metered wholesale values excluding Supply Facility Losses.

Table 8- below shows the composition of the total Annual purchases that is found in the Rate Class Energy Tab of the Load Forecast Model. Table 8-1 calculates the difference between the AQEW that forms part of the total annual purchases and the wholesale kWh used in Appendix 2-R A(1). As seen in Table 1, these two values are equal.

**Table 8-1: Total Purchases – Rate Class Energy Tab vs Appendix 2-R (A1)**

| | Rate Class Energy Model | | | | Appendix 2-R | |
|---|---|---|---|---|---|---|
| Year | AQEW | WMP (uplifted) | Generation | Total Purchases | A(1) Wholesale kWh | Difference |
| | a | b | c | d = a+b+c | e | a - e |
| 2019 | 358,980,520 | 2,964,098 | 22,847,159 | 384,791,777 | 358,980,520 | - |
| 2020 | 353,173,001 | 2,889,043 | 24,031,647 | 380,093,691 | 353,173,001 | - |
| 2021 | 357,391,017 | 2,875,065 | 23,629,191 | 383,895,273 | 357,391,017 | - |
| 2022 | 366,492,304 | 2,792,062 | 23,327,869 | 392,612,236 | 366,492,304 | - |
| 2023 | 361,339,442 | 2,798,343 | 22,496,002 | 386,633,787 | 361,339,442 | - |

Table 8-2 calculates the difference between the AQEW that forms part of the total annual purchases and the wholesale kWh used in Appendix 2-R A(2). The difference between the amounts represents the SFLF.

**Table 8-2: Total Purchases – Rate Class Energy Tab vs Appendix 2-R (A2)**

| Year | AQEW | AQEW without losses | Difference = SFLF |
|---|---|---|---|
| 2019 | 358,980,520 | 357,623,317 | 1,357,203 |
| 2020 | 353,173,001 | 351,787,708 | 1,385,293 |
| 2021 | 357,391,017 | 356,006,049 | 1,384,968 |
| 2022 | 366,492,304 | 365,077,870 | 1,414,434 |
| 2023 | 361,339,442 | 359,901,079 | 1,438,363 |

# Exhibit 9 – Deferral and Variance Accounts

## OEB Staff Interrogatories

### 9-Staff-70

### DVA Continuity Schedule

Reference 1: Decision and Rate Order, EB-2022-0068, March 23, 2023, pp. 8-11
Reference 2: DVA Continuity Schedule 2024, Tab 2a
Reference 3: Accounting Procedures Handbook for Electricity Distributors, December 2011

### Preamble

In reference 1, the OEB approved the disposition of a debit balance of $51,674 as of December 31, 2021, including interest projected to April 30, 2023, for Group 1 accounts on a final basis over a one-year period from May 1, 2023, to April 30, 2024. For LRAMVA, the OEB approved the disposition of a debit balance of $89,719. For the 2023 rate year, the OEB also approved the requested LRAM-eligible amount of $22,126 a debit to be recovered from customers, and the associated rate riders. This amount is arrived at by applying Welland Hydro-Electricity System's approved rate adjustment of 3.70% for the 2023 rate year to its approved 2023 LRAM-eligible amount of $21,337 which was calculated based on the rates in effect for 2022.

The balance of each of the Group 1 accounts approved for disposition shall be transferred to the applicable principal and carrying charge sub-accounts of Account 1595. Such transfer shall be pursuant to the requirements specified in reference 3.

OEB staff has compiled a table (Table 5) per Reference 1 as below, showing total approved disposition for 2023.

**Table 5: OEB Approved Disposition for 2023**

| Account Name | Account Number | Principal | Carrying Charge | Total Claim | Approved Disposition | Reference |
|---|---|---|---|---|---|---|
| Smart Meter Entity Variance Charge | 1,551 | (15,754) | (537) | (16,291) | (16,291) | Table 6.1 |
| RSVA - Wholesale Market Service Charge | 1,580 | 248,735 | 8,718 | 257,453 | 257,453 | Table 6.1 |
| Variance WMS - Sub-account CBR Class B | 1,580 | (41,631) | (1,458) | (43,089) | (43,089) | Table 6.1 |
| RSVA - Retail Transmission Network Charge | 1,584 | 246,744 | 8,585 | 255,329 | 255,329 | Table 6.1 |
| RSVA - Retail Transmission Connection Charge | 1,586 | 75,883 | 2,251 | 78,134 | 78,134 | Table 6.1 |
| RSVA - Power | 1,588 | (128,424) | (4,162) | (132,586) | (132,586) | Table 6.1 |
| RSVA - Global Adjustment | 1,589 | (380,226) | (13,153) | (393,379) | (393,379) | Table 6.1 |
| Disposition and Recovery of Regulatory Balances (2018) | 1,595 | 49,998 | (3,894) | 46,103 | 46,103 | Table 6.1 |
| **Total for Group 1 accounts** | | 55,325 | (3,650) | 51,674 | 51,674 | Table 6.1 |
| LRAMVA | 1,568 | 86,892 | 2,827 | 89,719 | 89,719 | Table 7.1 |
| LRAM-eligible amounts for the years 2023 | 1,568 | 21,337 | 0 | 22,126 | 22,126 | Table 7.2 |
| **Total approved disposition during 2023** | | 163,554 | (823) | 163,519 | **163,519** | |

In Reference 2, the DVA Continuity Schedule shows OEB-Approved Disposition during 2023 for the

Disposition and Recovery/Refund of Regulatory Balances (2023) is a credit amount of ($163,554) for the principal and a debit amount of $823 for the carrying charge, which is in total a debit amount of $162,731.

OEB staff observes that the principal and interest amounts in Sub-account 1595 (2023) in Reference 2 do not match the total amounts approved by the OEB for disposition.

## Question(s):

a. Please confirm OEB staff's observation.

   i. Please provide an explanation for the discrepancy and revise the schedule as applicable.

   ii. If not confirmed, please provide an explanation.

## WHESC's Response

a.

   i. WHESC confirms that there is a $789 difference between the OEB approved disposition of $163,520 and the amount in the DVA Continuity Schedule of $163,554. As noted by OEB staff, this difference is equal to WHESC's 2023 approved rate adjustment factor of 3.70% applied to the approved 2023 LRAM-eligible amount of $21,337 ($21,337 x 3.70% = $789). WHESC has updated the DVA Continuity Schedule to revise the principal OEB-Approved Disposition during 2023 from $163,554 to $164,343.

   As a result of this correction, there is a $789 difference between the Continuity Schedule and RRR. When WHESC recorded the disposition of the LRAM balance in 2023, the incorrect amount of $21,337 was recorded instead of the amount adjusted by the inflation factor. Due to the immaterial nature of the difference, WHESC is proposing not make any adjustments in the general ledger for the $789.

   ii. WHESC confirms OEB staff's observation. See response to a. i) above.

## 9-Staff-71

### Account 1592

Reference 1: Exhibit 9, section 9.1 Disposition of Deferral and Variance Accounts, Account 1592 PILS and Tax Variance Sub-account CCA Changes, pp.8 & 9
Reference 2: Exhibit 9, section 9.1.5 Disposition of Account 1592, Sub-account CCA Changes, pp.24 & 25
Reference 3: DVA Continuity Schedule, Tab 2b

### Preamble

In Reference 1, Welland Hydro-Electricity System states that:

There is a $138,397 difference in Account 1592 PILs and Tax Variance Sub-account CCA Changes between what was reported in the 2023 RRR 2.1.7 and what is included in the DVA Continuity Schedule. There is a $138,397 difference in Account 1592 PILs and Tax Variance Sub-account CCA Changes between what was reported in DVA Continuity Schedule and the 2023 Audited Financial Statements. During the preparation of this COS application, Welland Hydro-Electricity System has recalculated the actual difference in PILs experienced because of the Accelerated Investment Incentive Program ("AIIP") and determined that an additional credit amount of $138,397 is required (inclusive of principal and interest).

In Reference 2, Welland Hydro-Electricity System confirms that it has recorded the impact of the CCA rule changes in Account 1592 PILS and Tax Variance, Sub-account accelerated CCA from late 2018 up to and including the 2023 historical year. It also proposes to cease claiming AIIP, and as such cease recording transactions to Account 1592, Sub-account Accelerated CCA effective 2024. It is not proposing to smooth the impact of the CCA rule changes and deposition over the IRM period nor to continue using this sub-account unless there are new changes to the CCA rules.

### Question(s):

a. Please confirm that Welland Hydro-Electricity System will adopt the legacy CCA rule in the years of 2025 to 2027 when the AIIP is still available for the accelerated CCA deduction.

b. Please provide Welland Hydro-Electricity System's thought on continuing Account 1592 sub-account CCA changes in case of the behavior changes (i.e. Welland Hydro-Electricity System applies the AIIP in its actual tax filings of 2025 to 2027 while it promised not doing so in this application).

### WHESC's Response

a. WHESC confirms that it will adopt the legacy CCA rule for the years 2024 to 2027 (not for the years 2025 to 2027) when the AIIP is still available for the accelerated CCA deduction.

b. As stated in evidence, WHESC has no intention of leveraging the AIIP after its 2023 tax filing and therefore continued use of Account 1592 is not required. If a new policy change occurs related to tax in a subsequent year, it may be rationale for WHESC to re-evaluate the need for use of a DVA account at that time.

## 9-Staff-72

### Account 1557 - Meter Cost Deferral Account (MIST Meters)

Reference 1: Exhibit 9, section 9.1 Disposition of Deferral and Variance Accounts, Account 1557 - Meter Cost Deferral Account (MIST Meters), pp.14-16
Reference 2: Exhibit 2, section 2.1.1 Overview, pp. 6-7
Reference 3: Exhibit 5, section 5.2 Cost of Capital, p.10
Reference 4: DVA Continuity Schedule, Tab 2b
Reference 5: OEB Staff Error Checking Response, Item 5

### Preamble

In Reference 1, there is a difference of $(85,072) in Account 1557 Meter Cost Deferral Account between 2023 AFS and the DVA Continuity Schedule. A debit amount of $2,362 (inclusive of principal and interest) is the recalculation done during the preparation of this application. The remaining amount of $82,710 is related to the capital purchase of MIST meters in 2018 that is included in PP&E for IFRS purposes and in Account 1557 MIST meter cost deferral for OEB reporting purposes.

Welland Hydro-Electricity System states it incurred a single incremental capital entry of $82,710 in 2018 relating to the installation of MIST meters. To prepare annual entries in Account 1557 relating to this expenditure, this amount has been converted into a capital-related revenue requirement (CRRR) for each year from 2018 through 2024 to determine depreciation, return on equity, deemed interest, and PILs. AIIP was not claimed and the half-year rule is included in the calculation of entries due to timing.

Welland Hydro-Electricity System also states that it incurs incremental OM&A MIST meter costs from June 2018 through December of 2024 as a direct result of the transition to MIST meters under a new contract. This cost calculates the difference between settlement service costs under the old, pre-MIST contract (Base Cost), and settlement service costs under the revised, post-MIST contract (Actual Cost). The Base Cost assumed is increased each year from 2019 through 2024 by Welland Hydro-Electricity System's OEB-approved Price Cap Index, while the Actual Costs represent actual expenditures for settlement services.

Welland Hydro-Electricity System is proposing to dispose a debit balance of $229,409 including forecasted carrying charges on a final basis and to discontinue this account after the amount is approved.

OEB staff has compiled a table (Table 6) as below, showing the continuity schedule of MIST meters.

**Table 6: MIST Meters DVA Continuity from 2018 to 2025**

| MIST meters | CRRR Principal Debits to 1557 (Ref 1: Table 9-10 | OM&A Principal (Ref 1: Table 9-11) | Total Principal | Carrying Charge (Ref 4: Tab 2b) | Total Principal + CC |
|---|---|---|---|---|---|
| 2018 | 5,329 | 11,015 | 16,344 | 123 | 16,467 |
| 2019 | 10,467 | 23,116 | 33,583 | 746 | 34,329 |
| 2020 | 10,085 | 28,064 | 38,149 | 870 | 39,019 |
| 2021 | 9,703 | 25,039 | 34,742 | 607 | 35,349 |
| 2022 | 9,321 | 20,393 | 29,714 | 2,775 | 32,489 |
| 2023 | 8,939 | 17,683 | 26,622 | 8,424 | 35,046 |
| 2024 | 8,556 | 14,441 | 22,997 | 10,208 | 33,205 |
| 2025 | | | | 3,504 | 3,504 |
| **Total** | 62,400 | 139,751 | 202,151 | 27,257 | ***229,408*** |

## Question(s):

a. Please provide the revenue requirement calculations from 2018 to 2024 per Table 6 above, including a breakdown of depreciation, return on equity, deemed interest, and PILs of CRRR Principal Debits to 1557.

b. Per OM&A MIST meter cost, please provide the breakdown of pre-MIST contract (Base Cost) and, post-MIST contract (Actual Cost).

c. Please explain how the incremental OM&A costs recorded in the account are 100% attributed to the Mister Meter installed in 2018 which is total cost of $82,710.

## WHESC's Response

a. WHESC has provided the revenue requirement calculations from 2018 to 2024 per Table 6 above, including a breakdown of depreciation, return on equity, deemed interest, and PILs of CRRR Principal Debits to Account 1557. The calculations have been filed in Excel format (WHESC_MIST CRRR Calculation_IRR_2024-11-21).

b. The monthly OM&A cost related to MIST meters fluctuates monthly based on the number of meter points. WHESC has used May 2018 as the base cost, and October 2024 as the current cost in the tables below.

**Table 9-1: OM&A Cost Breakdown Pre-MIST contract**

| Charge Type | Meter Points | Cost |
|---|---|---|
| **Settlement Services** | | |
| Monthly up to 80 points | 80 | $ 4,866 |
| In excess of 80 | 3 | $ 105 |
| MicroFit | 123 | $ 1,230 |
| **Total** | **206** | **$ 6,201** |
| Cellular Services & Other (all MIST) | 54 | $ 531 |
| **Total** | | **$ 6,732** |

| Meter Type | Meter Quantity |
|---|---|
| MIST Meters | 83 |
| MicroFit Meters | 123 |
| **Total Meters** | **206** |

**Table 9-2: OM&A Cost Breakdown Post-MIST contract**

| Charge Type | Meter Points | Cost |
|---|---|---|
| **Settlement Services** | | |
| Monthly up to 318 points | 318 | $ 7,965 |
| Additional over 318 | 5 | $ 125 |
| **Total** | **323** | **$ 8,090** |
| Cellular Services & Other (all MIST) | 201 | $ 1,156 |
| **Total** | | **$ 9,246** |

| Meter Type | Meter Quantity |
|---|---|
| MIST Meters | 218 |
| MicroFit Meters | 105 |
| **Total Meters** | **323** |

c. As can be seen in the tables in b) above, the quantity of MicroFit meters has not changed substantially between the pre-MIST contract and post-MIST contract period (123 in May 2018; 105 in October 2024). As there has been little change in the quantity of MicroFIT meters, WHESC believes that the entire increase in OM&A cost is related to the MIST meter implementation.

## 9-Staff-73

## GA Workform

## Reference: GA Analysis Workform, Note 4 & 5

## Preamble

In Reference 1, OEB staff notes that Note 4 includes unbilled adjustments for the current month and previous month when calculating the price variance.

## Question(s):

a. Please explain why the reconciled items do not include "unbilled to actual revenue differences" for both prior year and current year (Item 2a & 2b remain unfilled) while Note 4 does.

## WHESC's Response

a. WHESC bills customers on a calendar month basis in the subsequent month. WHESC records unbilled Global adjustment revenue each month based on the estimated GA rate and estimated kWh. Once all billing for a consumption year is complete, WHESC calculates actual unbilled revenue for December and compares it to the estimated unbilled revenue that was originally recorded. An adjustment is made to the appropriate calendar year in the general ledger so that unbilled revenue recorded in December is equal to actual unbilled revenue, not estimated. As a result, no adjustments are needed on the GA Workform.

   In Note 4 of the GA Workform, the column labelled "Non-RPP Class B including Loss Factor Billed Consumption (kWh)" represents the kwh billed in the month (for prior month consumption) and the column labelled "Non-RPP Class B including Loss Adjusted Consumption, Adjusted for Unbilled (kWh)" represents actual kwh consumed for each month. The unbilled columns are used to reconcile for timing differences between kwh being consumed and billed.

## 9-Staff-74

### Pole Attachment Revenue Variance

### Reference: Exhibit 9, section 9.1.7 Account 1508, Sub-account Pole Attachment Revenue Variance, Table 9-19, p.26

### Preamble

Welland Hydro-Electricity System proposes to continue using the Pole Attachment Revenue variance account to record incremental revenue after December 2023 up to April 30, 2025, and carrying charges until its next rebasing application.

### Question(s):

a. Please explain why Welland Hydro-Electricity System proposes to continue this account, given that Table 9-19 already includes the revenue forecast for the mentioned period. WHESC's Response

### WHESC's Response

a. WHESC clarifies that Table 9-19 only includes a carrying charge forecast from January 2024 to April 30, 2025. No principal amounts have been forecast for the mentioned period.

WHESC has updated Table 9-19 to include projected principal amounts from January 2024 to April 2025. WHESC has also updated the interest rate used to calculate carrying charges based on the most recent update to the OEB prescribed rates. WHESC proposes to dispose of a total principal and interest balance, to April 30, 2025, in the credit amount of $834,438. WHESC proposes to discontinue use of Account 1508 Pole Attachment Revenue.

**Table 9-3: Updated Ex. 9, Table 9-19 – Account 1508 Pole Attachment Revenue**

| Year | WEHSC 2017 COS $ | Actual Charge | Incremental Charge | # of Poles | Incremental Revenue | Carrying Charges | Total |
|---|---|---|---|---|---|---|---|
| 2018 | $ 22.35 | $ 28.09 | $ 5.74 | 5,987 | -$ 11,456 | $ - | -$ 11,456 |
| 2019 | $ 22.35 | $ 43.63 | $ 21.28 | 6,370 | -$ 135,543 | -$ 942 | -$ 136,485 |
| 2020 | $ 22.35 | $ 44.50 | $ 22.15 | 6,450 | -$ 142,868 | -$ 2,225 | -$ 145,093 |
| 2021 | $ 22.35 | $ 44.50 | $ 22.15 | 6,473 | -$ 143,371 | -$ 2,001 | -$ 145,372 |
| 2022 | $ 22.35 | $ 34.76 | $ 12.41 | 6,631 | -$ 82,290 | -$ 9,193 | -$ 91,483 |
| 2023 | $ 22.35 | $ 36.05 | $ 13.70 | 6,655 | -$ 91,172 | -$ 28,015 | -$ 119,187 |
| 2024 Forecast | $ 22.35 | $ 37.78 | $ 15.43 | 6,703 | -$ 103,427 | -$ 33,383 | -$ 136,810 |
| Jan to Apr 2025 Forecast | $ 22.35 | $ 39.14 | $ 16.79 | 6,740 | -$ 37,722 | -$ 10,830 | -$ 48,552 |
| **Total as of April 30, 2025** | | | | | **-$ 747,849** | **-$ 86,589** | **-$ 834,438** |

WHESC has revised the DVA Continuity Schedule and Tariff and Bill Impacts Model to reflect this change.

As a result of the above update, WHESC has recalculated and revised 2025 Test Year Pole Attachment Revenue. Please refer to WHESC's response to interrogatory 6-Staff-57.

## 9-Staff-75

### Retail Service Charges Related Account

### Reference: Exhibit 9, section 9.1.4 Account 1508, Retail Service Charges Related Accounts, Table 9-17, p.23

### Preamble

Welland Hydro-Electricity System proposes to continue using the Retail Service Charge Incremental Revenue account to record incremental revenue after December 2023 up to April 30, 2025, and carrying charges until its next rebasing application.

### Question(s):

a. Please explain why Welland Hydro-Electricity System proposes to continue using this account, given that Table 9-17 already the revenue forecast for the mentioned period.

### WHESC's Response

a. WHESC clarifies that Table 9-17 only includes a carrying charge forecast from January 2024 to April 30, 2025. No principal amounts have been forecast for the mentioned period.

WHESC has updated Table 9-17 to include projected principal amounts from January 2024 to April 2025. WHESC has also updated the interest rate used to calculate carrying charges based on the most recent update to the OEB prescribed rates. WHESC proposes to dispose of a total principal and interest balance, to April 30, 2025, in the credit amount of $58,073. WHESC proposes to discontinue use of Account 1508 Retail Service Charge Incremental Revenue.

**Table 9-4: Updated Ex. 9, Table 9-17 – Account 1508 Retail Service Charge Incr. Revenue**

| Year | Revenue at Previous Rate | Revenue at Updated Rate | Incremental Revenue | Carrying Charges | Total |
|---|---|---|---|---|---|
| 2019 | -$ 5,596 | -$ 11,192 | -$ 5,596 | -$ 31 | -$ 5,626 |
| 2020 | -$ 8,778 | -$ 17,583 | -$ 8,805 | -$ 116 | -$ 8,921 |
| 2021 | -$ 7,943 | -$ 16,377 | -$ 8,434 | -$ 104 | -$ 8,538 |
| 2022 | -$ 7,651 | -$ 16,102 | -$ 8,450 | -$ 539 | -$ 8,989 |
| 2023 | -$ 7,278 | -$ 16,131 | -$ 8,853 | -$ 1,788 | -$ 10,641 |
| 2024 - Forecasted | -$ 6,951 | -$ 16,101 | -$ 9,150 | -$ 2,271 | -$ 11,421 |
| Jan to April 2025 - Forecasted | -$ 2,308 | -$ 5,504 | -$ 3,196 | -$ 740 | -$ 3,936 |
| Total | -$ 46,505 | -$ 98,989 | -$ 52,484 | -$ 5,589 | -$ 58,073 |

WHESC has revised the DVA Continuity Schedule and Tariff and Bill Impacts Model to reflect this change.

WHESC has also recalculated Retail Service Charge Revenue for the 2025 Test Year based on 2024 year-to-date figures and has made the following revisions to the RRWF and Appendix 2-H:

**Table 9-5: Adjustments to Other Revenue: Accounts 4082 and 4084**

| Account | 2025 Test Year Income As filed | 2025 Test Year Income Revised | Change |
|---|---|---|---|
| 4082 | 8,795 | 9,768 | 973 |
| 4084 | 83 | 45 | (38) |

WHESC has revised the RRWF and Appendix 2-H to reflect this change.

## 9-Staff-76

### Cloud DVA

Reference 1: Accounting Order (003-2023), November 2, 2023
Reference 2: Cloud Computing Implementation Q&As, February 2024
Reference 3: EB-2024-0063, Notice, March 6, 2024

### Preamble

On November 2, 2023, the OEB issued the Accounting Order (003-2023) for the Establishment of a Deferral Account to Record Incremental Cloud Computing Arrangement Implementation Costs (Cloud Computing Implementation Report). The Cloud Computing Implementation Report notes that the Cloud Computing Implementation Account is generally intended to record cloud computing implementation costs when utilities first transition from on-premises solutions to cloud computing. In February 2024, the OEB hosted a webinar and Q&A session related to the Accounting Order for the establishment of a deferral account to record cloud computing arrangement implementation costs and issued a Q&A document.

On March 6, 2024, the OEB commenced a generic hearing (EB-2024-0063) on its own motion to consider cost of capital and other matters, including those related to the OEB's Cloud Computing Deferral Account (e.g., what type of interest rate, if any, should apply to this deferral account)

### Question(s):

a. Please confirm whether Welland Hydro-Electricity System has considered cloud computing solutions in its rebasing term and whether any amounts have been included in its forecast.

b. If not confirmed, please explain why Welland Hydro-Electricity System does not have proposal to address its cloud solution implementation needs during its rebasing term.

### WHESC's Response

a. WHESC has considered transition to cloud computing solutions in its rebasing term. WHESC's CIS system is a candidate for migration to a cloud environment in 2025. WHESC has received a recent budgetary quotation from its CIS vendor but has not included capital costs in its application related to the cloud-based implementation and migration fees. WHESC proposes to use the generic deferral account referenced in Accounting Order 003-2023 to include implementation costs related to this migration to cloud. At the time of this Application, Generic Proceeding 2024-0063 had not yet concluded.

## 9-Staff-77

### Getting Ontario Connected Act (GOCA) Variance Account

### Reference: The OEB's Decision and Order for Getting Ontario Connected Act Variance

### Preamble

Account, October 31, 2023 On October 31, 2023, the OEB issued a decision and order EB-2023-0143 for GOCA.

The decision states that:

The OEB notes that the GOCA variance account will only be available to a utility until the end of its current IRM period. The account is not available for utilities that have reflected Bill 93 in their most recent rebasing applications. The disposition of any balance in this account will be subject to a prudence review and a requirement to establish that any cost incurred over and above what is provided for in initial and IRM adjusted base rates is an incremental cost resulting from Bill 93.

### Question(s):

a. Please confirm that the OM&A cost in the test year reflects the Bill 93 impact for Welland Hydro-Electricity System's locate cost.

    i. If so, please confirm that Account 1508 sub-account GOCA variance account is to be discontinued after this application and update the evidence accordingly.

    ii. If not, please provide the rationale why Bill 93 impact is not reflected in the test year's OM&A cost.

### WHESC's Response

a. The OM&A cost in the test year reflects the Bill 93 impact for WHESC's locate costs. There are no incremental costs due to the impact of Bill 92.
    i. The 1508 sub-account GOCA variance account has not been used to date and should be disposed of.

## 9-Staff-78

### Interest Rate

Reference 1: DVA Continuity Schedule, Tab 2a, column BQ and BR
Reference 2: DVA Continuity Schedule, Tab 2b, column BQ and BR
Reference 3: Exhibit 9, Table 9-2, p. 6
Reference 4: OEB's prescribed interest rates for Q4 2024

### Preamble

OEB staff notes that Welland Hydro-Electricity System uses OEB prescribed interest rates up to Q3 2024 in references 1, 2 and 3. OEB has published the prescribed interest rates for Q4 2024 shown in reference 4.

### Question(s):

a. Please update the applicable schedules in DVA Continuity and Exhibit 9 using the Q4 2024 rates.

### WHESC's Response

a. WHESC has updated the applicable schedules in the DVA Continuity Schedule using the OEB's Q4 2024 prescribed carrying charge rate. WHESC has revised Exhibit 9 tables to reflect the updated interest rate as follows:

**Table 9-6: Updated Ex. 9, Table 9-2 - OEB Prescribed Interest Rates**

| Year | Q1 | Q2 | Q3 | Q4 |
|---|---|---|---|---|
| 2017 | 1.10% | 1.10% | 1.10% | 1.50% |
| 2018 | 1.50% | 1.89% | 1.89% | 2.17% |
| 2019 | 2.45% | 2.18% | 2.18% | 2.18% |
| 2020 | 2.18% | 2.18% | 0.57% | 0.57% |
| 2021 | 0.57% | 0.57% | 0.57% | 0.57% |
| 2022 | 0.57% | 1.02% | 2.20% | 3.87% |
| 2023 | 4.73% | 4.98% | 4.98% | 5.49% |
| 2024 | 5.49% | 5.49% | 5.20% | 4.40% |

## Table 9-7: Updated Ex. 9, Table 9-1 - Total DVA Accounts Proposed for Disposition

| Description | Balance proposed for Disposition |
|---|---|
| Group 1 Accounts | - 268,791 |
| Group 2 Accounts | - 1,108,196 |
| Total | - 1,376,987 |

## Table 9-8: Updated Ex. 9, Table 9-5 - Group 1 Accounts – Proposed Disposition

| Description | USoA | Principal Balance | Carrying Charge | Total Balance | Total Disposition Proposal | Difference between balance and claim | Reason for $0 Claim | Continue/ Discontinue |
|---|---|---|---|---|---|---|---|---|
| **Group 1 Accounts** | | | | | | | | |
| Smart Metering Entity Charge Variance Account | 1551 | - 48,138 | - 3,292 | - 51,430 | - 51,430 | - | | Continue |
| RSVA - Wholesale Market Service Charge | 1580 | - 439,708 | - 45,686 | - 485,394 | - 485,394 | - | | Continue |
| Variance WMS – Sub-account CBR Class B | 1580 | 58,565 | 3,508 | 62,073 | 62,073 | - | | Continue |
| RSVA - Retail Transmission Network Charge | 1584 | 200,500 | 18,646 | 219,146 | 219,146 | - | | Continue |
| RSVA - Retail Transmission Connection Charge | 1586 | 153,741 | 13,324 | 167,065 | 167,065 | - | | Continue |
| RSVA - Power (excluding Global Adjustment) | 1588 | - 115,322 | - 9,729 | - 125,051 | - 125,051 | - | | Continue |
| RSVA - Global Adjustment | 1589 | - 32,813 | - 8,789 | - 41,602 | - 41,602 | - | | Continue |
| Disposition and Recovery/Refund of Regulatory Balances (2019) | 1595 | - | - 407 | - 407 | - | - 407 | Difference immaterial - difference between projected & actual interest in 2024 IRM | Continue |
| Disposition and Recovery/Refund of Regulatory Balances (2020) | 1595 | 0 | - 13,598 | - 13,598 | - 13,598 | - | | Continue |
| Disposition and Recovery/Refund of Regulatory Balances (2021) | 1595 | 9,362 | 672 | 10,034 | - | 10,034 | Rate rider expiry period not met | Continue |
| Disposition and Recovery/Refund of Regulatory Balances (2022) | 1595 | - 2,613 | - 6,643 | - 9,256 | - | - 9,256 | Rate rider expiry period not met | Continue |
| Disposition and Recovery/Refund of Regulatory Balances (2023) | 1595 | 53,850 | 2,641 | 56,491 | - | 56,491 | Rate rider expiry period not met | Continue |
| **Total Group 1** | | **- 162,576** | **- 49,353** | **- 211,929** | **- 268,791** | **56,862** | | |

## Table 9-9: Updated Ex. 9, Table 9-6 - Group 1 Balances by Rate Rider

| Group 1 | USoA | Balance for Disposition | Balance by Rate Rider |
|---|---|---|---|
| Smart Metering Entity Charge Variance Account | 1551 | - 51,430 | |
| RSVA - Wholesale Market Service Charge | 1580 | - 485,394 | |
| RSVA - Retail Transmission Network Charge | 1584 | 219,146 | |
| RSVA - Retail Transmission Connection Charge | 1586 | 167,065 | |
| RSVA - Power (excluding Global Adjustment) | 1588 | - 125,051 | |
| Disposition and Recovery/Refund of Regulatory Balances (2020) | 1595 | - 13,598 | |
| Rate Rider for Group 1 Deferral/Variance Account Balances (exluding GA) | | | - 76,472 |
| Rate Rider for Group 1 Deferral/Variance Account Balances - Non-WMP | | | - 212,790 |
| Sub-Total | | - 289,262 | - 289,262 |
| | | | |
| RSVA - Global Adjustment | 1589 | - 41,602 | - 41,602 |
| | | | |
| Rate Rider for Account 1580 - Sub-account CBR Class B | 1580 | 62,073 | 62,073 |
| | | | |
| Total | | - 268,791 | - 268,791 |

## Table 9-10: Updated Ex. 9, Table 9-7 - Rate Rider for Group 1 DVA (Excl GA)

| Rate Class (Enter Rate Classes in cells below) | Units | kW / kWh / # of Customers | Allocated Group 1 Balance (excluding 1589) | Rate Rider for Deferral/Variance Accounts |
|---|---|---|---|---|
| RESIDENTIAL | kWh | 187,443,401 | -$ 166,294 | - 0.0009 |
| GENERAL SERVICE LESS THAN 50 KW | kWh | 56,382,524 | -$ 39,424 | - 0.0007 |
| GENERAL SERVICE 50 TO 4,999 KW | kW | 369,205 | $ 130,954 | 0.3547 |
| UNMETERED SCATTERED LOAD | kWh | 804,273 | -$ 517 | - 0.0006 |
| SENTINEL LIGHTING | kW | 1,055 | -$ 254 | - 0.2405 |
| STREET LIGHTING | kW | 4,147 | -$ 937 | - 0.2261 |
| **Total** | | | **-$ 76,472** | |

## Table 9-11: Updated Ex. 9, Table 9-8 - Rate Rider for Group 1 DVA – Non-WMP

| Rate Class (Enter Rate Classes in cells below) | Units | kW / kWh / # of Customers | Allocated Group 1 Balance - Non-WMP | Rate Rider for Deferral/Variance Accounts |
|---|---|---|---|---|
| RESIDENTIAL | | - | $ - | - |
| GENERAL SERVICE LESS THAN 50 KW | | - | $ - | - |
| GENERAL SERVICE 50 TO 4,999 KW | kW | 364,392 | -$ 212,790 | - 0.5840 |
| UNMETERED SCATTERED LOAD | | - | $ - | - |
| SENTINEL LIGHTING | | - | $ - | - |
| STREET LIGHTING | | - | $ - | - |
| **Total** | | | **-$ 212,790** | |

## Table 9-12: Updated Ex. 9, Table 9-9 - Group 2 Accounts – Proposed Disposition

| Description | USoA | Principal Balance | Carrying Charge | Total Balance | Total Disposition Proposal | Difference between balance and claim | Reason for $0 Claim | Continue/ Discontinue |
|---|---|---|---|---|---|---|---|---|
| **Group 2 Accounts** | | | | | | | | |
| Pole Attachment Revenue Variance | 1508 | - 747,849 | - 86,588 | - 834,437 | - 834,437 | - | | Discontinue |
| Retail Service Charge Incremental Revenue | 1508 | - 52,484 | - 5,589 | - 58,073 | - 58,073 | - | | Discontinue |
| Green Button Initiative Costs | 1508 | 67,826 | 7,558 | 75,384 | 75,384 | - | | Discontinue - no activity |
| Other Regulatory Assets, sub-account OEB Cost Assessment | 1508 | 32,868 | 6,966 | 39,834 | 39,834 | - | | Discontinue - no activity |
| OPEB Actuarial Gains or Losses Deferral Account | 1508 | - 444,687 | - | - 444,687 | - | - 444,687 | Tracking account | Discontinue - See Section 9.1.8 |
| PILs and Tax Variance for 2006 and Subsequent Years- Sub-accoun | 1592 | - 494,087 | - 65,284 | - 559,371 | - 559,371 | - | | Discontinue - See Section 9.1.5 |
| Meter Cost Deferral Account (MIST Meters)[3] | 1557 | 202,151 | 26,317 | 228,468 | 228,468 | - | | Discontinue |
| **Total Group 2** | | **- 1,436,262** | **- 116,621** | **- 1,552,883** | **- 1,108,196** | **- 444,687** | | |

## Table 9-13: Updated Ex. 9, Table 9-12 - Group 2 Balances by Rate Rider

| Group 2 | USoA | Balance for Disposition | Balance by Rate Rider |
|---|---|---|---|
| Pole Attachment Revenue Variance | 1508 | - 834,437 | |
| Retail Service Charge Incremental Revenue | 1508 | - 58,073 | |
| Green Button Initiative Costs | 1508 | 75,384 | |
| Other Regulatory Assets, sub-account OEB Cost Assessment | 1508 | 39,834 | |
| PILs and Tax Variance for 2006 and Subsequent Years- Sub-account CCA Ch | 1592 | - 559,371 | |
| Rate Rider for Group 2 Accounts | | - 1,336,664 | - 1,336,664 |
| Rate Rider for Account 1557 | 1557 | 228,468 | 228,468 |
| Total | | - 1,108,196 | - 1,108,196 |

## Table 9-14: Updated Ex. 9, Table 9-13 - Rate Rider for Group 2 Accts., excluding Acct. 1557

| Rate Class (Enter Rate Classes in cells below) | Units | kW / kWh / # of Customers | Allocated Group 2 Balance | Rate Rider for Group 2 Accounts |
|---|---|---|---|---|
| RESIDENTIAL | # of Customers | 24,119 | -$ 873,947 | **-$ 3.02** |
| GENERAL SERVICE LESS THAN 50 KW | kWh | 56,382,524 | -$ 163,119 | **-$ 0.0029** |
| GENERAL SERVICE 50 TO 4,999 KW | kW | 369,205 | -$ 273,855 | **-$ 0.7417** |
| UNMETERED SCATTERED LOAD | kWh | 804,273 | -$ 3,520 | **-$ 0.0044** |
| SENTINEL LIGHTING | kW | 1,055 | -$ 2,791 | **-$ 2.6453** |
| STREET LIGHTING | kW | 4,147 | -$ 19,432 | **-$ 4.6861** |
| **Total** | | | **-$ 1,336,664** | |

## Table 9-15: Updated Ex. 9, Table 9-14 - Rate Rider for Account 1557

| Rate Class (Enter Rate Classes in cells below) | Units | kW / kWh / # of Customers | Allocated Accounts 1557 Balance | Rate Rider for Accounts 1575 and |
|---|---|---|---|---|
| RESIDENTIAL | # of Customers | 24,119 | $ - | **-** |
| GENERAL SERVICE LESS THAN 50 KW | kWh | 56,382,524 | $ - | **-** |
| GENERAL SERVICE 50 TO 4,999 KW | kW | 369,205 | $ 228,468 | **0.6188** |
| UNMETERED SCATTERED LOAD | kWh | 804,273 | $ - | **-** |
| SENTINEL LIGHTING | kW | 1,055 | $ - | **-** |
| STREET LIGHTING | kW | 4,147 | $ - | **-** |
| | | - | $ - | **-** |
| **Total** | | | **$ 228,468** | |

## Table 9-16: Updated Ex. 9, Table 9-15 – Acct. 1589 GA Balance Allocation and Rate Riders

| Rate Class (Enter Rate Classes in cells below) | Units | kWh | Allocated Global Adjustment Balance | Rate Rider for RSVA - Power - Global Adjustment |
|---|---|---|---|---|
| RESIDENTIAL | kWh | 1,622,855 | -$ 693 | **- 0.0004** |
| GENERAL SERVICE LESS THAN 50 KW | kWh | 9,797,313 | -$ 4,182 | **- 0.0004** |
| GENERAL SERVICE 50 TO 4,999 KW | kWh | 84,418,052 | -$ 36,038 | **- 0.0004** |
| UNMETERED SCATTERED LOAD | kWh | 77,158 | -$ 33 | **- 0.0004** |
| SENTINEL LIGHTING | kWh | 55,803 | -$ 24 | **- 0.0004** |
| STREET LIGHTING | kWh | 1,478,639 | -$ 631 | **- 0.0004** |
| **Total** | | | **-$ 41,602** | |

## Table 9-17: Updated Ex. 9, Table 9-16 – Acct. 1580 Sub-acct. CBR Class B Alloc. and Rate Riders

| Rate Class (Enter Rate Classes in cells below) | Units | kW / kWh / # of Customers | Allocated Sub-account 1580 CBR Class B Balance | Rate Rider for Sub-account 1580 CBR Class B |
|---|---|---|---|---|
| RESIDENTIAL | kWh | 187,443,401 | $ 35,076 | **0.0002** |
| GENERAL SERVICE LESS THAN 50 KW | kWh | 56,382,524 | $ 10,551 | **0.0002** |
| GENERAL SERVICE 50 TO 4,999 KW | kW | 236,303 | $ 15,948 | **0.0675** |
| UNMETERED SCATTERED LOAD | kWh | 804,273 | $ 151 | **0.0002** |
| SENTINEL LIGHTING | kW | 1,055 | $ 72 | **0.0678** |
| STREET LIGHTING | kW | 4,147 | $ 277 | **0.0667** |
| **Total** | | | **$ 62,073** | |

The following Table (Exhibit 9, Table 9-17) has been updated to reflect the updated OEB prescribed interest rate, as well as a projection of principal balance to April 30, 2025 as described in 9-Staff-75.

**Table 9-18: Updated Ex. 9, Table 9-17 – RSC Incremental Revenue**

| Year | Revenue at Previous Rate | Revenue at Updated Rate | Incremental Revenue | Carrying Charges | Total |
|---|---|---|---|---|---|
| 2019 | -$ 5,596 | -$ 11,192 | -$ 5,596 | -$ 31 | -$ 5,626 |
| 2020 | -$ 8,778 | -$ 17,583 | -$ 8,805 | -$ 116 | -$ 8,921 |
| 2021 | -$ 7,943 | -$ 16,377 | -$ 8,434 | -$ 104 | -$ 8,538 |
| 2022 | -$ 7,651 | -$ 16,102 | -$ 8,450 | -$ 539 | -$ 8,989 |
| 2023 | -$ 7,278 | -$ 16,131 | -$ 8,853 | -$ 1,788 | -$ 10,641 |
| 2024 - Forecasted | -$ 6,951 | -$ 16,101 | -$ 9,150 | -$ 2,271 | -$ 11,421 |
| Jan to April 2025 - Forecasted | -$ 2,308 | -$ 5,504 | -$ 3,196 | -$ 740 | -$ 3,936 |
| Total | -$ 46,505 | -$ 98,989 | -$ 52,484 | -$ 5,589 | -$ 58,073 |

The following Table (Exhibit 9, Table 9-19 has been updated to reflect the updated OEB prescribed interest rate, as well as a projection of principal balance to April 30, 2025 as described in 9-Staff-74.

**Table 9-19: Updated Ex. 9, Table 9-19 – Account 1508 Pole Attachment Revenue**

| Year | WEHSC 2017 COS $ | Actual Charge | Incremental Charge | # of Poles | Incremental Revenue | Carrying Charges | Total |
|---|---|---|---|---|---|---|---|
| 2018 | $ 22.35 | $ 28.09 | $ 5.74 | 5,987 | -$ 11,456 | $ - | -$ 11,456 |
| 2019 | $ 22.35 | $ 43.63 | $ 21.28 | 6,370 | -$ 135,543 | -$ 942 | -$ 136,485 |
| 2020 | $ 22.35 | $ 44.50 | $ 22.15 | 6,450 | -$ 142,868 | -$ 2,225 | -$ 145,093 |
| 2021 | $ 22.35 | $ 44.50 | $ 22.15 | 6,473 | -$ 143,371 | -$ 2,001 | -$ 145,372 |
| 2022 | $ 22.35 | $ 34.76 | $ 12.41 | 6,631 | -$ 82,290 | -$ 9,193 | -$ 91,483 |
| 2023 | $ 22.35 | $ 36.05 | $ 13.70 | 6,655 | -$ 91,172 | -$ 28,015 | -$ 119,187 |
| 2024 Forecast | $ 22.35 | $ 37.78 | $ 15.43 | 6,703 | -$ 103,427 | -$ 33,383 | -$ 136,810 |
| Jan to Apr 2025 Forecast | $ 22.35 | $ 39.14 | $ 16.79 | 6,740 | -$ 37,722 | -$ 10,830 | -$ 48,552 |
| **Total as of April 30, 2025** | | | | | **-$ 747,849** | **-$ 86,589** | **-$ 834,438** |

## School Energy Coalition Interrogatories (SEC)

### 9-SEC-28

Reference: [Ex. 9, p. 26]

Question(s):

a. Please explain why Welland is not disposing of the balance in Account 1508 - OPEB Actuarial Gains or Losses Deferral Account.

### WHESC's Response

b. Please refer to response to interrogaotry 4-Staff-50.

## 9-SEC-29

### Reference: [Ex. 9, p. 14]

### Question(s):

a. Please explain why Welland is requesting recovery of the balance in Account 1508 – Other Regulatory Assets – OEB Cost Assessment, when the amount is below Welland's materiality limit.

### WHESC's Response

a. WHESC has considered the disposition of Group 2 DVA's in total, rather than individually to determine if the balance is over the materiality threshold. If each account is considered against materiality independently, Account 1508 Retail Service Charge Incremental Revenue would also not satisfy the materiality threshold. The credit balance in Account 1508 Retail Service Charge is larger than the debit balance in Account 1508 – OEB Cost Assessment and therefore WHESC believes it was more beneficial to request disposition of all accounts.

## 9-SEC-30

### Reference: [Ex. 9, p. 13]

### Question(s):

a. Does Welland intend to make use of the OEB's generic cloud computing variance account?

b. If so, please provide the baseline included in OM&A.

### WHESC's Response

a. Please refer to WHESC's response to interrogatory 9-Staff-76.

## Vulnerable Energy Consumers Coalition (VECC)

### 9-VECC-39

### Reference: Exhibit 9, page 14

### Preamble

"On February 9, 2016 the OEB released a letter noting its adoption of recommendations to update its Cost 14 Assessment Model (CAM), further noting the OEB had increased its budget for the first time since 2011. In 15 the same letter, the OEB established a variance account to record any material differences between OEB cost assessments currently built into rates, and cost assessments that will result from the application of the 17 new cost assessment model. WHESC recorded $32,868 to this account in 2018, which with carrying 18 charges amounts to a requested disposition in this application of $39,987."

### Question(s):

a. Welland Hydro had cost of service rates approved by the Board May 4, 2017 (EB-2016-0110). Please explain why there was an amount recorded in the OEB cost assessment variance account if these rates had incorporated the new assessment methodology. Specially please show how the amount of $32,868 was calculated.

### WHESC's Response

a. The OEB's letter dated February 9, 2016 outlining revisions to the OEB's Cost Assessment Model became effective April 1, 2016. In the letter, the OEB established a variance account to record differences between OEB cost assessments built into rates and assessments that would result from the application of the new cost assessment model. WHESC recorded $32,868 to this new variance account in 2016 to account for the difference between the OEB cost assessment amount built into 2013 rates, and the actual cost incurred between April 1, 2016 and December 31, 2016. WHESC has recorded this balance as a principal adjustment in the 2018 year (the earliest year available) on Tab 2b. of the DVA Continuity Schedule.

   WHESC confirms that the new assessment methodology was incorporated into 2017 base rates, and therefore no costs after December 2016 have been recorded to this variance account. WHESC also confirms that the balance in this variance account related to 2016 costs was not disposed of in the 2017 COS application.

   WHESC's Cost Assessment amount built into 2013 was $55,284. WHESC escalated this amount annually using the OEB's inflation factor less WHESC's stretch factor (1.55% in 2014, 1.45% in 2015 and 1.95% in 2016) to arrive at a 2016 base annual cost of $58,066. The annual base cost

prorated from April 1,2016 to December 31, 2016 amounts to $43,549. WHESC's actual OEB assessment cost from April 1, 2016 to December 31, 2016 amounted to $76,416. The difference between the actual cost incurred and the prorated base cost is equal to the $32,868 included in the OEB Cost Assessment variance account.

# Attachment A: 2025 COS Application Overview Presentation

# WELLAND HYDRO ELECTRIC SYSTEM CORP.
# 2025 Cost Of Service
# Application Overview

## August 16th, 2024

Jennifer Dionne, Director of Finance and Regulatory
Kevin Carver, President & CEO

Agenda:

1. Effective Date
2. WHESC Overview
3. WHESC Benchmarking/Scorecard Performance
4. Customer and Load Forecast
5. Rate Base
6. Capital Expenditures
7. OM&A
8. Cost of Capital
9. Long Term Debt
10. Cost Allocation
11. Rate Design
12. Deferral and Variance Accounts (DVAs)
13. Bill Impacts
14. Questions and Discussion

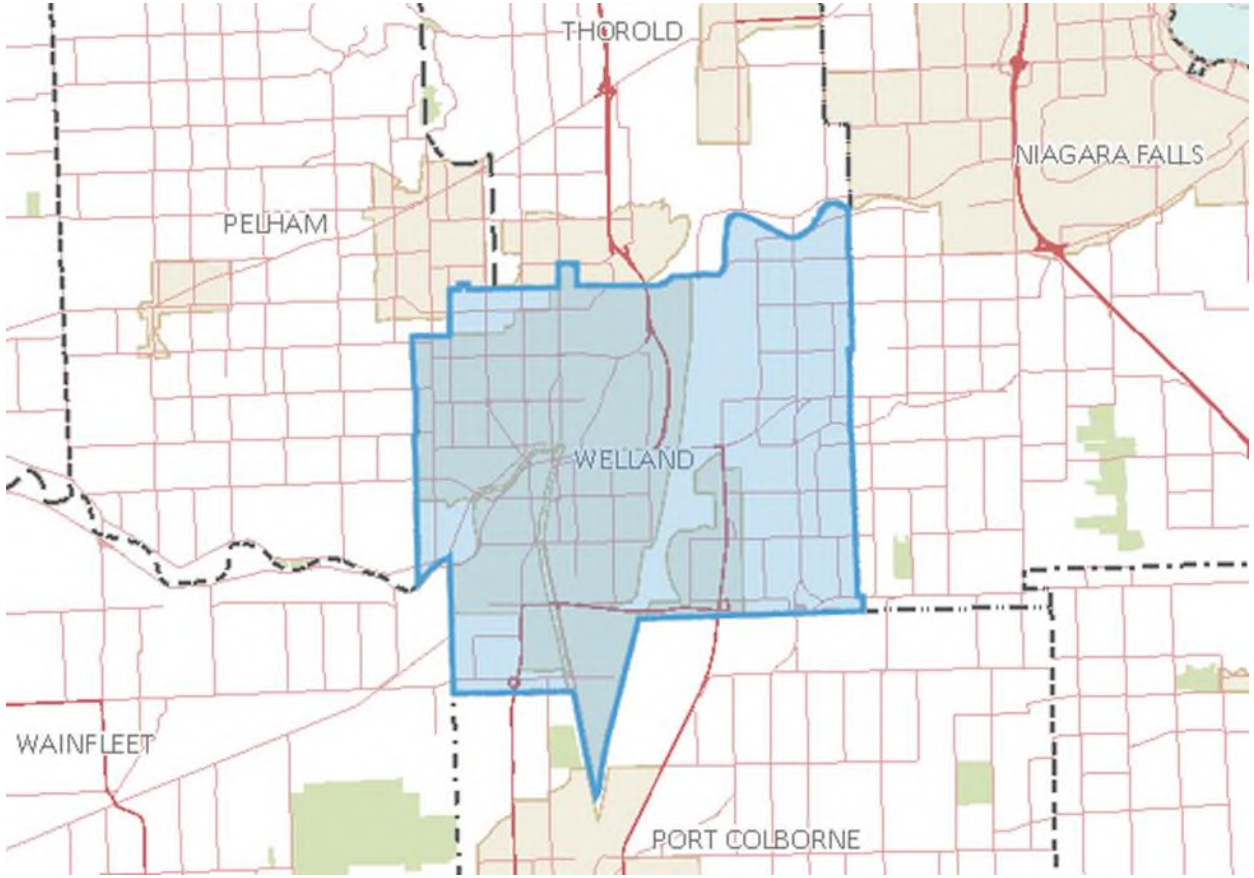
# Effective Date

- WHESC is filing for rates effective May 1st, 2025
- Application submission planned by August 30th, 2024
- Historical Period: 2017 OEB Approved to the 2024 Bridge Year
- Test Year: 2025

**The numbers, figures and statements in this presentation are provided on a preliminary and without prejudice basis to facilitate discussion. Welland may choose to use some, all or none of the information and reserves the right to make changes before it files its Cost of Service Application with the OEB.*

# Welland Hydro Overview

- Customers Served = 25,753 (2023)
- Service Area = 81 sq. km.
- Urban Territory = 56%
- Rural Territory = 44%
- Overhead Circuit Length = 498 km.
- Underground Circuit Length = 161 km.
- 27.6kV System: 9 distribution circuits supplied from a single TS
- 4.16kV System: 13 substations supplying 37 distribution circuits



# Benchmarking Performance

## Summary of Cost Benchmarking Results

### Welland Hydro-Electric System Corp.

| | 2020 (History) | 2021 (History) | 2022 (History) | 2023 (History) | 2024 (Bridge) | 2025 (Test Year) |
|---|---|---|---|---|---|---|
| **Cost Benchmarking Summary** | | | | | | |
| Actual Total Cost | 11,874,844 | 12,154,000 | 12,993,461 | 14,445,324 | 15,755,141 | 17,198,605 |
| Predicted Total Cost | 16,082,567 | 16,836,832 | 18,568,263 | 21,309,905 | 22,430,601 | 24,337,040 |
| Difference | (4,207,723) | (4,682,832) | (5,574,802) | (6,864,581) | (6,675,460) | (7,138,435) |
| **Percentage Difference (Cost Performance)** | **-30.3%** | **-32.6%** | **-35.7%** | **-38.88%** | **-35.33%** | **-34.72%** |
| Three-Year Average Performance | | | -32.9% | -35.72% | -36.64% | -36.31% |
| Stretch Factor Cohort | | | | | | |
| Annual Result | 1 | 1 | 1 | 1 | 1 | 1 |
| Three Year Average | | | 1 | 1 | 1 | 1 |

# Scorecard Performance

**Scorecard - Welland Hydro-Electric System Corp.**

| Performance Outcomes | Performance Categories | Measures | | 2019 | 2020 | 2021 | 2022 | 2023 | Trend |
|---|---|---|---|---|---|---|---|---|---|
| Customer Focus<br><br>Services are provided in a manner that responds to identified customer preferences. | Service Quality | New Residential/Small Business Services Connected on Time | | 94.82% | 94.52% | 99.68% | 99.61% | 95.53% | |
| | | Scheduled Appointments Met On Time | | 93.16% | 98.28% | 97.88% | 93.99% | 94.88% | |
| | | Telephone Calls Answered On Time | | 88.90% | 86.15% | 83.07% | 77.88% | 76.33% | |
| | Customer Satisfaction | First Contact Resolution | | 80 | 77 | 99.89% | 99.81% | 99.70 | |
| | | Billing Accuracy | | 99.99% | 99.99% | 99.91% | 99.88% | 99.97% | |
| | | Customer Satisfaction Survey Results | | 96 | 96 | 96% | 98% | 98% | |
| Operational Effectiveness<br><br>Continuous improvement in productivity and cost performance is achieved; and distributors deliver on system reliability and quality objectives. | Safety | Level of Public Awareness | | 83.00% | 83.00% | 83.00% | 83.00% | 83.00% | |
| | | Level of Compliance with Ontario Regulation 22/04 [1] | | C | C | C | C | C | |
| | | Serious Electrical Incident Index | Number of General Public Incidents | 0 | 0 | 0 | 2 | 0 | |
| | | | Rate per 10, 100, 1000 km of line | 0.000 | 0.000 | 0.000 | 0.402 | 0.000 | |
| | System Reliability | Average Number of Hours that Power to a Customer is Interrupted [2] | | 1.71 | 2.36 | 1.52 | 1.13 | 1.33 | |
| | | Average Number of Times that Power to a Customer is Interrupted [2] | | 2.41 | 2.02 | 1.35 | 1.14 | 1.08 | |
| | Asset Management | Distribution System Plan Implementation Progress | | Completed | Completed | Completed | Completed | Completed | |
| | Cost Control | Efficiency Assessment | | 2 | 1 | 1 | 1 | 1 | |
| | | Total Cost per Customer [3] | | $512 | $494 | $494 | $518 | $561 | |
| | | Total Cost per Km of Line [3] | | $24,714 | $24,038 | $24,455 | $26,144 | $29,198 | |

# Customer and Load Forecast

| Year | Billed Actual (GWh) | Growth (GWh) | Percent Change (%) | Billed Weather Normal (GWh) | Growth (GWh) | Percent Change (%) | Customer/ Connection Count | Growth | Percent Change (%) |
|---|---|---|---|---|---|---|---|---|---|
| **Billed Energy (GWh) and Customer Count / Connections** | | | | | | | | | |
| | | | | | | | | | |
| 2017 Board Approved | | | | 360.5 | | | 30,582 | | |
| | | | | | | | | | |
| 2014 | 380.9 | | | 384.3 | | | 29,944 | | |
| 2015 | 356.4 | (24.5) | -6.4% | 358.5 | (25.8) | -6.7% | 30,128 | 184 | 0.6% |
| 2016 | 363.4 | 7.0 | 2.0% | 354.8 | (3.7) | -1.0% | 30,347 | 219 | 0.7% |
| 2017 | 353.7 | (9.7) | -2.7% | 358.8 | 4.1 | 1.1% | 30,565 | 217 | 0.7% |
| 2018 | 379.1 | 25.4 | 7.2% | 369.9 | 11.1 | 3.1% | 30,910 | 346 | 1.1% |
| 2019 | 370.6 | (8.5) | -2.2% | 371.8 | 1.9 | 0.5% | 31,266 | 356 | 1.2% |
| 2020 | 364.6 | (6.0) | -1.6% | 363.2 | (8.6) | -2.3% | 31,606 | 341 | 1.1% |
| 2021 | 368.5 | 3.8 | 1.1% | 367.6 | 4.5 | 1.2% | 32,121 | 514 | 1.6% |
| 2022 | 377.1 | 8.6 | 2.3% | 376.3 | 8.7 | 2.4% | 32,609 | 488 | 1.5% |
| 2023 | 370.8 | (6.3) | -1.7% | 380.4 | 4.1 | 1.1% | 33,276 | 666 | 2.0% |
| 2024 Bridge | 380.4 | 9.6 | 2.6% | 380.4 | 0.0 | 0.0% | 33,679 | 404 | 1.2% |
| 2025 Test | 381.0 | 0.6 | 0.2% | 381.0 | 0.6 | 0.2% | 34,090 | 410 | 1.2% |
| **Average Annual Growth Rates Since 2017** | | | | | | **0.76%** | | | **1.37%** |

| *Regression Statistics* | |
|---|---|
| Multiple R | 0.942984535 |
| R Square | 0.889219833 |
| Adjusted R Square | 0.884361054 |
| Standard Error | 1253344.377 |
| Observations | 120 |

# Rate Base

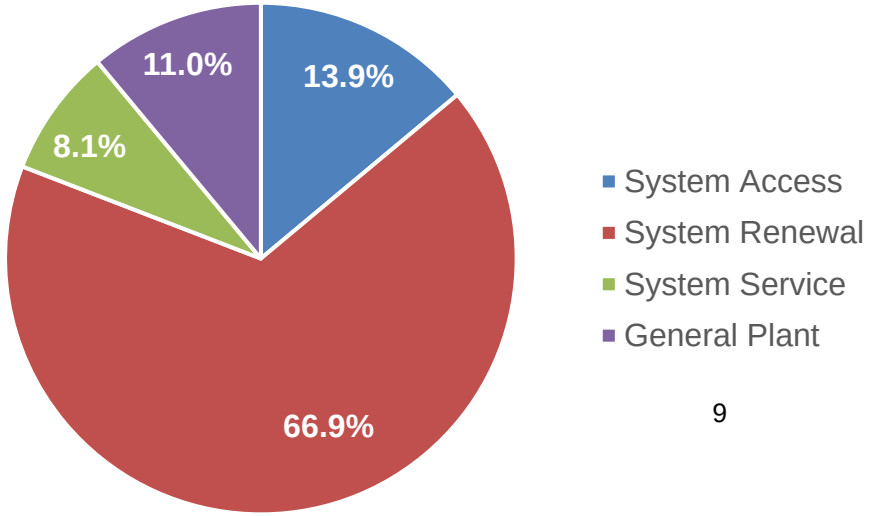
| Description | 2017 Board Approved | 2017 Actual | 2018 Actual | 2019 Actual | 2020 Actual | 2021 Actual | 2022 Actual | 2023 Actual | 2024 Bridge Year | 2025 Test Year |
|---|---|---|---|---|---|---|---|---|---|---|
| Gross Fixed Assets Opening Balance | 60,061,122 | 60,076,227 | 61,761,845 | 63,513,224 | 66,525,782 | 68,659,138 | 71,741,776 | 75,146,376 | 78,690,992 | 82,482,689 |
| Gross Fixed Assets Closing Balance | 62,093,917 | 61,761,845 | 63,513,224 | 66,525,782 | 68,659,138 | 71,741,776 | 75,146,376 | 78,690,992 | 82,399,979 | 87,298,102 |
| **Average Gross Fixed Assets** | **61,077,520** | **60,919,036** | **62,637,534** | **65,019,503** | **67,592,460** | **70,200,457** | **73,444,076** | **76,918,684** | **80,545,486** | **84,890,396** |
| Accumulated Depreciation Opening Balance | 30,927,737 | 30,928,494 | 31,797,087 | 33,045,389 | 34,235,843 | 34,728,457 | 36,345,789 | 38,094,006 | 39,955,800 | 41,909,721 |
| Accumulated Depreciation Closing Balance | 32,223,368 | 31,797,087 | 33,045,389 | 34,235,843 | 34,728,457 | 36,345,789 | 38,094,006 | 39,955,800 | 41,873,880 | 43,801,128 |
| **Average Accumulated Depreciation** | **31,575,553** | **31,362,790** | **32,421,238** | **33,640,616** | **34,482,150** | **35,537,123** | **37,219,897** | **39,024,903** | **40,914,840** | **42,855,424** |
| **Average Net Book Value** | **29,501,967** | **29,556,245** | **30,216,297** | **31,378,887** | **33,110,310** | **34,663,334** | **36,224,179** | **37,893,781** | **39,630,646** | **42,034,971** |
| Working Capital | 55,509,328 | 49,340,353 | 49,364,782 | 51,453,946 | 58,643,847 | 52,039,816 | 52,941,130 | 51,852,250 | 52,542,277 | 53,839,862 |
| Working Capital Allowance (%) | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% | 7.5% |
| **Working Capital Allowance** | **4,163,200** | **3,700,526** | **3,702,359** | **3,859,046** | **4,398,288** | **3,902,986** | **3,970,585** | **3,888,919** | **3,940,671** | **4,037,990** |
| **Rate Base** | **33,665,168** | **33,256,772** | **33,918,655** | **35,237,933** | **37,508,599** | **38,566,321** | **40,194,763** | **41,782,700** | **43,571,317** | **46,072,961** |

- Average Gross Fixed Assets increased $23,812,876 from 2017 COS to 2025 Test Year
- Average Net Book Value increased $12,533,004 from 2017 COS to 2025 Test Year
- Working Capital Allowance decreased $125,210 from 2017 COS to 2025 Test Year. An increase in controllable expenses over the period was offset by a larger decrease in Cost of Power expense.

# Capital Expenditures

| CATEGORY | Historical Period | | | | | | | Bridge | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 | $ '000 |
| System Access | 76 | 424 | 474 | 1,548 | 1,043 | 1,063 | 2,143 | 2,329 | 1,577 | 1,624 | 1,672 | 1,724 | 1,775 |
| System Renewal | 1,788 | 1,418 | 1,936 | 2,272 | 2,246 | 2,614 | 2,328 | 2,405 | 2,884 | 3,117 | 2,795 | 3,242 | 3,315 |
| System Service | 29 | 113 | 103 | 79 | 267 | 313 | 141 | 160 | 242 | 499 | 482 | 364 | 272 |
| General Plant | 358 | 563 | 1,201 | 314 | 455 | 122 | 278 | 535 | 955 | 498 | 581 | 226 | 271 |
| Gross Capital Expenditure | 2,251 | 2,517 | 3,714 | 4,213 | 4,012 | 4,112 | 4,891 | 5,429 | 5,658 | 5,738 | 5,530 | 5,556 | 5,633 |
| Capital Contributions | - 38 | - 171 | - 342 | - 1,122 | - 712 | - 637 | - 1,219 | - 1,720 | - 974 | - 1,004 | - 1,034 | - 1,065 | - 1,097 |
| Net Capital Expenditure | 2,212 | 2,347 | 3,372 | 3,091 | 3,300 | 3,475 | 3,671 | 3,709 | 4,683 | 4,734 | 4,496 | 4,491 | 4,536 |
| System O&M | $ 3,379 | $ 3,398 | $ 3,601 | $ 3,520 | $ 3,662 | $ 3,767 | $ 3,826 | $ 4,175 | $ 4,705 | $ 4,889 | $ 5,063 | $ 5,182 | $ 5,336 |

- Significant growth in System Access expenditures in historical period
- ACAs completed in 2018 and 2023 influenced System Renewal investments
- Five Year Plan:
  - System Access (14%): Driven by Historical Experience
  - System Renewal (67%): Driven by ACA & Cust. Engagement
  - System Service (8%): Driven by Grid Modernization
  - General Plant (11%): Driven by Asset Condition
    - An ICM likely required in 2028 based on Crowland TS upgrade cost obligations - no detailed design and estimate information available for inclusion in the current application.



# OM&A

| | 2017 Last Rebasing Year OEB Approved | 2017 Last Rebasing Year Actuals | 2018 Actuals | 2019 Actuals | 2020 Actuals | 2021 Actuals | 2022 Actuals | 2023 Actuals | 2024 Bridge Year | 2025 Test Year |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Reporting Basis*** | | | | | | | | | | |
| Operations | $ 1,498,740 | $ 1,492,815 | $1,311,161 | $1,330,026 | $1,529,537 | $1,729,778 | $1,659,436 | $1,815,317 | $ 1,649,749 | $ 2,035,874 |
| Maintenance | $ 1,815,576 | $ 1,885,768 | $2,086,551 | $2,270,810 | $1,990,642 | $1,931,915 | $2,107,765 | $2,010,190 | $ 2,525,383 | $ 2,669,176 |
| **SubTotal** | **$ 3,314,316** | **$ 3,378,583** | **$3,397,713** | **$3,600,837** | **$3,520,179** | **$3,661,692** | **$3,767,201** | **$3,825,507** | **$ 4,175,132** | **$ 4,705,050** |
| %Change (year over year) | | 1.9% | 0.6% | 6.0% | -2.2% | 4.0% | 2.9% | 1.5% | 9.1% | 12.7% |
| %Change (Test Year vs Last Rebasing Year - Actual) | | | | | | | | | | 39.3% |
| Billing and Collecting | $ 1,467,344 | $ 1,428,794 | $1,399,519 | $1,320,953 | $1,500,139 | $1,393,265 | $1,491,435 | $1,474,496 | $ 1,640,375 | $ 1,765,877 |
| Community Relations | $ 144,123 | $ 136,007 | $ 164,682 | $ 153,684 | $ 60,039 | $ 37,440 | $ 48,883 | $ 53,068 | $ 66,867 | $ 69,133 |
| Administrative and General | $ 1,874,217 | $ 1,822,928 | $1,834,169 | $1,860,395 | $1,739,477 | $1,692,055 | $1,775,977 | $1,885,199 | $ 2,208,405 | $ 2,283,599 |
| **SubTotal** | **$ 3,485,684** | **$ 3,387,730** | **$3,398,370** | **$3,335,032** | **$3,299,655** | **$3,122,760** | **$3,316,295** | **$3,412,764** | **$ 3,915,647** | **$ 4,118,608** |
| %Change (year over year) | | -2.8% | 0.3% | -1.9% | -1.1% | -5.4% | 6.2% | 2.9% | 14.7% | 5.2% |
| %Change (Test Year vs Last Rebasing Year - Actual) | | | | | | | | | | 21.6% |
| **Total** | **$ 6,800,000** | **$ 6,766,313** | **$6,796,083** | **$6,935,869** | **$6,819,834** | **$6,784,453** | **$7,083,496** | **$7,238,271** | **$ 8,090,780** | **$ 8,823,658** |
| %Change (year over year) | | -0.5% | 0.4% | 2.1% | -1.7% | -0.5% | 4.4% | 2.2% | 11.8% | 9.1% |

| | 2017 Last Rebasing Year OEB Approved | 2017 Last Rebasing Year Actuals | 2018 Actuals | 2019 Actuals | 2020 Actuals | 2021 Actuals | 2022 Actuals | 2023 Actuals | 2024 Bridge Year | 2025 Test Year |
|---|---|---|---|---|---|---|---|---|---|---|
| Operations[4] | $ 1,498,740 | $ 1,492,815 | $1,311,161 | $1,330,026 | $1,529,537 | $1,729,778 | $1,659,436 | $1,815,317 | $ 1,649,749 | $ 2,035,874 |
| Maintenance[5] | $ 1,815,576 | $ 1,885,768 | $2,086,551 | $2,270,810 | $1,990,642 | $1,931,915 | $2,107,765 | $2,010,190 | $ 2,525,383 | $ 2,669,176 |
| Billing and Collecting[6] | $ 1,467,344 | $ 1,428,794 | $1,399,519 | $1,320,953 | $1,500,139 | $1,393,265 | $1,491,435 | $1,474,496 | $ 1,640,375 | $ 1,765,877 |
| Community Relations[7] | $ 144,123 | $ 136,007 | $ 164,682 | $ 153,684 | $ 60,039 | $ 37,440 | $ 48,883 | $ 53,068 | $ 66,867 | $ 69,133 |
| Administrative and General[8] | $ 1,874,217 | $ 1,822,928 | $1,834,169 | $1,860,395 | $1,739,477 | $1,692,055 | $1,775,977 | $1,885,199 | $ 2,208,405 | $ 2,283,599 |
| **Total** | **$ 6,800,000** | **$ 6,766,313** | **$6,796,083** | **$6,935,869** | **$6,819,834** | **$6,784,453** | **$7,083,496** | **$7,238,271** | **$ 8,090,780** | **$ 8,823,658** |
| %Change (year over year) | | -0.5% | 0.4% | 2.1% | -1.7% | -0.5% | 4.4% | 2.2% | 11.8% | 9.1% |

# OM&A

- OM&A average annual increase of 3.7% from 2017 OEB Approved to the 2025 Test Year
- Average annual OEB inflation factor increases over the period = 3.1%
- Average annual customer growth rate over the period = 1.7%
- Primary Cost Drivers:
  - Wages and Benefits average annual increase 1.6% increase over the period
  - Contract service (third-party) increases, offset by reduction in wages
  - Information Systems and Support cost increases
  - ADMS Hosted Solution Subscription
  - Utility locate third-party costs and volume increases
  - Vegetation management third-party cost increases
  - Materials issued to O&M

# Long Term Debt

**Year** 2025

| Row | Description | Lender | Affiliated or Third-Party Debt? | Fixed or Variable-Rate? | Start Date | Term (years) | Principal ($) | Rate (%) [2] | Interest ($) [1] | Additional Comments, if any |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Long Term Note Payable | TD Securities | Third-Party | Fixed Rate | 20-Dec-19 | 10 | $ 13,500,000 | 0.02805 | $ 378,675.00 | |
| 2 | Long Term Note Payable | TD Securities | Third-Party | Fixed Rate | 30-Jan-19 | 10 | $ 1,500,000 | 0.0362 | $ 54,300.00 | |
| 3 | Long Term Note Payable | TD Securities | Third-Party | Fixed Rate | 26-May-20 | 15 | $ 3,500,000 | 0.01972 | $ 69,020.00 | |
| 4 | Long Term Note Payable | TD Securities | Third-Party | Fixed Rate | 14-Apr-23 | 15 | $ 2,500,000 | 0.04493 | $ 112,325.00 | |
| 5 | Forecasted Long Term Note Payable | TBD | Third-Party | Fixed Rate | 1-Jan-25 | 15 | $ 2,500,000 | 0.04493 | $ 112,325.00 | |
| Total | | | | | | | $ 23,500,000 | 3.09% | $ 726,645.00 | |

- Requirement of Debt to fund Capital in 2025 of 2.5M
- Assumed rate for 2025 is the 2023 rate:
  - 2023 Debt Rates secured by 2nd Quarter in that year
  - Forecasting 2025 BoC rates to fall back to those levels when debt is acquired
- Average Debt Financing Rate = 3.09%

# Cost of Capital

**Test Year:** 2025

| Line No. | Particulars | Capitalization Ratio (%) | | Capitalization Ratio ($) | Cost Rate (%) | | Return ($) |
|---|---|---|---|---|---|---|---|
| | **Debt** | | | | | | |
| 1 | Long-term Debt | 56.00% | | $25,800,858 | 3.09% | | $797,790 |
| 2 | Short-term Debt | 4.00% | (1) | $1,842,918 | 6.23% | | $114,814 |
| 3 | **Total Debt** | 60.0% | | $27,643,777 | 3.30% | | $912,604 |
| | **Equity** | | | | | | |
| 4 | Common Equity | 40.00% | | $18,429,184 | 9.21% | | $1,697,328 |
| 5 | Preferred Shares | | | $ - | | | $ - |
| 6 | **Total Equity** | 40.0% | | $18,429,184 | 9.21% | | $1,697,328 |
| 7 | **Total** | 100.0% | | $46,072,961 | 5.66% | | $2,609,932 |

- Application is prepared using the deemed capital structure of 56% long-term debt, 4% short-term debt, and 40% equity
- Seeking to recover weighted average cost of capital of 5.66%
- Requesting deemed interest expense of $912,604, deemed ROE of $1,697,328 for a total regulated rate or return on capital of $2,609,932

# Cost Allocation

| Rate Class | 2017 Board Approved Cost Allocation Study | % | Cost Allocated in the 2025 Study | % |
|---|---|---|---|---|
| Residential | $ 6,920,267 | 67.8% | $ 9,838,081 | 71.1% |
| General Service < 50 | $ 1,242,072 | 12.2% | $ 1,780,553 | 12.9% |
| General Service > 50 | $ 1,906,552 | 18.7% | $ 2,059,203 | 14.9% |
| Sentinel Lights | $ 51,580 | 0.5% | $ 43,836 | 0.3% |
| Street Lighting | $ 59,255 | 0.6% | $ 87,849 | 0.6% |
| Unmetered Scattered Load | $ 34,433 | 0.3% | $ 35,666 | 0.3% |
| **Total** | **$ 10,214,159** | **100.0%** | **$ 13,845,188** | **100.0%** |

- No substantial change in cost allocation to customer classes from the 2017 COS
- Load profiles were derived utilizing the historical average method, based on actual hourly load by rate class in 2021, 2022 and 2023.

# Rate Design

| Rate Class | 2025 Base Revenue at Existing Rates | 2025 Proposed Base Revenue Allocated at Existing Rates Proportion | 2025 Proposed Base Revenue | Miscellaneous Revenue | 2017 Board Approved Ratios | Status Quo Ratios | 2025 Proposed Ratios | Policy Range |
|---|---|---|---|---|---|---|---|---|
| Residential | $ 9,362,810 | $ 9,502,578 | $ 9,502,625 | $ 691,607 | 104.20% | 103.62% | 103.62% | 85 - 115 |
| General Service < 50 | $ 1,435,768 | $ 1,457,201 | $ 1,457,201 | $ 104,620 | 96.40% | 87.72% | 87.72% | 80 - 120 |
| General Service > 50 | $ 1,779,990 | $ 1,806,562 | $ 1,806,562 | $ 119,520 | 86.60% | 93.54% | 93.54% | 80 - 120 |
| Sentinel Lights | $ 27,650 | $ 28,063 | $ 31,241 | $ 3,828 | 86.60% | 72.75% | 80.00% | 80 - 120 |
| Street Lighting | $ 76,080 | $ 77,216 | $ 75,009 | $ 16,020 | 120.00% | 106.13% | 103.62% | 80 - 120 |
| Unmetered Scattered Loac | $ 34,452 | $ 34,967 | $ 33,949 | $ 3,008 | 120.00% | 106.47% | 103.62% | 80 - 120 |
| **Total** | **$ 12,716,749** | **$ 12,906,586** | **$ 12,906,586** | **$ 938,603** | | | | |

- Revenue deficiency of $189,836
- Not proposing to add or remove a rate class as part of this application

# Deferral and Variance Accounts (DVAs)

| Description | USoA | Principal Balance | Carrying Charges | Total | |
|---|---|---|---|---|---|
| **Group 1 Accounts** | | | | | |
| Smart Metering Entity Charge Variance Account | 1551 | - 48,138 | - 3,634 | - 51,772 | |
| RSVA - Wholesale Market Service Charge | 1580 | - 439,708 | - 48,801 | - 488,509 | |
| Variance WMS – Sub-account CBR Class B | 1580 | 58,565 | 3,922 | 62,487 | |
| RSVA - Retail Transmission Network Charge | 1584 | 200,500 | 20,067 | 220,567 | |
| RSVA - Retail Transmission Connection Charge | 1586 | 153,741 | 14,413 | 168,154 | |
| RSVA - Power (excluding Global Adjustment) | 1588 | - 115,322 | - 10,545 | - 125,867 | |
| RSVA - Global Adjustment | 1589 | - 32,813 | - 9,021 | - 41,834 | |
| Disposition and Recovery/Refund of Regulatory Balances (2020) | 1595 | - | - 13,597 | - 13,597 | |
| **Total Group 1** | | **- 223,175** | **- 47,196** | **- 270,371** | |
| **Group 2 Accounts** | | | | | |
| Pole Attachment Revenue Variance | 1508 | - 606,700 | - 85,319 | - 692,019 | * |
| Retail Service Charge Incremental Revenue | 1508 | - 40,138 | - 5,419 | - 45,557 | * |
| Green Button Initiative Costs | 1508 | 67,826 | 7,875 | 75,701 | * |
| Other Regulatory Assets, sub-account OEB Cost Assessment | 1508 | 32,868 | 7,119 | 39,987 | * |
| OPEB Actual Cash vs Rate Funding Differential (proposed) | 1508 | 134,292 | 15,396 | 149,688 | |
| PILs and Tax Variance for 2006 and Subsequent Years- Sub-account CCA Char | 1592 | - 494,087 | - 67,590 | - 561,677 | * |
| **Total Group 2** | | **- 905,939** | **- 127,938** | **- 1,033,877** | |
| **Meter Cost Deferral Account (MIST Meters)[3]** | 1557 | **202,151** | **27,258** | **229,409** | * |
| **Total Proposed Disposition** | | **- 926,963** | **- 147,876** | **- 1,074,839** | |

* Accounts no longer required

- Proposing disposition of DVA accounts totaling a credit amount of $1,074,839, through rate-riders over a one-year period from May 1, 2025 to April 30, 2026

# Bill Impacts

| RATE CLASS | Units | Sub-Total | | | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|
| | | A | | B | | C | | Total Bill | |
| | | $ | % | $ | % | $ | % | $ | % |
| Residential Service Classification - RPP | kwh | $ 0.48 | 1.5% | -$ 4.81 | -12.5% | -$ 3.73 | -6.8% | -$ 3.52 | -2.6% |
| General Service Less Than 50 KW Service Classification - RPP | kwh | $ 0.40 | 0.7% | -$ 11.96 | -15.8% | -$ 9.26 | -8.2% | -$ 8.74 | -2.7% |
| General Service 50 to 4,999 kW Service Classification - Non-RPP (Oth | kw | $ 1.03 | 0.2% | -$ 71.97 | -11.8% | -$ 43.45 | -4.4% | -$ 70.33 | -1.5% |
| Unmetered Scattered Load Service Classification - RPP | kwh | -$ 0.20 | -1.4% | -$ 1.30 | -8.8% | -$ 1.10 | -6.3% | -$ 1.04 | -3.1% |
| Sentinel Lighting Service Classification - RPP | kw | $ 0.98 | 13.0% | -$ 0.09 | -1.1% | $ 0.04 | 0.4% | $ 0.03 | 0.1% |
| Street Lighting Service Classification - Non-RPP (Other) | kw | $ 0.04 | 5.4% | -$ 0.18 | -20.2% | -$ 0.16 | -14.2% | -$ 0.18 | -5.6% |

- Bill impacts represent 2025 proposed distribution rates, updated RTSRs and regulatory charges, and proposed rate riders for disposition of DVA balances.
- All classes with the exception of Sentinel Lighting experience an overall rate decrease.

# Questions and Discussion

# Attachment B: System Control Services Agreement

# MASTER SERVICES AGREEMENT

**BETWEEN**

**ESSEX POWERLINES CORPORATION**

**AND**

**WELLAND HYDRO-ELECTRIC SYSTEM CORP.**

**Dated as of the 1st of August, 2023**

# MASTER SERVICES AGREEMENT

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# MASTER SERVICES AGREEMENT

MASTER SERVICES AGREEMENT

THIS AGREEMENT made effective the 1st of August 2023,

BETWEEN

**ESSEX POWERLINES** corporation incorporated under the laws of the Province of Ontario (the "**EPL**")

- and -

**WELLAND HYDRO-ELECTRIC SYTEM CORP.** corporation incorporated under the laws of the Province of Ontario (the "**WHESC**")

**WHEREAS** EPL is a licensed electricity distributor in and around the Towns of Tecumseh, Leamington, Lasalle and Amherstburg Ontario;

**AND WHEREAS** WHESC is a licensed electricity distributor in and around the City of Welland, Ontario;

**AND WHEREAS** EPL and WHESC have agreed on the basis upon which certain services may be provided to each other;

**AND WHEREAS** EPL and WHESC wish to enter into this Agreement to record their mutual understandings for the provision of such services.

**NOW THEREFORE**, in consideration of the covenants and agreements herein and other good and valuable consideration, the receipt and sufficiency of which is acknowledged by each Party to this Agreement, the Parties covenant and agree as follows:

## ARTICLE 1 - DEFINITIONS

### 1.1 Words and Phrases Defined

In this Agreement, unless the subject matter or context is inconsistent therewith, the words and phrases set forth below shall have the meanings attributed below:

(a) "**Affiliate**" shall have the meaning ascribed thereto in the Ontario *Business Corporations Act*;

(b) "**Agreement**" means this Agreement and includes any SOW and all schedules to this Agreement and, further, includes all amendments and supplements as may be made from time to time;

(c) "**Applicable Law**" means, in respect of any Person, property, transaction or event, all applicable laws, statutes, ordinances, rules, by-laws, guidelines, treaties and regulations, and all applicable directives, orders, judgments, injunctions, awards and decrees of any Governmental Authority whether or not having the force of law, including, without limitation, environmental and occupational health and safety laws;

(d) "**Business Day**" means a day that is not a Saturday, Sunday or a public or bank holiday in the Province of Ontario;

(e) "**Control**" shall have the meaning ascribed thereto in the Ontario *Business Corporations Act*;

(f) "**Default**" shall have the meaning provided therefor in Section 7.1;

(g) "**Dispute Resolution Provisions**" means the provisions of Article 11;

(h) "**Effective Date**" means August 1, 2023;

(i) "**Force Majeure**" shall have the meaning provided therefor in Section 6.1;

(j) "**Generally Accepted**" practice, procedure or method herein means such good and workmanlike practice, procedure or method as would be employed or used by an individual exercising prudent judgment, [**as generally accepted in the North American energy services industry]**, who is competent to perform such practice, procedure or method;

(k) "**Good Engineering and Utility Practices**" means any of the practices, methods and activities adopted by a significant portion of the Ontario electric utility distributors industry as good practices applicable to the Services or any of the practices, methods or activities which, in the exercise of skill, diligence, prudence, foresight and reasonable judgement by a prudent distributor in light of the facts

known at the time the decision was made, could reasonably have been expected to implement at a reasonable cost consistent with good business practices, reliability, safety, expedition and Laws and Regulations. Good Engineering and Utility Practices are not intended to be limited to the optimum practices, methods or acts to the exclusion of all others, but rather are intended to delineate acceptable practices, methods, or acts generally accepted in the Ontario electricity distributor industry.

(l) "**Governmental Authority**" means any federal, provincial, municipal or local government, parliament or legislature, or any regulatory authority, agency, tribunal, commission, board or department of any such government, parliament or legislature, or any court or other law, regulation or rule-making entity, having jurisdiction in the relevant circumstances, including, any Person acting under the authority of any Governmental Authority.

(m) "**include**" means including without limitation;

(n) "**Information**" means: (i) all business, financial and technical information and data, whether oral or written, in whatever media or form, which is disclosed, directly or indirectly, by a Part to another Party whether before, on or after the date hereof including any other information or data relating to, comprising, describing or incorporating a Party's current or proposed products, services, prices, suppliers, customers, dealers, agents, employees, businesses, business opportunities, addresses, locations, systems, specifications, drawings, sketches, designs, ideas, creations, inventions, formulas, improvements, models, samples, processes, codes, equipment, methods, techniques, experiments, demonstrations, prototypes, procedures, design methodology, evaluation methodology and criteria, trade secrets, business operations; reports, plans, forecasts, costs, salaries, sales, income, profit, profitability, pricing, business information, financial information and situation, business or marketing plans, distribution and other business strategies, current or historical data, test data, research, technology, computer systems, computer programs, source, object and any other codes, routines and other software and documentation, scientific, computer or technical information and network architecture maps, specifications and service;

(ii) any information marked "**private**", "**restricted**", "**confidential**", "**proprietary**" (or otherwise marked or described so as to indicate confidentiality) or which, by the nature of the circumstances surrounding the disclosure thereof, ought in good faith be treated as confidential, in all cases in its original form or whether it is converted to different forms or combined with additional information, and including any information relating to third parties contained therein; and (iii) any notes, memoranda, summaries, analyses, compilations or any other writings relating howsoever to any of the foregoing prepared relative thereto by the receiving Party or on its behalf;

(o) "**Laws**" means:

(i) applicable federal, provincial or municipal laws, orders-in-council, by-laws, codes, rules, policies, regulations and statutes;

(ii) applicable rulings and conditions of any licence, permit, certificate, registration, authorization, consent and approval issued by a Governmental Authority; and

(iii) any requirements under or prescribed by applicable common law.

(p) "**Loss**" means any and all losses, costs, obligations, liabilities, settlement payments, awards, judgments, fines, penalties, damages, expenses, deficiencies or other charges including costs and expenses incurred in connection with investigating, defending or asserting any claim, action, suit or proceeding incident to any matter indemnified against hereunder

(including court filing fees, court costs, arbitration fees or costs, witness fees, and reasonable fees and disbursements of legal counsel, investigators, expert witnesses, consultants, accountants and other professionals);

(q) "**Material Adverse Effect**" means any change (or changes taken together) in, or effect on, the affected Party that materially and adversely affects the ability of such Party to perform its obligations hereunder;

(r) "**Notice**" is defined in Section 15.1;

(s) **"Parties"** means at any time the Service Provider and the Service Recipient that is a Party to this Agreement.

(t) "**Permits**" means all permits, consents, waivers, applications, authorizations, licences, certificates, approvals, registrations, franchises, rights, privileges and exemptions or the like issued or granted by any Governmental Authority, or by any other third party, including, without limitation, any Permits pertaining to environmental or occupational health and safety laws;

(u) "**Person**" means an individual, partnership, limited partnership, joint venture, syndicate, sole proprietorship, company or corporation with or without share capital, unincorporated association, trust, trustee, executor, administrator or other legal personal representative, regulatory body or agency, government or governmental agency, authority or entity however designated or constituted;

(v) "**Personal Information**" means information about an identifiable individual including a person's name, address, phone number, fax number, e-mail address, social insurance number or other government-issued identifier, credit card information and IP addresses, in any media or format including computerized or electronic records as well as paper-based files, used or collected from consumers,

employees of or the Service Provider or the Service Recipient or any other person or individual (collectively, "**Individuals**");

(w) "**Representative**" means a Person's directors, officers, employees, agents, advisors, consultants and contractors;

(x) "**Service Recipient**" means WHESC in respect of the services to be provided by EPL or EPL in respect of the services to be provided by WHESC;

(y) "**Service Provider**" means EPL in respect of the services to be provided to WHESC or WHESC in respect of the services to be provided to EPL;

(z) "**Services**" means the services described in Schedule "B" or in Schedule "C";

(aa) "**Service Personnel**" means the staff of the Service Provider responsible for tasks required to provide the Services as identified by the Service Provider from time to time;

(bb) "**Term**" means the period of time that this Agreement is in effect pursuant to the provisions of Article 5.

### 1.2 Derivations

Where a word or phrase is defined for the purposes of this Agreement, a derivative of that word or phrase shall have a corresponding meaning.

### 1.3 Extended Meanings

In this Agreement words importing the singular number only include the plural and vice versa, words importing any gender include all genders and words importing persons include all Persons.

### 1.4 Industry Terms

Unless expressly defined herein, words having well known technical or trade meanings within the electricity distribution and information services industries shall be so construed.

## ARTICLE 2 - INTERPRETATION

### 2.1 Interpretation of Agreement and Schedules

The Schedules attached hereto and any SOW executed in accordance with this Agreement are an integral part of this Agreement and are hereby incorporated into and made part of this Agreement (all together referred to herein as, the "**Documents**"). The Documents set forth and constitute the entire agreement and understanding between the Parties with respect to the subject matter hereof and all prior agreements, understandings, promises and representations, whether written or oral, with respect thereto are hereby superseded, including without limitation the confidentiality and non-disclosure agreement executed by the Parties and dated August 12, 2022. To the extent an SOW provides a more specific description of a matter dealt with in this Agreement, this Agreement shall be interpreted in a manner so as to give effect to the specification provided therein. In the event of any inconsistency between the terms and conditions of this Agreement and the terms and conditions of a SOW, the terms and conditions of **the SOW** shall take precedence. In the event of any inconsistency between the terms and conditions of any other documentation (including invoices or other standard documentation) and the Documents, the terms and conditions of **the Documents** shall take precedence.

### 2.2 Governing Law

This Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable in the Province of Ontario and shall be treated in all respects as an Ontario contract.

### 2.3 Legislation, Regulations and Rules

Any reference in this Agreement to all or any part of any statute, regulation or rule shall, unless otherwise expressly stated herein, be a reference to the statute, regulation or rule, or part thereof, as amended from time to time.

### 2.4 Article, Section, Subsection and Item References

The division of this Agreement into Articles, Sections and Subsections are for convenience of reference only and shall not affect or be considered to affect the construction or interpretation of the provisions of this Agreement. References in this Agreement or in a Schedule to this Agreement to an Article, Section or Subsection shall mean a reference to an Article, Section or Subsection within the body of this Agreement. References herein to an Item without identifying the Section in which the Item is contained shall mean a reference to the Item in the same Section where the reference is made.

### 2.5 Headings

The headings of Articles, Sections and Subsections herein and in the Schedules to this Agreement are inserted for convenience of reference only and shall not affect or be considered to affect the construction or interpretation of the provisions of this Agreement.

**2.6 "Hereof" Etc.**

The terms "**hereof**", "**hereunder**", "**herein**", "**hereto**" and similar expressions refer to this Agreement in its entirety and not to any particular Article, Section, Subsection or other portion of this Agreement.

**2.7 Currency of Contract**

All references in this Agreement to money shall denote the lawful currency of Canada, except as may be otherwise expressly stated.

**2.8 Accounting Principles**

**Wherever in this Agreement reference is made to a calculation to be made or an action to be taken in accordance with generally accepted accounting principles, such reference will be deemed to be to the generally accepted accounting principles from time to time approved by the Canadian Institute of Chartered Accountants, or any successor institute, applicable as at the date on which such calculation or action is made or taken or required to be made or taken in accordance with generally accepted accounting principles.**

**2.9 Waiver of Contra Proferentem Rule**

Each Party acknowledges and agrees that it has participated in the drafting of this Agreement and, accordingly, this Agreement shall not be interpreted either *more* or less favorably in favor of any Party by virtue of the fact that one Party or its counsel has been principally responsible for the drafting of all or a portion of this Agreement.

## ARTICLE 3 – SERVICES & PAYMENT

### 3.1 Service Arrangements & Payment

(a) The Parties agree to provide certain services to each other (the "**Services**"), the content and scope of which shall be specified in mutually executed Statements of Work (each, a "**SOW**"). Each SOW shall refer to and be governed by this Agreement and shall be substantially in the form as set forth in Schedule "A" and may include such other terms and conditions as may be mutually agreed to between the Parties.

(b) The Services to be provided by EPL to WHESC shall include, without limitation, the services specified in Schedule "B" as such may be supplemented or amended from time to time.

(c) The Services to be provided by WHESC to EPL shall include, without limitation, the services specified in Schedule "C" as such may be supplemented or amended from time to time.

(d) Each SOW shall become effective only when executed by authorized representatives of both Parties and any changes to a SOW shall be negotiated in advance by the Parties and agreed to in writing.

(e) All Services shall be provided in accordance with Applicable Laws and the key performance indicators (if any) set out in the applicable SOW.

(f) Each engagement of the Service Provider by the Service Recipient shall be on a non-exclusive basis, and the Service Provider shall at all times have the right to engage other companies for such Services, in its sole discretion. The Service Recipient acknowledges that the Service Provider may enter into similar agreements with parties other than the Service Recipient for services similar to the Services so long as the level of service by the Service Provider to the Service Recipient is in no way adversely affected. For the avoidance of doubt, neither Party has an obligation to enter into any SOW under this Agreement.

(g) Each SOW shall include a mutually agreed upon pricing structure for the Service which may either include fixed or variable fees. The Parties acknowledge and agree that any such pricing structure is intended to permit the Service Provider the opportunity to recover fully loaded costs associated with the applicable Services being delivered.

(h) The Service Recipient agrees to pay all fees, costs and expenses detailed in a SOW or in any fee schedule referred to in an SOW in accordance with the terms hereof. Any departures from the specifications described in an SOW at the Service Recipient's request may result in additional costs to the Service Recipient.

(i) The Service Provider shall, in accordance with the agreed upon payment schedule and invoicing requirements set forth in the applicable SOW, deliver an invoice for fees and authorised expenses. Amounts that are outstanding after 30 days from the date of the invoice will be charged interest at the rate of 18.0 percent per annum, unless otherwise specified in the applicable SOW.

(j) At any time during the term of this Agreement or applicable SOW, if the Service Recipient requires changes to any Services, it shall promptly notify the Service Provider in writing. The Service Provider shall respond to any change request described in a SOW within ten (10) business days. If any such variation causes an increase or decrease in the compensation to be paid to the Service Provider, the Parties shall negotiate in good faith an equitable adjustment to such compensation and the Service Provider may provide a price breakdown to assist in the Service Recipient's evaluation. The Service Provider shall not implement such change, and the Service Recipient shall not be liable for any change to the scope of the Services or the related compensation, unless the Parties have agreed in writing to such change and the related compensation.

(k) The Service Recipient hereby grants to the Service Provider and its Service Personnel, for the Term, a right to access and enter on the premises of the Service Recipient for the purposes of exercising all rights and obligations provided herein in connection with the provision of Services under this Agreement or any SOW. The Service Provider shall abide by any reasonable safety and security requirements of the Service Recipient including but not limited to the *Occupational Health and Safety Act*.

(l) The Service Provider shall not subcontract or delegate any of its obligations hereunder to any third party without the prior written consent of the Service Recipient, such consent not to be unreasonably withheld. In the event that the Service Recipient approves any such subcontracting, the Service Provider shall remain liable for all of its obligations hereunder and shall be liable for the acts and omissions of any subcontractor.

**3.2 Set-Off**

Notwithstanding any other provision of this Agreement, EPL may at any time and from time to time set-off against any amount otherwise owing by WHESC to EPL under this Agreement, any SOW or any other agreement any amount which WHESC may owe EPL under this Agreement, any SOW or any other agreement. Such amount otherwise owing by EPL to WHESC shall thereafter for all purposes of this Agreement and any applicable SOW be deemed to be reduced by the amount so set-off by EPL.

### 3.3 Taxes

The amounts stated in this Agreement and any SOW to be payable by the Service Recipient to the Service Provider pursuant to this Agreement do not include any taxes. The Service Recipient shall be responsible for the payment of (and shall pay or reimburse the Service Provider if such tax is paid by the Service Provider) all Goods and Services taxes, Harmonized Sales Tax, Provincial Sales Tax and other taxes of a similar nature applicable to, or arising from the price or value, purchase or sale or the provision or use of any of the personnel, services, equipment and materials provided by the Service Provider to the Service Recipient pursuant to this Agreement or any SOW, regardless of the period or entity actually taxed.

### 3.4 Service Personnel Not Employees of Service Recipient

The Service Personnel are not, and shall in no event be considered to be, employees of the Service Recipient with which they are otherwise employed for the purposes of this Agreement or any SOW. **[In no event shall a Service Recipient become obligated howsoever to pay, or make any contribution to the Service Provider in respect of, the salaries, wages, benefits or other compensation payable, including all payments required under the *Workplace Safety and Insurance Act* (Ontario), by the Service Provider to the Service Personnel. As between a Service Recipient and the Service Provider, the Service Provider will pay the employment and benefits compensation and pension contributions owing to the Service Personnel. In no event shall the use by a Service Recipient of the Services become the basis for any labour union or similar organization to become the bargaining agent for any employees of such Service Recipient.]**

### 3.5 Non-Solicitation

During the Term, and for a period of **two (2) years** following, the Service Provider shall not hire, employ, retain or solicit any person who is an employee, officer, director or full-time independent contractor of a Service Recipient and who, but for this Agreement and any SOW, would otherwise be unknown to the Service Provider.

## ARTICLE 4 - INSURANCE

### 4.1 Maintenance

Unless otherwise specified in an SOW, during the term of this Agreement and at its sole expense, each Party shall maintain **commercial general liability insurance** which shall have a minimum limit of liability of 5 million dollars $5,000,000.00 and shall include **premises and operations liability, contractor's contingency liability with respect to the operations of subcontractors, completed operations liability and contractual liability** and shall name the Service Provider (in the case of each Service Recipient) and the Service Recipient (in the case of the Service Provider) as co-insured.

## ARTICLE 5 – TERM

### 5.1 Initial Term

This Agreement shall become effective on the Effective Date and shall remain in full force and effect for two years from the Effective Date unless renewed in accordance with Section 5.2 or terminated in accordance with Section 7.2 (the "**Initial Term**").

### 5.2 Extension/Renewal of Term

Either Party may renew the Initial Term of this Agreement for a fixed one (1) year and/or mutually agreed upon term (a "**Renewal Term**"), by delivering written notice of renewal to the other Party no later than fifty (50) days prior to the end of the Initial Term or the first Renewal Term, as the case may be, provided the Agreement has not been terminated in accordance with Section 7.2.

## ARTICLE 6 - FORCE MAJEURE

### 6.1 Definition

No Party shall be liable to any other Party for any default in performance or compliance with provisions of this Agreement or any SOW if such default is due to any circumstance beyond the reasonable control of the affected Party including, without limitation of the foregoing, any act of God, fire, flood, lack of or delay in transportation, the adoption or amendment of government codes, ordinances, laws, rules, regulations or restrictions that materially impair the affected Party's performance hereunder, war or civil disorder, strikes, law, codes or other labour disputes. Notwithstanding anything in the preceding sentence of this Section, none of the foregoing shall excuse any default in payment of any amount payable pursuant to this Agreement or any SOW.

## ARTICLE 7 – TERMINATION & DEFAULT

### 7.1 Events of Default

As between the Service Provider and a Service Recipient, a Party shall be in default under this Agreement or any SOW (each a "**Default**") if:

(i) it fails to pay any amount which is due and unpaid within thirty (30) days of receipt from the Party to which the amount is due of a written notice (a "**Payment Notice**") that the amount is due and unpaid;

(ii) the other Party gives it written notice that it has given it three (3) or more Payment Notices in any given twelve (12) month period;

(iii) in the case of any material breach of this Agreement or any SOW other than as provided in paragraph (i) and (ii), it fails to cure such breach within thirty (30) days after notice specifying such breach;

(iv) it fails or ceases to hold a valid license, permit, certificate, registration, authorization, consent or approval issued by a Governmental Authority where such failure or cessation results in or could reasonably be expected to result in a Material Adverse Effect on the Party and it fails to cure such breach within thirty (30) days after notice specifying such breach;

(v) it breaches any Law where such breach results in or could reasonably be expected to result in a Material Adverse Effect on the Party and it fails to cure such breach within thirty (30) days after notice specifying such breach;

(vi) it becomes insolvent or bankrupt or any bankruptcy, reorganization, debt arrangement or other proceeding under any bankruptcy or insolvency law or any dissolution or liquidation proceeding being instituted by or against it; or

(vii) the private or, court appointment of a receiver or receiver and manager or officer with similar powers over any part of its property.

### 7.2 Remedies

(a) In the event of a Default by a Party, the non-defaulting Party may avail itself of one or more of the following remedies as against the defaulting Party:

(i) take such action or actions as it determines reasonable or necessary, in its sole discretion, to correct the default; or

(ii) pursue any remedies it may have under applicable law or principles of equity, including specific performance; or

(iii) terminate this Agreement or any individual SOW with respect to the defaulting Party only upon thirty (30) days prior written notice to the defaulting Party.

(b) Except as set forth to the contrary herein, any right or remedy of a Party hereto shall be cumulative and without prejudice to any other right or remedy, whether contained herein or not.

**7.3 Effect of Termination**

(a) Notwithstanding the foregoing or any other provision of this Agreement, no termination or expiration of this Agreement or an individual SOW as between the Service Provider and the Service Recipient shall affect the rights or obligations of either such Party:

(i) with respect to any prior breach or any other existing defaults of the obligation to make any payment hereunder attributable to the period prior to the date of termination or expiration;

(ii) in the event of the termination or expiration of an individual SOW, any other SOW or any provisions which survive such expiry or termination by virtue of the express provisions contained therein;

(iii) with respect to those provision of this Agreement which survive the expiry of the Term of the Agreement by virtue of the express provisions of this Agreement or necessary implication based upon the terms of this Agreement or the course of dealing between the Parties.

(b) Upon completion or termination of a SOW or this Agreement,

(i) the Parties shall either destroy or return all Confidential Information (in the case of the completion or termination of an SOW, all Confidential Information related to such SOW).

(ii) In the event of a termination of an SOW **[pursuant to Article 7 above or by Company pursuant to section 9.2 hereof**], the Service Recipient will be entitled to receive: (1) any compensation due and payable under this Agreement related to such SOW (including, without limitation, any applicable break fee expressly provided for in an SOW), but not yet paid as of the effective date of termination; and (z) payment of all expenses reimbursable under this Agreement or applicable SOW that are paid or incurred by the Service Provider prior to the effective date of termination.

(c) Upon expiration or termination of this Agreement or any SOW, the Parties shall co-operate with each other, as reasonably requested, in order to facilitate the orderly termination and/or transition of the Services with the least amount of inconvenience

and disruption to their respective business as is reasonable in the circumstances. The expiration or termination of this Agreement or a SOW shall be without prejudice to any rights or obligations of the Parties that may have accrued prior to such expiration or termination and, except as otherwise expressly provided herein, shall not limit any rights or remedies which may be available to the Parties at law or otherwise.

## ARTICLE 8 - TRANSFER

### 8.1 Assignment

Neither Party shall assign or transfer(by operation of law or otherwise), this Agreement or any of its obligations hereunder without the other Party's express prior written consent, not to be unreasonably withheld.

### 8.2 Change in Control

In the event of a change in Control of a Party, each of the other Parties shall have the right to terminate this Agreement as between such other Party and the Party undergoing the change at Control by giving Notice of termination to the party who has had a change in Control within **one (1) year** after such change of Control and such Notice shall provide for a **six (6) months** notice of termination. Notwithstanding the foregoing, the foregoing shall not apply to a change of Control that results in either an Affiliate of either Party, or an entity majority owned or controlled by either Party, obtaining Control of the Service Recipient or Service Provide, as the case may be.

## ARTICLE 9 - REPRESENTATIONS AND CONDITIONS PRECEDENT

### 9.1 Mutual Representations

Each Party represents to the other, while acknowledging that such representations are conditions precedent to the entering into of this Agreement:

(a) it is duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation;

(b) it has all requisite power and authority to enter into this Agreement and all agreements contemplated in connection therewith and to carry out all related transactions, including having obtained any requisite shareholder approvals;

(c) no consents or approvals are required from any Governmental Authority or other person or entity for it to enter into this Agreement; and

(d) its execution and delivery of this Agreement, and the consummation of the transactions contemplated hereby does not conflict with or violate the provisions of any agreement or instrument by which it is bound (including any shareholders' agreement) or by any Law to which it is subject.

## ARTICLE 10 - GENERAL ADMINISTRATION

### 10.1 Acknowledgment

The Parties acknowledge that the successful delivery of the Services shall require their full and mutual good faith cooperation, including, without limitation, the fulfillment by each Party of its obligations under this Agreement and any SOW.

## ARTICLE 11 - DISPUTE RESOLUTION PROVISIONS

### 11.1 Generally

Should any dispute or disagreement of any kind arise at any time between any Parties with respect to the interpretation or application of this Agreement, any SOW or the carrying out by a Party of its obligations hereunder, the Parties agree that good faith negotiations shall take place between the Parties in respect of which the dispute has arisen with the objective of resolving such dispute or disagreement, and the dispute or disagreement shall thereafter be referred to the **[Chief Executive Officers]** of the Parties who shall attempt in good faith to resolve such dispute or disagreement. If within the next following thirty (30) day period, the dispute or disagreement has not been resolved to the satisfaction of such Parties, any Party to whose satisfaction such dispute or disagreement has not been resolved (the "**Aggrieved Party**") may refer the dispute or disagreement to binding arbitration pursuant to the *Arbitration Act, 1991* (Ontario) in accordance with this Section by notice in writing to the other disputing Party. Within ten (10) days of giving of such notice of arbitration, the disputing Parties shall jointly select a single arbitrator who shall be independent of and acceptable to the Parties. In the event that the disputing Parties unable to agree upon a suitable arbitrator within such ten (10) day period, the arbitrator shall be selected by a Justice of the Ontario Superior Court of Justice upon application by any such disputing Party.

### 11.2 Fees and Expenses

The fees and expenses of the arbitrator shall be **split equally** between the Parties to the dispute.

### 11.3 Procedures

The arbitrator shall fix the appropriate procedures for the arbitration which may include an oral hearing. Unless the disputing Parties wish to mutually set the points at issue, the arbitrator shall order the Parties to file statements pursuant to S. 25 of the *Arbitration Act, 1991*. The arbitrator may order interest on any award and the arbitrator may award costs to either disputing Party. In the absence of any such award of costs, each of the disputing Parties shall bear its own costs of any arbitration pursuant to this Section. The arbitrator shall be strictly bound by legal principles and the nature of this Agreement in rendering his decision.

### 11.4 Private Arbitration

The arbitration shall be completely private (subject to the regulatory requirements of any Party or its Affiliates as a public company or regulated company) and shall take place in Toronto, Ontario unless the Parties agree otherwise.

### 11.5 Arbitration Binding

The Parties agree that good faith negotiations and arbitration shall all be without recourse to the Courts and that the award of the arbitrator or arbitrators shall be final and binding, except that:

(a) either disputing Party may appeal an arbitration award to the Courts of the Province of Ontario on a question of law; and

(b) either disputing Party may apply to a court of competent jurisdiction for an interim measure of protection.

## ARTICLE 12 - INTELLECTUAL PROPERTY

### 12.1 No transfer of Rights

Except as otherwise expressly provided herein or in any SOW, this Agreement does not convey to a Party any right, title, estate or interest whatsoever in or to any of the copyrights, patent rights and other intellectual property rights of the other Party hereto provided that the Service Recipient hereby assigns to the Service Provider for the Term of this Agreement and any renewals a non-transferrable licence to use any and all intellectual property rights owned or licenced by such Service Recipient which may be necessary, desirable or necessary to enable the Service Provider to provide Services to the Service Recipient, all as appropriate in support of the Parties mutual co-operation and the spirit of this Agreement.

### 12.2 Logos

No Party shall use the name, logo, trade dress, trademarks or other distinguishing characteristics of any other Party; (i) without the prior written consent of that other Party; and (ii) in the event that a Party consents to such use by the other Party, that other Party most not undertake such use in a manner which might reasonably be construed as misleading to consumers as to the distinction between the Service Provider and the Service Recipient.

## ARTICLE 13 - NON-DISCLOSURE AND PERSONAL INFORMATION

### 13.1 Obligations Arising From Disclosure

During the course of the relationship established between the Parties pursuant to this Agreement, each Party may disclose to another Party or permit another Party access to certain Information, either directly or indirectly. Alternatively, a Party may learn of Information independent of any disclosure by another Party. Each disclosure of Information will be made or permitted upon the basis of, and all Information of the other Party otherwise learned by a Party is received on the basis of, the confidential relationship established between the Parties by this Agreement and upon each Party's agreement that, unless otherwise specifically authorized in writing by the other, it will:

(i) use the Information solely for the purpose for which it was disclosed;

(ii) take all reasonable care and precautions, at least as great as the care and precautions that it takes to protect its own confidential or proprietary information, to keep the Information confidential;

(iii) not disclose, or allow the disclosure of, any Information before or after the termination of this Agreement, except as permitted by this Agreement;

(iv) restrict disclosure of the Information only to its employees or other personnel, advisors, consultants and agents (collectively, "**Representatives**") with a need to know the Information and who are bound to maintain the Information confidential;

(v) notify each Representative that receives any Information of the requirements of this Agreement and of the restrictions on use and disclosure of Information imposed by this Agreement;

(vi) ensure that no Representative breaches or causes or allows to be breached any of the receiving Party's obligations hereunder and direct each Representative to abide by the terms of this Agreement;

(vii) not use, or allow to be used, howsoever any Information to compete with or in a manner detrimental or adverse to the commercial interests of the disclosing Party;

(viii) except in connection with the purpose for which Information is disclosed, not copy or duplicate such Information or knowingly allow anyone else to copy or duplicate such Information; and

(ix) promptly return to the disclosing Party, upon its request made before or after termination of this Agreement, or certify as destroyed, the Information in whatever form and regardless of whether such Information was made or

compiled by the receiving Party or furnished by the disclosing Party, together with all copies thereof, howsoever made.

**13.2 Exceptions**

The obligations under this Agreement shall not apply to any Information that the receiving Party can demonstrate to the disclosing Party's reasonable satisfaction:

(i) became public and generally known through no act or omission of the receiving Party or its Representatives;

(ii) was disclosed on a non-confidential basis in good faith to the receiving Party by a third party which the receiving Party had reasonable grounds to believe had legitimate possession thereof and the right to make such disclosure;

(iii) was in legitimate possession of the receiving Party prior to its disclosure by the disclosing Party to the receiving Party;

(iv) that the receiving Party is required by law, judicial or arbitration process to disclose, provided that, prior to disclosing any Information, the receiving Party shall promptly notify the disclosing Party of such requirement to disclose and take such steps as are reasonably necessary, and cooperate with the disclosing Party, to lawfully limit such disclosure and to maintain the confidentiality of the Information in the hands of the receiving Party, including obtaining appropriate protective orders; or

(v) is approved in writing by the disclosing Party for release or other use by the receiving Party according to the terms set out in such written approval.

The burden of demonstrating the applicability of any exception in this Section shall be upon the Party seeking to rely upon any such exception.

**13.3 Discretionary Disclosure**

Each Party acknowledges that, notwithstanding the execution of this Agreement, each Party maintains the sole and absolute discretion to determine what, if any, Information it will release to the other Parties. The receiving Party acknowledges that the Information disclosed in any manner whatsoever is proprietary to the disclosing Party.

**13.4 Privacy and Security of Personal Information**

The Parties, their employees, agents, subcontractors and any authorized third parties shall comply with all applicable municipal, provincial, and federal laws and regulations governing the privacy and security of Personal Information including the *Municipal Freedom of Information and Protection of Privacy Act*, Ontario.

### 13.5 No Warranty

Each Party warrants that it has all requisite authorization to enter into this Agreement and that it has the right to disclose any Information disclosed to the other Parties. Each Party acknowledges and understands that the other Parties makes no other representation or warranty in relation to any Information disclosed including, without limiting the generality of the foregoing, as to its adequacy, accuracy, or suitability for any purpose **and, except as expressly agreed in writing, shall not be liable for any loss or damage arising from the use of the Information howsoever caused.**

### 13.6 Intellectual Property

Each Party acknowledges and agrees that all Information shall be owned solely by the disclosing Party. Each Party further agrees that nothing contained in this Agreement shall be construed as granting any rights, by licence or otherwise, under any intellectual property rights in, or concerning any of, the disclosing Party's Information except as otherwise expressly provided for herein.

### 13.7 No Implied Obligations

Neither this Agreement, nor the disclosure or receipt of any Information, shall imply or confirm any intention to enter into any SOW, contract or other business relationship, or to purchase any product or service, by any of the Parties or any commitment by any of the Parties with respect to the present or future development, production or distribution of any product or service.

### 13.8 Termination and Survival

In the event that this Agreement is terminated, this Agreement shall not apply to any Information disclosed after such termination but, notwithstanding the termination of this Agreement, shall continue to apply to any and all Information disclosed prior to the termination of this Agreement.

## ARTICLE 14 – INDEMNITY

### 14.1 Indemnity

(a) To the fullest extent permitted by Applicable Law, the Service Provider shall indemnify, defend and hold harmless the Service Recipient and its Affiliates and their respective Representatives, and anyone else acting for or on behalf of the Service Recipient, from and against any and all third party claims, demands, suits, Losses (including, without limitation, as a result of claims or allegations of infringement, misappropriation, misuse or violation of any intellectual property rights used by the Service Provider in the performance and delivery of the Services including curative action under warranty), death, injuries (personal or bodily), property damage (including public property), causes of action, losses, costs, expenses, damages or penalties, including, without limitation, court costs and legal fees on a solicitor and his own client indemnity basis, to the extent caused by:

(i) the negligent performance by the Service Provider of its duties and obligations under this Agreement;

(ii) the inaccuracy of any warranty or representation of the Service Provider contained in this Agreement;

(iii) any negligent act or omission to act by the Service Provider, its subcontractors, anyone directly or indirectly employed by them or anyone for whose acts they may be liable;

(iv) any breach, default, violation or non-performance by the Service Provider of any term, covenant, condition, duty or obligation provided in this Agreement; and/or

(v) any violation of any Applicable Law, and no amount of insurance maintained by the Service Provider limits its indemnification obligations under this Article 14.

(b) To the fullest extent permitted by Applicable Law, the Service Recipient shall indemnify, defend and hold harmless the Service Provider and its Affiliates and their respective Representatives, and anyone else acting for or on behalf of the Service Provider, from and against any and all third party claims, demands, suits, Losses, death, injuries (personal or bodily), property damage (including public property), causes of action, losses, costs, expenses, damages or penalties, including, without limitation, court costs and legal fees on a solicitor and his own client indemnity basis, to the extent caused by:

(i) the negligent performance by the Service Recipient of its duties and obligations under this Agreement;

(ii) the inaccuracy of any warranty or representation of the Service Recipient contained in this Agreement;

(iii) any negligent act or omission to act by the Service Recipient, its subcontractors (other than the Service Provider), anyone directly or indirectly employed by them or anyone for whose acts they may be liable;

(iv) any breach, default, violation or non-performance by the Service Recipient of any term, covenant, condition, duty or obligation provided in this Agreement; and/or

(v) any violation of any Applicable Law,and no amount of insurance maintained by the Service Recipient limits its indemnification obligations under this Article 14.

(c) Promptly after receipt by the Service Recipient or the Service Provider of any third party claim or notice of the commencement of any action, administrative or legal proceeding or investigation as to which the indemnity provided for in Sections 14.1(a) and 14.1(b) may apply (a "**Claim**"), the Party receiving that Claim (the "**Indemnitee**") shall notify the other Party (the "**Indemnitor**") in writing of such fact. The Indemnitor shall assume the defence thereof with counsel designated by the Indemnitor and satisfactory to the Indemnitee, acting reasonably; provided, however, that if the defendants in any such action include both the Indemnitee and the Indemnitor and the Indemnitee shall have reasonably concluded that there may be legal defences available to it which are different from or additional to, or inconsistent with, those available to the Indemnitor, the Indemnitee shall have the right to select separate counsel satisfactory to the Indemnitor acting reasonably (at no additional cost to the Indemnitee) to participate in the defence of such action on behalf of the Indemnitee. The Indemnitor shall promptly confirm that it is assuming the defence of the Indemnitee by providing written notice to the Indemnitee no later than five (5) Business Days prior to the deadline for responding to any Claim. Should the Indemnitee be entitled to indemnification under Article 14 as a result of a Claim by a third party, and the Indemnitor fails to assume the defence of such Claim (which failure shall be assumed if the Indemnitor fails to provide the notice prescribed in this section), the Indemnitee shall, at the expense of the Indemnitor, contest (or, with the prior written consent of the Indemnitor, settle) such Claim, provided that no such contest need be made and settlement or full payment of any such Claim may be made without consent of the Indemnitor (with the Indemnitor remaining obligated to indemnify the Indemnitees under this Article 14), if, in the written opinion of an independent third party counsel chosen by the Indemnitee, such Claim is meritorious. If the Indemnitor is obligated to indemnify the Indemnitee under this Article 14, the amount owing to the Indemnitee will be the amount of such Indemnitee's actual out-of-pocket loss net of any insurance proceeds received or other recovery.

**14.2 Limitation of Liability**

(a) Neither Party makes any warranties of any kind, whether express or implied, including any implied warranty of merchantability or fitness of the services hereunder for a particular purpose.

(b) Without limiting the foregoing, the Service Provider shall not be liable for any loss, cost, damage or expense or liability (including reasonable legal fees) incurred in connection with the Service Recipient's participation in the Services and the Service Provider shall not be liable to the Service Recipient or any third party for any unavailability or inoperability of the services, telecommunications systems or the internet, technical malfunction, computer error, corruption or loss of information, or other injury, damage or disruption of any kind that is beyond the reasonable control of the Service Provider.

(c) Notwithstanding anything in this Agreement to the contrary, each Party's liability to the other in connection with this Agreement shall be limited to direct damages and in no event shall either party be liable for any indirect, incidental, consequential, special or exemplary damages, including, but not limited to, loss of profits, or loss of business opportunity, even if such damages are foreseeable and whether or not such party has been advised of the possibility thereof. Without limiting the generality of the foregoing and notwithstanding anything in this Agreement to the contrary, company's maximum aggregate liability for each SOW shall not exceed the total amount paid by the Service Recipient to the Service Provider under such SOW.

**14.3 Equitable Remedies**

In the event of a breach or threatened breach of any term of this Agreement, the receiving Party agrees that the harm suffered or that may be suffered by the disclosing Party would not be compensable by monetary damages alone and, accordingly, that the disclosing Party shall, in addition to other available legal or equitable remedies, be entitled to the issuance of immediate injunctive relief, specific performance and any other remedies in law or equity for such breach or threatened breach of the receiving Party's obligations hereunder. The receiving Party shall reimburse the disclosing Party for all reasonable costs and expenses, including reasonable legal fees and disbursements, incurred by the disclosing Party in attempting to enforce the obligations under this Agreement of the receiving Party or its Representatives.

## ARTICLE 15 – NOTICES

### 15.1 Addresses

All notices and other communications from one Party hereto to another (a "**Notice**") that are required or permitted under this Agreement shall be in writing and shall be delivered by hand or by courier, transmitted by facsimile, sent by mail or sent by e-mail to the Party hereto to whom it is to be given at the address for such Party below:

(i) to EPL:

Address: Essex Powerlines Corporation
2730 Highway #3
Oldcastle, Ontario N0R 1L0 Canada
Attention: John Avdoulos, President & CEO

E-mail Address: javdoulos@essexpower.ca

(ii) to WHESC:

Address: Welland Hydro-Electric System Corp
P.O. Box 280
950 East Main Street,
Welland, Ontario L3B 5P6 Canada
Attention: Kevin Carver, President & CEO

E-mail Address: kcarver@wellandhydro.com

### 15.2 Time of Receipt

A Notice will be received for the purposes of this Agreement when actually received by intended recipient thereof. Notices shall be deemed to have been received in the following circumstances:

(i) when transmitted by facsimile or e-mail transmission, at 10:00 in the forenoon (local time of the recipient) on the next Business Day following the day upon which the Notice is transmitted, provided that another copy of the Notice is received or deemed received by the recipient by delivery, courier or post within ten days of the date of deemed receipt of the Notice by facsimile or e-mail transmission; and

(ii) by mail, on the tenth day (days upon which there is an interruption of postal service in Canada excepted) following the day on which the Notice was mailed.

### 15.3 Change of Address

A Party hereto may change its address for the purposes of Section 15.1 by giving notice to the other Party hereto and in such event all notices thereafter given to that Party shall be to such changed address.

## ARTICLE 16 - GENERAL

### 16.1 Enurement

This Agreement shall be binding upon and shall enure to the benefit of the Parties hereto and their respective successors, assigns and, as provided for herein, receivers, receiver managers and trustees.

### 16.2 Relationship of Parties

The relationship between the Parties hereto shall not be that of partners, agents, or joint venturers for one another, and nothing contained in this Agreement shall be deemed to constitute a partnership or agency agreement between them for any purposes, including federal or provincial income tax purposes. The Parties hereto, in performing any of their obligations hereunder, shall be independent contractors or independent parties and shall discharge their contractual obligations at their own risk subject, however, to the terms and conditions of this Agreement.

### 16.3 Waiver in Writing

No waiver by a Party hereto of any provision, or the breach of any provision, of this Agreement shall be effective unless it is contained in a written instrument signed by authorized officers or representatives of the Party hereto. Such written waiver shall affect only the matter specifically identified in the instrument granting the waiver and shall not extend to any other matter, provision or breach.

### 16.4 Delay Not Waiver

The failure of a Party hereto to give notice to any other Party hereto or to take any other steps in exercising any right, or in respect of the breach or nonfulfillment of any provision of this Agreement, shall not operate as a waiver of that right, breach or provision nor shall any single or partial exercise of any right preclude any other or future exercise of that right or the exercise of any other right, whether in law or in equity or otherwise.

### 16.5 Acceptance of Payment Not Waiver

Acceptance of payment by a Party hereto after the breach or nonfulfillment of any provision of this Agreement by another Party shall not constitute a waiver of the provisions of this Agreement, other than any breach cured by such payment.

### 16.6 Amendments

Any modification or amendment to this Agreement or any SOW must be in writing and signed by both Parties.

**16.7 Time of the Essence**

Time shall be of the essence of this Agreement.

**16.8 Further Assurances**

Each of the Parties hereto shall at its own cost and expense, from time to time and without further consideration, execute or cause to be executed all documents and shall take or refrain from taking all actions which are reasonably necessary or reasonably desirable to give effect to the provisions of this Agreement and any SOW.

**16.9 Severability**

In the event that any provision of this Agreement shall be adjudged to be invalid for any reason whatsoever, such invalidity shall not affect the operation of any other provision of this Agreement and such invalid provision shall be deemed to have been deleted from this Agreement.

**16.10 Use of Name**

Each Party hereto agrees that it will not use, suffer or permit to be used, directly or indirectly, the name of any other Party hereto for any purpose whatsoever without, in each instance, first obtaining the written consent of such other Party.

**16.11 Waiver of Relief**

The Parties acknowledge that any default, forfeiture or assignment provisions contained in this Agreement are, in view of the risks, inherent in the business to be conducted by the Parties, reasonable and equitable. Each Party waives any and all rights which it may have at law or in equity against default, forfeiture or penalty if such provisions herein are invoked.

**16.12 No Third Party Beneficiaries**

Nothing in this Agreement shall entitle any Person other than the Parties and their respective successors to any claim, cause of action, remedy or right of any kind in respect of this Agreement or the subject matter of this Agreement.

**16.13 Attornment**

Each Party irrevocably submits to and accepts the jurisdiction of the courts of the Province of Ontario, Canada and all courts of appeal therefrom as regards any legal proceedings relative to this Agreement. Each Party irrevocably waives, to the fullest extent that it may effectively do so, the defense of an inconvenient forum to the maintenance in the courts of the Province of Ontario and all courts of appeal therefrom as regards any legal proceedings relative to this Agreement. Each of the Parties hereto agrees that a final judgment of the courts of the Province of Ontario, Canada or any court of appeal therefrom and in respect of which all appeal periods have expired without appeal shall be conclusive and may be enforced in other jurisdictions by legal proceedings on the judgment or in any other manner provided by law.

### 16.14 Good Faith

Each of the Parties hereto shall have a duty to act in good faith in the performance and enforcement of this Agreement. All actions, activities, consents, approvals and other undertakings of the Parties hereto shall be performed in a reasonable and timely manner.

### 16.15 Entire Agreement

This instrument (including all Schedules hereto, if any) states and comprises the entire agreement between the Parties hereto relative to the subject matter hereof. There is no representation, warranty or collateral agreement relating to this transaction except as expressly set forth herein.

### 16.16 Counterparts and Facsimile Execution

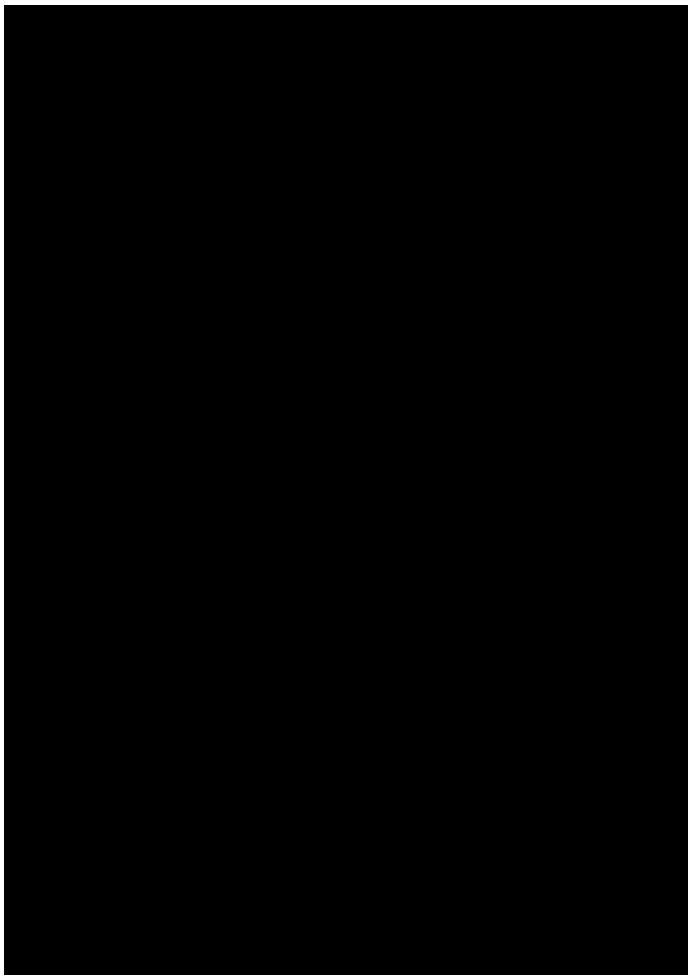
(a) This Agreement, SOW, amendment, supplement, restatement or termination of any provision of this Agreement or SOW may be executed and delivered in any number of counterparts, each of which when executed and delivered is an original but all of which taken together constitute one and the same instrument.

(b) This Agreement and any SOW may be executed by facsimile or PDF and such execution pages will be binding upon the executing Party to the same extent as the original executed pages.

### 16.17 Expenses

Except as expressly provided for in this Agreement or SOW, any and all expenses or liabilities reasonably incurred by a Party in fulfilling such Party's obligations hereunder shall be borne by the Party incurring such expense or liability.

**IN WITNESS WHEREOF** the Parties have executed and delivered this Agreement effective as of the date first above written.



**SCHEDULE C – 1. PROJECT SYSTEM CONTROL SERVICES STATEMENT OF WORK**

## 1. STATEMENT OF WORK – #1

**Welland Hydro Electric System Corp.** ("Service Provider") and **Essex Powerlines Corporation** ("Service Recipient") have entered into a Master Services Agreement dated August 1st, 2023 **3rd, 2023** (the "Agreement"). Service Provider and Service Recipient enter into this Statement of Work ("SOW") effective as of **August 1st, 2023** (the "SOW Effective Date"), pursuant to Article 3 of the Agreement. The terms and conditions of the Agreement are incorporated herein by reference and shall govern the performance of the Parties' rights and obligations under this SOW. Capitalized terms used herein and not otherwise defined are used as defined in the Agreement. In the event of any inconsistency between this SOW and the Agreement, the terms of [the Agreement] shall govern.

### 1. Background.

Welland Hydro Electric System Corp. (WHESC) and Essex Powerlines Corporation (EPL) require system control services to meet the day-to-day system operating needs of their respective distribution systems. WHESC has expertise in SCADA and system control operations. Both EPL and WHESC desire 24 x 7 system control coverage to maximize the benefits of automated device deployments and real time response on system reliability. Through discovery sessions, WHESC and EPL have determined that synergies exist related to the operation of their 28kV distribution systems, operating philosophies, long-term reliability and resiliency objectives.

### 2. Project Description.

*Project Objectives:* WHESC will implement and maintain a hosted SCADA solution to meet the system control operating needs of both entities. WHESC will augment its existing resource pool to accommodate the 24 x 7 system control coverage requirements for its own purposes and that of EPL. A harmonized SCADA, OMS, and DMS environment is desired to facilitate monitoring and control of both distribution systems from a single platform.

- *Project Goals:* The following goals are in place to ensure the 24 x 7 system control coverage requirements are met:
    - WHESC will augment its existing SCADA environment to incorporate EPL devices.
    - WHESC will acquire ICCP based telemetry and status points for EPL and incorporate these into the SCADA environment.
    - WHESC will supply System Control Operators to simultaneously monitor and control both distribution systems on a 24 x 7 basis.

- WHESC will process, supply, and administer all issued forms of switching orders and Utility Work Protection Code based packages
- WHESC will maintain a current record of distribution system status and configuration via software applications such as PDF and/or SmartMAP.

- *Project Outcomes:*
  - WHESC and EPL shared costs of SCADA and system control resources.
  - Both entities benefit from 24 x 7 coverage in a manner that reduces the overall associated costs for customers.

- *Project Timeframes:*
  - The project will commence on August 1st, 2023

- *Project Dependencies:*
  - WHESC acquiring system control operator resources.
  - Secure connectivity between sites.
  - Provision of distribution system records and associated systems (OMS/DMS).
  - EPL configuring access to field devices via head end Real Time Automation Controller (RTAC) devices.

- *Project Assumptions*:
  - Both EPL and WHESC are in agreement with the goals set out in this Statement of Work.

3. **Services/Deliverables.**

- Coverage – 24/7/365 active system monitoring.

- SCADA – Hosting of EPL SCADA data and graphics in WHESC environment. On-going maintenance for existing and new device implementation requirements.

- SCADA – monitoring and control of available remote alarms, current, voltages, switch and breaker positions, communication issues and coordination with EPL based on pre-defined levels.

- SCADA – perform remote switching and operation as required/directed.

- System (PDF and or SmartMap) – keep current record of system configurations as field changes are made or reported.

- Hydro One – coordinate with EPL on planned Hydro One requested work.

- Hydro One – monitor stations through Welland SCADA ICCP connection.

- Outage management – real time status tracking within SmartMAP, email notifications to stakeholders during an outage event

- Outage management – prioritizing work load and coordinating field activities with crews
- Post outage – collaborate on reliability reporting based on available information and operating systems.
- UWPC – utilize IHSA UWPC, submit and write up forms as required.
- UWPC – issue and log remote hold offs when requested.
- UWPC – Act as the controlling authority for issued work protection
- UWPC – maintain an operators log and record keeping requirements.
- Communication – adjacent utilities and Governmental Authorities as required, including but not limited to the Independent Electricity System Operator, Hydro One Inc.
- Integration/Efficient/Safety – integration of processes and procedures to achieve higher levels of safety and efficiency.
- Post outage – provide basic weekly interruption reports and major event summaries.

4. **Exclusions.**

- Major Events: Either party (WHESC or EPL) may initiate the temporary suspension of system control services, in whole or in part, to maintain business continuity during a major event. The definition of a major event, scenario-based response protocols, and controlling authority assignment will be clearly defined in a mutually agreed upon Standard Operating Procedure to supplement the scope covered in this Statement of Work.

5. **Key Performance Indicators**. The following Key Performance Indicators shall apply to the Services:

(a) Adhering to service level requirements as outlined in a mutually agreed upon service level agreement (SLA). The SLA can cover metrics such as: response time to system disturbances, time to process PC1 applications, etc.

6. **Methodology**. Where applicable, the Service Provider will perform all services and produce deliverables. Secure connectivity will be established between LDC environments to provide a central point of access for system control operators.

7. **Acceptance Criteria and Acceptance Timetable.** Access to EPL devices will be made available in WHESC SCADA by the identified due date. System Control Coverage up to 24 x 7 will be provided based on the identified schedule.

8. **Project Milestones and Payment Schedule**. Time is of the essence in the delivery of all Services and deliverables. The Services and deliverables will be performed or provided in accordance with the following milestones. Invoices related to fixed deliverables shall be issued based upon completion **and acceptance of the Services and deliverables by Service Recipient**. Invoices for on-going services shall be issued quarterly.

| Year | Service/Deliverable | Period | [redacted] |
|---|---|---|---|
| **2023** | SCADA access to EPL Devices Including Hydro One ICCP Data | August 1, 2023 to December 31, 2023 | |
| **2023** | 8 Hours x 5 Days per Week System Control Coverage | August 1, 2023 to December 31, 2023 | |
| **2023** | After-hours Coverage Supervisor | August 1, 2023 to December 31, 2023 | |
| **2023** | After-hours Coverage Operator | August 1, 2023 to December 31, 2023 | |
| **2024** | SCADA access to EPL Devices Including Hydro One ICCP Data | January 1, 2024 to December 31, 2024 | |
| **2024** | 8 Hours x 5 Days per Week System Control Coverage | January 1, 2024 to December 31, 2024 | |
| **2024** | After-hours Coverage Supervisor | January 1, 2024 to December 31, 2024 | |
| **2024** | After-hours Coverage Operator | January 1, 2024 to December 31, 2024 | |
| **2025** | SCADA access to EPL Devices Including Hydro One ICCP Data | January 1, 2025 to July 31, 2025 | |
| **2025** | 8 Hours x 5 Days per Week System Control Coverage | January 1, 2025 to July 31, 2025 | |
| **2025** | After-hours Coverage Supervisor | January 1, 2025 to July 31, 2025 | |
| **2025** | After-hours Coverage Operator | January 1, 2025 to July 31, 2025 | |

The shared actual costs associated with the service/deliverable will include system control operator resources billed per hour and any shared SCADA maintenance costs based on apportioned use between EPL and WHESC. The Service Provider will provide detailed backup to the Service Recipient for amounts invoiced.

9. **Reporting.**

Reports will be made available by the Service Provider for resource time tracking and third-party maintenance invoicing upon request. This is supplemental to reporting activities described as part of services/deliverables.

10. **Record Keeping**

WHESC will maintain UWPC records based on retention requirements of the code. WHESC will also maintain a record of system status in hardcopy and/or electronic format, in a manner readily accessible to EPL. WHESC will maintain a record of system operation activities (an operator's log) in a manner readily accessible to EPL.

11. **Invoicing**.

All invoices from Service Provider must be sent directly to Service Recipient's Accounts Payable Department and must contain the following information:

- Recipient's full name and address
- Project name/description and item code(s) from the SOW, where applicable
- Payment terms Service of Net 30 days
- Reference to Service Provider's GST registration number
- All applicable taxes, shown separately

12. **Key Personnel**. Service Provider agrees to use its best efforts to maintain continuity in personnel assigned to perform the Services or provide the deliverables. Key personnel are named below:

Director of Engineering and Operations
Supervisor of Operations
Operations Coordinator (title TBD)
Assets and Engineering Supervisor
Senior System Control Operator
System Control Operator

13. **Term**. This SOW shall take effect as of the SOW Effective Date **and shall be completed when all of the Services are fully performed to Service Recipient's satisfaction, or all of the deliverables have been accepted by Service Recipient** unless this SOW is terminated earlier, or is extended, pursuant to the Agreement. The term should be annually reviewed.

**IN WITNESS WHEREOF**, the authorized representatives of the Parties hereto have executed this SOW as of the SOW Effective Date.

**ESSEX POWERLINES CORPORATION**

[redacted]

**WELLAND HYDRO-ELECTRIC SYSTEM CORP**

[redacted]

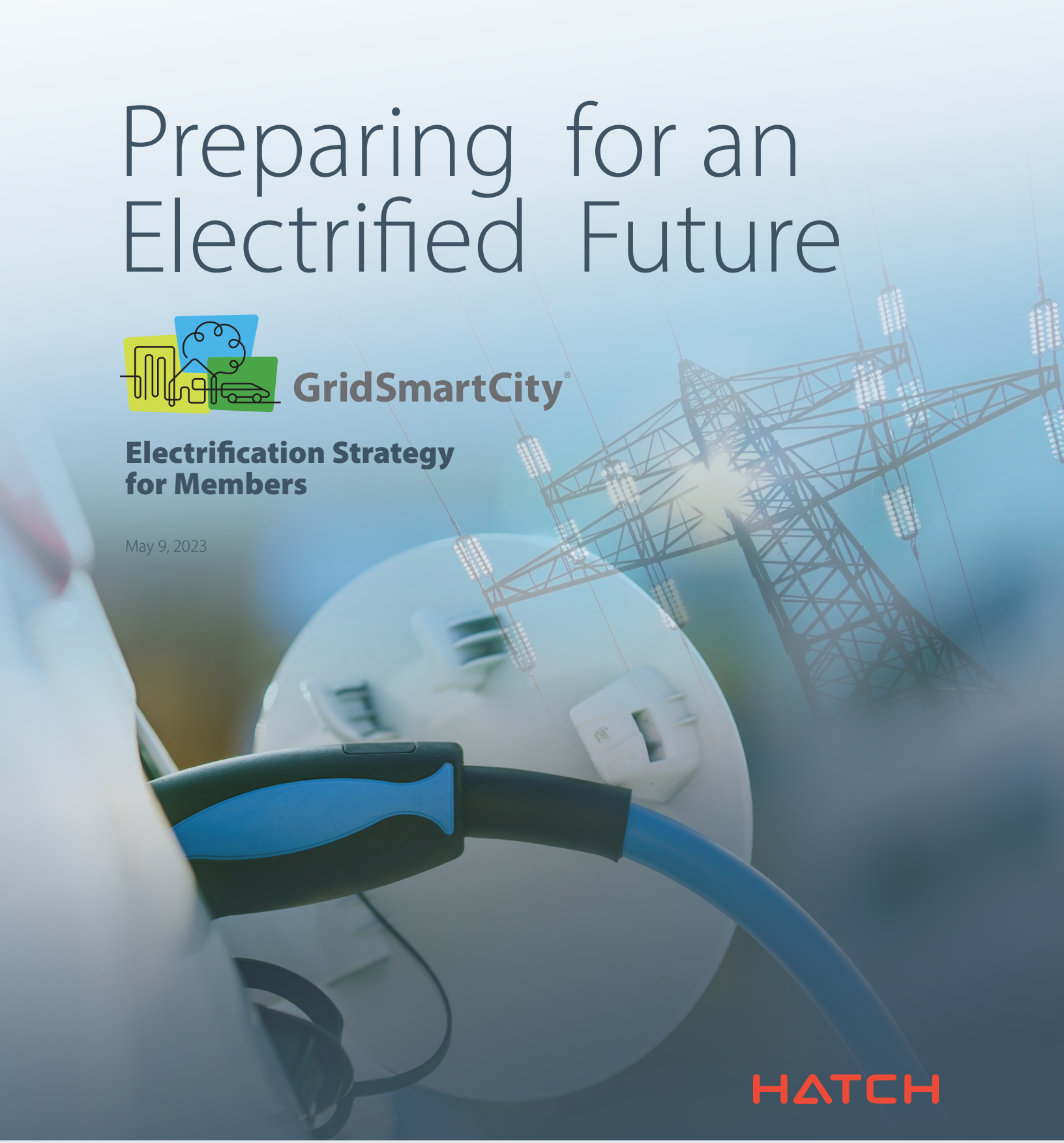
# Attachment C: GSC Electrification Strategy

# Preparing for an Electrified Future

GridSmartCity®

## Electrification Strategy for Members

May 9, 2023



HATCH

Burlington hydro inc.
ENWIN
ERTH POWER
GrandBridge ENERGY
Kingston Hydro
npe niagara peninsula energy inc.
OAKVILLE HYDRO
Enova
ENTEGRUS
ESSEX POWERLINES CORPORATION
Halton Hills HYDRO
MILTON HYDRO
Welland Hydro ELECTRIC SYSTEM CORP.
POWERING WELLAND'S FUTURE

## Preparing GridSmartCity Utilities to anticipate and respond to future electrification demands will require the following strategies

**System Planning**
Incorporate an increasing visibility and emphasis on the role of electric technologies

**Grid Operations**
Enhance automation, communication, operational awareness, and utilization of grid technologies

**Design Practices**
Facilitate new products and customer-preferred technology with scalable design standards

**Innovative Technology**
Utilize a coordinated approach to manage the regulatory hurdles faced by innovative technologies

**Collaboration**

Proactively support and enable electrification by collaborating with industry partners and stakeholders and leveraging innovation

# Understanding the Ontario Context Around Electrification of Building Heating and Transportation

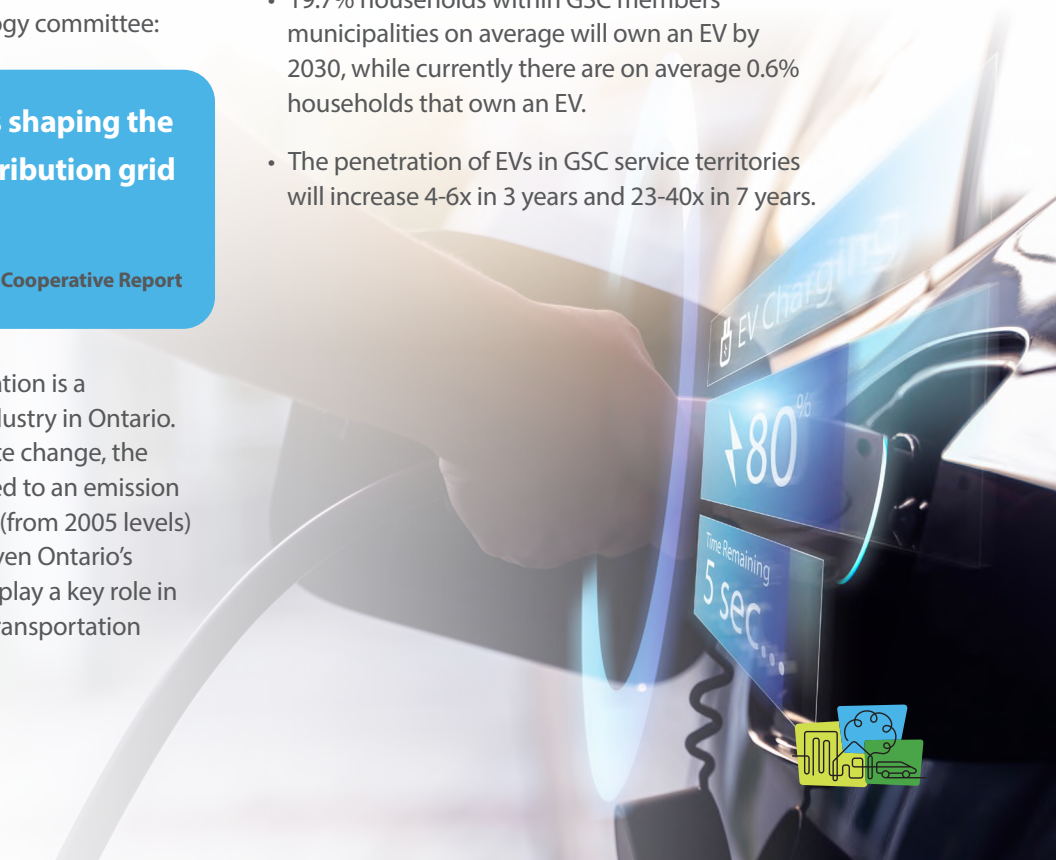
GridSmartCity Cooperative ("GSC") is a consortium of utilities in Ontario that works collectively and collaboratively to address emerging industry challenges and opportunities related to the electrical grid. GridSmartCity has 13 individual local distribution company ("LDC") members, managing almost $3 billion in assets, serving approximately 794,000 customers across more than 40 communities. The consortium is focused on achieving net savings, efficiency gains, and information exchange in a variety of areas. One of the core committees, the New Technology committee:

> **"Investigates innovations shaping the LDC industry and the distribution grid of the future."**
>
> **2021-2022 GridSmartCity Cooperative Report**

Decarbonization through electrification is a concept that is shaping the LDC industry in Ontario. To avert the worst impacts of climate change, the Government of Canada is committed to an emission reduction target of 40-45% in 2030 (from 2005 levels) and net-zero emissions by 2050. Given Ontario's low-carbon grid, electrification will play a key role in achieving targets, primarily in the transportation and building heating sectors.

### Replacement of Internal Combustion Engine Vehicles with Electric Vehicles

- Canadian mandate of 100% zero-emission vehicles sales by 2035 for all new light-duty vehicles. These electric vehicles ("EV")s will require access to charging stations and unmanaged EV charging loads may overload and disrupt electric distribution equipment.
- 19.7% households within GSC members' municipalities on average will own an EV by 2030, while currently there are on average 0.6% households that own an EV.
- The penetration of EVs in GSC service territories will increase 4-6x in 3 years and 23-40x in 7 years.



### Increased Penetration of Electric Space and Water Heaters

- As per Canada's Emissions Reduction Plan, a target was set by the federal government to reduce greenhouse gas ("GHG") emissions from buildings by 37% in 2030 compared to 2005 baseline. This is a difficult target to achieve, and the undertaking will require increasing the pace of current adoption of electrification in buildings, substantial funding, access to labour and supply, and implications of affordability for households and businesses.
- More realistically, GHG emissions reduction beyond 20% is not expected in the 2030 timeline. This is in line with the Independent Electricity System Operator forecasts but are below the 37% Federal GHG reduction target.
- For GSC utilities, a GHG reduction rate of 20% will increase the winter peak electricity demand in the range of 25 to 72% and increase the annual energy output in the range of 12 to 38%. Majority of GSC utilities will transform from summer peaking to winter peaking.
- At a higher GHG reduction rate of 37%, there will be major impacts on the power distribution system and all GSC utilities will become winter peaking.

| By 2030 from 2005 Baseline | Increase in Sector Electric Energy Demand | GSC Winter Peak Impact |
|---|---|---|
| 5% GHG Reduction | 11% | Well below summer peak for majority of GSC |
| 20% GHG Reduction | 22% | Exceeds summer peak for majority of GSC |
| 37% GHG Reduction | 35% | Exceeds summer peak for all GSC |

## Proactively Support and Enable Electrification

# System Planning

GSC incorporates an increasing visibility and emphasis on the role of electric monitoring and control technologies and distributed energy resources ("DER") into system planning, while improving coordination between distribution, transmission, and system operators:

- Incorporate the impact of electrification technologies in system planning such as a periodic load forecast of EV chargers and electric space heating.
- Assess the locational value of DERs and its role in optimizing distribution, transmission, and system operational priorities.
- Develop a business case approach for electrification-related investments.
- Improve coordination between distribution, transmission, and system operators.
- Build visibility into the deployment and location of EVs in service territory, standardize EV asset and operational data capture, and assess opportunities for e-mobility services.
- Engage with real estate developers in the community to understand electrification plans. Develop a formalized process for innovation projects and collaboration with third parties.

## Grid Operations

GSC enhances capabilities that support the reliable, secure, safe, and efficient operation of the electrical grid, with an increased level of automation, communication, operational flexibility, situational awareness, and the utilization of information from grid technologies:

- Implement scenario-based long-term forecasting that considers consumer choice, such as how DER incentives will impact the load forecast.
- Consider the impact of winter peaking on operations.
- In the near term, utilize the existing AMI 1.0 technology with improved data analytics and meter data management to have increased visibility of the grid.
- In the longer term, implement next-generation smart meters, the supporting infrastructure, and the use cases for advanced functionalities.
- Build visibility into EV charging data, perform analytics on the data and consider customer charging patterns for load forecasting and operational planning purposes.
- Develop capabilities to control customer EV charging directly or indirectly.

## Design Practices

GSC facilitates new products and customer-preferred technology with scalable and innovative design standards:

- Perform a detailed secondary distribution load estimation, considering the impact of electrification on the customer peak demand load and service panel size.
- Re-assess the critical parameters that determine the appropriate size and loading of secondary distribution equipment, including fault current, voltage drop, and system losses.
- Study changing the process of service connection and service upgrades to collect data on loads that may cause significant shift in electrical demand or usage pattern.
- Consider reviewing the conditions of service to add requirements for fault current withstand of service panels that coordinate with the available fault current.

## Innovative Technology

GSC utilizes a coordinated approach to manage the regulatory hurdles faced by innovative technologies and accelerate electrification readiness. Regulatory clarity in the treatment of innovative energy services, technologies, and approaches is still a work in progress. The regulatory landscape is catching up to address the constraints:

1. Diffused benefits and concentrated costs of grid modernization investments.
2. Lack of a standardized business case for DERs.
3. Customer data privacy concerns.

Given the ongoing policy initiatives and consultations conducted by the Ontario Energy Board and Independent Electricity System Operator, regulatory framework in Ontario seems to be in a place where change could be coming soon. These barriers are either currently being discussed in working groups or may have consultations starting soon.

# Attachment D: List of Model Updates

| IR Response | Update | Models Updated |
|---|---|---|
| 1-Staff-1, 5-VECC-28 | Update cost of capital parameters | RRWF tabs 3 and 13; Chapter 2 Appendices, Tab 2-OA; Tariff & Bill Impacts Model; PILs Model |
| 2-Staff-28 | Inserted columns for 2014 to 2020. Updated and moved opening capital cost from Part A in 2025 Year to Part B in the 2014 Year; Removed cost from 2-FB | Chapter 2 Appendices, 2-FA and 2-FB |
| 2-Staff-29 | Extended RGCRP calculations to include the period 2014 to 2019; Updated interest rate, long-term debt rate and ROE | Chapter 2 Appendices, 2-FC |
| 2-Staff-31 | Corrected years in Row 69 | Chapter 2 Appendices, 2-FC |
| 2-SEC-4 | Capital expenditures updated to include actuals up to October 2024, 2023 and 2022 | Chapter 2 Appendices, 2-AA and 2-AB |
| 3-Staff-37 | Load Forecast Model reflecting 3 year average average geomean growth rate instead of 10-year | WHESC_2025_Load Forecast Model_3-Staff-37_3 year average_2024_11_21 |
| 3-SEC-14 | Load Forecast Model updated to include September 2024 Actuals | WHESC_2025_Load Forecast Model_3-SEC_14_Actuals to Date_2024_11_21 |
| 4-SEC-16 | OM&A expenditures updated to include actuals up to October 2024, 2023 and 2022; Employee costs 2-K updated to include actuals to October 2024. | Chapter 2 Appendices, 2-JA, 2-JC and 2-K |
| 6-Staff-56 | Reallocate revenue and expenditures related to sentinel light maintenance | Chapter 2 Appendices, Tab 2-H, cells L25, L155, L44, L195 and L210; RRWF tabs 3, 11 and 13; Cost Allocation Model tab I3; Tariff & Bill Impacts; PILs Model |
| 6-Staff-57 | Update pole attachment revenue | RRWF tabs 3, 11 and 13; Chapter 2 Appendices 2-H, cells L20 and L123; Tariff & Bill Impact Model; PILS Model |
| 6-Staff-61 | Reallocate propoerty taxes out of OM&A into Account 6105 | RRWF tabs 3, 11 and 13; Chapter 2 Appendices 2-JA (2025 Test Year) and 2-D cell L17 |
| 7-Staff-63 | Updated Load Profile Model with corrected data | Load Profile Model; Cost Allocation Model, Tab I8; RRWF tabs 11 and 13; Tariff & Bill Impact Model |
| 7-Staff-66 | Adjusted WMP value in Cost Allocation Model | Cost Allocation Model, Tab I6.1, cell F29; RRWF, Tabs 11 and 13; Tariff & Bill Impact Model |
| 7-VECC-31 | Update cost allocation to reallocate costs associated with metering to substation expense | Cost Allocation Model, Tab I3, cells D413 and D390; RRWF tabs 11 and 13; Tariff & Bill Impact Model |
| 7-VECC-34 | Updated Cost Allocation for secondary customer base | Cost Allocation Model, Tab I6.2, cells E25 and F25; RRWF tabs 11 and 13; Tariff & Bill Impacts Model |
| 8-Staff-67 | Updated OER and RPP rates | Tariff Schedule & Bill Impact Model Tabs 3 and 6; RRWF Tabs 3 and 13; Chapter 2 Appendices 2-ZA and 2-ZB |
| 8-Staff-68 | Updated RTSR Model with updated UTR rates | RTSR Workform, Tab 4; Tariff & Bill Impact Model, Tab 5; Chapter 2 Appendices, 2-ZB; PILS Model |
| 8-Staff-69 | Revise MicroFit Charge | Tariff Schedule & Bill Impact Model, Tab 5 |

| | | |
|---|---|---|
| 9-Staff-70 | Revised OEB approved disposition during 2023 for LRAM-eligible amount | DVA Continuity Schedule, Tab 2a. Cell BE39 |
| 9-Staff-74 | Update Account 1508 Pole Attachment DVA balance for 2024/2025 projected amounts | DVA Continuity Schedule, Tab 2b. Cell BF49; Tariff & Bill Impact Model |
| 9-Staff-75 | Update Account 1508 RSC DVA balance for 2024/2025 projected amounts. Also update 2025 RSC revenue | RRWF tabs 3, 11 and 13; Chapter 2 Appendice, 2-H, cells L15 and L16; DVA Continuity Schedule, Tab 2b. Cell BF50; Tariff & Bill Impact Model; PILs Model |
| 9-Staff-78 | Update to DVA Continuity Schedule to reflect Q4 interest rate | DVA Continuity Schedule, Tab 2a, columns BQ & BR and Tab 2b, columns BQ & BR; Tariff and Bill Impact Model, Tabs 4 & 5 |