



EXHIBIT 3 – REVENUE



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3.1 LOAD AND REVENUE FORECASTS OVERVIEW

This exhibit provides details of London Hydro's operating revenue for 2017 OEB Approved from last Cost of Service, 2017 Actual, 2018 Actual, 2019 Actual, 2020 Actual, the 2021 Bridge Year and the 2022 Test Year. The exhibit also provides a variance analysis of distribution throughput revenue by rate class. Operating revenue is exclusive of revenue from commodity sales. Distribution throughput revenue is attributable to fixed and variable charges for distribution services and is exclusive of other revenue. Net distribution throughput revenue is distribution revenue less transformation ownership allowance. Other revenue includes late payment service charges, other specific service charges, and other non-throughput related distribution revenue. London Hydro is proposing total operating revenue of \$85,330K for the 2022 Test Year. This is comprised of net throughput distribution revenue of \$79,331K plus revenue offsets of \$5,999K to be recovered through other revenue. A breakdown is provided at Exhibit 6.

A summary of operating revenue is presented in TABLE 3 below. The table provides a comparison of total revenues from the 2017 OEB Approved year to the 2022 Test Year.

TABLE 3-1: Summary of Operating Revenue

OEB Category	2017	2017	2018	2019	2020	2021	2022
	OEB Approved	Actual	Actual	Actual	Actual	Bridge Year	Test Year
Distribution services revenue	66,339,088	66,517,461	69,084,974	67,574,404	70,124,259	70,789,200	79,330,946
Specific Service Charges	1,967,000	1,143,654	1,278,949	1,207,708	1,208,102	1,194,800	1,070,100
Late Payment Charges	904,900	1,543,276	1,561,023	1,698,897	2,154,521	1,928,700	1,635,400
Other Distribution Revenue	1,378,281	1,353,933	1,530,189	1,707,723	1,871,401	1,932,800	2,370,100
Other Income and Deductions	757,145	971,746	1,224,717	1,279,258	1,097,994	1,011,827	923,488
	<u>\$ 71,346,414</u>	<u>\$ 71,530,071</u>	<u>\$ 74,679,852</u>	<u>\$ 73,467,990</u>	<u>\$ 76,456,277</u>	<u>\$ 76,857,327</u>	<u>\$ 85,330,034</u>

3.2 LOAD FORECAST

3.2.1 INTRODUCTION

The purpose of this section is to present the process used by London Hydro to develop its 2021 Bridge Year and 2022 Test Year weather-normalized load and customer/connections forecast utilized in the design of the 2022 proposed distribution rates.

London Hydro has prepared a Load Forecast Model (the Model) consistent with its understanding of the Chapter 2 Filing Requirements for Electricity Distribution Rate Applications – 2021 Edition for 2022 Rate Applications issued on June 24, 2021.

3.2.2 PURCHASED KWH FORECAST

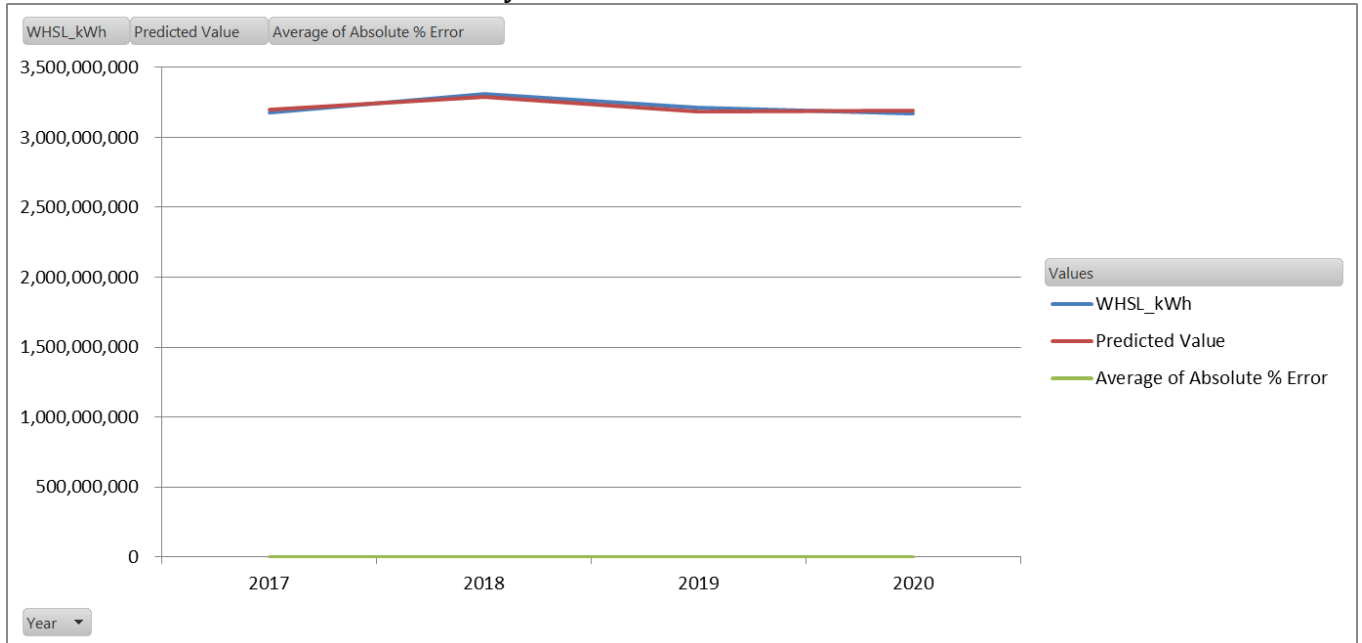
Consistent with the methodology used to prepare the approved load forecast in London Hydro's 2017 Cost of Service Application (EB-2012-0146), London Hydro utilized the multivariate linear regression analysis methodology for this Application. This methodology was chosen (i) for consistency with the London Hydro's 2017 Cost of Service Application and (ii) for its accessibility and the capability of Microsoft Excel to house the fully functional model. London Hydro believes this approach of conducting a regression analysis on historical electricity purchases and producing an equation that will predict future purchases is appropriate.

HISTORIC PURCHASES

Traditionally, kWh purchase data is accumulated by month for 10 historic years for use in the regression analysis. Sources include purchase data from the Independent Electricity System Operator (IESO), Hydro One Networks Inc. (HONI), as well as embedded generation data. However, London Hydro has utilized kWh purchase data, by month, for its service territory for the period of January 2017 to December 2020 as part of this regression analysis. London Hydro chose to use a shorter timeframe recognizing that the curtailment of our previous aggressive Conservation and Demand Management (CDM) programs, and loss of IESO CDM persistence reporting. London Hydro experienced significant load loss between 2008 and 2010 as a result of the global recession, and any recovery post-recession has been steadily eroded to below recession levels. As shown in Chart 3-1 below, London Hydro's recovery from the recession

1 reveals that the load has leveled off and London Hydro is now experiencing a more consistent
2 load profile over the last four years.

3 **CHART 3-1: London Hydro Historical and Predicted Purchases**



4

5 **MODELLED VARIABLES**

6 Variables included in the model are designed to provide a broad coverage of the drivers of
7 electricity use by our customers. London Hydro utilized the following variables:

N10HDD18
N10CDD18
StatDays
MonthDays
PeakDays
OntarioGDP
LondonPop

8 ***Weather Conditions***

9 Weather impacts on load are apparent in both the winter heating season and in the summer
10 cooling season. For that reason, London Hydro has included both Heating Degree Days (i.e. a
11 measure of coldness in the winter) and Cooling Degree Days (i.e. a measure of summer heat) as
12 variables in the regression analysis. These are identified as N10HDD18 and N10CDD18.

1 Weather data is measured in degrees Celsius by the London CS weather station as operated by
2 Environment Canada. The 10 year average monthly values were used in generating forecast
3 values.

4 *Ontario Real GDP*

5 This variable was used in our 2022 Load Forecast. London Hydro used Statistics Canada. Table
6 36-10-0222-01 Gross domestic product, expenditure-based, provincial and territorial, annual (x
7 1,000,000) for Ontario Chained (2012) dollars. London Hydro is using the Ontario Government
8 2021 budget which forecasts Ontario Real GDP to increase by 4.0% in 2021 and 4.3% in 2022.

9 *London Region Population*

10 Statistics Canada routinely collects historical population data for the London area, CANSIM Table
11 051-0059. Macrotrends.net project that the City of London Ontario population rate is forecasted
12 to increase by 0.59 percent in 2021 and 0.78 percent in 2022.

13 **REJECTED VARIABLES**

14 London Hydro considered the following variables and rejected them in favour of the above, which
15 are closer to the centroid of the service territory.

16 *CDM Activity*

17 This variable was rejected as London Hydro believes that the programs including persistence
18 affecting periods are reasonably represented in the wholesale consumption trends.

19 *Labour Force Survey - Employment & Full Time Equivalent*

20 These were rejected as London Hydro distribution revenue is predominantly residential in nature
21 and hence the forecast is better supported by the population variable.

22 **RESULTS**

23 The following formula outlines the model used by London Hydro to predict normal weather
24 purchases for 2021 and 2022 Monthly Predicted kWh Purchases.

25

26



TABLE 3-2: London Hydro Model

	<i>Coefficients</i>
WHSL_kWh	143,775,785
N10HDD18	57,990
N10CDD18	770,714
StatDays	3,673,671
MonthDays	4,561,586
PeakDays	1,064,388
OntarioGDP	38,277,551
LondonPop	(113,579,761)

The monthly data used in the regression model and the resulting monthly prediction for the actual and forecasted years are provided in the Load Forecast Model filed in Live Excel format.

Based on the monthly corrected purchases and the above described variables used in the regression model, London Hydro expects 2021 purchases of 3,132,892,604 kWh and 2022 purchases of 3,130,563,323 kWh.

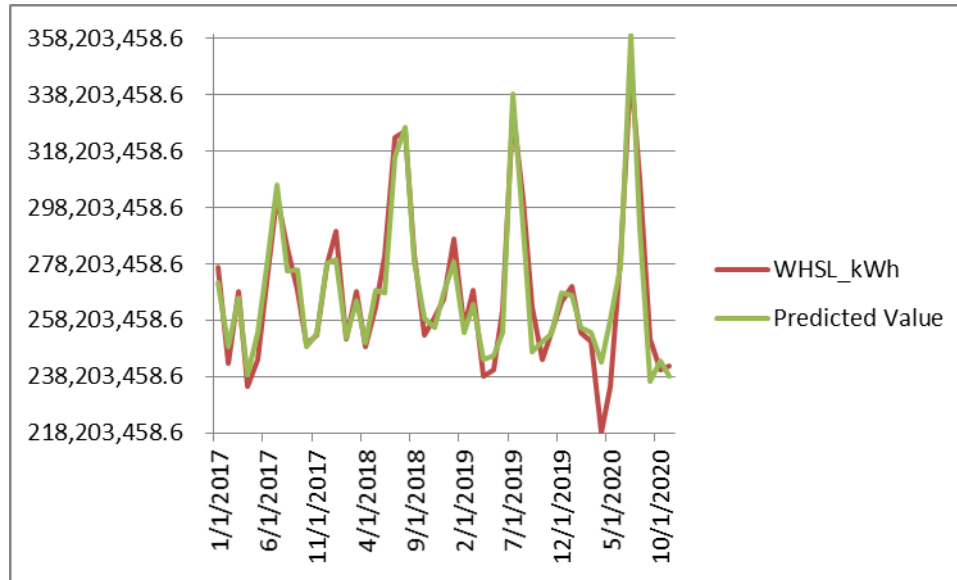
The table below shows the modeled purchases generated by the regression model for 2021 and 2022 are very close to the recent historical year purchases.

TABLE 3-3: London Hydro Forecast vs. Actual Purchases

	Sum of WSkWh	% Change	Normalized Value	% Change
2017	3,178,422,069		3,198,676,144	
2018	3,310,791,495	4.2%	3,287,913,250	2.8%
2019	3,211,003,829	-3.0%	3,188,766,813	-3.0%
2020	3,163,553,021	-1.5%	3,188,414,205	0.0%
2021			3,132,892,604	-1.7%
2022			3,130,563,323	-0.1%

Chart 3-2 below shows the variance between the modeled purchased and the historic purchases. As shown, the pattern in the forecast years shows a very similar and expected pattern.

CHART 3-2: FORECASTED PURCHASES



The prediction formula has the following statistical results, which generally indicate the formula has a very good fit to the actual data set.

TABLE 3-4: T-Statistics for Accepted Variables

SUMMARY OUTPUT						
<i>Regression Statistics</i>						
Multiple R	0.95					
R Square	0.90					
Adjusted R Square	0.89					
Standard Error	9,192,671					
Observations	48					
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
WHSL_kWh	145,644,351	84,228,987	1.73	0.09	(24,588,782)	315,877,484
N10HDD18	58,260	8,061	7.23	0.00	41,969	74,551
N10CDD18	771,852	48,672	15.86	0.00	673,482	870,223
StatDays	4,102,706	2,786,514	1.47	0.15	(1,529,049)	9,734,462
MonthDays	4,533,571	2,240,851	2.02	0.05	4,641	9,062,501
PeakDays	1,084,346	1,643,563	0.66	0.51	(2,237,418)	4,406,111
OntarioGDP	48,981,582	71,490,862	0.69	0.50	(95,506,841)	193,470,004
LondonPop	(126,649,975)	71,888,791	(1.76)	0.09	(271,942,641)	18,642,691

3.2.3 BILLED KWH LOAD FORECAST

To determine the weather normalized billed kWh forecast, the total weather normalized forecast purchased kWh (as discussed above) is adjusted for line losses. At this stage of the analysis, adjustments wholesale market participants are not yet incorporated.

London Hydro has utilized the average loss factor from 2017 to 2020. The average loss factor during this time was 1.0269 or 2.69%; the calculation is shown in Table 3-5.

TABLE 3-5: Average Loss Factor

Determination of Loss Factor				
Year	Actual Purchases	Total Billed	Losses	Loss Factor
2017	3,178,422,069	3,070,375,149	108,046,920	1.0340
2018	3,310,791,495	3,215,830,065	94,961,429	1.0287
2019	3,211,003,829	3,120,062,340	90,941,489	1.0283
2020	3,163,553,021	3,082,955,257	80,597,763	1.0255
2021		3,050,825,400		1.0269
2022	-	3,048,557,136		1.0269

Prior to CDM adjustments, the calculated weather normalized billed kWh for the 2021 Bridge Year and 2022 Test Year are 3,050,825,400 kWh and 3,048,557,136 kWh respectively.

3.2.4 HISTORICAL CUSTOMER DATA

As noted above, this load forecast was prepared for the London Hydro service territory in its entirety. London Hydro relied on historical rate class statistics as reported in the annual RRR 2.1.5 submissions to the Board.

London Hydro currently has four Wholesale Market Participants (WMP), all of whom have opted into the program in mid-2012. To properly allocate the billed kWh calculated above (which is driven by purchases where the four WMP are inherently excluded) and project customer numbers, these four General Service > 50 kW customers were removed from the historical. These customers are forecasted separately on the “WMP” tab of the load forecast model and added back to the load forecast totals for rate design purposes.

3.2.5 CUSTOMER/CONNECTION FORECAST BY RATE CLASS

The forecasted number of customer/connections is based on a review of London Hydro's average annual historical customer/connection data.

London Hydro utilizes the customer/connection data reported in the applicable RRR submissions annually and then averaging the opening and closing balances annually. The results are presented in Table 3-6 below. All rate classes are based on the number of customers, except for the Unmetered Scattered Load, Sentinel Lighting and Street Lighting rate classes, which are based on number of connections.

TABLE 3-6: Historic Annual Average Customer/ Connections by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Average Annual Customers/Connections									
2017	142,206	12,575	1,598	6	1	36,184	584	1,515	194,669
2018	143,918	12,634	1,615	7	1	36,831	540	1,522	197,068
2019	145,514	12,771	1,572	7	1	37,110	525	1,543	199,043
2020	146,977	12,891	1,534	8	1	37,806	520	1,533	201,270

From the historic data, London Hydro calculates the growth rate for each rate class. London Hydro utilizes the annual growth from the past four years (2017 to 2020) to calculate the geometric growth rate for all rate classes. London Hydro believes these four years best represent the current economic situation of its service territory and takes into consideration the stabilization after the global recession. The results are presented below in Table 3-7.

TABLE 3-7: Historic Customer/ Connection Growth Rates by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)
Customer Growth Rate								
2017	1.0110	1.0030	1.0050	1.0000	1.0000	1.0131	0.9419	0.9961
2018	1.0120	1.0047	1.0106	1.1667	1.0000	1.0179	0.9247	1.0046
2019	1.0111	1.0108	0.9734	1.0000	1.0000	1.0076	0.9722	1.0138
2020	1.0101	1.0094	0.9758	1.1429	1.0000	1.0188	0.9905	0.9935
Geomean (2017 to 2020)	1.0110	1.0070	0.9911	1.0746	1.0000	1.0143	0.9570	1.0020

For the 2021 Bridge Year customer/connections forecast, London Hydro applied the resulting rate class specific geometric mean to the total year end 2020 customer/connections. Similarly, London Hydro applied the resulting rate class specific geometric mean to the 2021 Bridge Year results to calculate the 2022 Test Year results.

London Hydro then adjusts for the four Wholesale Market Participant customers to provide for the total forecasted number of customers and connections for the 2021 Bridge Year and the 2022 Test year. The results are presented in Table 3-8 below.

TABLE 3-8: Forecasted Number of Customers/ Connection by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Forecasted Customers/Connections									
2021	148,601	12,981	1,520	9	1	38,348	498	1,536	203,494
2022	150,243	13,071	1,507	9	1	38,898	476	1,539	205,744
Add: WMP									
2021	-	-	4	-	-	-	-	-	-
2022	-	-	4	-	-	-	-	-	-
Total Forecasted Customers/Connections									
2021	148,601	12,981	1,524	9	1	38,348	498	1,536	203,498
2022	150,243	13,071	1,511	9	1	38,898	476	1,539	205,748
Change Customers/Connections									
2021	1,624	90	(14)	1	-	542	(22)	3	2,227
2022	1,642	90	(13)	0	-	550	(22)	3	2,250

The 2022 Test Year results are discussed below:

Residential – London Hydro continues to see increases in the Residential rate class due to subdivision growth. At this time, London Hydro is unaware of any future major residential development plans.

General Service – Recent economic data seems to indicate a slow gradual and subtle growth uptake. Economic trends in London Hydro’s service territory compare favourable with overall provincial economic trends. While London does show modest growth in this sector, it is mostly to be found in small services. Conservation initiatives continue to erode kW demand with more customers moving to the lower rate class. London Hydro is not aware of any significant future development plans. Accordingly, London Hydro expects to witness a continuation of the modest incline in the General Service rate classes, consistent with historic data trends.

Large Use – The Large User rate class expects to see one new customer to come on line in the summer of 2022. However as with any new customer there are unanticipated issues and delays that arise making the actual date of starting operational production unpredictable for the 2022 load forecast. London Hydro anticipates that as 2021 closes better information for startup will be available.

1 Unmetered Scattered Load and Street Lighting – Connections are projected to show modest
2 increases in line with the residential and general service rate classes. Sentinel Lighting in
3 London Hydro’s service territory is projected to continue the slow phasing out of the class.

4 **3.2.6 CDM ADJUSTMENTS**

5 London Hydro’s 2015 to 2020 CDM plan articulation EM-14-03 was submitted in April 2015.
6 During the period leading up to the Minister 2018 directive to conclude, wind down and transfer
7 conservation activities to the IESO London Hydro did meet most of its plan objectives. However,
8 with the wind down the IESO abdicated its responsibility for continuing to report on achieved
9 results and persistence reporting. In this application London Hydro has determined that it will
10 make its final LRAM-VA claim up to the end of 2020. Hence with the shortened forecast period
11 and the fact that London Hydro believes that at this point no future significant impacts will continue
12 to be realized. London Hydro has not proposed any further CDM adjustments in this application.

13 **3.2.7 WHOLESALE MARKET PARTICIPANTS**

14 London Hydro currently has four Wholesale Market Participants operating within its service
15 territory. These customers buy power directly from the IESO but use the London Hydro distribution
16 system to deliver the power to their business locations. They are billed distribution and
17 transmission charges by London Hydro for use of its facilities in delivering power to their service
18 addresses within London. Other charges such as commodity, Global Adjustment and wholesale
19 market service are billed directly to the WMPs by the IESO.

20 The regression analysis to derive the forecasted purchased kWh inherently excludes the kWh
21 related to the WMPs. For this reason, London Hydro has excluded their historical billed kWh data
22 from the rate class energy kWh and demand kW allocation calculations. London Hydro has
23 forecasted the kWh consumption for these customers based on their historical usage. The four
24 WMP opted into the program in mid-2012 and are General Service > 50 kW customers.

25 To forecast the consumption of these customers, London Hydro utilized the 2017 to 2020 actual
26 results as applied to the previously calculated geometric mean for the applicable rate class. The
27 results are shown in Table 3-9 below.

TABLE 3-9: WMP Forecasted kWh

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Historical kWh									
2017			17,665,653						17,665,653
2018			14,971,802						14,971,802
2019			14,578,192						14,578,192
2020			15,096,528						15,096,528
Geometric Mean (2017 to 2020) GS>50 Class			98.98%						
Forecasted kWh									
2021			14,942,996						14,942,996
2022			14,791,025						14,791,025

Similar to the demand calculations following, London Hydro calculated the WMPs demand by comparing the actual kW demand to the actual kWh consumption and using the average applied to the above forecasted kWh amounts to derive the forecasted bill kW. The results are presented in Table 3-10 below.

TABLE 3-10: WMP Forecasted kW

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Historical kW									
2017			29,978						29,978
2018			28,512						28,512
2019			26,586						26,586
2020			29,025						29,025
Percentage kW/kWh									
2017			0.17%						
2018			0.19%						
2019			0.18%						
2020			0.19%						
Average (2017 to 2020)			0.18%						
Total kW Forecast									
2021			27,449						27,449
2022			27,170						27,170

3.2.8 BILLED KWH LOAD FORECAST BY RATE CLASS

This section reviews the methodology utilized by London Hydro to calculate the forecasted load by rate class.

London Hydro begins with the annual historic billed kWh as reported in the applicable annual RRR submissions and adjusts the data for the reclassifications noted above in Section 3.2.4. The results are presented in Table 3-11 below.

TABLE 3-11: Historical kWh Usage by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Consumption (kWh)									
2017	1,041,232,119	384,261,420	1,456,743,101	44,968,462	117,005,431	20,022,458	592,608	5,549,550	3,070,375,149
2018	1,134,273,427	396,936,108	1,497,045,852	48,833,253	116,791,074	15,903,208	550,596	5,496,547	3,215,830,065
2019	1,099,830,560	395,444,422	1,456,298,256	35,020,139	110,801,181	16,623,912	541,973	5,501,898	3,120,062,340
2020	1,174,570,751	374,492,024	1,371,744,687	36,277,791	103,009,408	16,908,317	534,360	5,417,919	3,082,955,257

London Hydro then takes the annual results from Table 3-11 above and divides the annual rate class total by the respective annual customer/connection data shown in Table 3-10. The results are presented in Table 3-12 below.

TABLE 3-12: Average Annual Consumption per Customer/ Connection

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)
Average Consumption per Customer (kWh)								
2017	7,322	30,558	911,604	7,494,744	117,005,431	553	1,015	3,663
2018	7,881	31,418	926,963	6,976,179	116,791,074	432	1,020	3,611
2019	7,558	30,964	926,398	5,002,877	110,801,181	448	1,032	3,566
2020	7,992	29,051	894,227	4,534,724	103,009,408	447	1,028	3,534

From the historical usage per customer/connection data, London Hydro calculates the annual growth rate per customer/connection per year. For all rate classes, London Hydro utilizes the annual growth rate from the past four years (2017 to 2020) to calculate the geometric growth rate. London Hydro believes four years best represents the current economic situation of its service territory and takes into consideration the stabilization after the global recession. The results are presented in Table 3-13 below.

TABLE 3-13: Historical kWh Usage Growth Rates by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)
Average Growth per Customer								
2017	94.39%	97.26%	97.86%	90.73%	88.08%	91.10%	88.18%	99.30%
2018	107.63%	102.81%	101.68%	93.08%	99.82%	78.12%	100.49%	98.58%
2019	95.90%	98.55%	99.94%	71.71%	94.87%	103.70%	101.18%	98.75%
2020	105.74%	93.82%	96.53%	90.64%	92.97%	99.78%	99.61%	99.10%
Geomean (2017 to 2020)	100.75%	98.06%	98.98%	86.07%	93.84%	92.64%	97.21%	98.93%

To derive the 2021 Bridge Year forecast, London Hydro applied the geometric mean growth rate by class to the 2020 average consumption per customer/connections to derive the forecasted average annual kWh consumption. To determine the 2022 Test Year forecast, London Hydro applied the same geometric growth rate by class to the calculated 2021 Bridge Year forecasted average annual kWh usage. The results are presented in Table 3-14 below.



TABLE 3-14: Forecasted Average Annual kWh Usage per Customer/ Connection by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)
Forecasted Average Consumption per Customer (kWh)								
2021	8,052	28,487	885,133	3,903,261	96,664,841	414	999	3,496
2022	8,112	27,934	876,131	3,359,730	90,711,050	384	971	3,459

London Hydro used the average kWh usage from Table 3-14 and multiplied it by the forecasted customer\connections from Table 3-12 to determine the non-weather normalized total kWh by rate class. The results are presented in Table 3-15 below.

TABLE 3-15: Forecasted Billed kWh - Weather Non-Normalized

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Calculated Consumption Non-Weather Adjusted (kWh)									
2021	1,196,535,759	369,785,426	1,345,653,577	33,555,169	96,664,841	15,876,132	497,133	5,369,918	3,063,937,956
2022	1,218,771,216	365,125,314	1,320,329,417	30,237,570	90,711,050	14,936,832	462,196	5,323,401	3,045,896,996

As previously noted, the forecasted weather normalized billed kWh for the 2021 Bridge Year and the 2022 Test Year are 3,050,825,400 kWh and 3,048,557,136 kWh as shown in Table 3-5 above. These amounts represent weather normalized billed kWh but the forecasted billed kWh amounts shown in Table 3-15 above are based on actual weather conditions, which means they are weather non-normalized. In order to reconcile these numbers back to the macro forecast, the non-weather normalized kWh amounts, identified in Table 3-14, are adjusted based on weather sensitivity factors.

To determine the weather sensitivity of the various rate classes, London Hydro utilized the HONI weather sensitivity data prepared in the 2006 Load Profile Study. London Hydro then calculated the weighted average percentage of sensitive load and applied these percentages to the amounts calculated in Table 3-15 above to derive the total weather sensitive load by rate class. The results are presented in Table 3-16 below.

TABLE 3-16: Weather Sensitive Load

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Calculation of Weather Sensitive Load									
% of Load	100.0%	100.0%	76.5%	48.9%	44.4%				
2021	1,196,535,759	369,785,426	1,028,886,725	16,411,833	42,948,189	-	-	-	2,654,567,932
2022	1,218,771,216	365,125,314	1,009,523,872	14,789,195	40,302,920	-	-	-	2,648,512,517

London Hydro then allocated the necessary weather normalization adjustment among the rate classes based on their weather sensitive load calculated in Table 3-16 above. The results are presented in Table 3-17 below.



TABLE 3-17: Weather Normalization Adjustment

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Allocation of Weather Adjustment									
Percent	45.1%	13.9%	38.8%	0.6%	1.6%	0.0%	0.0%	0.0%	100.0%
2021	(5,910,431)	(1,826,599)	(5,082,309)	(81,068)	(212,148)	-	-	-	(13,112,555)
Percent	46.0%	13.8%	38.1%	0.6%	1.5%	0.0%	0.0%	0.0%	100.0%
2022	1,224,122	366,728	1,013,956	14,854	40,480	-	-	-	2,660,140

To calculate the 2021 Bridge Year and 2022 Test Year weather normalized kWh forecast, London Hydro added the results of Table 3-16 and the results of Table 3-17. The resulting weather normalized billed kWh forecast is presented in Table 3-18 below. Amounts presented here exclude any adjustments for kWh related to Wholesale Market Participants.

TABLE 3-18: Total Weather Normalized kWh by Rate Class

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Allocation of Weather Adjustment									
TOTAL NORMALIZED LOAD FORECAST									
2021	1,190,625,328	367,958,827	1,340,571,268	33,474,101	96,452,693	15,876,132	497,133	5,369,918	3,050,825,400
2022	1,219,995,338	365,492,042	1,321,343,373	30,252,424	90,751,530	14,936,832	462,196	5,323,401	3,048,557,136

In order to properly forecast the 2021 Bridge Year and 2022 Test Year Load, London Hydro needs to add the Load Forecast for the forecasted kWh related to the WMP noted in Section 3.2.4 above. For more information on the CDM Adjustment and the WMP Adjustment, please see Section 3.2.6 and Section 3.2.4 respectively. The results of these adjustments are presented in Table 3-19 below.

TABLE 3-19: WMP Adjustments

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
WMP ADJUSTMENT									
2021			14,942,996						14,942,996
2022			14,791,025						14,791,025

London Hydro's total weather normalized load forecast, including WMP, is shown in Table 3-20 below.

TABLE 3-20: LONDON HYDRO'S WEATHER NORMALIZED LOAD FORECAST

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen	Large User	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
TOTAL ADJUSTED WEATHER NORMALIZED LOAD FORECAST									
2021	1,190,625,328	367,958,827	1,355,514,264	33,474,101	96,452,693	15,876,132	497,133	5,369,918	3,065,768,396
2022	1,219,995,338	365,492,042	1,336,134,398	30,252,424	90,751,530	14,936,832	462,196	5,323,401	3,063,348,161

3.2.9 BILLED KW LOAD FORECAST

The volumetric revenue components for General Service > 50 kW, Co-Generation, Large Use, Street Lighting and Sentinel Lighting are calculated based on billed kW demand. Since the load



1 forecast is calculated based on kWh, forecasted kW for these classes must be correlated with the
 2 forecasted kWh for each class.

3 London Hydro began with the annual historic billed kW as reported in the applicable annual RRR
 4 submissions and adjusted the data for the reclassifications noted above. The results are
 5 presented in Table 3-21 below.

6 **TABLE 3-21: Historical kW by Rate Class by Year**

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen Stand-by	Co-Gen Non Stand-by	Co-Gen Total	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Demand (kW)											
2017	-	-	3,725,836	156,400	72,028	228,428	227,574	56,255	1,611	-	4,239,704
2018	-	-	3,758,358	172,800	92,245	265,045	221,495	44,446	1,497	-	4,290,842
2019	-	-	3,668,057	172,800	55,791	228,591	216,189	46,619	1,472	-	4,160,927
2020	-	-	3,432,957	172,800	69,257	242,057	189,814	47,272	1,452	-	3,913,552
Average (2017 to 2020)	-	-	3,646,302	168,700	72,330	241,030	213,768	48,648	1,508	-	4,151,256

8 London Hydro then calculated the annual historical ratios, excluding Co-Generation, between the
 9 historical kW in Table 3-21 and the historical kWh in Table 3-11. London Hydro utilized the
 10 average from the past four years (2017 to 2020) to calculate the average kW/kWh relationships.
 11 London Hydro believes these four years best represent the current economic situation of its
 12 service territory and take into consideration the stabilization after the global recession. The results
 13 are presented in Table 3-22 below.

14 **TABLE 3-22: Historical Billed kW/ kWh Ratio by Rate Class by Year**

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen Stand-by	Co-Gen Non Stand-by	Co-Gen Total	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Percentage of kW to kWh											
2017			0.260%				0.190%	0.280%	0.270%		
2018			0.250%				0.190%	0.280%	0.270%		
2019			0.250%				0.200%	0.280%	0.270%		
2020			0.250%				0.180%	0.280%	0.270%		
Average (2017 to 2020)			0.253%				0.190%	0.280%	0.270%		

16 To derive the 2021 Bridge Year forecast for the demand-based rate classes excluding Co-
 17 Generation, London Hydro applied the average relationship by rate class to the 2021 Bridge Year
 18 weather normalized forecast. The same approach is taken for the 2022 Test Year kW forecast.
 19 For Co-Generation, London Hydro is using the stand-by boilerplate generation plus the last four
 20 year's historical average, as shown in Table 3-20 above. Based on the calculations in Table 3-
 21 23, London Hydro also added an adjustment to reflect the Wholesale Market Participants. The
 22 results are presented in Table 3-23 below.

TABLE 3-23: Forecasted Billed kW by Rate Class by Year

Year	Residential	General Service < 50 kW	General Service > 50 kW	Co-Gen Stand-by	Co-Gen Non Stand-by	Co-Gen Total	Large Use	Street Lighting (Conn)	Sentinel Lighting (Conn)	Unmetered Scattered Load (Conn)	Total
Total Demand Forecast (kW)											
2021	-	-	3,384,942	172,800	72,330	245,130	183,260	44,453	1,342	-	3,859,127
2022	-	-	3,336,392	172,800	72,330	245,130	172,428	41,823	1,248	-	3,797,021
WMP Adjustment											
2021	-	-	27,449	-	-	-	-	-	-	-	27,449
2022	-	-	27,170	-	-	-	-	-	-	-	27,170
Total Adjusted Demand (kW)											
2021	-	-	3,412,391	172,800	72,330	245,130	183,260	44,453	1,342	-	3,886,576
2022	-	-	3,363,562	172,800	72,330	245,130	172,428	41,823	1,248	-	3,824,191

3.2.10 SUMMARY OF 2021 AND 2022 LOAD FORECAST

Table 3-24 below provides a summary of the total forecasted customer/connections, forecasted billed kWh and kW for all customer classes but excludes WMP for the 2021 Bridge Year and the 2022 Test Year. These values are used for the calculation of energy revenue in the working capital calculation.

TABLE 3-24: Weather Normalized Load Forecasted by Rate Class

Weather Normalized Load Forecast by Rate Class							
Line No.	Rate Class	2021			2022		
		Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
1	Residential	148,601	1,190,625,328	-	150,243	1,219,995,338	-
2	GS < 50 kW	12,981	367,958,827	-	13,071	365,492,042	-
3	GS > 50 - 4,999 kW	1,520	1,340,571,268	3,384,942	1,507	1,321,343,373	3,336,392
4	Wholesale Market Participant						
5	Co-Generation Standby	9	33,474,101	72,330	9	30,252,424	72,330
				172,800			172,800
6	Large Use	1	96,452,693	183,260	1	90,751,530	172,428
7	Street Lights	38,348	15,876,132	44,453	38,898	14,936,832	41,823
8	Sentinel Lights	498	497,133	1,342	476	462,196	1,248
9	Unmetered Scattered Load	1,536	5,369,918	-	1,539	5,323,401	-
10	Total	203,494	3,050,825,400	3,859,127	205,744	3,048,557,136	3,797,021

Table 3-25 below provides a summary of the total forecasted customer/connections, forecasted billed kWh and kW for all customer classes including WMP for the 2021 Bridge Year and the 2022 Test Year. These values are used for the cost allocation and rate design.



TABLE 3-25: Load Forecast for Cost Allocation & Distribution Rate Design

Weather Normalized Load Forecast by Rate Class - Used for Cost Allocation and Distribution Rate Design							
Line No.	Rate Class	2021			2022		
		Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
1	Residential	148,601	1,190,625,328	-	150,243	1,219,995,338	-
2	GS < 50 kW	12,981	367,958,827	-	13,071	365,492,042	-
3	GS > 50 - 4,999 kW	1,520	1,340,571,268	3,384,942	1,507	1,321,343,373	3,336,392
4	Wholesale Market Participant	4	14,942,996	27,449	4	14,791,025	27,170
5	Co-Generation	9	9,877,153	72,330	9	8,926,538	72,330
	Standby		23,596,948	172,800		21,325,887	172,800
6	Large Use	1	96,452,693	183,260	1	90,751,530	172,428
7	Street Lights	38,348	15,876,132	44,453	38,898	14,936,832	41,823
8	Sentinel Lights	498	497,133	1,342	476	462,196	1,248
9	Unmetered Scattered Load	1,536	5,369,918	-	1,539	5,323,401	-
10	Total	203,498	3,065,768,396	3,886,576	205,748	3,063,348,161	3,824,191

London Hydro has completed RRWF Sheet 10 Load Forecast, which has been filed in Live Excel format with the RRWF.

3.3 ACCURACY OF LOAD FORECAST AND VARIANCE ANALYSES

Provided in the following sections is London Hydro's analysis of the accuracy of the historical load forecast covering 2017 OEB Approved Proxy, historical actual results from 2017 to 2020, the 2021 Bridge Year and the 2022 Test Year. The analysis has been completed on the following basis:

Distribution Revenue 2017 OEB Approved, 2017, 2018, 2019 and 2020 Actual,
Billing Determinants 2017 OEB Approved, 2017, 2018, 2019 and 2020 Actual,
Explanation of Changes 2017 OEB Approved, 2017, 2018, 2019 and 2020 Actual,
Distribution Revenue 2020 Actual, 2021 Forecast and 2022 Proposed,
Billing Determinants 2020 Actual, 2021 Forecast and 2022 Proposed,
Explanation of Changes 2020 Actual, 2021 Forecast and 2022 Proposed, and
Distribution Revenue calculated on the basis of existing rates and proposed rates.

London Hydro has completed Appendix 2-IB Customer, Connections, Load Forecast and Revenues Data and Analysis filed in the live excel OEB Appendix 2. All historical data has been reported as presented in the OEB RRR filings. All historical amounts reflect actual weather conditions in the year and include the unbilled estimates.

3.3.1 Distribution Revenue Variance Analysis 2017 Board Approved, 2017/2018/2019/2020 Actual

The following variance analysis has been provided based on London Hydro's materiality threshold per the materiality calculation being noted in Exhibit 1 of this Application. London Hydro has chosen to use \$397,000 as its basis for variance analysis of Distribution Revenue.

Table 3-26 below shows the variances by rate class for Distribution Revenue. Variances outside of the materiality threshold are discussed in detail below. Total distribution revenue amounts tie to those filed in RRR 2.1.7 annually and to the audited financial statements, unless otherwise noted. London Hydro accrues for unbilled revenue at the end of each period, which is later reversed and replaced with the actual results.



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TABLE 3-26: Distribution Revenue Variance Analysis

Rate Class	2017	2017	2018	2019	2020
	OEB Approved	Actual	Actual	Actual	Actual
	\$	\$	\$	\$	\$
	A	B	C	D	E
Residential	41,842,702	41,980,668	43,603,706	42,826,304	44,271,919
GS <50 kW	9,124,600	8,927,718	9,360,419	9,281,935	9,665,015
GS 50 to 4,999 kW	12,557,215	12,967,622	13,330,395	12,919,878	13,454,157
GS 1,000 to 4,999 kW (Co-Generation)	331,582	273,236	421,351	178,464	353,519
Large Use >5MW	657,627	656,394	652,074	630,731	645,595
Street Light	1,224,883	1,048,425	964,606	977,047	973,529
Sentinel	62,214	49,868	52,950	51,327	51,658
Unmetered Scattered Load	150,738	135,881	153,937	162,456	158,197
Standby Power	387,527	477,649	545,534	546,262	550,670
Total	66,339,088	66,517,461	69,084,974	67,574,404	70,124,259

Rate Class	2017	2018	2019	2020	2020 Actual
	Actual	Actual	Actual	Actual	2017 BA
	\$	\$	\$	\$	\$
	B - A	C - B	D - C	E - D	E - A
Residential	137,966	1,623,038	(777,402)	1,445,615	2,429,217
GS <50 kW	(196,882)	432,701	(78,484)	383,080	540,415
GS 50 to 4,999 kW	410,407	362,774	(410,517)	534,279	896,942
GS 1,000 to 4,999 kW (Co-Generation)	(58,346)	148,115	(242,887)	175,056	21,937
Large Use >5MW	(1,233)	(4,320)	(21,343)	14,863	(12,032)
Street Light	(176,458)	(83,819)	12,441	(3,519)	(251,354)
Sentinel	(12,346)	3,083	(1,624)	332	(10,556)
Unmetered Scattered Load	(14,857)	18,056	8,519	(4,259)	7,459
Standby Power	90,122	67,885	728	4,407	163,143
Total	178,373	2,567,513	(1,510,570)	2,549,855	3,785,171

Rate Class	2017	2018	2019	2020	2020 Actual
	Actual	Actual	Actual	Actual	2017 BA
	%	%	%	%	%
	B - A	C - B	D - C	E - D	E - A
Residential	0.3%	3.9%	-1.8%	3.4%	5.8%
GS <50 kW	-2.2%	4.8%	-0.8%	4.1%	5.9%
GS 50 to 4,999 kW	3.3%	2.8%	-3.1%	4.1%	7.1%
GS 1,000 to 4,999 kW (Co-Generation)	-17.6%	54.2%	-57.6%	98.1%	6.6%
Large Use >5MW	-0.2%	-0.7%	-3.3%	2.4%	-1.8%
Street Light	-14.4%	-8.0%	1.3%	-0.4%	-20.5%
Sentinel	-19.8%	6.2%	-3.1%	0.6%	-17.0%
Unmetered Scattered Load	-9.9%	13.3%	5.5%	-2.6%	4.9%
Standby Power	23.3%	14.2%	0.1%	0.8%	42.1%
Total	0.3%	3.9%	-2.2%	3.8%	5.7%

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3 Table 3-27 below details the differences by year for billing determinants. 2017 OEB Approved
 4 quantities were derived from Settlement Table # 12: 2017 Test Year Billing Determinants (for Cost
 5 Allocation and Rate Design) as found on Page 26 of the 2017 OEB Approved Settlement
 6 Agreement. Annual billing quantities were derived from the OEB Annual RRR reporting.
 7 Customer/Connections are the year-end values as reported in the RRR filings.



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TABLE 3-27: Comparison of Billing Determinants

Rate Class	2017 OEB Approved			2017 Actual			Difference		
	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
Residential	141,991	1,080,124,093	-	142,206	1,041,232,119	-	215	(38,891,974)	-
GS <50 kW	12,703	388,005,727	-	12,575	384,261,420	-	(128)	(3,744,307)	-
GS 50 to 4,999 kW	1,556	1,500,902,793	3,814,310	1,598	1,456,743,101	3,725,836	42	(44,159,692)	(88,474)
GS 1,000 to 4,999 kW (Co-Generation)	4	10,938,724	72,320	6	44,968,462	72,028	2	34,029,738	(292)
Large Use >5MW	1	95,045,673	182,963	1	117,005,431	227,574	-	21,959,758	44,611
Street Light	36,048	22,397,552	62,713	36,184	20,022,458	1,611	136	(2,375,094)	(61,102)
Sentinel	606	696,900	1,882	584	592,608	56,255	(22)	(104,292)	54,373
Unmetered Scattered Load	1,526	5,414,248	-	1,515	5,549,550	-	(11)	135,302	-
Standby Power	-	23,414,113	154,800	-	-	156,400	-	(23,414,113)	1,600
Total	194,435	3,126,939,823	4,288,988	194,669	3,070,375,149	4,239,704	234	(56,564,674)	(49,284)
Rate Class	2017 Actual			2018 Actual			Difference		
	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
Residential	142,206	1,041,232,119	-	143,918	1,134,273,427	-	1,712	93,041,308	-
GS <50 kW	12,575	384,261,420	-	12,634	396,936,108	-	59	12,674,688	-
GS 50 to 4,999 kW	1,598	1,456,743,101	3,725,836	1,615	1,497,045,852	3,758,358	17	40,302,751	32,523
GS 1,000 to 4,999 kW (Co-Generation)	6	44,968,462	72,028	7	48,833,253	92,245	1	3,864,791	20,217
Large Use >5MW	1	117,005,431	227,574	1	116,791,074	221,495	-	(214,357)	(6,079)
Street Light	36,184	20,022,458	1,611	36,831	15,903,208	1,497	647	(4,119,250)	(114)
Sentinel	584	592,608	56,255	540	550,596	44,446	(44)	(42,012)	(11,809)
Unmetered Scattered Load	1,515	5,549,550	-	1,522	5,496,547	-	7	(53,003)	-
Standby Power	-	-	156,400	-	-	172,800	-	-	16,400
Total	194,669	3,070,375,149	4,239,704	197,068	3,215,830,065	4,290,842	2,399	145,454,916	51,138
Rate Class	2018 Actual			2019 Actual			Difference		
	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
Residential	143,918	1,134,273,427	-	145,514	1,099,830,560	-	1,596	(34,442,867)	-
GS <50 kW	12,634	396,936,108	-	12,771	395,444,422	-	137	(1,491,686)	-
GS 50 to 4,999 kW	1,615	1,497,045,852	3,758,358	1,572	1,456,298,256	3,668,057	(43)	(40,747,596)	(90,302)
GS 1,000 to 4,999 kW (Co-Generation)	7	48,833,253	92,245	7	35,020,139	55,791	-	(13,813,114)	(36,454)
Large Use >5MW	1	116,791,074	221,495	1	110,801,181	216,189	-	(5,989,893)	(5,306)
Street Light	36,831	15,903,208	1,497	37,110	16,623,912	1,472	279	720,704	(26)
Sentinel	540	550,596	44,446	525	541,973	46,619	(15)	(8,624)	2,173
Unmetered Scattered Load	1,522	5,496,547	-	1,543	5,501,898	-	21	5,351	-
Standby Power	-	-	172,800	-	-	172,800	-	-	-
Total	197,068	3,215,830,065	4,290,842	199,043	3,120,062,340	4,160,927	1,975	(95,767,725)	(129,915)
Rate Class	2019 Actual			2020 Actual			Difference		
	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
Residential	145,514	1,099,830,560	-	146,977	1,174,570,751	-	1,463	74,740,191	-
GS <50 kW	12,771	395,444,422	-	12,891	374,492,024	-	120	(20,952,397)	-
GS 50 to 4,999 kW	1,572	1,456,298,256	3,668,057	1,534	1,371,744,687	3,432,957	(38)	(84,553,569)	(235,100)
GS 1,000 to 4,999 kW (Co-Generation)	7	35,020,139	55,791	8	36,277,791	69,257	1	1,257,651	13,466
Large Use >5MW	1	110,801,181	216,189	1	103,009,408	189,814	-	(7,791,772)	(26,375)
Street Light	37,110	16,623,912	1,472	37,806	16,908,317	1,452	696	284,405	(20)
Sentinel	525	541,973	46,619	520	534,360	47,272	(5)	(7,613)	654
Unmetered Scattered Load	1,543	5,501,898	-	1,533	5,417,919	-	(10)	(83,978)	-
Standby Power	-	-	172,800	-	-	172,800	-	-	-
Total	199,043	3,120,062,340	4,160,927	201,270	3,082,955,257	3,913,552	2,227	(37,107,083)	(247,375)

2

3 The following Table 3-28 is to show the heating and cooling degree days for the city of London
 4 and the 10 year normalized average (2011 - 2020). This is used to explain the impact of weather
 5 on the annual reporting results.

1

TABLE 3-28: Heating and cooling Degree Days

HDD

	Norm10	2016	2017	2018	2019	2020
1	711.8	683.2	624.9	743.2	769.8	595.1
2	635.3	589.6	499.6	567.5	623.1	604.6
3	551.0	461.0	556.3	587.7	602.9	464.0
4	356.2	384.2	259.6	453.0	345.9	379.5
5	147.9	152.5	190.2	91.5	182.2	208.3
6	45.1	56.0	44.2	38.3	50.2	39.6
7	16.7	15.8	13.3	16.8	12.8	4.8
8	26.1	9.3	36.6	9.8	24.4	22.7
9	83.7	60.2	81.9	70.2	60.2	99.0
10	245.9	220.1	187.5	287.5	238.6	280.4
11	429.9	351.2	442.2	509.6	516.5	352.3
12	579.8	627.9	708.6	565.5	572.0	573.9
HDD Total	3,829.4	3,610.9	3,644.9	3,940.4	3,998.6	3,624.2

CDD

	Norm10	2016	2017	2018	2019	2020
1	-	-	-	-	-	-
2	-	-	-	-	-	-
3	1.0	-	0.1	-	-	0.0
4	2.1	4.7	5.7	0.8	0.2	-
5	37.3	40.0	19.1	65.9	11.9	30.0
6	78.8	85.9	81.1	79.0	62.1	99.1
7	137.1	145.2	107.3	133.6	150.1	175.7
8	98.8	142.9	73.0	129.5	94.2	105.9
9	50.4	66.9	62.7	71.4	47.7	32.3
10	7.6	12.0	16.8	13.0	4.8	2.5
11	0.5	0.4	-	-	-	2.2
12	-	-	-	-	-	-
CDD Total	413.6	497.9	365.8	493.1	370.9	447.6

2

3 **3.3.2 2017 Actual versus 2017 OEB Approved**

4 2017 Distribution revenues were \$178K (0.3%) higher than forecasted with residential \$138K and
5 GS>50 kW \$410K higher than forecasted and GS<50 kW \$197K and Street Lighting \$176K being
6 below forecast. 2016 was the first year of the four year OEB initiative to move the residential
7 class to fully fixed rates hence the continuing volumetric decline has had reduced impact on
8 revenues on an ongoing basis. In 2017 76.1% of residential customers transitioned to fixed rates.

1 3.3.3 2018 Actual versus 2017 Actual

2 2018 Distribution revenues were \$2,568K (3.9%) higher than the 2017 Actual with residential
3 \$1,623K, GS < 50 kW \$432K and GS 50 to 4,999 kW \$363K higher. The driving force for the
4 higher overall increase would be the annual IRM increase of 1.05% in May 2018. The driving
5 force for the higher residential recovery is the increase of 1,712 new customers. 2018 overall
6 also experienced colder temperatures with the heating degree days being 3,940.4 versus 3,644.9
7 in 2017, as well as a warmer summer than 2017 with the cooling degree days being 493.1 with
8 2017 being 365.8. This impact was mitigated by the increase from 76.1% of residential customers
9 transitioned to fixed rates in 2017 compared to 85.8% of residential customers transitioned to
10 fixed rates in 2018. As discussed in our Load Forecast in Exhibit 3.2 on January 1, 2018. London
11 Hydro transferred a net of 10 customers from GS>50 kW rate class to the GS<50 kW rate class.
12 It is estimated that each of the net transfers results in lost revenue of \$1,500 per year or \$15K in
13 2018.

14 3.3.4 2019 Actual versus 2018 Actual

15 2019 Distribution revenues were \$1,511K (2.2%) lower than the 2018 Actual with residential
16 \$777k and GS 50 to 4,999 kW \$411K lower. The overall decrease was mitigated by the annual
17 IRM increase of 1.20% in May 2019, as well as an increase of 1596 new residential customers.
18 The driving force for the overall decrease from 2018 is the increase from 85.8% of residential
19 customers transitioned to fixed rates in 2018 versus 96.6% of residential customers transitioned
20 to fixed rates in 2019, with all residential customer having been transitioned to fixed rates by May
21 1, 2019. 2019 overall also experienced a cooler summer than 2018 with the cooling degree days
22 being 370.9 with 2018 being 493.1. As discussed in our Load Forecast in Exhibit 3.2 on January
23 1, 2019 London Hydro transferred a net of 42 customers from GS>50 kW rate class to the GS<50
24 kW rate class. It is estimated that each of the net transfers results in lost revenue of \$1,500 per
25 year or \$63K in 2019.

26 3.3.5 2020 Actual versus 2019 Actual

27 2020 Distribution revenues were \$2,550K (3.8%) higher than the 2019 Actual with residential
28 \$1,446K, GS < 50 kW \$383K and GS 50 to 4,999 kW \$534K higher. The driving force for the
29 higher overall increase would be the annual IRM increase of 1.70%, which was deferred to
30 November from May due to the pandemic. In addition, there was an increase of 1463 new



1 residential customers. 2020 overall also experienced a warmer summer than 2019 with the
2 cooling degree days being 447.6 with 2019 being 370.9. As discussed in our Load Forecast in
3 Exhibit 3.2 on January 1, 2020 London Hydro transferred a net of 52 customers from GS>50 kW
4 rate class to the GS<50 kW rate class. It is estimated that each of the net transfers results in lost
5 revenue of \$1,500 per year or \$78K in 2020.

6

7 **3.3.6 Distribution Revenue Variance Analysis 2020 Actual, 2021 Forecast, 2022 Proposed**

8

9 Table 3-29 below shows the 2020 Actual, 2021 Forecasted, and 2022 Proposed revenues and
10 comparisons.



1

TABLE 3-29: Comparison of Forecasted Revenues

Rate Class	2020	2021	2022
	Actual	Bridge Year	Test Year Pro
	\$	\$	\$
	E	F	G
Residential	44,271,919	45,095,815	52,382,881
GS <50 kW	9,665,015	9,792,809	10,488,655
GS 50 to 4,999 kW	13,454,157	13,039,691	13,436,696
GS 1,000 to 4,999 kW (Co-Generation)	353,519	452,261	297,448
Large Use >5MW	645,595	620,768	672,402
Street Light	973,529	1,030,407	1,260,037
Sentinel	51,658	52,251	69,384
Unmetered Scattered Load	158,197	150,861	191,079
Standby Power	550,670	554,336	532,363
Total	70,124,259	70,789,200	79,330,946
Rate Class	2020	2021	2022
	Actual	Forecast	Forecast
		\$	\$
		F - E	G - F
Residential		823,896	7,287,066
GS <50 kW		127,793	695,847
GS 50 to 4,999 kW		(414,466)	397,005
GS 1,000 to 4,999 kW (Co-Generation)		98,742	(154,813)
Large Use >5MW		(24,826)	51,634
Street Light		56,878	229,629
Sentinel		593	17,133
Unmetered Scattered Load		(7,336)	40,218
Standby Power		3,667	(21,973)
Total		664,941	8,541,746
Rate Class	2020	2021	2022
	Actual	Forecast	Forecast
		%	%
		F - E	G - F
Residential		1.9%	16.2%
GS <50 kW		1.3%	7.1%
GS 50 to 4,999 kW		-3.1%	3.0%
GS 1,000 to 4,999 kW (Co-Generation)		27.9%	-34.2%
Large Use >5MW		-3.8%	8.3%
Street Light		5.8%	22.3%
Sentinel		1.1%	32.8%
Unmetered Scattered Load		-4.6%	26.7%
Standby Power		0.7%	-4.0%
Total		0.9%	12.1%

2



1 Table 3-30 below shows the 2020 Actual, 2021 Forecasted, and 2022 Proposed billing
 2 determinants and comparison.

3 **TABLE 3-30: Comparison of Forecasted Billing Determinants**

Rate Class	2020 Actual			2021 Bridge Year			Difference		
	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
Residential	146,977	1,174,570,751	-	148,601	1,190,625,328	-	1,624	16,054,577	-
GS <50 kW	12,891	374,492,024	-	12,981	367,958,827	-	90	(6,533,197)	-
GS 50 to 4,999 kW	1,534	1,371,744,687	3,432,957	1,524	1,355,514,264	3,412,391	(10)	(31,173,419)	(48,015)
GS 1,000 to 4,999 kW (Co-Generation)	8	36,277,791	69,257	9	33,474,101	72,330	1	(2,803,689)	3,073
Large Use >5MW	1	103,009,408	189,814	1	96,452,693	183,260	-	(6,556,715)	(6,554)
Street Light	37,806	16,908,317	1,452	38,348	15,876,132	44,453	542	(1,032,185)	43,001
Sentinel	520	534,360	47,272	498	497,133	1,342	(22)	(37,227)	(45,930)
Unmetered Scattered Load	1,533	5,417,919	-	1,536	5,369,918	-	3	(48,001)	-
Standby Power	-	-	172,800	-	-	172,800	-	-	-
Total	201,270	3,082,955,257	3,913,552	203,498	3,065,768,396	3,886,576	2,228	(32,129,857)	(54,424)

Rate Class	2021 Bridge Year			2022 Test Year			Difference		
	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW	Cust/Conn	kWh	kW
Residential	148,601	1,190,625,328	-	150,243	1,219,995,338	-	1,642	29,370,010	-
GS <50 kW	12,981	367,958,827	-	13,071	365,492,042	-	90	(2,466,785)	-
GS 50 to 4,999 kW	1,524	1,355,514,264	3,412,391	1,511	1,336,134,398	3,363,562	(13)	(19,227,895)	(48,550)
GS 1,000 to 4,999 kW (Co-Generation)	9	33,474,101	72,330	9	30,252,424	72,330	0	(3,221,677)	-
Large Use >5MW	1	96,452,693	183,260	1	90,751,530	172,428	-	(5,701,163)	(10,832)
Street Light	38,348	15,876,132	44,453	38,898	14,936,832	41,823	550	(939,300)	(2,630)
Sentinel	498	497,133	1,342	476	462,196	1,248	(22)	(34,937)	(94)
Unmetered Scattered Load	1,536	5,369,918	-	1,539	5,323,401	-	3	(46,517)	-
Standby Power	-	-	172,800	-	-	172,800	-	-	-
Total	203,498	3,065,768,396	3,886,576	205,748	3,063,348,161	3,824,191	2,250	(2,268,264)	(62,106)

4
 5 **3.3.7 2021 Forecast versus 2020 Actual**

6 London Hydro anticipates an increase of \$665K in distribution revenue for the year 2021 with
 7 residential \$824K higher and GS 50 to 4,999 kW \$414K lower. In May 2021 rates have been
 8 increased by the annual IRM application by 1.90%¹¹. Residential and GS<50 kW customer
 9 accounts continue to grow however kWh volumes are anticipated to decline with energy saving
 10 initiatives. 2019 was the final year of the four year OEB initiative to move the residential class to
 11 fully fixed rates hence the continuing volumetric decline will have reduced impacts on revenues
 12 on an ongoing basis. As discussed in our Load Forecast in Exhibit 3.2 on January 1, 2021 London
 13 Hydro transferred a net of 35 customers from GS>50 kW rate class to the GS<50 kW rate class.
 14 It is estimated that each of the net transfers results in lost revenue of \$1,500 per year or \$53k in
 15 2021.

¹¹ London Hydro has applied the May 1, 2021 rates against the full year 2021 load forecast for comparative purposes here and would suggest this resulting revenue value would be lower due to the lower rates actually applied for January 1 to April 30, 2021.

3.3.8 2022 Proposed versus 2021 Forecast

As explained more fully in the revenue deficiency discussion in Exhibit 6 London Hydro is requesting a 10.80% (\$7.8M) adjustment to distribution rates, including \$717,510 in transformer ownership allowance. This change is the driving force behind the increase in 2022 revenues over 2021. The detail on changes between the rate classes is further explained in the cost allocation discussion in Exhibit 7.

3.3.9 Distribution Revenue Variance Analysis 2022 at Current vs 2022 proposed

Table 3-31 below shows the 2022 forecasted throughput distribution revenues at current rates vs 2022 proposed revenues and comparison.

TABLE 3-31: Comparison Test Year at Current Rates vs Proposed Rates

Rate Class	2022	2022	2022	2022
	Current Rates	Proposed Rates	Change	Change
	\$	\$	\$	%
		G		
Residential	46,839,758	52,382,881	5,543,124	11.83%
GS <50 kW	9,527,811	10,488,655	960,845	10.08%
GS 50 to 4,999 kW	12,150,624	13,436,696	1,286,072	10.58%
GS 1,000 to 4,999 kW (Co-Generation)	493,871	297,448	(196,423)	-39.77%
Large Use >5MW	671,680	672,402	722	0.11%
Street Light	1,175,963	1,260,037	84,074	7.15%
Sentinel	48,116	69,384	21,269	44.20%
Unmetered Scattered Load	157,755	191,079	33,324	21.12%
Standby Power	464,642	532,363	67,721	14.57%
Total	71,530,218	79,330,946	7,800,728	10.91%

This is explained more fully in Exhibit 7. London Hydro is requesting a 10.80% (\$7.8M) adjustment, including the transformer ownership allowance to distribution rates.

3.3.10 OTHER INFORMATION

London Hydro has completed Appendix 2-IB Customer, Connections, Load Forecast and Revenues Data and Analysis, which is filed in excel live and PDF.

3.4 OTHER REVENUES

3.4.1 Overview

Other revenue relates to all utility revenues other than the distribution and costs of power revenues – in other words, it is revenue that is distribution in nature but that is not sourced from distribution rates. London Hydro classifies other revenues into the following categories, which reflect the same categories used in London Hydro’s 2017 cost of service application:

- Late Payment Charges,
- Specific Service Charges,
- Retailer Service Charges,
- Other Regulated Revenue, and
- Interest Revenue

This Exhibit will reflect the revenue associated with each category or sub-category from years 2017 (last rebasing year) to 2022 (Test Year). Variances by each sub-category of other revenue are provided.

Late Payment Charges:

London Hydro proposes to continue to charge 1.5 percent per month (19.56 percent annually) for late payments. This would be applied to all accounts not paid by the due date. Bills are due and payable twenty days from the issue date. A late payment charge (“LPC”) is levied on any bill, excluding final bills, with no minimum set. The charge is based on the average daily balance outstanding including all charges, except deposits outstanding between the late payment due date and the LPC processing date.

Specific Service Charges:

London Hydro charges user fees for certain services. Some of these services are provided at the customer’s request, such as setting up an account. Others result from London Hydro’s business operations. London Hydro does not propose any changes to these specific service charges.

A number of London Hydro’s specific service charges, designed to recover the costs of providing these services, are described in the following sections.

1 **Arrears Certificates:**

2 This is a charge levied to research and issue a certificate of arrears per service address. This is
3 typically provided to lawyers during a property purchase.

4 **Reconnection Charges:**

5 A charge is levied to cover the additional costs of reconnecting a customer following a
6 disconnection for arrears reasons. Different amounts are charged based on whether the
7 reconnection is done at the pole or at the meter and if the reconnection is completed during regular
8 hours or after regular hours.

9 **Account Setup Charge:**

10 When a customer establishes a new account, a charge is applied to their first bill to cover the cost
11 of setting up the new account.

12 **Temporary Service Install and Remove Overhead – No Transformer:**

13 This is a charge for temporarily disconnecting then reconnecting electrical service so that
14 construction or maintenance can be completed.

15 **Credit Reference/Credit Check:**

16 Customers opening an account may qualify for a waiver on a security deposit based on a
17 satisfactory credit check. This credit check is done at the customer's expense.

18 **Returned Payment Charge:**

19 This charge is applied to a customer's account for each payment that cannot be processed.

20 **Request for Other Billing Information:**

21 This charge is applied to a customer's account to provide additional information such as a letter
22 of reference of income tax letter.

23 **Standby Charge:**

24 Standby charges are rates paid by customers to receive power from the grid only at times when
25 their distributed generation system is unavailable (during routine maintenance, unplanned
26 outages or supplemental power requirements).

1 **Meter Test Charge:**

2 Customers who believe that their meter is reading incorrectly may request meter verification by
3 Measurement Canada. This charge is applied to a customer's account if the Measurement
4 Canada report indicates that the meter was reading correctly.

5 **Manual Interval Data Collection Charge:**

6 This charges is applied to a customer with an interval meter when the meter read cannot be
7 completed over the phone line, which may not be in working order or is not properly installed. It
8 is the customer's responsibility to maintain these phone lines.

9 **Cellular Meter Read Charge**

10 London Hydro's central metering data collection system is capable to communicate with the
11 interval-style revenue meters via cellular-based communications. This is a "plug and play" option
12 with no additional work required by the customer for installation. This is the ongoing cost and
13 maintenance of the cellular connection.

14 **Retail Service Charges:**

15 Retail Service Charges include a standard charge, a monthly fixed charge, a monthly variable
16 charge, a standard distributor consolidated billing charge, a request fee and a processing fee.
17 Each is described in the following section.

18 **Standard Charge:**

19 This is a one-time charge, per retailer, to establish the service agreement between the distributor
20 and the retailer.

21 **Monthly Fixed Charge:**

22 This is a flat monthly charge billed to each active energy retailer for each of their customers.

23 **Monthly Variable Charge:**

24 This is a variable monthly charge billed to each active energy retailer for each of their customers.

25 **Standard Distributor Consolidated Billing Charge:**

26 This is a variable monthly charge billed to each active energy retailer for each of their customers.

1 **Request Fee:**

2 This is a fee for each customer request, and it is applied to the requesting party's account.

3 **Processing Fee:**

4 A processing fee per request is applied to the requesting party's account.

5 **Other Regulated Revenue**

6 Other Regulated Revenue includes Standard Supply Service ("SSS") administration charges,
7 discounts earned on payment terms, microFIT fees, proceeds from the sale of scrap, stale-dated
8 cheque write-off, and other miscellaneous services revenue. Each of these is discussed in more
9 detail below.

10 **SSS Administration Charge:**

11 London Hydro proposes to continue the charge of \$0.25 per customer per month for all customers
12 that receive their electricity commodity from the default, or standard supply service.

13 **microFIT Charge:**

14 London Hydro currently applies a fixed monthly charge of \$4.55 per month to the microFIT
15 generator rate class for the administrative costs associated with supporting microFIT initiatives.
16 The rate is an OEB-approved province-wide charge that reflects the Board's determination of the
17 province-wide average cost for all distributors as per the Board's letter, *Review of Fixed Monthly*
18 *Charge for microFIT Generator Service Classification*, of February 24, 2020.

19 **Pole Rental:**

20 This is a specific charge for access to London Hydro's power poles by other organizations, such
21 as phone and cable companies.

22 **Discounts Earned on Payment Terms:**

23 London Hydro earns a discount from select suppliers by paying invoices before a specified term
24 date (for example 2%, 10 days, net 30). This amount of income reflects the discount earned from
25 these suppliers.

1 **Proceeds from the Sale of Scrap:**

2 London Hydro sells scrap metal and other leftover residual materials after the completion of
3 projects.

4 **Stale-Dated Cheque Write-off:**

5 Cheques which have not been cashed by a customer after a two-year period are placed in income
6 by London Hydro. This is primarily related to final billing of customer accounts with a credit
7 balance where the customer cannot be located.

8 **Capital Usage Charge:**

9 These are charges to affiliate companies for the use of assets owned by London Hydro. In London
10 Hydro's case, this refers primarily to administrative building space rental.

11 **Proceeds from Sale of Fixed Assets:**

12 This includes revenues from the sale of retired assets such as vehicles and other equipment.

13 **Interest Revenue:**

14 Interest revenue includes interest on cash and other short-term investments. Interest expense
15 relating to deferral and variance accounts have been excluded for rate-making purposes.

16 **3.4.2 Other Operating Revenues**

17 The following table summarizes London Hydro's other revenues, included in total revenue
18 requirement. Detailed discussions of the accounts in this summary table follow.

TABLE 3-32: Other Revenues

USofA Account Name	2017 Actual (MIFRS)	2018 Actual (MIFRS)	2019 Actual (MIFRS)	2020 Actual (MIFRS)	2021 Bridge (MIFRS)	2022 Test (MIFRS)
4082 Retail Services Revenues	64,994	54,315	80,321	87,331	79,900	73,500
4084 Service Transaction Requests (STR) Revenues	1,380	809	1,435	1,609	1,600	1,500
4086 SSS Administration Revenue	456,154	464,004	475,084	482,462	483,300	489,200
4210 Rent from Electric Property	551,577	599,381	626,254	621,849	532,000	830,900
4225 Late Payment Charges	1,543,276	1,561,023	1,698,897	2,154,521	1,928,700	1,635,400
4235 Miscellaneous Service Revenues	1,124,808	1,258,257	1,187,182	1,188,398	1,179,000	1,054,500
4235 Microfit Fees	18,846	20,693	20,525	19,705	15,800	15,600
4235 Miscellaneous Service Revenues (recorded as credits in 5330 expenses)	443,498	345,672	132,085	41,529	91,100	91,100
4245 Government and Other Assistance Directly Credited to Income	279,829	411,680	524,629	678,150	836,000	975,000
4355 Gain on Disposition of Utility and Other Property	137,771	219,888	30,880	28,108	116,400	149,500
4390 Miscellaneous Non-Operating Income	692,191	754,636	1,062,881	907,064	634,300	634,800
4398 Foreign Exchange Gains and Losses, Including Amortization	(19,952)	8,593	(11,300)	13,326	-	-
4405 Interest and Dividend Income	161,735	241,600	196,797	149,496	261,127	139,188
TOTAL	5,456,108	5,940,551	6,025,670	6,373,547	6,159,227	6,090,188
4235 Less: amounts recorded in account 5330 as credits to expense	(443,498)	(345,672)	(132,085)	(41,529)	(91,100)	(91,100)
TOTAL REVENUE OFFSETS	5,012,609	5,594,879	5,893,585	6,332,018	6,068,127	5,999,088
OTHER DISTRIBUTION REVENUE						
Late Payment Charges	1,543,276	1,561,023	1,698,897	2,154,521	1,928,700	1,635,400
Specific Service Charges	1,143,654	1,278,949	1,207,708	1,208,102	1,194,800	1,070,100
Other Distribution Revenue	2,325,679	2,754,906	2,986,981	2,969,395	2,944,627	3,293,588
	5,012,609	5,594,879	5,893,585	6,332,018	6,068,127	5,999,088

4082 – Retail Services Revenue

The revenues in this account are comprised of the monthly regulated service fees that are charged to retailers and their customers for the provision of retailer contract maintenance and consolidated billing services. This revenue is driven by the monthly number of retailer customers and number of retailers. The following indicate the annual trends for the following periods:

- December 31, 2017: 21 retailers, 5,599 retailer customers
- December 31, 2018: 21 retailers, 4,805 retailer customers
- December 31, 2019: 20 retailers, 4,260 retailer customers
- December 31, 2020: 19 retailers, 3,586 retailer customers

The 2021 and 2022 forecasted revenues of \$79,900 and \$73,500 respectively are 8.5% and 15.8% lower than the 2020 actual amount of \$87,331 and reflect the fact that the number of retailer customers has steadily been declining over the past number of years. When looking at the revenue trend since 2017, it is important to note that on May 1, 2019, retail service revenue rates



1 increased substantially. The retailer monthly fixed charge doubled from \$20 to \$40. In addition,
2 the customer monthly variable charge increased from \$0.50 to \$1, and the distributor-consolidated
3 monthly billing charge increased from \$0.30 to \$0.60. Since then, these rates have only increased
4 due to an inflationary factor annually. Therefore, 2019 revenue looks high in comparison to prior
5 years – a better metric for comparison is the year-end number of retailers and retailer customers,
6 as outlined above.

7 **4084 – Service Transaction Requests – STR Revenues**

8 The revenue in the account is comprised of the regulated service transaction (“STR”) “request”
9 and “processing” fees that are chargeable to retailers for additions, removals or modifications to
10 their customer records. Annual revenue volumes are driven by the level of activity associated
11 with customer movements to or from retailers. The fluctuation in revenue is primarily customer
12 driven, influenced by factors such as consumer awareness and retailer marketing in the area.
13 Since retailer contracts are generally 3 or 5 year terms, expiry and renewal transactions would
14 not follow a particular annual trend.

15 **4086 – SSS Administration Revenue**

16 The revenue in this account is comprised of the monthly regulated Standard Supply Service
17 administration charge that is billed to customers who have elected to receive default energy
18 supply from London Hydro. The monthly charge is \$0.25 per customer and monthly and yearly
19 revenues are driven by the number of customers receiving default energy supply. The projected
20 increase for 2022 is due to the quantity of SSS customers, influenced both by overall customer
21 growth (new customers) and by an increased number of retailer customers switching to London
22 Hydro supply.

23 **4210 – Rent from Electric Property**

24 Rent from Electric Property is composed of pole rentals, administrative space rental, and duct
25 rentals.



TABLE 3-33: Rent from Electric Property

Item	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Bridge	2022 Test
Revenues	\$ 551,577	\$ 599,381	\$ 626,254	\$ 621,849	\$ 532,000	\$ 830,900
Pole rentals	396,566	443,890	472,449	499,209	495,000	793,000
Administrative Building Space Rental						
City of London	28,966	29,089	29,214	29,400	29,400	30,100
OPA/CDM Programs	105,600	105,600	105,600	75,745		
Duct rentals	20,445	20,802	18,991	17,495	7,600	7,800
Year-over-year Variance		\$ 47,804	\$ 26,873	\$ (4,406)	\$ (89,849)	\$ 298,900

Pole rental revenue for 2017 through 2021 is comprised of the OEB-approved rate of \$22.35 per pole per year for access to power poles primarily by telephone and cable service providers. For 2022, the revenue is budgeted at the OEB-approved rate of \$44.50 per pole per year.

Administrative Building Space Rental includes costs recovered for rental of unused or excess administrative building space. The City of London rents space for its Waterworks Department and it consists of 1,012 square feet and has an Industrial Shop area, an Office, and a Chlorine Storage Room. This rent is an affiliate transaction and is included in the discussion on Corporate Cost Allocation in Exhibit 4. The OPA/CDM rental revenue did not continue past 2020 due to the Ontario government's discontinuation of the Conservation First Framework.

The decrease in duct rental revenue seen in 2021 and 2022 is due to one provider vacating underground duct space at the end of 2020.

4225 – Late Payment Charges

London Hydro charges 1.5% per month (19.56% annually) for late payments, applied to all accounts not paid by the due date. The charge rate has remained constant, and the slight upward trend in LPC revenue reflects an increased balance of overdue accounts which has been primarily related to rising energy prices and, consequently, bill totals for the average customer. There is an unusual increase in 2020 and 2021 due to the influence of the COVID-19 pandemic on the ability of customers to pay their bills on time. LPCs were waived temporarily, and a portion of the 2020 LPC revenue is captured in USoA 1509 – Impacts Arising from the COVID-19 Emergency, and discussed in Exhibit 9. It is expected that the effects of the pandemic on the economy will be reduced by the 2022 Test Year, in which the LPC revenue is back to a level consistent with historical pre-COVID averages.



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4235 – Miscellaneous Service Revenues

This account includes various types of revenue, as outlined below:

TABLE 3-34: Miscellaneous Service Revenues

Item	Rate	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Bridge	2022 Test
Revenues		\$ 1,143,654	\$ 1,278,949	\$ 1,207,708	\$ 1,208,102	\$ 1,194,800	\$ 1,070,100
Interval Metering Charges		69,547	86,715	103,001	112,013	111,300	111,300
Microfit Fees		18,846	20,693	20,525	19,705	15,800	15,600
Cellular Meter Read Fee		33,197	89,502	189,632	242,458	252,000	138,600
Occupancy Charges		649,380	607,710	595,860	578,310	555,500	544,400
Arrears Certificates		13,906	13,431	12,246	9,295	10,200	10,200
Temporary service - install and remove overhead no transformer		20,369	13,619	16,777	5,837	11,922	11,922
Temporary service - install and remove underground no transformer		32,315	12,235	8,941	15,128	14,452	14,452
Temporary service - install and remove - non standard		407,736	449,002	355,895	323,907	323,626	323,626
Miscellaneous Customer Service Charges		21,730	21,498	14,266	11,425	-	-
Billable Services		(123,372)	(35,455)	(109,438)	(109,976)	(100,000)	(100,000)
Year-over-year Variance			\$ 135,295	\$ (71,242)	\$ 395	\$ (13,302)	\$ (124,700)

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Revenue from Billable Services relates to cost recoveries associated with work performed by London Hydro for third parties. This revenue is driven purely by demand and does not follow any particular trend.

Microfit Fees consist of the OEB-approved province-wide charge of \$5.40 per month per customer which was effective until May 1, 2020 and \$4.55 per month per customer since then. The active number of microFIT generation facilities has remained relatively consistent, give or take a few customers, over the last few years and is expected to remain fairly consistent throughout the upcoming few years. The following values indicate the annual trends for the following periods:

- December 31, 2017: 298 microFIT customers
- December 31, 2018: 310 microFIT customers, 4% increase over previous year
- December 31, 2019: 307 microFIT customers, 1% decrease over previous year

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- December 31, 2020: 299 microFIT customers, 2.6% decrease over previous year

The cellular meter read fee has experienced growth over the past few years, as more customers have converted to the cellular option. However, growth has plateaued recently at approximately 46% of the eligible GS>50 customers and, in an effort to maximize conversion in the future, London Hydro proposes a reduction from a fee of \$30 per month per customer to a fee of \$15 per month per customer. It is the opinion of London Hydro that the current rate is impeding customer acceptance of this option and that the reduction in price will make it more palatable and fair. This will result in a decrease in revenue for the 2022 Test Year as it will take time for customers to convert if they wish.

5330 – Collection Charges (4235)

These charges include returned cheque charges and reconnection charges following a disconnection for arrears reasons. They have been credited to account 5330 (Collection Charges) and offset “Billing and Collecting” costs, based on the direction provided in the OEB Accounting Procedures Handbook, which states that account 5330 “shall include all amounts recovered due to the imposition of charges related to the collection of customer accounts”. London Hydro’s interpretation of this direction is that the above mentioned charges fit this definition. There is no effect on the total revenue requirement whether these amounts are treated as other income or credits to billing and collection costs. The amounts forecasted for the 2021 Bridge Year and 2022 Test Year are reflective of new normal activity based on historical results, taking into consideration the new winter ban on disconnections and the new elimination of the ‘collection of account’ charges that have come into effect since the last Cost of Service Rate Application.

4245 – Government and Other Assistance Directly Credited to Income

This account contains the annual amortization of Contributions in Aid of Construction – these contributions are recorded in OEB Account 2440 and are included in Appendix 2-BA.

4355 – Gain on Disposition of Utility and Other Property

For the 2022 Test Year, this account reflects an estimated \$67,000 for the gain on sale of scrap transformers and \$82,500 for the gain on sale of vehicles (18 vehicles budgeted).

4390 – Miscellaneous Non-Operating Income

Table 3-35: Miscellaneous Non-Operating Income

Item	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Bridge	2022 Test
Revenues	\$ 692,191	\$ 754,636	\$ 1,062,881	\$ 907,064	\$ 634,300	\$ 634,800
Supplier Discounts - on material purchases	20,555	24,998	23,738	25,177	23,100	23,600
Supplier Penalties - re: material purchase agreements	277	-	479	18,562	-	-
Sale of Scrap	487,840	551,567	834,291	803,193	600,000	600,000
Fitness Centre Revenue	4,585	2,850	4,577	-	-	-
Miscellaneous Revenue	1,060	946	1,539	2,517	1,200	1,200
CDM Recoveries	167,874	164,275	188,257	47,616	-	-
Management Fee for Renewable Energy Non-Distribution Asset	10,000	10,000	10,000	10,000	10,000	10,000
Year-over-year Variance		\$ 62,445	\$ 308,245	\$ (155,816)	\$ (272,764)	\$ 500

Miscellaneous non-operating revenues by their nature are difficult to accurately forecast. Budgeting for the 2022 Test Year was based on recent historical patterns unless separately discussed below.

Sale of Scrap had a larger increase in revenue during 2019 and 2020 due to PILC cable removal. However, as of late 2020, the majority of the lead cable had already been removed, so the 2021 Bridge and Test years are projected as being closer to the 2018 level of scrap sales.

Due to the COVID-19 pandemic, the fitness centre at London Hydro was closed in early 2020 and currently remains closed. Without knowing if it will reopen, no revenue is expected.

The management fees associated with the ongoing administration and management of the renewable non-distribution assets are included in miscellaneous non-operating income.

There are also indirect recoveries related to the CDM department that are included in 2017 through 2020. Normally these are netted against OM&A Administration expenses but, due to the Ontario government's discontinuation of the Conservation First Framework in 2020, there would be no corresponding offset in OM&A for 2021 and 2022. Therefore, for ease of expense comparability, the amounts are included here.



1 **4405 – Interest Income**

2 **Table 3-36: Interest Income**

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Item	2017 Actuals	2018 Actuals	2019 Actuals	2020 Actuals	2021 Bridge	2022 Test
Revenues	\$ 161,735	\$ 241,600	\$ 196,797	\$ 149,496	\$ 261,127	\$ 139,188
Bank Deposit Interest	94,326	180,184	135,891	99,237	228,600	118,600
Miscellaneous Interest Revenue	8	-	4,540	5,519	-	-
Interest on Investment of Non-Distribution Renewable Generation Asset	67,402	61,416	56,366	44,740	32,527	20,588
Year-over-year Variance	\$ 79,865	\$ (44,803)	\$ (47,301)	\$ 111,631	\$ (121,939)	

4 Interest income is derived from the investment of surplus funds. Bank deposit interest is budgeted
5 for the bridge and test year based on historical patterns, also taking into account interest rate
6 fluctuations as well as any anticipated future loans that would increase average cash balances.

7 Interest associated with Retail Settlement Variance Accounts (“RSVAs”) and other deferral and
8 variance accounts are not included in Account 4405 Interest Income in this Application. This
9 interest is included in the appropriate Deferral and Variance Accounts in Exhibit 9, and the offset
10 is reported in the RRR Trial Balance in Account 4405 Interest Income.

11 The interest on funds provided for the capital expenditures for the non-distribution renewable
12 generation operations is included in interest income. For 2017 through 2022, interest has been
13 calculated using the weighted average cost of capital of 5.08%.

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