INTERROGATORIES FOR LONDON HYDRO INC.

FROM THE CONSUMERS COUNCIL OF CANADA

RE: EB-2021-0041

2022 DISTRIBUTION RATES

EXHIBIT 1

1-CCC-1
Re: Ex. 1

Please provide all documents provided to London Hydro's Board of Directors related to this rate application.

LH Response:

Please see the attached documents as 1-CCC-1 Attachments 1-2

1-CCC-2
Re: Ex. 1/p. 18

Please provide a copy of the work produced by the 3rd party consultant from the Infrastructure Health & Safety Association. Please provide a list of the initiatives that were undertaken in response to that work. What was the cost of the work and how was that cost recovered?

LH Response:

See attachment 1-CCC-2 Attachment IHSA Reports.pdf, which contains reports from the Infrastructure Health Safety Association (IHSA) for external crew visits within our operations departments on June 1/21 and Sept 30/21.

The reports provide a general description of topics and discussions during the visits. This initiative is a corporate strategy that provides an external measurement each year to ensure we are following industry best practices and identifying any potential health and safety risks, with senior management and the VP of Engineering and Operations receiving copies of the reports for review. Considerations noted in the reports were addressed and reviewed by the health and safety department and communicated to the operations staff.

The costs associated with the visits were $2.4K and represent ongoing costs included within 2022 OM&A. London Hydro anticipates these costs will be recovered through no compensable lost time injuries.

1-CCC-3
Re: Ex. 1

London Hydro has referred to the increased adoption of paperless e-billing and how it helps with online digital engagement with customers while helping to achieve sustainability goals of reduced paper as well as financial goals of reduced mailing and postage costs. What is the current uptake of e-billing for London Hydro customers? What is the expected uptake throughout the years 2022-2026? What are the expected annual savings in each year?

LH Response:

Currently, 45% of London Hydro customers subscribe to paperless billing. By 2026, London Hydro estimates that over half of its customers will be receiving paperless e-bills. A portion of new paperless billing uptake in the future will be as a result of the Company accepting credit card payments. Customers who switch to paperless billing to access the option to make payments via credit card result in a zero-net savings; since fees charged by credit card companies offset the savings in connection with paper billings (postage, printing and mailing). It is difficult to estimate the uptake into the future that will not relate to customers choosing to pay by credit card. However, an uptake of 1%, would provide an annual savings of approximately $20k. At 2% this savings would grow to $40k and 3% would be $60k.

1-CCC-4
Re: Ex. 1/p. 28

London Hydro has participated in and produced several EV adoption reports and studies. Please provide copies of these reports. What are the costs of these studies and how have they been funded?

LH Response:

There are no costs related to EVs in the test year revenue requirement, they are being allocated out to non-distribution services

Please find below list of attached reports. For the attachment 1-CCC-4 Attachment 3 - 2017 Business Opportunities in the Electric Vehicle Environment - London Hydro we are requesting confidential treatment of the contents as it is commercially sensitive.

Only one report was written by a third party, 1-CCC-4 Attachment 1 - 2015 Electric Mobility Adoption And Prediction Developing A Strategic Approach To Enabling Electric Vehicle Technology In The City Of London – EMAP, and the associated costs were $62.5K.

1-CCC-4 Attachment 1 - 2015 Electric Mobility Adoption And Prediction Developing A Strategic Approach To Enabling Electric Vehicle Technology In The City Of London - EMAP

1-CCC-4 Attachment 2 - 2017 Status of the EV Industry and London Hydro Grid Preparedness - London Hydro

CONFIDENTIAL FILING: 1-CCC-4 Attachment 3 - 2017 Business Opportunities in the Electric Vehicle Environment - London Hydro

1-CCC-5
Re: Ex. 1/pp. 31-33

Please provide a description of all contractual relationships London Hydro has with Sifton Properties Inc. and s2e Technologies Inc. regarding the West 5 Project. Please provide all forecast costs (Capital and OM&A) associated with the West5 project for the years 2022-2026 Please explain London Hydro's involvement in the development of the Sifton Centre. What is the role and level of funding provided by NRCAN? What arrangements does London Hydro, Sifton Properties Inc. and s2e Technologies Inc. have with NRCAN? What NRCAN Program is providing the funding?

LH Response:

London Hydro has a tri-party agreement with Sifton and S2E that covers a summary of the project, project deliverables, roles and responsibilities, confidentiality, etc. A second, separate tri-party agreement identifies that S2E will issue the EPC contract on behalf of the three partners, with details on options following completion of the EPC.

See LH Response to 1-Staff-3c, for the forecast of Capital and O&M costs associated with the Project.

London Hydro's role in the development of Sifton Centre was that of a local distribution company, providing service to a developer.

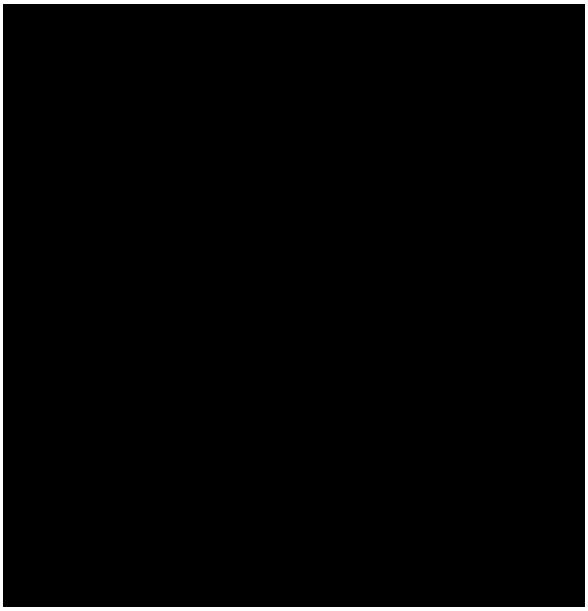
NRCAN is providing funding of $5.1M, from the Smart Grid Infrastructure Program. London Hydro is the lead proponent, responsible for the overall project and disbursement of funds received from NRCAN to the partners.

1-CCC-6
Re: Ex. 1/p. 33

London Hydro has chosen to own and operate its own Regional Network Interface and mart-Meter head-end system. London Hydro's evidence is that this approach has avoided an estimated $610,000 per year as part of this in-sourcing arrangement. Please provide a detailed breakdown of this calculation. In addition, please explain how the $415,000 in commercial customer community cost savings were derived.

LH Response:

The calculation of the estimated savings as a result of London Hydro's in-sourcing strategy is based on actual commercial quotes from a smart meter vendor that compares the costs between our current internally managed state against the quoted cost of a fully managed service and is provided below:



For commercial customers, London Hydro was unable to use the existing smart meter system to meet the requirements for these interval metered customers. Thus, London Hydro has provided options to customers by supporting a variety of communications methods. These methods include POTS (telephone), London Hydro provided cellular network, or modems that leverage a customer provided internet connection. The $415,000 in estimated aggregated total savings for these customers was made by

calculating what the cost would have been if the customers otherwise paid for a monthly commercial telephone line.

1-CCC-7
Re: Ex. 1/p. 41

Please explain the current services provided to London Hydro's customers through its Green Button Program. What are the current costs of that program and how are they recovered? Please describe how London Hydro proposes to "ring fence" the costs and revenues from its Green Button Program. What are the expected costs and revenues related to the program for the period May 1, 2022 to May 1, 2027? Please explain the nature and form of the annual reporting. Please explain how London Hydro's customers have used the Green Button Platform. Please indicate how many customers have used the Green Button platform.

LH Response:

Green Button is a key component in many of the enhancements provided to customers in recent years. Specifically, Green Button data is fundamental in most new features being offered to customers such as Green Button Connect My Data, Green Button Download My Data, the Trickle mobile app, MyIDC, MyEvent, High Usage Alerts, usage visualizations, Energy Consumption and Water Use (EWRB) Reporting, cost predictions, Price Plan Comparisons and new tools offered through MyLondonHydro.

Because Green Button has become so prevalent in new service offerings to customers, it is difficult to identify the dollar value impact. Costs associated with Green Button are not specifically tracked in the accounting system. Therefore, numerous studies and analysis would be necessary to estimate the overall cost of this underlying data and stemming tools. That being said, the underlying platform along with many enhancements were developed and funded through projects like the OEB Regulated Price Plan pilot (EB-2014-0319) and the OEB Critical Peak Pricing (EB-2016-0201), which were initiated to test alternative pricing structures and non-price tools to empower consumers and provide incentives and opportunities for consumers to reduce their electricity bills by shifting their time of electricity use.

Green Button services for London Hydro customers are paid through electricity distribution rates. Green Button services for non-distribution customers are paid by the client receiving the services.

In order to accommodate “ring-fence” accounting, all of the costs and revenues from non-regulated activities are included in the financial results of the Company under separate cost centres and accounts for clear identification, and so that they can be easily removed from activities for ratemaking purposes. Expenses incurred that relate non-distribution activities are allocated appropriately when coding invoices to be recorded in the financial records. This is also the case when recording time committed in London Hydro’s time entry system. For example, there is currently one position within London Hydro that works with this customer base, so this position has been assigned to this non-distribution cost centre to ensure that costs are segregated appropriately.

Projected revenue and costs for the next 5 years are as follows:

GREEN BUTTON PLATFORM AND EXTERNAL APPs					
	2022	2023	2024	2025	2026
Revenue	110,000	1,681,000	1,021,000	896,000	909,000
Expenditures	(124,400)	(1,332,000)	(852,000)	(700,000)	(709,000)
Profit (loss)	(14,400)	349,000	169,000	196,000	200,000

Due to the delays in the Green Button mandate there are no profits are anticipated for the proposed 2022 Test Year.

Non-distribution activities will be segregated from the Company’s distribution activities during IRM years.

As mentioned above, Green Button is the information backbone and an integral component of all customer facing applications enabling new service offerings such as Green Button Connect My Data, Green Button Download My Data, the Trickle mobile app, MyIDC, MyEvent, High Usage Alerts, usage visualizations, Energy Consumption and Water Use (EWRB) Reporting, cost predictions, Price Plan Comparisons and new tools offered through MyLondonHydro. Customer usage of these news features has helped to

increase uptake in customer facing applications. For example, 60% of customers subscribing to MyLondonHydro, 50% signed up for paperless billing, 28,000 properties registered on the Property Managers portal and over 1,800 commercial and industrial meters in MyIDC.

1-CCC-8
Re: Ex. 1/p. 55

What has been the annual cost of the School Programs? Are they funded with ratepayer funds? What is projected cost for 2022?

LH Response:

Annual costs for the School Safety Program, including costs projected for the proposed 2022 Test Year, are provided in the table below:

SCHOOL SAFETY PROGRAM					
2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Bridge Year	2022 Test Year
18,944	23,040	28,589	15,124	20,300	33,100

These costs are funded by ratepayers.

London Hydro is committed to continuing with its promotion of safety education for young people. A modest increase for this line item has been included for the proposed 2022 Test Year to boost this community outreach program to help ensure that students and their families keep a focus on the importance of caution when around electric equipment, appliances and power lines. School safety program costs were lower in 2017 compared to other years, as the Facilitator of the program became extremely ill and unfortunately had to be replaced in 2018 as discussed in Exhibit 4, on page 199.

1-CCC-9
Re: Ex. 1/p. 55

London Hydro refers to a Targeted Net Income of $15 million. Is this an annual target? How was it developed? Pleased provide the Board Approved and Actual ROEs for the period 2017-2021. Please explain how the mark to market adjustment on the interest rate swap impacted the ROE in each year.

LH Response:

The net income referred to above was specific for the 2022 year and includes the adjustment on the mark to market at the time when the budget was completed in 2020 which would represent the net income for financial statement purposes.

It was anticipated that the net income would be approximately $12M based on the estimated rate base and deemed ROE levels combined with the unrealized gain of $3M on the existing SWAPs which would be maturing in 2022.

Based on the actual financial results, London Hydro reports an annual rate of return for each year which includes the impact of the Mark to Market as this is a required calculation under IFRS since the Company does not follow hedge accounting.

For internal purposes (and OEB reporting purposes), London Hydro reports an annual rate of return which excludes the non-cash impact of the mark to market.

The following table shows the actual net income (including and excluding the impacts of the mark to market adjustments as requested) as well as the Board approved ROE for the years 2017 to 2020.[1] Results for 2021 are included up to September 30.

[1] RoE is calculated using net income (before and after the MtM adjustment) divided by average equity.

Net Income					
	2017	2018	2019	2020	YTD (Q3) 2021
Net Income per F/S	14,636	12,919	10,388	5,446	19,605
RoE %	9.42%	7.85%	6.04%	3.11%	
NI per F/S Excluding MTM	12,049	13,169	10,695	10,319	8,465
RoE %	7.76%	8%	6.22%	5.90%	
Board Approved RoE %	8.98%	8.98%	8.98%	8.98%	

1-CCC-10
Re: Ex.1/p. 55

Please provide the 2020 Scorecard results.

LH Response:

See attachment 1-CCC-10 Attachment London Hydro 2020 Scorecard MDA.

1-CCC-11
Re: Ex. 1/p. 69

What were the costs of the Simul Corporation customer satisfaction survey and how are those costs recovered? Was this work subject to n RFP process? If not, why not?

LH Response:

The cost of the most recent Customer Satisfaction Survey was $11,450. These costs are budgeted within the community relations advertising. UtilityPULSE is the electric utility survey division of Simul Corporation, that specializes in conducting Customer Satisfaction Surveys for LDCs. They have a solid history of serving numerous utilities and are a member of the Ontario Energy Network. They are actively involved in the industry and are uniquely positioned to obtain feedback from customers.

1-CCC-12
Re: Ex. 1/p. 112

What is the current state of the two Custom CDM Programs? Is London still offering these programs?

LH Response:

Both programs are still active, but are starting the wind down process.

1-CCC-13
Re: Ex. 1/p. 114

Then evidence states that London Hydro intends to update its load forecast – before a decision is rendered on this Application – once full 2021 data is available and may consider adjustments if they are material. When is this update expected? What process does London Hydro propose regarding the update and how any adjustments would impact its proposed rates?

LH Response:

London Hydro would expect to have final 2021 profiles mid to late February 2022. Upon reflection this will likely be too late for consideration in the application process such that incorporating the 2021 data is unlikely.

1-CCC-14
Re: Ex. 1/p. 120

With respect to the CIS/CRM transformation program what were the forecast costs for 2021? What are the actual 2021 costs incurred to date?

LH Response:

The 2021 Bridge year costs for the CIS Refresh project (CIS/CRM transformation program) were budgeted as $500,000 within the application. However, the revised forecast for 2021 is projected to be $725,000. Actual costs incurred up to October 31, 2021 are $610,005. These costs will remain in Work-in-Progress until its anticipated go-live date in 2023. For additional information regarding the CIS Refresh project please see pages 78 to 79 of Exhibit 2.

1-CCC-15
Re: Ex. 1/p. 126

London Hydro's evidence is that although cloud computing is the best option for customers in most cases, choosing cloud-based solutions has the outcome of driving up OM&A costs since this is where cloud costs are captured for ratemaking. Please provide evidence to demonstrate London Hydro's decision to move to cloud computing represents the best option for its customers. Has London Hydro benchmarked its cloud computing costs with other LDCs? If not, why not? If so, please provide the results of that benchmarking.

LH Response:

London Hydro has been utilizing cloud services for many years which makes it difficult to provide an overall analysis of reduced capital costs and the impact on OM&A expenditures. The amount of savings associated with choosing a cloud solution over an on-premise solution is not something that is tracked in an accounting system. To determine savings achieved, numerous surveys, "what if" analysis and studies would be necessary to develop actual and forecasted overall costs for both solutions.
However, to help illustrate the difference in "Total Cost of Ownership" between these two solutions over the 5-year life span, a schedule has been prepared in connection with recent implementations and is provided below,

Cloud

Project	Implementation Costs	Depreciation	Service Fees	In-house Support	SW / HW Maintenance	Total Cost of Ownership	Annual OM&A
Ultipro Payroll	349,077	69,815	72,500	52,500	-	974,077	125,000
Genesys Contact Centre	760,744	152,149	120,000	52,500	-	1,623,244	172,500
Bill Imaging	791,393	158,279	166,400	126,000	-	2,253,393	292,400
Disaster Backup and Recovery	883,117	176,623	168,300	52,500	-	1,987,117	220,800
Content Management System	176,527	35,305	86,700	87,500	-	1,047,527	174,200
	2,960,858	**592,172**	**613,900**	**371,000**	**-**	**7,885,358**	**984,900**

On Premise

Project	Implementation Costs	Depreciation	Service Fees	In-house Support	SW / HW Maintenance	Total Cost of Ownership	Annual OM&A
Ultipro Payroll	630,000	126,000	-	75,000	24,000	1,125,000	99,000
Genesys Contact Centre	1,000,000	200,000	-	75,000	50,000	1,625,000	125,000
Bill Imaging	1,200,000	240,000	-	180,000	60,000	2,400,000	240,000
Disaster Backup and Recovery	2,180,000	436,000	-	75,000	40,000	2,755,000	115,000
Content Management System	300,000	60,000	-	125,000	30,000	1,075,000	155,000
	5,310,000	**1,062,000**	**-**	**530,000**	**204,000**	**8,980,000**	**734,000**
Cloud versus On Premise	**(2,349,143)**	**(469,829)**	**613,900**	**(159,000)**	**(204,000)**	**(1,094,643)**	**250,900**

In these scenarios, London Hydro is estimating a reduced capital investment of $2.3M and avoided overall costs of over $1M ($1,094,643).

Although it is clear from a cash perspective, that costs are lower utilizing cloud services for these projects, the method of accounting for cloud services in ratemaking has the unfortunate outcome of reporting increases in OM&A expenditures ($250,900). Consequently, this provides the misleading representation that cloud services increase costs for customers, where the opposite is true. The $1M of cost savings for customers as noted above would be even higher if it took into account the capital returns associated with assets included in rate base.

In fact, the savings associated with using cloud services goes beyond the 5-year period included in the schedule above. This is because in year 6, an on-premise solution needs to be refreshed resulting in additional implementation costs. On the other hand, cloud solutions do not need to be upgraded or refreshed since it is the vendor that takes on this responsibility as part of their service fee.

Further, maintaining on-premise solutions is becoming more expensive due to increasing complexities in technology, the increased costs of in-house labour as well as licensing and maintenance costs for software and hardware. Additional benefits of utilizing cloud services includes (for example) enhanced cyber security, remote access, mobility, scalability and big data performance.

Please note that a comparison for the Intelex Health and Safety system is not provided above since there is no on-premise system available with similar functionality offered by the cloud-based systems.

London Hydro has not benchmarked its cloud computing costs with other LDC's. Finding a comparable organization with a similar customer base, infrastructure and data requirements would be difficult. Although benchmarking may provide benefits, it would be

a time-consuming exercise with costs attached. As an alternative, London Hydro has engaged the services of third-parties (Ernst and Young, for example) to assist in with studies, analysis and “what if” scenarios when choosing platforms for significant systems. This equips London Hydro with cost / benefit information and a full comparison of the Total Cost of Ownership (TOC). Along with this information and while considering other benefits, the Company choses the most appropriate solution for customers.

1-CCC-16
Re: Ex. 1/p. 135

London Hydro is proposing to increase its residential rates, through this Application by 9.7% (including DVA clearances). Other customer classes are experiencing even higher distribution rate increases. Please explain the extent to which London Hydro discussed the proposed level of distribution increases (the part of the bill that London Hydro is responsible for) during its customer engagement activities with its customers. Did London Hydro ever discuss with its customers the fact that embedded in rates is an ROE that exceeds 8%? If not, why is this not relevant information and context for London Hydro's customer engagement?

LH Response:

Due to the timing of the last Customer Satisfaction Survey, customers were not directly asked about the proposed level of distribution rate increases. However, in the Customer Satisfaction survey, 80% of customers agreed that investing more in the electricity grid to reduce outages as well as investing in projects to reduce the environmental impact of London Hydro's operations was a very high/high priority. Customer engagement in relation to the DSP focused on major capital programs, the complete contents provided to customers is provided in DSP Appendix A1 and A2.

1-CCC-17
Re: Ex. 1/pp. 136-147

What are the total Customer Engagement costs included in the forecast 2022 OM&A costs? Please provide all details.

LH Response:

Customer engagement is an underpinning factor in activities in the Corporate Communications Program. This makes it difficult to identify the dollar value impact. Customer engagement costs are not specifically tracked in the accounting system. Therefore, numerous analysis would be necessary to estimate the overall cost of these activities. For example, with reference to Exhibit 4, Table 4-22 on page 193, most line items (labour, consulting, advertising and promotion, materials and supplies and the school safety program) are affected by customer engagement activities. The proposed 2022 Test Year budget has been set to include the following ongoing customer engagement activities:

- Annual Customer Satisfaction Survey
- Surveys and Townhall Meetings
- Focus groups for the development of, and feedback on, new technology
- Promotion of new customer services and features
- Participation in Home Shows and community events
- Exhibits at the London Regional Children's Museum
- Continued promotion of paperless billing and our loyalty incentive program
- Paper and digital billing inserts
- Radio and digital advertisements
- School programs to provide continued education on electrical safety and energy conservation

EXHIBIT 2

2-CCC-18
Re: EB-2016-0091 London Hydro_Settlement Proposal_Chapter 2 Appendices_20170209
Appendix 2-AA

Please add two columns to Appendix 2-AA, 2016 and 2017 actuals, and provide an excel version of the table.

LH Response:

Appendix 2-AA from EB-2016-0091 Settlement Proposal has been updated to include 2016 and 2017 actuals and is provided in the attached excel file "2-CCC-18 Attachment 1 Appendix 2-AA with 2016 and 2017 Actuals".

2-CCC-19

Re: EB-2016-0091 Ex. 2 T3 S1 App. 2-6/p. 96-98 Section 3.1.4 Capital Projects by Category

London Hydro provides tables that summarize the total capital cost for the forecast period (2017 to 2021) of the capital projects and Programs, sorted by category.

a) Please add 2017 to 2021 actuals to the table and the forecasts for the period 2022 to 2026.

b) Please provide an excel spreadsheet of the table.

LH Response:

a) An updated table has been provided as an attached excel file, "2-CCC-19 Attachment 1 Capital Projects by Category". 2017 Plan has been updated based on final settlement and all amounts are net of cost recoveries. Projects are categorized during the budget process using standard naming conventions for categories in order to create historical queries and group similar projects. As a result, some of these categories may not match directly to the original table provided on page 96-98, Section 3.1.4 of the 2017 DSP, which was created without the use of the standard naming conventions, However, the revised table provides similar level of detail to the original.

b) See attachment "2-CCC-19 Attachment 1 Capital Projects by Category".

2-CCC-20
Re: Appendix 2-AA

a) Please update the forecast for 2021.

b) The average annual spend for Subdivision Rebuilds over the 2017 to 2020 period is $5,816,839. Please explain in detail what is driving the increase in spending to $8,720,000 in 2022.

c) The average spend for Overhead Line Work the 2017 to 2020 period is $3,964,338. Please explain in detail what is driving the increase in spending to $5,290,000 in 2022.

d) Please add the years 2023 to 2026 to Appendix 2-AA.

e) Please identify the projects where London Hydro has increased the scope/asset replacement rate as a result of Kinectrics' Asset Condition Assessment (ACA), compared to the historical asset replacement quantities.

f) Please provide an excel version of Appendix 2-AA incorporating parts (a) and (e).

LH Response:

a) The forecast for 2021 has been provided in the Excel attachment "2-CCC-20 Attachment 1 Revised Appendix 2-AA". The forecast includes 9 months of actuals and 3 months of projections.

b) Please see London Hydro's response to 2-Staff-25 (a) & (c).

c) Similar to the response to 2-Staff-25 (a) & (c), as noted in DSP section 3.2B Historical Variances by Category (5.4.2B) (DSP page 130), spending on Overhead Line Work was decreased in 2018 and 2019 to accommodate the Dundas Place and Nelson TS related projects, as part of the effort to pace the overall volume of work. These deferred projects are being completed over the 2020 to 2022 period, with 2022 as the last year of completed deferred projects. The volume of work is expected to return to normal in 2023.

d) Please see Excel attachment “2-CCC-20 Attachment 1 Revised Appendix 2-AA”.

e) As noted in Table 2 DSP Section 1.1.6 Changes to Asset Management Process Since Last DSP Filing (5.2.1 F) (DSP page 27 of 157), “The Kinectrics ACA did not result in any significant changes to the London Hydro ASP”.

f) Excel attachment “2-CCC-20 Attachment 1 Revised Appendix 2-AA” provided.

2-CCC-21
Re: Ex. 2 App. 2-7/p. 128

Over the five-year period from 2017 to 2021, the expected spending will exceed Planned spending by 25%. The primary driver of this is a higher than expected amount of customer driven work (System Access), asset replacements (System Renewal) and General Plant. A more detailed review by Category is provided in the next section. With respect to System Renewal, the variance is $9.94 million (12.37%).

As part of the historical variances by category, London Hydro provides the following information regarding System Renewal.

System Renewal				
Substation Rebuilds	225,000	728,348	503,348	224%
Subdivision Rebuilds	27,529,400	30,745,357	3,215,957	12%
Main Feeders	14,460,500	22,430,502	7,970,002	55%
Downtown Core Supply	8,464,100	15,413,627	6,949,527	82%
Overhead Line Work	29,655,600	20,957,352	(8,698,248)	-29%
Total System Renewal	**80,334,600**	**90,275,185**	**9,940,585**	**12%**

a) Please provide the variance in asset replacements for the above projects.

LH Response:

a) The variance analysis was provided in DSP Section 3.2c Historical Variances by Project (5.4.2c), (DSP pages 136 to 139).

2-CCC-22
Re: Ex. 2 App. 2-7 App. A1/p. 9

As part of DSP Customer Survey 2021 Residential and Small Commercial, respondents were asked if they agreed with the top five priorities that customers had identified through previous surveys. Respondent who disagreed with the priorities provided 614 responses on what the priorities should be.

Please provide a breakdown of the nature of the 614 responses.

LH Response:

Since 94% agreed with the priorities, the 614 responses were not analyzed. The verbatim responses are included in Attachment "2-CCC-22 Attachment 1 - LH Survey Responses".

2-CCC-23
Re: Ex. 2 App. 2-7 App. A1/p. 11

The survey states "Each System Renewal, System Service and General Plant project that London Hydro undertakes undergoes a prioritization evaluation taking into account: Reliability, Safety, Environment, Capacity and Efficiency to ensure the financial investment and project outcomes align and support your priorities for today and the future." Respondents were asked if London Hydro's objectives align with the respondent's expectations of what your electricity provider should focus on? 455 responses provided comments.

Please provide a breakdown of the nature of the 455 responses.

LH Response:

Since 93% agreed with the objectives, the 455 responses were not analyzed. The verbatim responses are included in Attachment "2-CCC-23 Attachment 1 - LH Survey Responses".

2-CCC-24
Re: Ex. 2 App. 2-7 App. G/p.439 of PDF

Please add 2017 Approved and 2017 to 2019 Actuals to the 2020-2026 Capital Expenditure Plan Table and provide an excel version of the table.

LH Response:

Please see response to 2-VECC-20(a) for an updated schedule of the 2020-2026 Capital Expenditure Plan Table provided as excel attachment "2-VECC-20 Attachment 1 2-AB Reconciliation".

2-CCC-25

Ex. 2 App. 2-7 App. I/p. 603 of PDF

With respect to 22B2 Subdivision Rebuilds, please complete the following table:

U/G Cable (km)	2014	2015	2016	2017	2018	2019	2021	2022	2023	2024	2025	2026
Injection												
Replacement												

LH Response:

U/G Cable (km)	2014	2015	2016	2017	2018	2019	2021	2022	2023	2024	2025	2026
Injection	35.7	34.9	18.2	41.5	17.1	10.9	-	-	-	-	-	-
Replacement	10.8	-	2.6		0.8	11.3	21.2	29.5	N/A	N/A	N/A	N/A

2-CCC-26

Ex. 2 App. 2-7 App. I/p. 632 of PDF

With respect to 22B9 Zone B Underground Conversion, please complete the following table:

Conversion (km)	2014	2015	2016	2017	2018	2019	2021	2022	2023	2024	2025	2026
UG to UG												
Other												

LH Response:

See 2-SEC-28

2-CCC-27
Ex. 2 App. 2-7 App. I/p. 703 of PDF

With respect to 22G1 Pole Replacement, please complete the following table:

Poles (units)	2014	2015	2016	2017	2018	2019	2021	2022	2023	2024	2025	2026
Replacement												
Refurbishment												

LH Response:

See 2-SEC-26

2-CCC-28
Ex. 2 App. 2-7 App. I/p. 707 of PDF

With respect to 22G3 Rebuild Depreciated Areas, please complete the following table:

Units Replaced	2014	2015	2016	2017	2018	2019	2021	2022	2023	2024	2025	2026
Poles												
Transformers												
Other												

LH Response:

See 2-SEC-27

2-CCC-29
Re: Ex. 2 App 2-7 App. L/p. 15

In Kincetrics' methodology, the final HI assigned to an individual asset is limited by the asset's age. An Age Limiter (AL), which is equal to the cumulative survival probability at a given age of an asset group, is compared to the calculated HI. If the calculated HI is less than or equal to the AL, the final HI assigned is the calculated HI. If the calculated HI is more than the AL then the final HI assigned is equal to the AL. It is important to note in using the AL that although the calculated HI (based in condition data such as test results, inspections, loading, etc.) may be high, the final HI may be low because of asset age.

a) Please provide the assets reviewed in the ACA where the final H1 assigned is not limited by the asset's age.

b) Please provide the final H1 data (i.e. recast Table 3-1) if the methodology is adjusted such that the final HI assigned to an individual asset is not limited by the asset's age.

LH Response:

a) All assets listed in Table 3-1 on page 28 of the Reference.
b) LH does not have access to the Health Index formulas, and cannot adjust the data.

2-CCC-30
Re: Ex. 2 App 2-7 App. L/p. 18

The Life Curve approach is used to estimate the number of assets to be addressed in a given year, using the asset's removal rate (Equation 6). In this project the life curves developed for all asset groups were based on typical industry values.

Re: Ex. 2 App 2-7 App. L/p. 37

Kinectrics recommended that London Hydro collect removal and failure data for all asset categories. While failure records were available for pad mounted switchgear and distribution transformers, the asset information, such as age at the time of removal, was not available. It is recommended that the asset information (type, make/model, age, segment ID of cable, etc.) be recorded. As well, the reason for removal should be recorded. This will allow for the development of London Hydro specific asset life curves and identify units that actually failed.

a) Please discuss the benefit of having London Hydro specific asset life curves.

b) Please discuss the benefit of having actual failure and removal data by asset type.

c) Please discuss London Hydro's plans to address these recommendations.

LH Response:

a) There are many factors that impact life curves, specifically: environmental conditions, maintenance practices, assets removed due to non-condition reasons, e.g. road widening, obsolescence, regulatory requirements, etc., loading, and utilization practices, e.g. willingness to operate at above the rating post-contingency, etc. The combination of these factors is utility specific and so are life cycle curves. Using industry curves may result in overstating or understating assets' condition.
b) Both industry curves and utility-specific life cycle curves are different for different asset categories, i.e. life cycle curve for a station transformer is not the same as for recloser or battery bank.
c) LH is working through all the recommendations from Kinectrics, and implementing them when possible, based on limitations due to budgets and resources. Some of the data collection has started, while some will require modifications to software which will take place when resources are available.

2-CCC-31
Re: Ex. 2 App 2-7 App. L/p. 28

With respect to Table 3-1 Health Index Summary:

a) Please add five columns to Table 3-1 to show the Health Index Distribution for very poor, poor, fair, good and very good based on asset quantities.

b) Please add a column to show the end of service life for each asset.

c) Please add a column to provide the number of assets at or beyond end of service life.

d) Please provide an excel version of Table 3-1 incorporating parts (a) to (c).

LH Response:

See Excel File: 2-CCC-31 Attachment 1 Health Index Summary.

2-CCC-32

Re: Ex. 2 App 2-7 App. L/p. 30,32

Table 3-2 and Table 3-3 show the 10-year FFA and Levelized FFA Plans respectively.

Re: Ex. 2 App 2-7 App. L/p. 28

Kinectrics indicates the Flagged for Action Plan (FFA) for a given asset category shows the number of assets that may require attention or action each year. Possible actions are replace, refurbish, further test, monitor, etc. The plan is condition or health based, meaning other factors, such as economics, obsolescence, system growth, etc. are not considered. A 'Levelized' Flagged for Action Plan smooths the peaks and valleys of the FFA.

Please explain how other actions beyond replacement, and other factors such as economics, obsolescence, system growth, etc. are considered and reflected in the capital expenditure plan for 2022 to 2026.

LH Response:

Please review the DSP, in particular, Sections 2.1 Asset Management Process Overview, Appendix M – EI-31, 2.3 Asset Lifecycle Optimization Policies and Practices.

2-CCC-33
Re: Ex. 2 App. 2-7 App. M App. E/p.68

With respect to the Analytical Ranking Model, London Hydro indicates that when defining new capital programs, five objectives are accounted for due to the significance of their associated risks: 1. Reliability 2. Safety 3. Environment 4. Capacity and 5. Efficiency.

London Hydro states that in response to commentary from the OEB at the last cost of service rate application filing, the health of the various asset categories should be included in the prioritization of the projects driven by System Service and/or System Renewal.

a) Please discuss why asset condition is not one of the five objectives.

b) Please discuss why cost is not one of the five objectives.

c) Please discuss how cost is considering in prioritization of projects and optimization of the capital budget.

LH Response:

a) The ranking model explains that the health index (asset condition) is used in the first step, as outlined on pages 70 and 71 of the Reference. As noted on page 72. "*The Weighted Blended Health Index of the project section is then used as a divisor to obtain the highest ranking for the project that has the highest score and the lowest health index*."
b) The "objectives" referred to are actually risk factors, and are used to rank the projects according to risk they impose to the system and our customers. The cost of addressing these risks is not considered to be a risk. Each risk factor has inherent costs beyond the cost of the project itself, and often these risks (such as environmental damage) far exceed the cost of the project.
c) Cost is used to determine which option is selected to address the deficiency identified. For example, a substation transformer assessed to be at risk of failure could be replaced with another transformer, or the substation could be eliminated through a voltage conversion, or replaced with small step-down transformers. Cost is also considered when scheduling projects over several years to balance spending as much as practical without imposing undue risks to the system or creating an unmanageable backlog of work.

2-CCC-34
Re: Ex. 2 App. 2-7 App. M App. E /p. 71
Table 2 provides the Health Index by Asset Category and Project Sections.

Please recast Table 2 to provide the quantity of assets to be replaced over the 2022 to 2026 period by Asset Category and Project Sections.

LH Response:

The Table 2 in the reference provided is an illustrative example of how the individual health index values are used to create a weighted average heath index for a project which contains multiple asset types. It is unclear how the quantities of assets to be replaced over the forecast period could be inserted into this table. The forecast of asset replacements is provided in detail in the Asset Sustainment Plan included as DSP Appendix K. The assets to be replaced in each year by project are determined annually when work orders are prepared for the various projects.

2-CCC-35
Re: Ex. 2 App. 2-7 App. N/p. 11

Figure 9 provides the Contribution per Cause to SAIDI in 2020.

Please provide a table that sets out the contribution (%) per cause to SAIDI for each of the years 2016 to 2021 and include the cause Major Event Day (MED).

LH Response:

SAIDI by OEB Primary Cause Code (2016-2021)

	2016	2017	2018	2019	2020	2021*
Adverse Environment	0%	0%	0%	0%	1%	4%
Adverse Weather	2%	3%	3%	6%	7%	5%
Defective Equipment	20%	14%	21%	21%	24%	14%
Foreign Interference	18%	10%	5%	9%	23%	15%
Human Element	0%	1%	0%	1%	1%	0%
Lightning	6%	2%	3%	3%	2%	2%
Loss of Supply	2%	1%	5%	7%	10%	3%
Scheduled Outage	42%	18%	20%	9%	20%	17%
Tree Contacts	7%	14%	3%	8%	11%	18%
Unknown	3%	2%	2%	1%	1%	2%
Major Event Day	0%	34%	37%	35%	0%	19%
*2021 = January 1, 2021 to October 31, 2021						

2-CCC-36
Re: Ex. 2 App. 2-7 App. N/p. 12

Figure 10 provides the Contribution per Cause to SAIFI in 2020.

Please provide a table that sets out the contribution (%) per cause to SAIFI for each of the years 2016 to 2021 including the cause Major Event Day (MED).

LH Response:

SAIFI by OEB Primary Cause Code (2016-2021)

	2016	2017	2018	2019	2020	2021*
Adverse Environment	0%	0%	0%	0%	2%	1%
Adverse Weather	6%	3%	7%	9%	9%	9%
Defective Equipment	24%	23%	28%	17%	24%	23%
Foreign Interference	18%	13%	9%	10%	18%	14%
Human Element	2%	4%	0%	1%	4%	0%
Lightning	4%	3%	4%	2%	2%	4%
Loss of Supply	17%	10%	18%	27%	29%	7%
Scheduled Outage	15%	8%	6%	4%	6%	10%
Tree Contacts	6%	9%	3%	5%	4%	17%
Unknown	8%	5%	6%	7%	3%	9%
Major Event Day	0%	24%	19%	18%	0%	7%
*2021 = January 1, 2021 to October 31, 2021						

2-CCC-37
Re: Ex. 2 App. 2-7 App. N/p. 18

Figure 17 provides the SAIDI Contribution per Equipment Category from Equipment Related Interruptions in 2020.

Please provide a table that sets out the SAIDI Contribution (%) per Equipment Category from Equipment Related Interruptions for each of the years 2016 to 2021 excluding MEDs.

LH Response:

SAIDI Contributions per OEB Sub Cause for Defective Equipment Cause Code Outages (2016-2021)

	2016	2017	2018	2019	2020	2021*
Arrestor	0%	2%	0%	6%	23%	1%
Cable Fault	22%	25%	14%	22%	23%	26%
Conductor	16%	13%	18%	3%	1%	3%
Insulator	1%	1%	2%	23%	1%	16%
Other	0%	0%	3%	4%	7%	3%
Pole/Hardware	4%	1%	2%	10%	0%	0%
Secondary Service	1%	1%	1%	0%	1%	1%
Switch	31%	46%	20%	7%	26%	12%
Switchgear	10%	1%	17%	12%	5%	8%
Termination	4%	4%	12%	4%	5%	6%
Transformer	9%	6%	11%	9%	9%	24%
*2021 = January 1, 2021 to October 31, 2021						

2-CCC-38
Re: Ex. 2 App. 2-7 App. N/p. 18

Figure 18 provides the SAIFI Contribution per Equipment Category from Equipment Related Interruptions for 2020.

Please provide a table that sets out the SAIFI Contribution per Equipment Category from Equipment Related Interruptions for each of the years 2016 to 2021 excluding MEDs.

LH Response:

SAIFI Contributions per OEB Sub Cause for Defective Equipment Cause Code Outages (2016-2021)

	2016	2017	2018	2019	2020	2021*
Arrestor	0%	12%	0%	10%	18%	0%
Cable Fault	45%	14%	19%	13%	14%	9%
Conductor	8%	3%	7%	2%	0%	1%
Insulator	1%	0%	0%	5%	1%	20%
Other	0%	0%	1%	10%	4%	2%
Pole/Hardware	12%	0%	0%	6%	0%	0%
Secondary Service	1%	1%	0%	1%	0%	0%
Switch	26%	54%	33%	3%	18%	36%
Switchgear	2%	0%	17%	34%	6%	4%
Termination	2%	5%	6%	3%	13%	11%
Transformer	2%	10%	17%	13%	24%	16%
*2021 = January 1, 2021 to October 31, 2021						

2-CCC-39
Re: Ex. 2 App. 2-7 App. O App. A/p. 36

a) Please add 2021 data to the Table.

b) Please add SAIDI less LOS, less MED and less Scheduled Outages.

c) Please add SAIFI less LOS, less MED and less Scheduled Outages.

LH Response:

The updated table below responds to part (a), (b), and (c) above.

Distribution System Reliability (2016-2021*)							
		2016	2017	2018	2019	2020	2021
Customer Base							
		154,722	156,313	158,107	159,806	161,352	162,876
Customer-Hours of Interruption							
	Unplanned	89,007	180,717	181,320	199,208	122,352	108,478
	Planned	64,969	41,058	45,580	19,670	30,876	22,153
	Total	**153,976**	**221,775**	**226,900**	**218,878**	**153,228**	**130,630**
Customers Interrupted							
	Unplanned	163,391	217,217	326,265	320,582	223,893	106,953
	Planned	28,678	19,169	22,147	13,943	14,782	11,432
	Total	**192,069**	**236,386**	**348,412**	**334,525**	**238,675**	**118,385**
Number of Incidents							
	Unplanned	425	404	472	480	409	344
	Planned	654	464	444	458	421	372
	Total	**1079**	**868**	**916**	**938**	**830**	**716**
System Average Interruption Duration Index (SAIDI)		0.99	1.42	1.44	1.37	0.95	0.80
SAIDI less LOS and less MED		**0.97**	**0.93**	**0.82**	**0.8**	**0.86**	**0.62**
SAIDI less LOS, less MED, and less Scheduled Outage		0.55	0.67	0.54	0.67	0.67	0.49
System Average Interruption Frequency Index (SAIFI)		1.24	1.51	2.2	2.09	1.48	0.73
SAIFI less LOS and less MED		**1.03**	**1**	**1.4**	**1.14**	**1.05**	**0.62**
SAIFI less LOS, less MED, and less Scheduled Outage		0.85	0.88	1.26	1.05	0.96	0.55
*2021 = January 1, 2021 to October 31, 2021							

2-CCC-40
Re: Ex. 2 App. 2-7

Please complete the attached excel spreadsheet CCC-40-01.

LH Response:

See file “2-CCC-40-01 Attachment 1”. Note that the methodology for assessing health condition used for 2016 did not include the Health Index method used in 2020. LH has tried to match similar the different assessments. Not all assets were assessed. Quantities have been estimated using best information available. As noted in Response to 2-CCC-34, LH does not forecast quantities of assets to be replaced by Asset Category or Project Section. The ACA / ASP is used to inform the capital plans, and in some cases, these quantities have been used for the historical quantities.

EXHIBIT 4

4-CCC-41
Ex. 4

Please provide a complete list of the productivity initiatives that London Hydro undertook during the 2017-2021 period. Please identify the annual savings achieved with each initiative. Please provide a complete list of all productivity initiatives planned for the 2022-2026 period and identify the annual savings for each of those initiatives.

LH Response:

Productivity can be defined as the effectiveness of efforts measured in terms of the rate of output per unit of input. For an LDC, this means the level of output in relation to costs incurred.

LDCs are challenged with keeping costs in check while at the same time meeting new requirements and expectations associated with an aging infrastructure, rapid changes in technology, cyber security and increased customer expectations, for example. While absorbing many of these rising costs, London Hydro has been able to offer customers new enhancements and features, meet regulatory requirements and implement best practices. The Company is able to accomplish all of this with minimal impact to OM&A costs through savings realized as a result of continuous operational efficiencies and by leveraging innovation.

The amount of savings associated with individual productivity and efficiency initiatives is not readily available information since it is not something that is tracked in an accounting system. To determine savings achieved, numerous surveys, analysis and studies would be necessary to compare before and after levels of input and output. London Hydro is, however, able to illustrate savings on a higher overall level in the schedule below which lists many of the cost pressures encountered by the Company, together productivity initiatives put into place to absorb costs and keep the impact to OM&A expenditures at a minimum.

Operations, Maintenance and Administration (OM&A)	
+ Cost Pressures	- Productivity Initiatives
aging infrastructure	grid hardening
changing climate	mobile workforce management system
tree trimming	SCADA enhancements
OMS leveraging	inventory bar coding
GIS leveraging	project management tools
City growth	mechanical rotating grinding (vegitation management)
designing a smarter grid	battery operated vs manual tools
joint-use pole leasing	turtles and digital grid (remote monitoring)
rapid change in technology / increased complexity	wireless fault detection technolgy
increase in customer expectations	preventative maintenance
broader range of energy management services	automation of control devices (relays, RTU's, batteries)
customer payment options	OMS device outage predictions
increased communications / customer focus	automated reclosers
rise in mobile devices	paperless billing promotion
regulatory changes	call overflow services
AODA compliance	overdue payment notifications
cyber security / testing	self-service switching price plan
big data / query tools	last gasp meter notifications
disaster recovery	Genesys Contact Centre
increased focus on health and safety	customer self-service website
next generation workforce	cost sharing
	Builders' portal
	Joint use management portal
	virtual training and meetings
	Intelex health and safety system
	accounts payable automation
NET COST (excluding cloud services) $405,200	

As shown above, London Hydro has been able to keep the impact of cost pressures at a minimum level through numerous productivity initiatives brought on to increase efficiencies and reduce costs. This has helped to keep rising costs to a net increase of $405,200 excluding cloud services ($1,089,300 including cloud services). Net cost amounts exclude factors associated with inflation, wage escalations, customer growth and the socialization of customer collection charges by the OEB. As depicted in table 4-14 Summary of Cost Drivers in Exhibit 4, net cost increases excluding cloud services are largely a result of the need for additional resources in the Metering and Meter Data Management and Corporate Communications Programs.

One of the most significant maneuvers by London Hydro to help offset rising costs has been the move to cloud services where appropriate. Cloud services provide the

opportunity to keep customer facing applications up to date and secure in a more cost-effective manner.

Utilizing cloud services results in a shift in costs from computer hardware and software depreciation to OM&A expenditures. Unfortunately, the increase in OM&A expenditures can provide the misleading representation that costs are increasing; where in fact, cloud services provide an overall cost savings. For example, by utilizing cloud services for new projects implemented since 2017, it is estimated that London Hydro has been able to save over $1M in the total cost of ownership in comparison to an on-premise solution for ratepayers.

London Hydro will continue with similar initiatives into the future that provide customers with a safe and reliable electricity supply, as well as the tools that they need to make informed decisions regarding their energy consumption. Customers' increasing use of new technologies means that London Hydro will be asked for an even broader range of energy services. The evolution of new services such as electric vehicles, storage devices, distributed generation, solar panels and home hubs will require even more commitment to help maintain consumer confidence and control costs for customers.

London Hydro is committed to continuing on with its journey of excellence that builds on innovation and increased efficiencies. Increased functionality through innovation helps London Hydro to streamline processes and gain efficiencies. Efficiencies, in turn, help to offset increasing costs associated with (for example) rising customer expectations, new requirements and customer growth. The Company is continuously seeking and implementing better ways of performing tasks and deploying the necessary tools.

Pacing spending, economic efficiency and cost effectiveness are integral parts of the planning and project budget development process. The budget is a mechanism for achieving future objectives by setting expectations and targets, while at the same time exploring efficiencies and finding an appropriate balance between costs and acceptable levels of customer service and reliability.

4-CCC-42
Re: Ex. 4/p. 5 and 23

In 2019 and 2020 London Hydro wound down its CDM activities. All costs associated with this function have been removed from the Application. What were the annual costs associated with the CDM programs in 2017 and 2018? How many employees were dedicated to this work? Have they all been moved to the Customer Service department? What is the annual cost of the three FTEs for 2022?

LH Response:

Costs in the CDM Program in 2017 and 2018 were $1,577,821 and $1,764,617, respectively. The CDM department consisted of 13 full-time and 8 part-time employees; only 3 of which have been repositioned to the Customer Services department. The annual cost of these 3 FTEs for 2022 is $354,691 ($268,705 unburdened).

4-CCC-43
Re: Ex. 4/p. 7

London Hydro worked through the COVID-19 pandemic without any stoppage, but the lockdown did result in some cost reductions in fiscal 2020 in areas such as training, travel, conferences and third-party professional services. What were the actual cost reductions in 2020 related to COVID-19?

LH Response:

Compared to average spending for the 3 years 2017 to 2019, one could estimate a savings in the area of training, travel, conferences and third-party professional services of approximately $450k. It is important to note that this savings does not take into consideration incremental COVID-19 expenditures of $302,919.
London Hydro had originally recorded these amounts in Account 1509 for recovery. However, it was later determined that these amounts are not eligible for recovery as confirmed in the Report of the Ontario Energy Board entitled Regulatory Treatment of Impacts Arising from the COVID-19 Emergency (EB-2020-0133) issued on June 17, 2021.

4-CCC-44
Re: Ex. 1/p. 106 and Ex. 4/pp. 10-13

Please provide a timeline for the budgeting process in support of this Application. Please provide all budget guidelines provided to employees.

LH Response:

The planned timeline for development of the budgets for the 2021 Bridge Year and proposed 2022 Test Year is provided below:

April 27, 2020	Budget packages issued to Managers
June 29, 2020	Packages due back from Managers
July 24, 2020	Departmental labour reviewed
July 31, 2020	Departmental expense variance analysis
July 31, 2020	Corporate labour consolidation / analysis
August 7, 2020	Labour presentation and budgeted benefits
August 17, 2020	First draft for Executive Committee review
August 21, 2020	Revenue, amortization, interest (full P&L)
August 28, 2020	Budgeted balance sheets 2021 and 2022
September 4, 2020	reviews / cuts / edits
September 11, 2020	reviews / cuts / edits
September 18, 2020	reviews / cuts / edits
September 25, 2020	reviews / cuts / edits
October 9, 2020	Power Points and presentations
November 23, 2020	Audit Committee presentation
November 24, 2020	Board of Directors presentation

Budget guidelines provided to employees are included in the budget packages issued to Managers. Budget guidelines for the 2021 Bridge Year and proposed 2022 Test Year for have been attached as an appendix item for this inquiry under “IR 4-CCC-44 Attachment 1”.

4-CCC-45

Re; Ex. 4/pp. 17-22

Please explain the difference between the 2022 OM&A numbers found in Tables 4-3 ($42.415m) and Table 4-5 ($44.168m).

LH Response:

The difference between these Table 4-3 and Table 4-5 ($1,753,200) is because of the segregation of cloud services which have been discussed separately under section 4.4.

4-CCC-46
Re: Ex. 4/p. 26 – Table 4-7 and pp. 43-46

Corporate Communications costs are increasing from $862,180 in 2017 to $1,387,900 in 2022. Please provide detailed budgets for the Corporate Communications Program for the years 2017-2022. Two additional staff have been hired including a Program Manager and Corporate Communications Assistant. Are these incremental to the 3 CDM employees transferred to Corporate Communications?

LH Response:

The Corporate Communications Program budget for the 2017 to the proposed 2022 Test Year is provided below:

Corporate Communications Program Annual Budgets						
	2017 OEB Approved	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Labour and benefits (gross)	296,100	399,900	528,200	557,100	663,600	686,700
Labour and benefits alloc	48,800	(18,000)	48,500	49,800	(86,900)	(72,600)
Net OM&A labour	344,900	381,900	576,700	606,900	576,700	614,100
Employee expenses	10,400	13,600	15,300	16,300	15,200	19,600
Contractor services	80,000	80,000	110,000	110,000	142,000	170,000
Advertising and promotion	260,500	275,500	245,500	267,500	290,000	305,000
Donations (LEAP)	200,000	200,000	200,000	200,000	200,000	200,000
Materials and supplies	34,200	34,200	34,200	34,200	34,200	34,700
School safety program	30,800	32,000	31,400	31,400	20,300	33,100
Business equip/communications	5,700	7,000	7,000	7,000	7,000	6,500
Computer software / hardware	-	-	-	2,400	2,400	2,400
Corporate membership fees	2,100	2,000	2,000	2,000	2,500	2,500
	968,600	**1,026,200**	**1,222,100**	**1,277,700**	**1,290,300**	**1,387,900**

No CDM employees were repositioned to the Corporate Communications department. The two additional staff hired in the Corporate Communications Program are incremental to the 3 CDM employees transferred to the Customer Services department.

4-CCC-47
Re: Ex. 4/p. 101

Please file the 2017 Tree Trimming Report issued in September 2017.

LH Response:

A copy of the 2017 Tree Trimming Report is provided as appendix item under “IR 4-CCC-47 Attachment 1”.

4-CCC-48
Re: Ex. 4/p. 101 and pp. 278-280

What are the annual costs associated with the Trickl ap? How many customers have subscribed to the ap? How many are expected to subscribe to it during the test year period?

LH Response:

Costs associated with the Trickl app are not readily available because they not specifically tracked in the accounting system. Therefore, numerous studies and analysis would be necessary to estimate the overall cost of this energy management tool. That being said, the costs associate with providing the application to customers is not as significant as one might assume. This is because the Trickl app is simply another "avenue" on which to offer tools and services provided through other platforms such as MyLondonHydro. It is the mobile app component of London Hydro's customer engagement platform and is based on common code, data, security and microservices architecture for all communication channels and customer facing applications. In addition, the underlying platform was developed as part of the OEB Regulated Price Plan Pilot ("RPP"), which commenced in 2017 to test alternative pricing structures and non-price tools to empower consumers and provide incentives and opportunities for consumers to reduce their electricity bills by shifting their time of electricity use.

Presently, the Trickl app has been deployed to over 2000 London Hydro customer as part of pilot projects such as the OEB Critical Peak Pricing. A broader rollout to all London Hydro customers is planned to commence in 2022, alongside London Hydro's recently established Green Button Market Strategy. The objectives of the Green Button Marketing Strategy include increasing customers recognition and use of the Trickl app. A new enhanced version of the Trickl app is being rollout that provides customers with easily accessible, self-service options while empowering them with the ability to monitor and control their energy consumption through their smartphone. London Hydro has worked with its customers to develop many new features. This new version provides energy efficiency tips and helps customers better understand their energy data.

Enhanced information accessible to customers includes hourly, daily, weekly and monthly consumption together with comparisons to historical data, as well as the ability to predict their upcoming bill. With the help of the Green Button Marketing Strategy, London Hydro is anticipating an increase in the download rate, but does not have a basis for forecasting at this time.

4-CCC-49
Re: Ex. 4/p. 145

Table 4-20 sets out London Hydro's IT Program Delivery Costs. Does this Table include the cloud computing costs? Has London Hydro benchmarked its IT costs against other Ontario LDCs? If not why not?

LH Response:

Cloud service fees are not included in Table 4-20. They have been segregated and discussed separately under Exhibit 4, Section 4.4.

London Hydro has not benchmarked its cloud computing costs with other LDC's. Finding a comparable organization with a similar customer base, infrastructure, sourcing strategy, cloud vs on-premise, ERP system (CIS, OMS, JDE, AMI) and data requirements would be difficult. Although benchmarking may provide benefits, it would be a time-consuming exercise with costs attached. As an alternative, London Hydro has engaged the services of third-parties (Ernst and Young, for example) to assist with studies, analysis and "what if" scenarios when choosing platforms for significant systems. This equips London Hydro with cost / benefit information and a full comparison of the Total Cost of Ownership (TOC). Along with this information and while considering other benefits, the Company choses the most appropriate solution for customers.

4-CCC-50
Re: Ex. 4/p. 373

London Hydro's evidence is that between 2009 and 2020 the total Scientific Research and Experimental Development (SR&ED) Investment Tax Credits benefited London Hydro by $4.6 million. In the current Application the SR&ED offset is $570,000. Through the 2009-2020 period how much of the $4.6 million benefitted ratepayers and how much benefitted London Hydro's shareholders.

LH Response:

London Hydro's shareholder has not benefitted from the SR&ED investment tax credits. All income tax credits are retained by the Company and help to fund future innovations. A material portion of the historical credit amounts were built into rates. To the extent there were credit amounts not embedded in rates, London Hydro's spending on innovative programs for the benefit of its customers equalled or exceeded the value.

EXHIBIT 9

9-CCC-51
Re: Ex. 9/p. 9

Please provide all details and calculations regarding the 1508 Sub-Account – Advanced Capital Module. To what extent have these amounts been approved by the OEB? What is to be approved in this Application?

LH Response:

The OEB approved an $857,689 annual ACM revenue requirement and corresponding rate riders in London Hydro's 2018 IRM rate application (EB-2017-0059).
London Hydro calculated its actual revenue requirement, $3,582,737, for the ACM projects based on actual costs in its 2022 cost of service application for the period of 2018 to 2021, using the 2022 COS – ACM_Capital_Disposal workbook in its original submission. London Hydro reduced its actual revenue requirement for ACM Nelson TS Capital Contribution, as described in Response 9-Staff-93. The updated actual revenue requirement is presented in the table below.

The $3,469,442 rate rider revenues, collected and forecasted to April 30, 2022, are based on the approved rate riders in the 2018 IRM decision.

In the 2022 COS – ACM_Capital_Disposal workbook, London Hydro also calculated the over/under-recoveries for the ACM projects by comparing the actual revenue requirement and the rate rider revenues collected. London Hydro requests the approval of the difference between the approved rate rider revenues, collected and forecasted, based on the 2018 IRM revenue requirement, and the actual revenue requirement of the ACM projects.

ACM Projects - Net Revenue Requirement True-Up	Nelson TS Capital Contribution	JD Edwards	HONI CCRA True-up's Talbot and Buchanan	TOTAL
Actual Revenue Requirement	$ 1,709,215	$ 1,834,695		$ 3,543,910
Rate Rider Revenues incl. interest (actual and forecast)	$ (2,164,823)	$ (1,153,562)	$ (151,056)	$ (3,469,442)
Over/Under recovery	$ (455,608)	$ 681,133	$ (151,056)	$ 74,469

London Hydro also requests the approval to transfer the remaining net book value of the ACM assets into its rate base, according to the Revised Capital Module Policy outlined in the *Report of the Board, New Policy Options for the Funding of Capital Investments: The Advanced Capital Module,* (EB-2014-0219).

9-CCC-52
Re: Ex. 9/p. 30

Please provide all calculations and assumptions regarding the balance in the COVID -19 Emergency Deferral Account.

LH Response:

Table 9-17: Account 1509 – Impacts Arising from the COVID-19 Emergency

COVID-19 EMERGENCY DEFERRAL ACCOUNT				
Description	Gov./OEB Initiated Customer Relief Impacts	Bad Debts	Other Costs	Total Amounts to Dec. 31, 2020
Waived late payments charges	683,397			683,397
Bad debts		422,553		422,553
LEAP funding			200,000	200,000
Carrying charges (to April 30, 2022)	7,417	4,906	1,929	14,251
	690,814	**427,459**	**201,929**	**1,320,201**

Sub-account Impacts from Complying with Government/OEB-initiated Customer Relief Programs

London Hydro recorded the lost revenues from waived late payment charges in this sub-account.

The OEB issued its *Guidance to Electricity and Natural Gas Distributors on Providing Relief to Customers During the COVID-19 Emergency* on March 27, 2020. In the Guidance, the OEB staff expressed their view in regard that utilities may lower or waive the OEB-approved late payment charge to provide relief to their customers during the COVID-19 emergency.

The $683,397 amount was calculated as follows:
London Hydro charges 1.5% late payment per month according to its Tariff of Rates and Charges.

London Hydro calculated the amount of late payment charges on past due active accounts, then reviewed the historical percentage of final accounts that were eligible for late payment charges and calculated the amount on those accounts. The combined amount of $683,397 on residential accounts represents the waived late payment charges recorded in the sub-account.

Sub-account Bad Debt

The OEB extended the winter disconnection ban until July 31, 2020, in response to the COVID-19 emergency, in its Decision and Order (EB-2020-0109) on March 19, 2020. The OEB also set out its expectation that utilities are to accommodate customers in arrears and increase awareness of available support to them.

Incremental bad debt expense calculations and assumptions:

The incremental bad debt expense was calculated by comparing the current level of bad debt expense to historical values. Then a further analysis was completed to review the change in arrears throughout the year, aged in 30 days increments. London Hydro found that during the extended disconnection moratorium the past due receivable increased significantly despite the amounts recovered while collection activity was still in place. The increased bad debt expense during the period affected by the pandemic was $422,553 higher compared to the historical level of bad debt expense.

Sub-account Other Costs and Savings

The OEB informed electricity distributors of its decision regarding enhanced funding for LEAP Emergency Financial Assistance for 2020 on July 17, 2020. The OEB approved an increase in the amount that distributors may make available to agencies for use in the LEAP EFA, and permitted the increased funding to be recorded in Account 1509 separately so they are identifiable for review in a disposition request.

London Hydro recognized the need for greater LEAP EFA as it had a significant increase in number of customers facing financial hardships due to the pandemic. On

March 31, 2020, London Hydro's Board approved an additional $200,000 funding to the LEAP program to help them.

Sub-account Carrying Charges

London Hydro used the Board prescribed interest rates for the respective quarterly periods to calculate the carrying charges, as applicable.

9-CCC-53
Re: Ex. 9/p. 67

Please explain what London Hydro is proposing n the context of this Application with respect to a deferral or variance account regarding Ontario's Broadband and Cellular Action Plan.

LH Response:

Please refer to Response in 9-Staff-97.