

**Staff-1**

**Ref 1: 2020 IRM Model, Tab 3 – Continuity Schedule**

**Ref 2: EB-2018-0021, 2019 IRM Model, Tab 3 – Continuity Schedule**

OEB staff notes that the Closing Interest Amounts as of Dec. 31, 2016 for Burlington Hydro’s Group 1 DVAs in the 2020 IRM model differ from the balances in the 2019 IRM model. OEB staff further notes that the difference between the two models is captured in 2018 interest adjustments in the 2020 IRM model. The amounts are reproduced below:

Account	2019 IRM Model - 2016 Closing Interest Balances	2020 IRM Model - 2016 Closing Interest Balances	2020 IRM Model - Interest Adjustments in 2018
1551	\$2,094	\$2,066	\$28
1580 (RSVA – WMS)	-\$68,345	-\$92,217	\$23,870
1580 (WMS – CBR Class B)	\$2,005	\$3,260	-\$319
1584	-\$4,435	-\$5,251	\$816
1586	-\$1,727	-\$3,358	\$1,631
1588	-\$4,940	-\$10,462	\$5,522
1589	\$59,238	\$56,756	\$2,482

- a) Please explain the difference between the interest balances in the two models and why it is captured in interest adjustments in 2018.
- b) OEB staff notes that the interest adjustment in 2018 for Account 1580 (WMS – CBR Class B) does not fully account for the difference between last year’s model and this year’s model. Please clarify the reason for the discrepancy.

**Response:**

- a) Burlington Hydro made an error by including 2016 interest in 2018 in the 2020 IRM Model. This interest amount has now correctly been included in the 2016 Closing Interest Balances. Burlington Hydro has included a revised Tab 3 “Continuity Schedule” in the rate generator model filed as a live excel model “BHI\_2020\_IRM\_Rate\_Generator\_Model\_20200116” reflecting this change. This eliminates the variance identified in OEB Staff’s table above with the exception of an

interest adjustment in 2018 of \$937 in Account 1580 (WMS – CBR Class B). See part b) below for an explanation.

- b) The interest adjustment in 2018 of (\$319), for Account 1580 (WMS – CBR Class B), as identified in OEB Staff’s table above, is made up of two amounts:
  - a. (\$1,256) is 2016 interest identified in part a) above.
  - b. The remaining amount of \$937 is related to a 2017 principal adjustment. The principal adjustment was recorded in 2017. The interest associated with this adjustment (calculated back to 2017) was inadvertently not recorded until 2018. Burlington Hydro did not adjust 2017 balances (which would have required a RRR revision) because the amount was immaterial.

**Staff-2**

**Ref: 2020 IRM Model, Tab 6 – Class A Consumption Data**

The kWh consumption and kW demand data for Customer 24 in 2018 is missing.

- a) Please explain why there is no 2018 data provided for Customer 24. If this is an oversight, please provide the data in an updated IRM model.

**Response:**

- a) Customer 24 had no kWh consumption or kW demand data to report in 2018. This customer ceased operations on December 6, 2017 and the meter was removed. The IRM model as filed on October 10, 2019 is correct.

**Staff-3**

**Ref: 2020 IRM Model, Tab 20 – Bill Impacts**

OEB staff notes that the % change in the impact of RTSRs rates on every rate class exceeds 5%.

- a) Please discuss the reasoning for the change in RTSR rates.

**Response:**

- a) RTSR rates for all classes increased more than 5% due to increases in the approved IESO Uniform Transmission Rates and increases in the historical demand used to forecast RTSR rates. Additional detail is provided in Tables 1 and 2 below.

**Table 1 - IESO Uniform Transmission Rates**

IESO Uniform Transmission Rates	Unit	2019 Rate (Generator Model)	2020 Rate (Generator Model)	% Change
Network Service Rate	kW	\$3.71	\$3.83	3%
Line Connection Service Rate	kW	\$0.94	\$0.96	2%
Transformation Connection Service Rate	kW	\$2.25	\$2.30	2%

**Table 2 – Historical Demand**

Historical Demand	Unit	2017 Actual (2019 Rate Generator Model)	2018 Actual (2020 Rate Generator Model)	% Change
Network Service Rate	kW	3,144,137	3,312,588	5%
Line Connection Service Rate	kW	3,251,285	3,466,393	7%
Transformation Connection Service Rate	kW	3,251,285	3,466,393	7%

**Staff-4**

**Ref: 1595 Analysis workform, Tab “1595 2017”**

Under the analysis for the GA rate rider, OEB staff notes large variances between the forecasted vs. actual billing determinants. The data is reproduced below:

Rate Class	Unit	Denominator Used in Rider Calculation as Approved by OEB (annualized)	Billed Consumption (kWh/kW) that the rider was applied against**	Forecasted versus billed Consumption Variance (kWh/kW)
Residential	kWh	16,766,066	9,369,182	7,396,884
GS < 50 kW	kWh	26,549,019	22,749,846	3,799,173
GS 50 to 4,999 kW	kWh	764,597,904	703,222,973	61,374,931
Unmetered Scattered Load				
Street Lighting	kWh	9,872,218	8,914,151	958,067
microFIT				

a) Please explain the reason for the large variances.

**Response:**

a) The denominator used in the rate rider calculation as approved by the OEB was based on 2015 consumption. The billed consumption that the GA rate rider was applied against was based on 2017 and 2018 consumption (May 1, 2017 to April 30, 2018, the period the rate rider was in effect). There was a significant decrease in billed consumption (2017/2018) as compared to the denominator in the rate rider calculation (2015) due to a decrease in the kWh consumed by non-RPP customers. The decrease is due to the following factors:

- An decrease in total kWh consumed from 2015 to 2017, and 2015 to 2018 of 58MM kwh and 14MM kWh respectively; and
- A shift in Burlington Hydro’s customer base from non-RPP to RPP consumers, partly driven by a decrease in customers enrolled with retailers (non-RPP consumers).

**Staff-5**

**Ref: Exhibit 1, pp. 13-14**

- kWh were allocated to “pre” Fair Hydro Plan Time-of-Use and Tiered buckets for the purposes of calculating the RPP vs. Market Price Claim in error, instead of to Fair Hydro Plan Time-of-Use and Tiered buckets; this overstated the revenue collected from customers for the purposes of calculating the RPP vs. Market Price Claim and incorrectly (i) understated the amount recoverable from the IESO and (ii) overstated the amount recoverable from customers by \$2.1M. Burlington Hydro recovered this amount from the IESO in 2019, the transaction was recorded in 2019 in Burlington Hydro’s financial statements (i.e. the debit balance in Account 1588 was reduced by \$2.1M) and Burlington Hydro has adjusted Tab 3. Continuity Schedule in the IRM Model by this amount.
  - a) Please clarify the nature of the error, e.g. were incorrect kWh values and prices used for RPP settlement with the IESO resulting in under-recovery from the IESO?
  - b) Please provide further details of the error in RPP settlements and how it was corrected. Please include an example of the error made, the calculation and the correction.
  - c) How many months of settlement claims were impacted by this error?
  - d) The evidence indicates that the recovery was made from the IESO in 2019. Please indicate where has Burlington Hydro shown these principal adjustments on its DVA Continuity Schedule.

**Response:**

- a) Burlington Hydro confirms that incorrect prices were used for RPP settlement with the IESO resulting in under-recovery from the IESO (i.e. pre-FHP TOU and Tiered rates were used to calculate revenue collected from customers instead of post-FHP rates). The total kWh values were correct.
- b) Burlington Hydro calculated the revenue collected from customers, for the purposes of RPP settlement, at a higher rate than it should have. Revenue for the purposes of calculating the RPP settlement claim was overstated. This understated the amount owing from the IESO. The correction was determined by

re-calculating revenue at the FHP rates and comparing it to the revenue calculated at pre-FHP rates. The difference represented the amount owing from the IESO. Since total kWh were correct there was no impact to the cost side of the RPP settlement claim. Burlington Hydro provides an example of the error made in Table 1 below.

**Table 1 – Example of RPP Settlement Error**

Pricing Bucket	Original (Incorrect) True-up			Corrected True-up			Correction to True-up (Due from IESO)
	kWh	May 1 Price (Pre-FHP)	Revenue	kWh	May 1 Price (FHP)	Revenue	Revenue
Off Peak TOU	1,000,000	\$0.087	\$87,000	1,000,000	\$0.077	\$77,000	-\$10,000

- c) Six (6) months of settlement claims were impacted by this error.
- d) Burlington Hydro included the principal adjustment of (\$2,173,966) on its DVA continuity schedule in cell AV28 of the IRM model.

## Staff-6

### Ref: Exhibit 1, pp. 27-28

Burlington Hydro provides a description of the data used for the RPP vs. Market Price claim in Table 16 on page 27, and in the excerpt below:

2. True-up of prior month claim using (based on actual consumption where available and actual energy prices)

In the month after the RPP vs. Market Price claim is submitted, more accurate information is available to determine the claim. The prior month's claim is recalculated using updated values for purchases and energy prices. The difference between the current month's claim and the re-estimated claim is submitted in the subsequent month (e.g. re-estimated claim for April is submitted as part of the May RPP vs. Market Price Claim on Day 4 of June). All consumption data is based on actual consumption, with the exception of kWh consumption for non-RPP non-Interval Metered and Retailer Customers. Burlington Hydro uses billed data as a proxy for consumption for these customers. Daffron does not store consumption by calendar month for customers billed on a non-calendar month basis. RPP kWh are allocated to TOU periods and Tiered blocks using billing data from Daffron, similar to the current month claim described above. Cost is determined using actual COP and GA (both available on Business Day 10 of the following month).

- a) Please confirm that some of the data used for RPP settlement true-ups with the IESO are estimates because the data is not currently available.
  - i. Does Burlington Hydro true-up the estimates for the above-mentioned settlement claims? If not, why not?
- b) Please discuss the controls in place that provide assurance to the utility that the settlement claims are reasonably accurate.



**Response:**

- a) Burlington Hydro confirms that some of the data used for RPP settlement true-ups with the IESO are estimates because the data is not currently available.
  - i. Burlington Hydro does not true-up the 2<sup>nd</sup> estimate for the non-RPP non-interval metered or retailer consumption to actual consumption. As explained on page 28 of Exhibit 1, this data is not available in Burlington Hydro's current CIS, Daffron. Daffron is structured to bill customers based on meter reads that do not always align with a calendar month. Settlement with the IESO is based on calendar month. Daffron was not programmed to store consumption by calendar month for customers billed on a non-calendar month basis. Billed data is used as a proxy for consumption for these customers. Burlington Hydro is aware that calendar month consumption should be used for settlement (i.e. all estimates should be trued up to actual consumption to ensure the accuracy of settlement); however it is not available for all customers as previously stated. It could be extracted using smart meter data; however, as identified on page 31 of the Application, Burlington Hydro is in the middle of a CIS conversion, with an implementation date scheduled for mid-2020. It is unable to, and inefficient to, develop a program to address this issue in a legacy system which will be obsolete in 2020. Burlington Hydro plans to pursue addressing this issue in its new CIS (i.e. use actual consumption for all components of the RPP settlement claim).
  
- b) Burlington Hydro provided the internal controls in place on page 28 of Exhibit 1 of its Application. That being said, the main change in internal processes since 2017 to ensure that the settlement claims are reasonably accurate, is the addition of a review of the  $RSVA_{POWER}$  and  $RSVA_{GA}$  account balances by both finance and regulatory to identify material variances from expected balances. A material variance would indicate that pricing and/or volumes used in the RPP settlement claim are incorrect.

**Staff-7**

**Ref 1: 2020 IRM Model, Tab 3 – Continuity Schedule**

**Ref 2: EB-2018-0021, 2019 IRM Model, Tab 3 – Continuity Schedule**

The amount under principal adjustments in 2017 in the 2020 IRM Model does not match the amount that was shown in the 2019 IRM Model. OEB staff notes that the difference is due to the settlement error correction for \$2,173,966 credit that has been explained in the Manager's Summary.

- a) Please confirm that this amount related to 2017.
- b) Please confirm that this amount was recovered from the IESO in 2019.
- c) Please confirm that this amount is not included in the "transactions" columns of Tab 3 of the 2020 IRM Model in 2017 or 2018.
- d) Please confirm that this amount would be shown as a reversal in the 2021 IRM Model under "principal adjustments for year 2019" as it would be embedded in Burlington Hydro's transactions for 2019 when the amount recovered would have been recorded in the books.

**Response:**

- a) Burlington Hydro confirms that the \$2,173,966 credit was related to 2017.
- b) Burlington Hydro confirms that this amount was recovered from the IESO in May 2019.
- c) Burlington Hydro confirms this amount is not included in the "transaction" columns of Tab 3 of the 2020 IRM Model in 2017 or 2018.
- d) Burlington Hydro confirms that this amount will be shown as a reversal under "principal adjustments for year 2019" in the DVA continuity schedule as part of its 2021 rate application.

**Staff-8**

**Ref: Exhibit 1, pp. 40-41**

Burlington Hydro states that it did not receive funding from the IESO for the street light projects. However, it has also confirmed that its street light upgrade projects were undertaken as part of the retrofit program.

Based on the above statements, it is unclear why the street light retrofits did not receive funding through the IESO, given that the city participated in the IESO's CDM program.

- a) Please clarify the source of funding for Burlington Hydro's street light upgrade projects.
- b) If street light retrofits were not funded through the IESO, please discuss the eligibility of the lost revenue claim from street light upgrades.

**Response:**

- a) Burlington Hydro confirms that the street light upgrade projects implemented by the City of Burlington did receive funding through the IESO. The statement on page 41 of the Application "*Burlington Hydro did not receive funding from the IESO for the street lighting projects*" should have been "*Burlington Hydro confirms that the street light upgrade projects, implemented by the City of Burlington, did receive funding through the IESO*". Burlington Hydro, itself, did not receive funding from the IESO for the street light upgrade projects; the City of Burlington received funding from the IESO through incentive payments, similar to any other retrofit program.
- b) As per the response above, the street light upgrade projects were funded through the IESO, and therefore are eligible for the lost revenue claim.

**Staff-9**

**Ref: Exhibit 1, p. 40**

Burlington Hydro confirms that the kWh savings attributable to street light upgrades have been removed from the retrofit program.

- a) Please explain how the energy savings from street light upgrades of 4,382,684 kWh (in 2017) and 1,761,395 kWh (in 2018) from the retrofit program were determined.
- b) Please confirm that the 4,382,684 kWh reduction for street light upgrades in 2017 corresponds with the demand savings realized from October to December 2017 (553 kW of demand savings claimed).
- c) Please confirm that the 1,761,395 kWh reduction for street light upgrades in 2018 corresponds with the demand savings realized from January to December 2018 (3,380 kW of demand savings claimed).

**Response:**

- a) The 2017 kWh of 4,382,684 is the IESO reported net first-year energy savings for the streetlighting project under the Retrofit program and equal to the sum of cells AU1893 and AU1926 in "Attachment 6\_2017 Final Verified Annual LDC CDM Program Results\_Burlington Hydro Inc. Project List\_20180629" of the Application. The IESO provided detailed net first-year energy savings for each Retrofit project in 2017.

The 2018 kWh of 1,761,395 is the gross first-year energy savings reported to the IESO for the third phase of the streetlight project of 2,340,296 kWh; adjusted for a Realization Rate of 95% and a Net-to-Gross-Adjustment of 79.225%. The 2018 energy savings were calculated in the same manner as 2017. The Realization Rate of 95% and a Net-to-Gross-Adjustment of 79.225% were estimates used by Burlington Hydro for all retrofit projects based on historical experience. The IESO did not provide Realization Rates and Net-to-Gross-Adjustments for 2018 in total or by project and therefore LDCs were required to estimate these.

Table 1 below identifies the calculation of the net kWh savings for 2017 and 2018.

**Table 1 – Calculation of Net Energy Savings**

Description	Gross Savings (kWh)	Realization Rate	Net-to-Gross Adjustment	Net Savings (kWh)
Formula	a	b	c	d = a*b*c
2017 - As Filed (before interest)	4,710,352	105.660%	88.060%	4,382,684
2018 - As Filed (before interest)	2,340,296	95.000%	79.225%	1,761,395

Upon reflection, Burlington Hydro could have used the Realization Rate and Net-to-Gross-Adjustment that the IESO calculated for the 2017 streetlight project of 105.66% and 88.06% respectively as estimates. This change would reduce Burlington Hydro’s LRAMVA claim for the GS<50kW rate class only, in the amount of \$1,453, which has no impact on the proposed LRAMVA GS<50kW rate rider of 0.0015/kWh. As such Burlington Hydro has not revised its LRAMVA Workform which would require a RRR revision.

- b) The 4,382,684 kWh reduction for street light upgrades in 2017 does not correspond with the demand savings realized from October to December 2017 (553 kW of demand savings claimed). However both values are appropriate and correct. The kWh value is for a full year of savings (i.e. as if 100% of the project was implemented on January 1), consistent with IESO reporting protocols. The kW value as identified on Tab 8 of the LRAMVA Workform represents the actual demand reductions based on the implementation date of the program (project implementation year savings). Even after adjusting for the above, the kWh reduction will not correspond to the demand savings. The IESO calculates the kWh reduction using an estimated average wattage for multiple light fixtures. The demand reduction is calculated on a fixture by fixture basis which results in an accurate demand reduction for billing purposes.

The full year of energy (kWh) savings is appropriately removed from the overall Retrofit program savings on Tab 5 of the LRAMVA Workform to remove this project from the Retrofit results. The use of the partial year demand (kW) savings on Tab 8 of the LRAMVA Workform represents the actual impact on revenues from this project and is calculated in a way that is consistent with the direction on page 8 of the Board’s *“Addendum to Filing Requirements for Electricity Distribution Rate Applications – 2020 Rate Applications dated July 15, 2019”*, in which the Board requests the monthly breakdown of billed demand over the period of the street light upgrade project.

- c) The 1,761,395 kWh reduction for street light upgrades in 2018 does not correspond with the demand savings realized from January to December 2018 (3,380kW of demand savings claimed). However both values are appropriate and correct. The same argument applies to 2018 results as described in Burlington Hydro's response to Staff-9b) above for 2017. Further, the 1,761,395 kWh savings from the IESO P&C report dated April 2019 ("the IESO report") only includes one of two streetlight projects completed in 2018. The IESO report includes projects based on the date the LDC settles the application with the IESO, not based on project completion date. The second 2018 streetlight project was settled with the IESO in May 2019, after the IESO report was prepared, and is therefore not included in the IESO report or the net kWh savings reduction in the LRAMVA Workform. The demand savings are for both of the street lighting projects implemented in 2018. As stated above, this is consistent with the direction on page 8 of the Board's *"Addendum to Filing Requirements for Electricity Distribution Rate Applications – 2020 Rate Applications dated July 15, 2019"*, in which the Board requests the monthly breakdown of billed demand over the period of the street light upgrade project.

**Staff-10**

**Ref: LRAMVA workform, Tab 5**

Burlington Hydro is claiming the persistence of the savings adjustments from 2016 and 2017 programs in 2018, but the persistence savings for these adjustments are not reflected in the 2019 Participation and Cost Report.

- a) Please explain how the persistence of the unverified savings adjustments in 2018 was calculated, and the rationale behind the methodology used. Please discuss by program and year.

**Response:**

- a) The 2019 IESO Participation and Cost Report identifies the persistence of the savings adjustments from 2016 and 2017 programs in 2020 only (Columns CD to CH). Burlington Hydro estimated the persistence of the savings adjustments from 2016 and 2017 programs in 2018.

As identified in Appendix G of the Application, persistence in intermediary years was estimated using linear interpolation for each program. In other words, one quarter of the loss in persistence of 2016 savings by 2020 of a program is estimated to occur in each of 2017 and 2018 (and 2019 and 2020). In the case of 2017 savings, one third of the savings that do not persist in 2020 are assumed to be lost in each of 2018 (and 2019 and 2020). This is a conservative estimate (i.e. to the benefit of Burlington Hydro's customers) since where persistence is available for each year, the persistence tends to be higher in initial years and then falls off rapidly.

The formulas for the calculation are "live" in the LRAMVA workform (with the exception of those programs where persistence in 2020 is 100% and therefore persistence in 2018 is also 100%).

**Staff-11**

**Ref: LRAMVA workform, Tab 5**

Small Business Lighting

In 2017, there was a 66% / 34% allocation of savings from the Small Business Lighting program to the GS<50 kW and GS>50 kW classes respectively.

In 2018, an allocation of 89% / 38% was used for the GS<50 kW and GS>50 kW classes respectively (the sum of which exceeds 100%).

Retrofit Program

In 2016, there was a 0.44% / 28.62% / 75.75% allocation of the net incremental savings from the SaveOnEnergy Retrofit program to the residential, GS<50 kW and GS>50 kW classes respectively. However, there was also a change in allocation of 13.48% / 95.08% to the GS<50 and GS>50 classes for 2016 adjustments for the same program.

- a) For the Small Business Lighting Program and the Retrofit Program, please confirm whether the allocation of savings for 2018 are correct, as the allocations exceed 100%. If no, please revise the allocations.
- b) For the Retrofit Program, please explain why the allocation used for the incremental savings is different from the allocation used for the adjustment across the rate classes. Has the customer base changed?

**Response:**

- a) Burlington Hydro confirms that the allocation of savings for the Small Business Lighting Program and the Retrofit Program are correct. Allocation of savings can be greater or less than 100% because they are based on different billing determinants for each class: Residential and GS<50kW rate classes are based on kWh and the GS>50kW rate class is based on kW. If the kWh/kW ratio across classes varies, the allocation of savings will not equal 100%. An illustrative example is provided in Table 1 below. The yellow highlighted cells are used for the allocation of savings. The results in 2018 indicate that the projects undertaken in the GS>50kW rate class on average had a higher kW/kWh ratio than the projects undertaken in the GS<50kW rate class.



**Table 1 – Allocation of Savings Example**

<b>Rate Class</b>	<b>kWh Savings</b>	<b>%</b>	<b>kW Savings</b>	<b>%</b>	<b>kW/kWh Ratio</b>
GS<50kW	5,000,000	83%	3,000	67%	0.0006
GS>50kW	1,000,000	17%	1,500	33%	0.0015
<b>Total</b>	<b>6,000,000</b>	<b>100%</b>	<b>4,500</b>	<b>100%</b>	

- b) The allocation for adjustments by project is not necessarily in the same proportion as the incremental savings by project. The IESO provided project level detail for both the incremental results and the adjustments. The rate class associated with each project for the incremental results was identified and the share of total energy savings attributable to projects in the GS<50kW rate class was calculated, as was the share of demand reductions attributable to projects in the GS>50kW rate class. A separate list of projects was provided by the IESO for the adjustments and the same calculation was done, yielding distinct values for the two groups of projects and therefore different allocations. No, the customer base has not changed.

**Staff-12**

- a) If Burlington Hydro made any changes to the LRAMVA workform as a result of its responses to the above interrogatories, please file an updated LRAMVA workform, the revised LRAMVA balance being requested for disposition, and a table summarizing the revised the rate riders.
- b) Please confirm any changes to the LRAMVA workform in response to these LRAMVA interrogatories in “Table A-2. Updates to LRAMVA Disposition (Tab 1-a).”

**Response:**

- a) Burlington Hydro made no changes to the LRAMVA Workform as a result of the responses to the above interrogatories.
- b) N/A. See response to Staff-12a) above.

**Staff-13**

**Ref 1: Exhibit 1, p. 53, Table 33 – Incremental Revenue Requirement**

**Ref 2: ACM/ICM Model, Tab 9b**

The OEB issued a letter on July 25, 2019 providing accounting direction regarding Bill C-97 and changes to the Accelerated Investment Incentive program. The letter stated:

The OEB expects Utilities to record the impacts of CCA rule changes in the appropriate account (Account 1592 – PILs and Tax Variances...) for the period November 21, 2018 until the effective date of the Utility's next cost-based rate order.

- a) Please confirm that Burlington Hydro has not implemented accelerated CCA in its calculation of the CCA in the ICM model.
- b) Please confirm that Burlington Hydro will record the impact from the change to accelerated CCA in Account 1592 – PILs and Tax Variances – CCA Changes. If not, please explain how Burlington Hydro plans to treat the impact from the change in CCA.
- c) If no to part a), and Burlington Hydro has implemented accelerated CCA in its calculation of the CCA in the ICM model, please provide an ICM model calculating the CCA before the rule change to accelerated CCA.

**Response:**

- a) Burlington Hydro confirms that it has not implemented accelerated CCA in its calculation of the CCA in the ICM model.
- b) Burlington Hydro confirms that it will record the impact from the change to accelerated CCA in Account 1592 – PILs and Tax Variances – CCA Changes.
- c) N/A. Burlington Hydro has not implemented accelerated CCA in its calculation of the CCA in the ICM model.

**Staff-14**

**Ref: Exhibit 1, p. 46**

Burlington Hydro's ICM request includes two projects, a Customer Information System (CIS) and Geographical Information System (GIS), both of which are expected to be in-service in 2020.

- a) Please provide the progress of the two projects to date and the expected in-service dates of the two projects.
- b) Please provide the most recent available cost estimates for the two projects. If there are any changes to the capital budgets of the projects, please provide an updated ICM model.

**Response:**

- a) Please refer to the response to SEC-4b) and SEC-5b).
- b) The most recent available cost estimates for the CIS and GIS projects are \$2,092,862 and \$589,413 respectively. Please refer to the responses to SEC-4a) and SEC-5a) respectively for the reasons for the increase in estimates.

An update to tables 26-33 from the Application to reflect these changes and Burlington Hydro's most recent 2019 and 2020 capital forecast is provided below in Tables 1-8. An updated ICM model is provided as live excel file "BHI\_2020\_ACM\_ICM\_Module\_20200116", which identifies the updated ICM rate riders and monthly bill impacts.

**Table 1 – Maximum Eligible Incremental Capital (Revised Table 26 from Application)**

Description	2020
Capital Forecast	\$11,014,608
Less: Materiality Threshold	\$6,981,450
<b>Maximum Eligible Incremental Capital</b>	<b>\$4,033,158</b>

**Table 2 – Eligible Capital Projects (Revised Table 27 from Application)**

Project Description	Category	2020
Project 1: Customer Information System (CIS) replacement	General Plant	\$2,092,862
Project 2: Geographic Information System (GIS) replacement	General Plant	\$589,413
<b>Total</b>		<b>\$2,682,275</b>

**Table 3 – Historical and Proposed Capital Expenditures by Category (Revised Table 28 from Application)**

Category	2014 CoS	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Budget
System Access	\$8,244,469	\$7,498,551	\$5,566,544	\$9,174,419	\$10,297,904	\$10,038,499	\$15,218,226	\$18,279,825
System Renewal	\$1,349,241	\$1,339,313	\$1,831,672	\$1,095,262	\$1,696,072	\$1,815,589	\$1,027,486	\$1,040,000
System Service	\$908,540	\$1,551,534	\$984,398	\$399,130	\$288,085	\$366,257	\$1,070,679	\$520,000
General Plant	\$807,000	\$1,416,828	\$1,523,271	\$1,114,361	\$1,093,357	\$1,630,322	\$1,689,714	\$4,197,712
<b>Total Gross Capital</b>	<b>\$11,309,250</b>	<b>\$11,806,227</b>	<b>\$9,905,885</b>	<b>\$11,783,172</b>	<b>\$13,375,417</b>	<b>\$13,850,667</b>	<b>\$19,006,105</b>	<b>\$24,037,537</b>
<b>Contributed Capital</b>	<b>(\$3,579,205)</b>	<b>(\$4,389,250)</b>	<b>(\$1,927,405)</b>	<b>(\$4,410,452)</b>	<b>(\$4,681,623)</b>	<b>(\$3,151,665)</b>	<b>(\$6,145,882)</b>	<b>(\$13,022,929)</b>
<b>Total Net Capital</b>	<b>\$7,730,045</b>	<b>\$7,416,977</b>	<b>\$7,978,480</b>	<b>\$7,372,720</b>	<b>\$8,693,794</b>	<b>\$10,699,002</b>	<b>\$12,860,223</b>	<b>\$11,014,608</b>

**Table 4 – Historical and Proposed Capital Expenditures – System Access (Revised Table 29 from Application)**

System Access Projects	2014 CoS	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Budget
Tremaine TS CCRA True-up	\$0	\$0	\$0	\$0	\$0	\$0	\$568,700	\$0
Tremaine TS Breakers	\$0	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$0
Bronte TS Breakers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bronte TS CCRA True-up	\$0	\$0	\$0	\$0	\$0	\$0	\$204,100	\$0
General Service - Underground	\$1,104,892	\$2,141,202	\$2,002,128	\$2,504,181	\$2,452,885	\$3,869,996	\$3,347,668	\$1,500,000
General Service - Overhead	\$1,259,668	\$1,545,192	\$1,397,859	\$1,801,406	\$1,798,069	\$2,737,911	\$3,765,939	\$1,639,000
Subdivisions	\$3,200,000	\$1,979,932	\$312,878	\$1,517,358	\$1,295,839	\$0	\$2,550,000	\$2,350,000
MTO/City/Region Projects	\$736,626	\$117,068	\$262,431	\$532,810	\$912,953	\$65,317	\$609,371	\$2,625,694
Metrolinx Corridor Electrification	\$0	\$0	\$0	\$0	\$0	\$0	\$542,246	\$7,437,632
Burlington Mall 27.6kV Conversion/Relocation	\$0	\$0	\$0	\$0	\$1,890,767	\$0	\$0	\$0
Downtown Core Underground Development	\$740,406	\$21,592	\$369,678	\$0	\$0	\$281,022	\$1,015,259	\$800,000
Bridgewater Condominium	\$0	\$0	\$0	\$416,175	\$9,385	\$0	\$0	\$0
Washburn Reservoir	\$0	\$0	\$0	\$1,153,586	(\$10,300)	\$0	\$0	\$0
Renewable Generation (FIT) SCADA	\$0	\$0	\$0	\$0	\$44,841	\$0	\$0	\$0
Transformers	\$614,742	\$1,035,329	\$807,700	\$666,397	\$1,314,898	\$1,494,168	\$1,112,385	\$930,000
Meters	\$588,135	\$658,237	\$413,870	\$582,506	\$588,568	\$590,086	\$502,558	\$997,500
<b>Total Gross System Access</b>	<b>\$8,244,469</b>	<b>\$7,498,551</b>	<b>\$5,566,544</b>	<b>\$9,174,419</b>	<b>\$10,297,904</b>	<b>\$10,038,499</b>	<b>\$15,218,226</b>	<b>\$18,279,825</b>
Contributed Capital	(\$3,550,000)	(\$4,345,542)	(\$1,849,513)	(\$4,401,819)	(\$4,681,623)	(\$3,037,987)	(\$6,126,169)	(\$13,022,929)
<b>Total Net System Access</b>	<b>\$4,694,469</b>	<b>\$3,153,009</b>	<b>\$3,717,031</b>	<b>\$4,772,600</b>	<b>\$5,616,281</b>	<b>\$7,000,512</b>	<b>\$9,092,057</b>	<b>\$5,256,896</b>

**Table 5 – Historical and Proposed Capital Expenditures – System Renewal (Revised Table 30 from Application)**

System Renewal Projects	2014 CoS	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Budget
Recommission Substations	\$90,299	\$124,398	\$54,197	\$57,180	\$57,810	\$37,438	\$53,000	\$50,000
15MVA Station Transformer Replacement Program	\$386,478	\$0	\$657,653	\$721,917	\$710,580	\$530,699	\$328,048	\$0
Substation Automation (Vista)	\$0	\$0	\$0	\$0	\$0	\$0	\$9,073	\$0
Other Substation Renewal	\$88,534	\$48,751	\$67,345	\$0	\$21,521	\$21,450	\$17,500	\$55,000
Underground Rebuilds	\$345,520	\$957,007	\$518,954	\$175,274	\$514,556	\$303,081	\$401,919	\$400,000
Pole Replacement Program	\$246,957	\$104,475	\$194,306	\$111,107	\$103,588	\$187,440	\$214,874	\$510,000
Ontario Street Towers	\$0	\$0	\$146,511	\$9,909	\$82,196	\$37,516	\$0	\$0
Storm Damage	\$0	\$32,570	\$172,581	\$0	\$205,821	\$683,860	\$0	\$0
PCB Free Compliance - Transformer Replacement	\$172,704	\$63,846	\$0	\$0	\$0	\$0	\$0	\$0
Other System Renewal	\$18,749	\$8,266	\$20,125	\$19,875	\$0	\$14,105	\$3,072	\$25,000
<b>Total Gross System Renewal</b>	<b>\$1,349,241</b>	<b>\$1,339,313</b>	<b>\$1,831,672</b>	<b>\$1,095,262</b>	<b>\$1,696,072</b>	<b>\$1,815,589</b>	<b>\$1,027,486</b>	<b>\$1,040,000</b>
Contributed Capital	\$0	\$991	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Net System Renewal</b>	<b>\$1,349,241</b>	<b>\$1,340,304</b>	<b>\$1,831,672</b>	<b>\$1,095,262</b>	<b>\$1,696,072</b>	<b>\$1,815,589</b>	<b>\$1,027,486</b>	<b>\$1,040,000</b>

**Table 6 – Historical and Proposed Capital Expenditures – System Service (Revised Table 31 from Application)**

System Service Projects	2014 CoS	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Budget
Motorized ABS Program	\$262,834	\$175,864	\$247,326	\$28,630	\$21,554	\$25,515	\$75,703	\$0
NE Burlington TS Egress	\$151,791	\$1,309,345	\$636,339	\$341,261	\$0	\$73,497	\$968,880	\$450,000
Bronte Feeder Double CCT Egress	\$420,290	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Port Nelson MS Switch Gear	\$0	\$0	\$0	\$0	\$223,451	\$0	\$0	\$0
Substation Upgrades	\$73,625	\$66,325	\$100,733	\$29,239	\$43,079	\$267,245	\$26,096	\$70,000
<b>Total Gross System Service</b>	<b>\$908,540</b>	<b>\$1,551,534</b>	<b>\$984,398</b>	<b>\$399,130</b>	<b>\$288,085</b>	<b>\$366,257</b>	<b>\$1,070,679</b>	<b>\$520,000</b>
Contributed Capital	(\$29,205)	(\$44,699)	(\$77,892)	\$0	\$0	(\$113,678)	(\$19,713)	\$0
<b>Total Net System Service</b>	<b>\$879,335</b>	<b>\$1,506,835</b>	<b>\$906,506</b>	<b>\$399,130</b>	<b>\$288,085</b>	<b>\$252,579</b>	<b>\$1,050,966</b>	<b>\$520,000</b>

**Table 7 – Historical and Proposed Capital Expenditures - General Plant (Revised Table 32 from Application)**

General Plant Projects	2014 CoS	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Budget
Buildings	\$392,000	\$210,877	\$396,433	\$269,940	\$80,846	\$518,025	\$751,029	\$607,100
Vehicles	\$50,000	\$75,000	\$419,587	\$96,312	\$633,245	\$571,509	\$435,163	\$315,837
Tools	\$12,000	\$106,711	\$18,470	\$26,951	\$13,820	\$10,099	\$12,000	\$12,000
Office Equipment	\$38,000	\$50,890	\$23,366	\$53,959	\$85,117	\$57,670	\$152,580	\$58,500
SCADA / GIS / AMI / OMS	\$150,000	\$592,914	\$366,032	\$199,346	\$122,623	\$88,740	\$50,000	\$714,413
Field Force Automation Enhancements	\$20,000	\$5,287	\$0	\$0	\$0	\$72,432	\$41,133	\$5,000
Customer Information System and G/L	\$20,000	\$280,707	\$203,545	\$57,154	\$69,972	\$24,431	\$35,000	\$15,000
Customer Information System (Replacement)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,092,862
IBM Lease	\$0	\$0	\$0	\$265,958	\$0	\$0	\$0	\$0
Other Computer Hardware & Software	\$125,000	\$94,442	\$95,838	\$144,741	\$87,734	\$287,416	\$212,809	\$377,000
<b>Total Gross General Plant</b>	<b>\$807,000</b>	<b>\$1,416,828</b>	<b>\$1,523,271</b>	<b>\$1,114,361</b>	<b>\$1,093,357</b>	<b>\$1,630,322</b>	<b>\$1,689,714</b>	<b>\$4,197,712</b>
Contributed Capital	\$0	\$0	\$0	(\$8,633)	\$0	\$0	\$0	\$0
<b>Total Net General Plant</b>	<b>\$807,000</b>	<b>\$1,416,828</b>	<b>\$1,523,271</b>	<b>\$1,105,728</b>	<b>\$1,093,357</b>	<b>\$1,630,322</b>	<b>\$1,689,714</b>	<b>\$4,197,712</b>

**Table 8 – Calculation of Revenue Requirement (Revised Table 33 from Application)**

Project Description	Total	CIS	GIS
Incremental Capital	\$2,682,275	\$2,092,862	\$589,413
Incremental Capital (1/2 year rule)	\$ 1,341,138	\$1,046,431	\$294,707
Return on Rate Base	\$78,181	\$61,001	\$17,180
Amortization	\$268,228	\$209,286	\$58,941
Incremental Grossed Up PILs	(\$152,945)	(\$119,337)	(\$33,609)
<b>Total</b>	<b>\$193,463</b>	<b>\$150,951</b>	<b>\$42,512</b>



**Staff-15**

**Ref: Exhibit 1, Appendix I, p. 2**

Burlington Hydro states that it considered three options for replacing its CIS:

1. Upgrade the current Daffron CIS
  2. Replace with new Tier 2 CIS (selected option)
  3. Replace with new Tier 1 CIS
- 
- a) What are the estimated costs of implementing options 1 and 3?
  - b) What is the impact on OM&A expenses of each of the three options?
  - c) What is the difference between a Tier 1 and Tier 2 CIS?
    - i. Burlington Hydro provides a list of benefits of a new CIS on page 2 of Appendix I. It is not clear to OEB staff whether these benefits pertain to a Tier 1 CIS, a Tier 2 CIS, or both. Please clarify.
  - d) Please describe Burlington Hydro's process for selecting a vendor for its new CIS.
    - i. If Burlington Hydro considered multiple vendors, please elaborate on how Burlington Hydro chose its "Tier 2 Vendor of choice."
    - ii. If Burlington Hydro sole-sourced its Tier 2 CIS vendor and did not consider other potential vendors, please explain the rationale for doing so.

**Response:**

- a) Burlington Hydro did not estimate the cost of implementing Option 1. Option 1 was rejected early on because of its inability to deliver the functionality and benefits that other solutions could. Please refer to the functionality comparison analysis in Table 1 of Burlington Hydro's response to EP-4. Further, selecting Option 1 posed significant risk to Burlington Hydro. Its current CIS is built on antiquated coding architecture and the vendor was recently purchased by another US software company whose intentions are unknown in regards to supporting both the Ontario market and a CIS product.

The estimated capital cost of implementing option 3 ranges from \$6 Million to \$14 Million.

- b) There is a material difference between OM&A expenses between the three options, driven by software maintenance costs. Software maintenance costs for

Options 1, 2 and 3 are \$100,000/year, \$55,000-\$85,000/year and over \$500,000/year respectively.

- c) A Tier 1 Vendor typically serves clients with large revenues, big market capitalizations and global operations requiring software support offices in multiple countries. Tier 1 solutions would necessarily provide a level of functionality that Tier 2 solutions typically don't possess as Tier 1 products are designed to address all possible requirements of large multinational companies (e.g. intercompany transactions, multiple currencies). A Tier 2 vendor typically serves mid-market sized clients and tends to be better at catering to the 'niche' markets (i.e. Ontario Regulated Market). A Tier 2 solution is typically a lower cost to implement and maintain than a Tier 1 solution.
- i. The list of benefits of a new CIS, identified on page 2 of Appendix I of Exhibit 1 in the Application, pertains to both a Tier 1 CIS and a Tier 2 CIS.
- d) Burlington Hydro participated in an RFP process with two other utilities, followed by a thorough internal evaluation process. This extensive process included:
- Preparation of an RFP
  - Invitation for Vendor Responses
  - Receipt and Review of Vendor Responses
  - Demonstrations from Vendors
  - Evaluation Process for Selection of a Vendor Solution
  - Pilot Process with Vendor of Choice
  - Final Decision for CIS Solution
- i. As indicated on page 3 of Appendix I in Exhibit 1, Burlington Hydro selected its "Tier 2 Vendor of choice" based on it meeting the existing and future requirements for an Ontario-based, advanced technology CIS, and offering full functionality in Customer Service, Billing, Meter Data Management, Collections, Inventory and Financial Receivables.
- ii. Burlington Hydro did not sole-source its Tier 2 CIS vendor.

**Staff-16**

**Ref: Exhibit 1, Appendix I, p. 2**

Burlington Hydro states that its "...customers have expressed their dissatisfaction and frustration with its current system and have been asking for more functionality for many years," and that the new CIS will allow it to address these concerns.

- a) How did Burlington Hydro collect this feedback from customers? Please discuss the functionalities customers have requested and provide examples.
- b) Will the Tier 2 CIS be sufficient to provide customers with the requested functionalities, as discussed in part a), or are there functionalities that only a Tier 1 CIS can provide?

**Response:**

- a) Burlington Hydro collected this feedback from customers informally via email and over the phone through its Customer Service Manager and Customer Service Representatives. Examples of functionalities customers have requested include:
  - Single login for Integrated Customer Portal with TOU Web Presentment and account payment information;
  - Ability to add and maintain multiple accounts within the Customer Portal
  - More information within bill notifications for e-Billing (i.e. Account Number, Amount Owing, Due Date);
  - Chat Capability; and
  - More Online 24X7 Customer Facing Applications
- b) Yes, the Tier 2 CIS will be sufficient to provide customers with the requested functionalities, as discussed in part a).

**Staff-17**

**Ref 1: Exhibit 1, Appendix I, p. 3**

**Ref 2: Exhibit 1, Appendix J, p. 2**

Burlington Hydro expects the new CIS to meet "... the existing and future requirements for an Ontario-based, advanced technology CIS..."

- a) How long does Burlington Hydro expect its vendor to provide it with support for the new CIS?

For the new GIS, Burlington Hydro discussed the possibility of "forced upgrades" in the future.

- b) By "forced," does Burlington Hydro mean this is an update mandated by the software provider?
- c) Will there be any similar "forced upgrades" to the CIS in the future?
- i. If upgrades need to be made to the CIS, is Burlington Hydro responsible for the cost, or will the vendor provide it free of cost as part of ongoing support?

**Response:**

- a) Burlington Hydro expects its vendor to provide it with support for the new CIS over the life of the system.
- b) Yes, by "forced", Burlington Hydro means this is an update mandated by the software provider.
- c) No, Burlington Hydro does not expect similar "forced upgrades" to the CIS in the future.
- i. If upgrades need to be made to the CIS, Burlington Hydro is responsible for the cost.

**Staff-18**

**Ref: Exhibit 1, Appendix J, p. 2**

For the new GIS, Burlington Hydro considered two vendors: Vendor A (the selected option) and Vendor B.

- a) Please explain how Burlington Hydro arrived at Vendor A and Vendor B for its shortlist of vendors (i.e. did Burlington Hydro consider other vendors?).
- b) What is the estimated cost of proceeding with Vendor B?
- c) What is the impact on OM&A expenses of both vendors?
- d) How long will Vendor A provide support for the new GIS?
- e) How long would Vendor B provide support for the new GIS, if Burlington Hydro chose to proceed with Vendor B?
- f) For Vendor B, Burlington Hydro mentioned that it expects a “forced upgrade in the next few years.” Will there be similar “forced upgrades” in the future to the GIS provided by Vendor A?

**Response:**

- a) Burlington Hydro used a highly qualified Operational Technology Specialist Consultant to determine an initial list of vendors offering software products that could potentially meet Burlington Hydro’s GIS needs. The Consultant along with a team of eight Burlington Hydro employees, overseen by the COO and VP of Engineering and Operations, evaluated the visual characteristics, capabilities and functionality of each of the software product offerings. From that exercise, three proponents were selected as the best of the group and shortlisted to receive a directed RFP. Two proponents chose to submit proposals; one proponent chose not to. This resulted in Vendor A and Vendor B being shortlisted.
- b) The estimated cost for proceeding with Vendor B would have been \$705,226.
- c) There is an immaterial difference in OM&A expenses between Vendor A and Vendor B. Annual system maintenance costs for Vendor A and Vendor B are estimated at \$73,738 and \$76,664 respectively.
- d) Burlington Hydro expects Vendor A to provide support for the new GIS over the life of the system.

- e) If Burlington Hydro chose to proceed with Vendor B, Vendor B would have provided support for the new GIS solution until approximately mid-2021, at which time it would be replaced with a brand-new solution.
  
- f) No, Burlington Hydro does not expect there to be similar “forced upgrades” in the future to the GIS provided by Vendor A. Vendor A’s GIS already has the advanced functionality that the Vendor B “forced upgrade” is expected to deliver.

**Staff-19**

**Ref: Exhibit 1, p. 51**

Burlington Hydro provides the following table summarizing its general plant capital expenditures from 2014-2020:

General Plant Projects	2014 CoS	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Forecast	2020 Budget
Buildings	\$392,000	\$210,877	\$396,433	\$269,940	\$80,846	\$518,025	\$890,000	\$420,000
Vehicles	\$50,000	\$75,000	\$419,587	\$96,312	\$633,245	\$571,509	\$667,000	\$364,000
Tools	\$12,000	\$106,711	\$18,470	\$26,951	\$13,820	\$10,099	\$12,000	\$12,000
Office Equipment	\$38,000	\$50,890	\$23,366	\$53,959	\$85,117	\$57,670	\$100,000	\$58,500
SCADA / GIS / AMI / OMS	\$150,000	\$592,914	\$366,032	\$199,346	\$122,623	\$88,740	\$50,000	\$575,000
Field Force Automation Enhancements	\$20,000	\$5,287	\$0	\$0	\$0	\$72,432	\$41,000	\$5,000
Customer Information System and G/L	\$20,000	\$280,707	\$203,545	\$57,154	\$69,972	\$24,431	\$25,000	\$15,000
Customer Information System (Replacement)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,445,000
IBM Lease	\$0	\$0	\$0	\$265,958	\$0	\$0	\$0	\$0
Other Computer Hardware & Software	\$125,000	\$94,442	\$95,838	\$144,741	\$87,734	\$287,416	\$254,000	\$318,000
<b>Total Gross General Plant</b>	<b>\$807,000</b>	<b>\$1,416,828</b>	<b>\$1,523,271</b>	<b>\$1,114,361</b>	<b>\$1,093,357</b>	<b>\$1,630,322</b>	<b>\$2,039,000</b>	<b>\$3,212,500</b>
Contributed Capital	\$0	\$0	\$0	(\$8,633)	\$0	\$0	\$0	\$0
<b>Total Net General Plant</b>	<b>\$807,000</b>	<b>\$1,416,828</b>	<b>\$1,523,271</b>	<b>\$1,105,728</b>	<b>\$1,093,357</b>	<b>\$1,630,322</b>	<b>\$2,039,000</b>	<b>\$3,212,500</b>

- a) Please explain how the current ICM request of \$575,000 for the GIS system differs from the capital spending in past years under the “SCADA / GIS / AMI / OMS,” and in particular the amount spent in 2014 of \$592,914.
- b) What is Burlington Hydro’s annual budget for “SCADA / GIS / AMI / GIS” and for “Customer Information System and G/L?”
  - i. Please explain why Burlington Hydro has not proposed to reduce its ICM capital expenditures by the amounts identified in part b).
- c) Please discuss the materiality of the \$575,000 GIS project in comparison to Burlington Hydro’s overall 2020 budget of \$11,765,000, especially given that the application of the half-year rule will reduce the incremental revenue requirement of the project.

**Response:**

- a) The current ICM request for the GIS system differs from the capital spending in past years under the “SCADA / GIS / AMI / OMS” budget as the majority of the previous years’ costs were related to Burlington Hydro’s Outage Management System. Please refer to the response to EP-1.
- b) Burlington Hydro’s 2020 budget for “SCADA / GIS / AMI / GIS” and “Customer Information System and G/L” is \$125,000 and \$15,000, respectively as identified in Table 1 below.

**Table 1 – 2020 Budget**

<b>2020 Budget</b>	<b>\$</b>
SCADA / GIS / AMI / OMS - Ongoing	\$125,000
SCADA / GIS / AMI / OMS - GIS Replacement	\$589,413
<b>Total SCADA / GIS / AMI / OMS</b>	<b>\$714,413</b>
Customer Information System and G/L	\$15,000
Customer Information System - Replacement	\$2,092,862
<b>Total CIS and G/L</b>	<b>\$2,107,862</b>

- i. Burlington Hydro has not proposed to reduce its ICM capital expenditures by the amounts identified in part b) because the amounts in part b) are ongoing capital expenditures required to support the business. These expenditures are not eliminated as a result of the implementation of a new CIS or GIS. The \$125,000 annual 2020 budget for “SCADA / GIS / AMI / GIS” is related to OMS and integration of the new GIS with other software solutions. The \$15,000 annual budget for “Customer Information and G/L” is for changes to Burlington Hydro’s General Ledger software.

Further, the ICM capital expenditures are incremental to that which was approved in rates and meet the Board-defined materiality threshold as identified on page 45 of Exhibit 1 of the Application.

- c) Please refer to the response to SEC-3 for a discussion on the materiality threshold of the GIS project in comparison to Burlington Hydro’s overall 2020 budget. The incremental revenue requirement for the CIS and GIS projects is \$193,463 as identified in Burlington Hydro’s response to Staff-14b). This exceeds Burlington Hydro’s materiality threshold of \$144,178, calculated as 0.5% of \$28,835,532, the distribution revenue requirement approved in its 2014 Cost of Service application.



**Staff-20**

**Ref: Exhibit 1, p. 56**

Burlington Hydro requested ICM funding in its 2019 IRM application<sup>1</sup> for \$3.567 million for the Tremaine TS CCRA True-up and \$1.031 million for the Bronte TS CCRA True-up.

Hydro One Networks Inc. revisited the Tremaine TS CCRA and Bronte TS CCRA true-up calculations at Burlington Hydro's request and finalized the amounts to \$568.7k and \$204.1k respectively.

- a) OEB staff notes that as a result of the revised calculations, the true-up amount owed to Hydro One Networks Inc. from Burlington Hydro decreased by \$3.83 million. Please explain why the original calculations were off by \$3.83 million.
- b) Please discuss what confidence Burlington Hydro has that the new amounts calculated by Hydro One Networks Inc. are correct.

**Response:**

- a) Burlington Hydro indicated in its reply submission for its 2019 IRM application EB-2018-0021 that the amounts requested for incremental capital funding for \$3.567 million for the Tremaine TS CCRA true-up and \$1.031 million for the Bronte TS CCRA true-up were estimates provided by Hydro One Networks Inc. ("Hydro One")<sup>2</sup>. These were the best estimates available from Hydro One at that time for the purpose of setting May 1, 2019 rates. Burlington Hydro also indicated that it did not agree with Hydro One's assumption for station capacity at the Bronte TS. Burlington Hydro asked Hydro One to review the Bronte TS station capacity used for the CCRA true-up calculations and Hydro One agreed.<sup>3</sup>

Hydro One based the approved estimate of \$4.598 million for the CCRA true-ups for the Tremaine TS and Bronte TS on a station capacity of 45MW at Bronte TS. However, as stated in page 26 of its Reply Submission for EB-2018-0021, Hydro One has never permitted Burlington Hydro to put load of more than 30MW on the Bronte TS due to transmission system limitations outside of Burlington Hydro's

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<sup>1</sup> EB-2018-0021

<sup>2</sup> Pages 19 and 30, Reply Submission EB-2018-0021

<sup>3</sup> Page 26, Reply Submission EB-2018-0021

control. Hydro One agreed with Burlington Hydro that both CCRA true-ups be recalculated to account for the load restriction at the Bronte TS. In order to calculate the CCRA true-ups correctly and adhere to the original CCRA agreements Hydro One made the following changes:

- Maintained the station capacity at the Bronte TS at 45MW but also transferred 15MW of actual/forecast load annually from the Tremaine TS to the Bronte TS. This had the same effect as keeping station capacity at the Bronte TS at 30MW but not transferring any load from the Tremaine TS. This resulted in a decrease in the shortfall in load of 15MW versus the initial true-up estimate, which reduced the Bronte TS true-up from \$1.031 million to \$204.1k. The changes are summarized on a simplified basis for 2021, as an example, in Table 1 below. The load shortfall in 2021 for the Bronte TS was 5.4MW in the final true-up as compared to the estimated true-up of 20.4MW. (A decrease in load shortfall as compared to the initial CCRA decreases the true-up amount.)

**Table 1 – Summary Incremental Load 2021**

Bronte CCRA True-up	\$1.031M True-up			\$204.1k True-up		
	Base Load (Before Tremaine TS)	Actual Load	Load Shortfall	Base Load (Before Tremaine TS)	Actual Load	Load Shortfall
Palermo TS	30.7	25.3	-5.4	30.7	25.3	-5.4
Bronte TS	45.0	30.0	-15.0	45.0	30.0	-15.0
Load transfer from Tremaine TS		0.0	0.0		15.0	15.0
<b>Total</b>	<b>75.7</b>	<b>55.3</b>	<b>-20.4</b>	<b>75.7</b>	<b>70.3</b>	<b>-5.4</b>

- Reduced the original capital contribution for the Tremaine TS to reflect the virtual transfer of 15MW of station capacity to the Bronte TS. The credit associated with this is reflected in the reduction in the Tremaine TS true-up from \$3.567 million to \$568.7k.

The result of these changes for the 25-year CCRA period was a decrease in the total true-up of \$3.83 million.

- b) Burlington Hydro is confident that the new amounts calculated by Hydro One Networks are correct. Both Burlington Hydro and Hydro One have approved the CCRA true-up models, underlying data and true-up amounts for the Tremaine TS and Bronte TS of \$568.7k and \$204.1k respectively. The 5<sup>th</sup> and 10<sup>th</sup> year CCRA true-up processes for the Tremaine TS and Bronte TS, respectively, have been concluded.