1-SEC-1
[Ex.1] Please provide copies of all benchmarking studies, reports, and analyses that the Applicant has undertaken or participated in since its last rebasing application, that are not already included in the application.

LH Response:

See confidential attachments listed below:

1. 1-SEC-1 Attachment 1 1_2021 BOD Report.pdf
2. 1-SEC-1 Attachment 2 2017 MEARIE MSS Report.pdf
3. 1-SEC-1 Attachment 3 2018 MEARIE MSS Report Sept 7 2018.pdf
4. 1-SEC-1 Attachment 4 2019 BOD Report.pdf
5. 1-SEC-1 Attachment 5 2019 MSS Report (FINAL).pdf
6. 1-SEC-1 Attachment 6 2020 MSS Report (FINAL).pdf
7. 1-SEC-1 Attachment 7 2021 MSS Report - October 7, 2021 Final.pdf

1-SEC-2
[Ex.1] Please provide a copy of all documents that were provided to the Board of Directors in approving the underlying budgets contained in this application.

LH Response:

See the attached Appendices (1-SEC-2 Attachments 1-4)

1-SEC-3
[Ex.1] Please provide a copy of the Applicant's most recent business plan.

LH Response:

Attached is the London Hydro's most recent Strategic Plan

(See 1-SEC-3 Attachment)

1-SEC-4

[Ex.1] Please provide details of all productivity and efficiency measures the Applicant has undertaken since its last rebasing application in 2017. Please quantify the savings and explain how they were calculated.

LH Response:

London Hydro has undertaken a significant number of productivity and efficiency programs and projects over the last five years, although it is difficult to quantify many of the specific activities as the efficiencies have allowed for additional work to be performed usually with the existing staff complement.

In other cases, the savings which have materialized from these efficiencies have allowed London Hydro to implement new programs in a cost-effective manner.

For a fulsome list of the productivity initiatives please refer to 4-Staff-55.

Some examples of the new services that London Hydro is offering as a result of the efficiency savings are:

- Offering no-fee credit card payments. ($240k)
- Increased tree trimming ($130k)
- COR safety certification ($150k)
- Increased corporate communication outreach ($350k)

This represents approximately $870,000 worth of new services London Hydro is now providing to our customers as a result of the efficiency and productivity gains that were accomplished over the past 5 years.

1-SEC-5
[Ex.1] Please provide details of all productivity and efficiency measures the Applicant plans to undertake in the test year. Please quantify the savings and explain how they were calculated.

LH Response:

London Hydro continues to look for operational productivity and efficiency gains wherever prudent and practical. An example of a 2022 initiative is the increased credit card offerings (Visa) in addition to the current MasterCard offering where customers are required to be signed up for paperless billing.

Postage expense was decreased in the 2022 application based on the expected increase in paperless bills multiplied by the yearly postage costs. (Note – London Hydro also anticipates that the number of customers will increase by 1% due to growth).

1-SEC-6
[Ex.1] Does the Applicant have a corporate scorecard or similar document? If so, please provide a copy for each year beginning in 2017 and for each metric/measure, the actual performance. If the Applicant does not, please explain how its Board of Directors measures the company and management's performance.

LH Response:

London Hydro sets corporate targets on a yearly basis. The Board of Directors approves these targets and are then provided updates on a quarterly basis.

The targets have been included as 1-SEC-6 Attachments 1-2

1-SEC-7
[Ex.1, p.44] With respect for the request for an extension for the approvals granted under section 71(4) of the O*ntario Energy Board Act* for Green Button Services, if the OEB denies the request, please explain what the Applicant will do.

LH Response:

Without the extension under s. 71(4) of the OEB Act, London Hydro cannot retain or pursue Green Button opportunities related to natural gas and water or any opportunities outside of Ontario.

1-SEC-8
[Ex.1, p.59] Please provide the full calculation of 'inflation and customer growth' included in Table 1-4.

LH Response:

Please see London Hydro's response to 1-LPMA-2.

1-SEC-9
[Ex.1, p.89] Please provide a more detailed company organizational chart.

LH Response:

The London Hydro organization chart has been attached as 1-SEC-9 Attachment as requested.

1-SEC-10

[Ex.1, p.160] The Applicant states "London Hydro notes that with the passage of time many distributors are challenged with respect to the efficiency measures and are losing ground." Please explain what is meant by this statement and how it is consistent with the overall improving cost performance based trend of the distributor sector, as noted in the OEB's August 27, 2021 letter to electricity distributors.

LH Response:

London Hydro retracts this statement. On review it does not convey the message that was intended.

While London Hydro is constantly working to implement efficiencies to help absorb rising for costs for customers, there becomes a point where productivity efficiencies cannot absorb the full impact of rising costs; especially new costs that are as a result of outside influences such as city growth and development.

London Hydro and other distributors have had success implementing efficiency measures in order to control costs for status quo distribution functions, that cost control is more than offset by pressures including aging infrastructure, changes in technology, cyber security requirements and increased customer expectations with respect to the level and types of service they receive which results in overall cost increases. That said, the Company will continue with 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.

2-SEC-11
[Ex.2, p.78-79] With respect to the Applicant's proposed new CIS system:

a. [p.78] Please provide a copy of, i) the December 2019 London Hydro CIS study, and ii) the full April 2021 IT Strategy.
b. [p.79] Please explain the basis for the $18.5M cost estimate.
c. [p.79] Please explain the Applicant procurement method(s) for the various components of the new CIS system.
d. Please provide a copy of all internal business case(s) undertaken related to the new CIS system.
e. Please provide a copy of the material provided to the Applicant's Board of Directors related to the CIS project.
f. Has the Applicant undertaken any benchmarking related to the new CIS system costs? If so, please provide details.

LH Response:

a) Please see attachments: "2-SEC-11 Attachment 1 – Dec 2019 BOD Package", and "2-SEC-11 Attachment 2 – April 2021 BOD Package".
b) Please refer to 2-Staff-32.
c) The core services/ materials related to CIS Refresh such as Design Authority, Client-side IT Advisor, System Integrator and Infrastructure provider will be procured through a competitive public RFP process.
d) The EY's CIS Study report was used as internal business case for approval processes. Later, the following documents were used to obtain Board approval to merge Enterprise CRM project with CIS Refresh and advancing the CIS refresh to start in 2021 and go-live in 2023:
    - "2-SEC-11 Attachment 2 – April 2021 BOD Package" referenced in part (a) above
    - "2-SEC-11 Attachment 3 – CIS Refresh – Planning and Business Requirements"
e) These are included in the attachments referenced in section (a) and (d) above.
f) The EY consultants conducted a CIS Study in 2019. As part of the study, the EY team performed a market scan to benchmark high level costs for various options evaluated. The details are included in Exhibit 2 Appendix 2-3 CIS Strategy: EY Study.

2-SEC-12

[Ex.2, 2022 ACM Model] Please revise the ACM Model to include in Tab 9a, Distribution System Plan CAPEX Line (row 16) the information on a net in-service additions basis.

LH Response:

See Attachment 2-Staff-31 Attachment London Hydro EB-2021-0041 2022_ACM - REVISED

2-SEC-13
[Ex.2, p.80; 94] Please confirm that each of the 3 ACM projects were added to the 2018 Fixed Asset Continuity Schedule using the half-year rule.

LH Response:

To clarify, only 2 of the 3 ACM projects were completed. The third project (Talbot/Buchanan) was not required. Additionally, the 2 ACM projects were not added to the Fixed Asset Continuity Schedule until 2022, as per the Chapter 2 Filing Requirements section 2.2.1.1.

The depreciation amounts calculated on the ACM projects were not calculated using the half-year rule. As noted in section 4.6.4 Half-Year Rule of Exhibit 4, "Historical actual depreciation expense is calculated automatically using London Hydro's fixed asset system. Actual additions to capital assets are updated on a quarterly basis, as assets are put into service. Depreciation begins at this point as it ties more closely with the in-service date of the asset."

London Hydro has used a depreciation start date of September 2018 for the JD Edwards Upgrade and a depreciation start date of December 2018 for the Nelson TS. These dates represent the actual dates the assets went into service and the depreciation amounts calculated from these start dates were used to calculate the net book value of the assets up to December 31, 2021. The net book values, as of December 31, 2021, were transferred from the deferral accounts to the Fixed Asset Continuity Schedule as of January 1, 2022.

2-SEC-14
[Ex.2, p.80; Ex.9, p.9] With respect to the previously approved ACM:

a. Please provide a table that shows, for each year the ACM rate rider is in place, broken down by ACM project, i) the total approved revenue requirement broken down by component, and ii) the actual revenue requirement based on actual costs broken down by component. Please explain the calculation.
b. Please provide a table that shows for each year the ACM is in place, the total amount collected or forecast to be collected, by the rate rider.

LH Response:

a) ACM Revenue Requirement

i) Revenue requirement approved in 2018 IRM decision, by projects, for RR calculation:

ACM Projects	Nelson TS Capital Contribution	JD Edwards	HONI CCRA True-up's Talbot and Buchanan	TOTAL
Annual	$ 535,171	$ 285,175	$ 37,343	**$ 857,689**

ii) Actual Revenue requirement, originally calculated and submitted, in 2022 COS - ACM_Capital_Disposal for the period of 2018-2021, based on actual cost, has been reduced for ACM Nelson TS Capital Contribution by $39K as described in Response 9-Staff-93. The updated revenue requirement for the ACM projects:

ACM Projects	Nelson TS Capital Contribution	JD Edwards	HONI CCRA True-up's Talbot and Buchanan	TOTAL
Year 2018	$ 172,280	$ (154,918)		$ 17,361
Year 2019	$ 548,557	$ 384,058		$ 932,615
Year 2020	$ 545,944	$ 820,955		$ 1,366,899
Year 2021	$ 442,435	$ 784,600		$ 1,227,035
	$ 1,709,215	$ 1,834,695	$ -	$ 3,543,910

The actual total revenue requirement comprises of the return on capital, amortization expense and related interest, plus grossed-up Taxes/PILs.

The actual revenue requirement detail for the ACM – Nelson TS Capital Contribution project:

	2018	2019	2020	2021	TOTAL
Revenue Requirement for Historical Years					
Return on Capital	$ 184,116	$ 364,136	$ 355,947	$ 304,152	$ 1,208,351
Depreciation/Amortization expense and related interest	$ 5,636	$ 161,282	$ 161,282	$ 128,875	
	$ -	$ 1,747	$ 2,987	$ 2,223	
	$ 5,636	$ 163,030	$ 164,269	$ 131,098	$ 464,033
Operating Expenses and related interest	$ -	$ -	$ -	$ -	
	$ -	$ -	$ -	$ -	
	$ -	$ -	$ -	$ -	$ -
Revenue Requirement before Taxes/PILs					**$ 1,672,384**
Grossed-up Taxes/PILs	$ (17,472)	$ 21,391	$ 25,727	$ 7,186	$ 36,832
Total Revenue Requirement plus Interest on OM&A and Depreciation Expense					
	$ 172,280	**$ 548,557**	**$ 545,944**	**$ 442,435**	**$ 1,709,215**

The actual revenue requirement detail for the ACM – JD Edwards software project:

	2018	2019	2020	2021	TOTAL
Revenue Requirement for Historical Years					
Return on Capital	$ 61,402	$ 109,647	$ 83,332	$ 57,016	$ 311,397
Depreciation/Amortization expense and related interest	$ 172,754	$ 518,262	$ 518,262	$ 518,262	
	$ 469	$ 9,090	$ 11,725	$ 8,247	
	$ 173,223	$ 527,352	$ 529,986	$ 526,509	$ 1,757,070
Operating Expenses and related interest	$ -	$ -	$ -	$ -	
	$ -	$ -	$ -	$ -	
	$ -	$ -	$ -	$ -	$ -
Revenue Requirement before Taxes/PILs					**$ 2,068,467**
Grossed-up Taxes/PILs	$ (389,543)	$ (252,941)	$ 207,637	$ 201,075	$ (233,772)
Total Revenue Requirement plus Interest on OM&A and Depreciation Expense					
	$ (154,918)	**$ 384,058**	**$ 820,955**	**$ 784,600**	**$ 1,834,695**

b) The following table summarizes the ACM Rate Rider Revenue, including actual and forecast and exclude interest, until the RR expiry date of April 30, 2022.

Rate Riders Revenue (Actual and Forecast)	Nelson TS Capital Contribution	JD Edwards	HONI CCRA True-up's Talbot and Buchanan	TOTAL
Year 2018	$ 356,315	$ 189,868	$ 24,863	$ 571,045
Year 2019	$ 528,770	$ 281,764	$ 36,896	$ 847,429
Year 2020	$ 527,129	$ 280,889	$ 36,782	$ 844,800
Year 2021	$ 532,655	$ 283,834	$ 37,167	$ 853,656
Year 2022 Jan 1 - Apr 30	$ 177,327	$ 94,492	$ 12,373	$ 284,193
	$ 2,122,195	$ 1,130,847	$ 148,082	$ 3,401,124

2-SEC-15

[Ex.2, p.82] With respect to the variance in capital costs related to the JD Edwards Upgrade, the Applicant states: "It did not include additional functionality that London Hydro ended up implementing as part of this project (such as a time and labour module and foreign currency transactions." Please explain the additional functionality that was included, and if there were multiple additional functionalities implemented, the specific costs associated with each one. Please explain why each individual functionality and its associated cost was prudent.

LH Response:

Additional functionalities implemented as part of the JDE Upgrade included the following:

- Implementation of the Time and Labour Module → approximately $350k
    - Historically, LH stored its labour history details in a custom file that was accessed through Microsoft Access or SQL which meant that only technical users could query, report and analyze this data. By implementing JDE Timecard and Labour, all users with granted permissions can now access this data online and analyze using LH's user-friendly reporting tool "Insight Reporting".
    - Using JDE functionality decreases analysis in Excel workbooks, provides for drill down and online tools to quickly review labour activities. Having this information available online helps Managers monitor the deployment of their resources as well as analysis of actual costs against planned operating and capital budgets.
    - Using JDE functionality increases data integrity between source data and labour reporting, since LH is no longer reporting from non-integrated systems
- Automating the process of closing out capital work order costs into the Fixed Asset Module → approximately $100,000
    - The relationship between WIP cost types and their associated fixed asset was defined in JDE so that closing reclassifications could be made in the system (to move the project cost balances from WIP to fixed assets as a capital asset addition). Moving this functionality to JDE makes the process more straight forward and transparent. Historically,

this logic was maintained in MS Access so that only technical users could view and understand.

- Other smaller functions totaling approximately $140,000 include:
    - Inventory Reporting improvements ("As At" capability, moving data out of MS Access database). Having this information in JDE makes it available to all appropriate employees and provides the ability to analyze SKU units and dollar balances at the end of each month and year over year, while considering safety stock and goods committed to projects under development. Have this type of analysis readily available in the system helps to monitor trends and pinpoint slow-moving stock that needs attention.
    - Multi-Currency Functionality (AP Module) – processing and conversion of foreign currency transactions. This was done to avoid the manual creation and recording of cheques, as well as better tracking of foreign currency dollars within the system. In addition, these payment types now utilize cheque fraud protection to reduce the likelihood of criminal activity.

Migrating information and processes away from MS Access and over to JDE provides for a more structured platform for the logic and ensures that all appropriate employees have access to available functions and reporting. It also helps to ensure that JDE is the single source of financial information for LH.

2-SEC-16
[Ex.2, Appendix 2-7, p.47] Please provide Figures 2 and 3 in tabular format.

LH Response:

NOTE: this data set includes MEDs as per the Section 1.3.3. in the DSP (Ex.2, Appendix 2-7, p.46).

Historical SAIDI from 2001 to 2020

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SAIDI - Total	1.67	2.07	2.98	1.52	1.15	1.43	1.69	2.29	0.89	0.89	1.86	0.90	1.02	1.11	1.06	0.99	1.42	1.44	1.37	0.95
SAIDI - EDRO	1.00	0.96	2.30	0.83	0.65	0.88	1.06	1.44	0.50	0.40	1.10	0.46	0.48	0.44	0.56	0.36	0.72	0.97	0.87	0.43
SAIDI - Non-EDRO	0.67	1.11	0.68	0.69	0.50	0.55	0.63	0.85	0.39	0.49	0.76	0.44	0.54	0.67	0.50	0.63	0.70	0.47	0.50	0.52

Historical SAIFI from 2001 to 2020

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SAIFI - Total	2.73	2.47	3.41	2.19	1.65	2.23	2.46	2.39	1.59	1.12	2.36	1.46	1.38	1.63	1.37	1.24	1.51	2.20	2.09	1.48
SAIFI - EDRO	1.83	1.37	2.78	1.25	1.18	1.59	1.42	1.45	1.02	0.66	1.61	0.97	0.81	0.72	0.72	0.52	0.68	1.31	0.88	0.59
SAIFI - Non-EDRO	0.90	1.10	0.63	0.94	0.47	0.64	1.04	0.94	0.57	0.46	0.75	0.49	0.57	0.91	0.65	0.72	0.83	0.89	1.22	0.89

2-SEC-17
[Ex.2, Appendix 2-7] Please provide a version of Appendix 2-AB on an in-service additions basis. Please also provide the response in in Excel format.

LH Response:

This information is not readily available since London Hydro does not track in-service additions by Chapter 5 Investment category.

2-SEC-18

[Ex.2, Appendix 2-7, Appendix C, p.15] With respect to Chart 4 and Table 6, please explain the basis 'Cloud System' or 'On Premises' calculation. For example, are they capital and/or OM&A costs, total costs over a period of time, annual amounts, revenue requirement calculations, etc.? In your response, please provide a full breakdown of the costs including details of all assumptions.

LH Response:

London Hydro has adopted cloud systems based on the following benefits:

- On-premise systems will require hardware refreshes after warranty periods whereas cloud systems do not
- Cloud fees go up incrementally, and do not require a major capital investment for any volume driven increases
- Cloud-based systems avoid cyber security requirements otherwise required for on-premise systems
- Cloud options provide scale-up on demand and on-premise requires sizing for peak (under-utilization)
- Leveraging the cloud provides volume discount for hardware and capacity/ performance management

The figures presented in Table 6 represent estimated capital implementation costs. The amounts in the third column reflect estimated capital costs avoided by choosing cloud-based systems as opposed to on-premise solutions. Excluded from the table are in-house support, service fees, depreciation expense and ongoing maintenance fees of either option. For a more detailed analysis of the "Total Cost of Ownership" between these two solutions over the 5-year life span, please refer to LH response for 1-CCC-15.

2-SEC-19

[Appendix 2-AA; Appendix 2-JC] Please provide in a single table, for each year since 2017, all regular IT spending, broken down first by OM&A and or capital, and then by specific category or type.

LH Response:

Total IT Spending - 2017-2022						
IT Category	**2017 Actuals**	**2018 Actuals**	**2019 Actuals**	**2020 Actuals**	**2021 Bridge Year**	**2022 Test Year**
OM&A						
Labour and benefits	3,222,479	3,474,850	3,551,920	3,257,408	3,476,400	3,721,100
Contractor services	658,546	439,976	544,290	446,730	546,900	565,400
Employee expenses	126,302	176,777	150,387	40,046	153,100	158,300
Software and hardware	686,593	733,079	719,422	741,757	787,400	881,500
Business communications	223,731	237,004	211,624	195,256	240,500	235,500
Materials and supplies	26,523	19,144	19,647	8,280	32,200	30,500
Other	134,431	130,824	127,303	119,889	134,100	135,000
Cost recoveries	(499,329)	(540,063)	(487,525)	(516,501)	(484,700)	(483,700)
Sub-Total	**4,579,277**	**4,671,589**	**4,837,068**	**4,292,864**	**4,885,900**	**5,243,600**
Capital						
Hardware / Software	1,041,038	777,302	396,284	1,028,289	1,020,000	829,000
Application Development	3,531,571	4,158,776	5,856,249	5,480,587	4,303,000	4,375,000
CIS Refresh	-	-	-	-	500,000	6,500,000
JD Edwards	539,092	2,052,217	-	-	-	-
Sub-Total	**5,111,701**	**6,988,295**	**6,252,533**	**6,508,876**	**5,823,000**	**11,704,000**
TOTAL	**$ 9,690,978**	**$ 11,659,885**	**$ 11,089,601**	**$ 10,801,740**	**$ 10,708,900**	**$ 16,947,600**

2-SEC-20
[Ex.2, Appendix 2-7, Appendix G, p.436 of the pdf] Please explain what the Applicant considers an "Engineering Project".

LH Response:

Engineered Projects are those initiated by LH's Engineering Department, and not as a result of requests from the municipality or customers. These include: Substation Rebuilds, Subdivision Rebuilds, Main Feeders, Network, Overhead Lines, and Automation.

2-SEC-21
[Ex.2, Appendix 2-7, Appendix G, p.438 of the pdf] Please provide a copy of each of the following documents:

a. 2017 Substation Assessment
b. High Voltage Design Report for Dundas Flex Street (2017)
c. 4.16 kV Aging Infrastructure System Planning Report - 2018 Update (Plan for Rear Lot to Front Lot Conversion)
d. Northwest Supply Capacity Study (2018)
e. Distribution System Planning Strategy, A Framework for 2020-2024 (2019)
f. 4.16 kV Conversion Progress Report, 2019 Update

LH Response:

Please see “2-SEC-21 Attachment 1”.

2-SEC-22
[Ex.2, Appendix 2-AA] Please provide a revised version of Appendix 2-AA that includes the following:

a. Capital projects broken down in the same way as provided in the DSP 'Project Sheets" (see for example DSP Appendix I).
b. Capital spending for years 2023-2026 that form the basis of the numbers included in Appendix 2-AB.
c. Three additional columns, showing year-to-date actuals for 2021, and year-to-date actuals at the same point in time in 2019 and 2020.

Please also provide the response in in Excel format.

LH Response:

a) An updated table has been provided as an attached excel file, "2-SEC-22 Attachment 1 App 2-AA Updated Detailed Spending". Please note that Project Sheets are not provided by Investment Category, or net spending and are not grouped the same way as they are within our financial system. As a result, London Hydro cannot provide a breakdown of capital spending in the exact same way as provided in the DSP 'Project Sheets'. However, a detailed schedule has been provided at a similar level of detail to the project sheets.
b) The Capital Spending forecast for years 2023-2026 have been included on the attached excel file noted in (a).
c) Three additional columns, showing Year-to-September actuals for 2021, and Year-to-September actuals for 2019 and 2020 have been included on the attached excel file noted in (a).

2-SEC-23
[Ex.2, Appendix 2-7, Appendix H, I] For each year, please provide a table that shows for each Capital Project included in a 'Capital Project Sheet', the various project scores across factors. Please rank according to priority in a given year.

LH Response:

Please see "2-SEC-23 Attachment 1".

2-SEC-24
[Ex.2, Appendix 2-7, Appendix H, I] With respect to the 'Project Ranking Guideline':

a. Does the Applicant have a more detailed guideline/explanation of its project ranking system? If so, please provide a copy.
b. Is the 'impact ranges' and scores for a given factor supposed to reflect, risk magnitude, probability, or some combination? Please explain your answer.
c. What is the 'Blended Health Index Derating Project Ranking' and how is it calculated? How is it related to the Weighted Blended Health Index?

LH Response:

a) Yes. It was noted as a recent change to the Asset Management Process since the last DSP Filing (DSP Section 1.1.6 / 5.2.1f), highlighted in DSP Section 2.3.2 Risk Management (5.3.3B) with references to DSP Appendix M (see DSP pdf pages 1178 to 1183).
b) As noted in the "Project Ranking Guideline" included on the various project sheets, the "impact ranges" is a value from 1 to 10, used to quantify the potential impact of not addressing the identified deficiency. The impact includes magnitude and probability, which is assessed by the review team using their combined knowledge and experience.
c) Please see reference noted in response to (a) for details on the calculation and usage. The "Blended Health Index Derating Project Ranking" and "Weighted Blended Health Index" are the same value, used in different contexts.

2-SEC-25
[Ex.2, Appendix 2-7, Appendix H, I, J] Please provide similar Capital Project Sheets for all projects between 2018 and 2020.

LH Response:

Project Sheets are not readily available for all project spending categories during interim years 2018 – 2020. Project sheets are only produced annually by Engineering and Operations for the Asset Management Plan and as a result, Project Sheets for IT, Facilities, Metering, Equipment, and Fleet are only produced once every 5 years, for the Bridge and Test years. Please see "2-SEC-25 Attachment 1 – Budget Sheets 2018", "2-SEC-25 Attachment 2 – Budget Sheets 2019", and "2-SEC-25 Attachment 3 – Budget Sheets 2020" for Engineering and Operations Capital Projects.

2-SEC-26

[Ex.2, Appendix 2-7, Appendix I, p.700 of the pdf] With respect to the Replacement of Deteriorated Poles project, please provide a table that shows for each year between 2017 and 2026, the number of poles replaced/forecast to be replaced, and the annual cost.

LH Response:

Year	2017	2018	2019	2020	2021(YTD Sept)	2022	2023	2024	2025	2026
Poles replaced	84	40	73	128	66	160	160	160	160	160
Total Cost ($)	592,362	343,713	513,909	853,548	404,915	1,200,000	1,350,000	1,375,000	1,400,000	1,425,000

2-SEC-27

[Ex.2, Appendix 2-7, Appendix I, p.705 of the pdf] With respect to the Rebuild of Fully Depreciated Overhead Areas project:

a. Please provide a table that shows for each year between 2017 and 2026, the number of poles and pole mounted transformers replaced/forecast to be replaced, and the annual cost.
b. Please explain how the Applicant will choose which poles and transformers will be replaced under this program.

LH Response:

a)

Year	2017	2018	2019	2020	2021(YTD Sept)	2022	2023	2024	2025	2026
Poles replaced	2	2	3	0	7	51	51	51	51	51
Transformers replaced	1	0	0	5	0	N/A	N/A	N/A	N/A	N/A
Total Cost ($)	227,993	69,789	96,390	26,472	187,991	1,527,000	1,650,000	1,675,000	1,700,000	1,725,000

b) Please see response to 2-Staff-21.

2-SEC-28
[Ex.2, Appendix 2-7, Appendix I, p.785 of the pdf] With respect to the 4.16 kV Overhead Conversions project:

a. The Applicant states "Priority zones C, D, E and F have been identified based on a coordinated approach using multiple evaluation factors such as age and condition of assets, reliability and system performance, co-ordination with third party projects and operational flexibility." Please provide further details on how specifically these zones were chosen.
b. For each year between 2017 and 2026, please provide the number of kilometers and the cost of ii) overhead line and, ii) underground line, that has been rebuilt and converted.

LH Response:

a) The priority zone selection process consolidated multiple dependent parameters to create weighted factors to allow an unbiased approach. To provide further insight here are additional details:
   - Age - This considers age of the assets compared to the expected useful service life
   - Condition of Asset(s) - This considers maintenance inspections of assets and LH developed health indexes. For example, LH developed a Transformer Health Index (THI) based on industry knowledge, field staff feedback and laboratory results of the oil samples taken every year
   - Reliability and System Performance - This considered Feeder Average Interruption Duration Index (FAIDI) and Feeder Average Interruption Frequency Index (FAIFI), excluding scheduled outages. Other statistics such as System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI) have been overlaid in order to evaluate the impact to the customer(s)
   - Co-ordination of 3rd party projects - This considered any major infrastructure project(s) that would have synergies to provide access for replacing asset(s) that met above criteria; most commonly this would be municipality infrastructure relocation and/or road works refresh projects that would coordinate items such as open trenching for cost savings opportunities and/or minimize multiple year construction mobilization(s) disturbances to customer(s)

- Operational flexibility - This considers a coordinated approach to decommission assets to ensure adequate supply remains for redundancy, planned maintenance, and/or emergency contingency related situations. In general, an N-1 philosophy is applied and maintained thereby ties between zones may need to remain until adjacent and/or dependent zones are fully converted. This approach provides LH the ability to minimize regulatory tracked SAIDI and SAIFI key performance indicators.

b)

Conversion (km)	2017	2018	2019	2020	2021(YTD Sept)	2022	2023	2024	2025	2026
B9: UG to UG (km)	0	1.9	2.6	0.2	1	1	N/A	N/A	N/A	N/A
Cost UG ($)	10,788	224,924	1,118,197	2,179,209	1,858,339	1,025,000	450,000	500,000	500,000	526,000
G5: OH to UG (km)	11.9	10.9	6.6	9.6	0.9	7	N/A	N/A	N/A	N/A
Cost OH ($)	2,279,597	2,114,113	2,244,825	3,034,862	1,587,190	2,123,000	2,100,000	2,106,000	2,112,000	2,118,700

2-SEC-29

[Ex.2, Appendix 2-7, Appendix I, p.734 of the pdf] With respect to the SCADA Enhancement project, the Project Sheet includes cost estimates going back to 2013 until the end of 2022. It is unclear what the total cost of the SCADA Enhancement Project is, when it will be completed, what the specific costs of each component are, what is being done in 2022, and the interaction between the SCADA Cyber Security and Communication Infrastructure and the Serial Conversion Program. Please provide a complete explanation of the SCADA Enhancement project.

LH Response:

The "SCADA Enhancement Project" is an on-going program to enhance the SCADA system and related components such as communication systems, cyber security systems, and field devices that monitor and/or control the grid. There will always be enhancements required to address end of life components, new cyber security threats, system reliability concerns, and emerging technology such as FLISR, DERMS, etc. The budget for 2022 includes $25,000 for H2 (conversion of obsolete Serial Communication devices), $570,000 for additional cyber security devices upgrading of the radio system (which includes the replacement of a radio tower and new fibre backhaul), and $200,000 for additional grid devices to improve monitoring and/or control of the grid.

2-SEC-30
[Ex.2, Appendix 2-7, Appendix J, p.747 of the pdf] Please provide details and a cost breakdown of the 'Facilities Renovation Project'.

LH Response:

The 2021 budget of $440,000 was to renovate the Human Resources area at $100,000 (1st Floor of Administration building), the Executive area at $90,000 (3rd Floor of Administration building) and the 2nd Floor of the Engineering building at $250,000.

All 3 areas were to include:

- Demolition of each department
- Upgrade and replace original electrical
- Replace HVAC systems
- Add insulation to perimeter walls
- New interior walls, doors and flooring

2-SEC-31
[Ex.2, Appendix 2-7, Appendix L, p.28] Using the same categories of assets as included in Table 3-1, please provide the number of assets the Applicant has or plans to replace in each year between 2019 and 2026, regardless of which project/program. Please also provide the response in Excel format.

LH Response:

Please see Response to 2-CCC-40. LH does not forecast the quantity of assets for future years. The quantities are determined when the final design is completed.

2-SEC-32
[Ex.2, Appendix 2-7, Appendix K] Does the Applicant have the capability to undertake its own Asset Condition Assessment process going forward? If so, please provide details and how often does it update its results. If not, please explain what it plans to do in the future.

LH Response:

Appendix K – Asset Sustainment Plan – was prepared by LH staff and will continue to be updated by LH staff every 5 years. Appendix L – Asset Condition Assessment – was prepared by an external consultant with expertise in this field. LH plans to continue using an external consultant every 5 years.

2-SEC-33
[Ex.2, Appendix 2-7, Appendix L] With respect to the Kinetrics, London Hydro 2019 Asset Condition Assessment:

a. [p.15] Please confirm that the impact of the inclusion of an Age Limiter is that an individual asset's Health Index cannot be *better* (i.e. higher) than what would be predicted by that assets age, yet an individual asset's Health Index can be worse (i.e. lower) than what would be predicted by that assets age.
b. [p.28] Please provide a revised version of Table 3-1 which removes the inclusion of the Age Limiter in the Health Index calculations.
c. [p.30, 32] Based on the results of the revised information provided in part (b), please provide revised versions of Tables 3-2 and 3-3.

LH Response:

a) Confirmed.
b) See Response to 2-CCC-29.
c) See Response to 2-CCC-29.

2-SEC-34

[Ex.2, Appendix 2-7, Appendix M, Appendix E] With respect to the Analytical Ranking Model:

a. Has the Applicant reviewed this model against other utilities and/or best practices? If so, please provide details.
b. [p.70] For each project, please provide the asset weighting in the Weighted Blended Health Index.
c. [p.70-71] For each of the risk factor assignments and the weighting of assets for the purposes of the Weighted Blended Health Index, i) who is responsible for this activity, ii) how does the Applicant ensure consistent treatment across projects and programs.
d. [p.72] In the illustrative example provided, the Applicant references 25 projects in six sections (A-H). In the context of the model, what is a section?
e. [p.71] How often is the Ranking Model updated?
f. [p.72[In the illustrative example provided in Figure 3, would all 25 projects be undertaken in a given year?
g. Please provide a list of all projects contained in its latest Ranking Model, there scores, and in what year it plans to undertake the project.

LH Response:

a) LH reviewed the ranking models included with rate applications of many other utilities at various stages: Algoma Power, Enwin, Greater Sudbury, Kitchener Wilmot, Toronto Hydro (2020) and Chapleau Public, Lakeland Power, Niagara on the Lake (2019).
b) See Response to 2-SEC-23.
c) The Director of Engineering oversees the ranking process, using a team of engineering and operations resources, including the Manager of Systems Engineering, Planning Engineer, Reliability Engineer, and Distribution Engineer. The Guidelines for Risk Factor Assignment are used to guide a discussion with the Ranking Team, who need to reach a consensus on the final result. This ensures consistent treatment across projects and programs.
d) Table 1, Sections of Capital Projects (page 69) describes the budget sections that are grouped by common projects.
e) The Ranking Model is new for this DSP, and is expected to be reviewed and updated (if required) every 5 years as part of the review of EI-31.
f) Yes.
g) See Response to 2-SEC-23.

2-SEC-35

[Ex.2, Appendix 2-7, Appendix O] With respect to the 2020 Quality of Supply Report:

a. [p.9-10] Please provide Figure 6 and 7 in tabular format.
b. [p.18] Please provide Figure 17 ad 18 in tabular format. Please provide similar information for each year between 2016 and 2019.
c. [p.38-48] Please identify which Capital Projects undertaken in 2020, 2021 or 2022 are related to any of the top 10 worst preforming feeders.

LH Response:

a)

NOTE: this data set does not include MEDs as per Section 4 in the Quality of Supply Report.

Historical SAIDI Contributions by OEB's Primary Cause (2016-2020)

	Adverse Environment	Adverse Weather	Defective Equipment	Foreign Interference	Human Element	Lightning	Loss of Supply	Scheduled Outage	Tree Contacts	Unknown
2016	0.01	0.02	0.18	0.18	0.00	0.06	0.02	0.42	0.06	0.03
2017	0.00	0.05	0.20	0.14	0.01	0.03	0.11	0.26	0.20	0.03
2018	0.00	0.05	0.30	0.08	0.00	0.04	0.07	0.29	0.04	0.03
2019	0.00	0.08	0.29	0.12	0.01	0.04	0.09	0.12	0.11	0.02
2020	0.01	0.06	0.23	0.22	0.01	0.01	0.09	0.19	0.11	0.01

Historical SAIFI Contributions by OEB's Primary Cause (2016-2020)

	Adverse Environment	Adverse Weather	Defective Equipment	Foreign Interference	Human Element	Lightning	Loss of Supply	Scheduled Outage	Tree Contacts	Unknown
2016	0.04	0.08	0.25	0.23	0.03	0.05	0.21	0.18	0.08	0.10
2017	0.00	0.04	0.34	0.19	0.06	0.04	0.24	0.12	0.13	0.07
2018	0.00	0.14	0.61	0.21	0.00	0.09	0.40	0.14	0.07	0.14
2019	0.00	0.19	0.36	0.20	0.02	0.04	0.57	0.09	0.10	0.15
2020	0.02	0.13	0.36	0.26	0.06	0.03	0.43	0.09	0.05	0.04

b)

NOTE: this data set does not include MEDs as per Section 4 in the Quality of Supply Report, and is grouped by OEB Defective Equipment sub causes to be consistent between years.

SAIDI and SAIFI Contributions per OEB Sub Cause for Defective Equipment Cause Code Outages

2020 - SAIDI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	1%	0%	0%	23%	23%
Cable Fault	3%	0%	0%	19%	23%
Conductor	0%	0%	0%	0%	1%
Insulator	1%	0%	0%	0%	1%
Other	3%	0%	0%	4%	7%
Pole/Hardware	0%	0%	0%	0%	0%
Secondary Service	0%	0%	0%	1%	1%
Switch	1%	0%	0%	25%	26%
Switchgear	0%	0%	0%	5%	5%
Termination	0%	0%	0%	5%	5%
Transformer	0%	0%	0%	9%	9%
Grand Total	10%	0%	0%	90%	100%

2020 - SAIFI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	18%	18%
Cable Fault	1%	0%	0%	13%	14%
Conductor	0%	0%	0%	0%	0%
Insulator	1%	0%	0%	0%	1%
Other	1%	0%	0%	3%	4%
Pole/Hardware	0%	0%	0%	0%	0%
Secondary Service	0%	0%	0%	0%	0%
Switch	1%	0%	0%	17%	18%
Switchgear	0%	0%	0%	6%	6%
Termination	0%	0%	0%	13%	13%
Transformer	0%	0%	0%	24%	24%
Grand Total	5%	0%	0%	95%	100%

2019 - SAIDI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	6%	6%
Cable Fault	0%	0%	0%	21%	22%
Conductor	0%	0%	0%	3%	3%
Insulator	0%	0%	1%	22%	23%
Other	0%	0%	0%	4%	4%
Pole/Hardware	0%	0%	0%	10%	10%
Secondary Service	0%	0%	0%	0%	0%
Switch	4%	0%	0%	3%	7%
Switchgear	0%	0%	0%	12%	12%
Termination	1%	0%	0%	2%	4%
Transformer	1%	0%	0%	8%	9%
Grand Total	7%	0%	2%	91%	100%

2019 - SAIFI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	10%	10%
Cable Fault	0%	0%	0%	13%	13%
Conductor	0%	0%	0%	2%	2%
Insulator	0%	0%	0%	5%	5%
Other	0%	0%	0%	10%	10%
Pole/Hardware	0%	0%	0%	6%	6%
Secondary Service	0%	0%	0%	0%	1%
Switch	1%	0%	0%	2%	3%
Switchgear	0%	0%	0%	34%	34%
Termination	1%	0%	0%	2%	3%
Transformer	0%	0%	0%	13%	13%
Grand Total	3%	0%	1%	96%	100%

2018 - SAIDI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	0%	0%
Cable Fault	2%	0%	0%	12%	14%
Conductor	0%	0%	0%	17%	18%
Insulator	2%	0%	0%	0%	2%
Other	0%	0%	0%	3%	3%
Pole/Hardware	0%	0%	0%	2%	2%
Secondary Service	0%	0%	0%	1%	1%
Switch	0%	0%	0%	19%	20%
Switchgear	0%	0%	0%	17%	17%
Termination	0%	0%	0%	12%	12%
Transformer	0%	0%	0%	10%	11%
Grand Total	5%	0%	0%	94%	100%

2018 - SAIFI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	0%	0%
Cable Fault	1%	0%	0%	17%	19%
Conductor	1%	0%	0%	7%	7%
Insulator	0%	0%	0%	0%	0%
Other	0%	0%	0%	1%	1%
Pole/Hardware	0%	0%	0%	0%	0%
Secondary Service	0%	0%	0%	0%	0%
Switch	0%	0%	0%	33%	33%
Switchgear	0%	0%	1%	16%	17%
Termination	0%	0%	0%	5%	6%
Transformer	1%	0%	0%	16%	17%
Grand Total	4%	0%	1%	96%	100%

2017 - SAIDI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	2%	2%
Cable Fault	0%	0%	0%	25%	25%
Conductor	1%	0%	0%	12%	13%
Insulator	1%	0%	0%	0%	1%
Other	0%	0%	0%	0%	0%
Pole/Hardware	1%	0%	0%	0%	1%
Secondary Service	0%	0%	0%	0%	1%
Switch	1%	0%	0%	46%	46%
Switchgear	0%	0%	0%	1%	1%
Termination	0%	0%	0%	4%	4%
Transformer	0%	0%	0%	6%	6%
Grand Total	5%	0%	0%	95%	100%

2017 - SAIFI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	12%	12%
Cable Fault	0%	0%	0%	14%	14%
Conductor	1%	0%	0%	3%	3%
Insulator	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%
Pole/Hardware	0%	0%	0%	0%	0%
Secondary Service	0%	0%	0%	0%	1%
Switch	0%	0%	0%	53%	54%
Switchgear	0%	0%	0%	0%	0%
Termination	0%	0%	0%	5%	5%
Transformer	0%	0%	0%	10%	10%
Grand Total	2%	0%	0%	98%	100%

2016 - SAIDI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	0%	0%
Cable Fault	1%	0%	0%	22%	22%
Conductor	0%	0%	0%	16%	16%
Insulator	0%	0%	0%	1%	1%
Other	0%	0%	0%	0%	0%
Pole/Hardware	0%	0%	0%	4%	4%
Secondary Service	0%	0%	0%	1%	1%
Switch	0%	0%	0%	31%	31%
Switchgear	0%	0%	0%	10%	10%
Termination	0%	0%	0%	4%	4%
Transformer	0%	0%	0%	9%	9%
Grand Total	1%	0%	1%	98%	100%

2016 - SAIFI	4 kV	8 kV	13.8 kV	27.6 kV	Grand Total
Arrestor	0%	0%	0%	0%	0%
Cable Fault	0%	0%	3%	42%	45%
Conductor	0%	0%	0%	8%	8%
Insulator	1%	0%	0%	0%	1%
Other	0%	0%	0%	0%	0%
Pole/Hardware	0%	0%	0%	12%	12%
Secondary Service	0%	0%	0%	1%	1%
Switch	0%	0%	0%	26%	26%
Switchgear	0%	0%	0%	2%	2%
Termination	0%	0%	2%	1%	2%
Transformer	0%	0%	0%	2%	2%
Grand Total	1%	0%	5%	94%	100%

c)

The worst performing feeders act as one of the inputs for the prioritization of O&M and capital projects. This includes the prioritization of inspections that feed capital programs as well. Capital projects for 2020-2022 that will consider worst performing feeders in their prioritization include:

Subdivision Rebuilds

- B2: Subdivision Conversions / Rebuilds
- B3: Replacement of Sectionalizing Enclosures
- B4: Deteriorating/Leaking Transformer Replacements
- B6: Vault Transformer Replacements
- B7: Installation of Underground Backup Supply
- B8: Installation of Fault Indication on Padmounted Transformers
- B11: Switchable Transformers outage restoration improvements
- B12: Commercial Radial Customers

Overhead Line

- G1: Replacement of Fully Depreciated Poles
- G3: Rebuild of Fully Depreciated Overhead Areas
- G6: Quick Sleeves Replacement
- G7: Porcelain Insulator Replacement Program
- G9: Firon Replacements & Clam Shell Connectors
- G13: Load Break/Sectionalizing Switches

- G14: Porcelain Cut Outs
- G15: Radial Fusing

3-SEC-36
[Ex.3, p.16] On the same basis as Table 3-8, please provide year-to-date actuals for 2021.

LH Response

Billing class	Dec-20	Oct-21	# Chg	FCST 2021
RES Total	146,977	149,070	2,093	148,601
G<50 Total	12,891	13,003	112	12,981
G>50 Total	1,534	1,518	(16)	1,520
CGEN Total	8	11	3	9
LRG Total	1	2	1	1
STRL Total	37,806	38,855	1,049	38,348
SENL Total	520	508	(12)	498
UM Total	1,533	1,543	10	1,536

3-SEC-37
[Ex.3, Appendix 2-H] Please provide a revised version of Appendix 2-H with an additional column showing 2021 year-to-date actuals.

LH Response:

See attachment 3-SEC-37 Attachment Appendix 2-H Other Revenue – Revised.

4-SEC-38
[Ex.4] With respect to COVID-19, do the tables in this exhibit include any COVID-19 related costs, or are they only included in Account 1509? If they are included in the tables in this exhibit, please identify the specific COVID-19 related costs.

LH Response:

The tables in Exhibit 4 include COVID-19 incremental costs of $302,919. These incremental expenses where originally tracked under Account 1509 for recovery in connection with expenses such as: additional personal protection equipment, signage, cleaning services, cleaning supplies and expenses incurred to accommodate physical distancing. For example, additional vehicle leases so no more than one employee was in a vehicle at a time.

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. Therefore, these expenses ($302,919) were removed from the 1509 deferral account to OM&A expenditures for 2020.

4-SEC-39
[Ex.4, p.3] Please update the table for information in the 2020 OEB Yearbook.

LH Response:

An updated version of the table on page 3 to include information in the 2020 OEB Yearbook is provided below:

OM&A Cost and Cost per Customer (per OEB Yearbook 2020)			
Utility	Distribution Revenue per Customer	Cost per Customer	Number of Customers
	$	$	#
Oshawa PUC Networks Inc.	425.36	236.28	59,486
Entegrus Powerlines Inc.	432.29	235.28	60,587
London Hydro Inc.	**432.49**	**250.58**	**162,140**
Kitchener-Wilmot Hydro Inc.	434.05	219.43	99,026
Burlington Hydro Inc.	443.93	297.31	68,568
Synergy North Corporation	453.59	289.23	56,887
Elexicon Energy Inc.	464.01	257.53	169,489
ENWIN Utilities Ltd.	480.97	299.16	90,104
Energy+ Inc.	511.73	283.82	67,303
Hydro Ottawa Limited	530.73	241.99	346,347
Alectra Utilities Corporation	534.01	260.94	1,062,040
Niagara Peninsula Energy Inc.	552.15	332.41	56,973
Oakville Hydro Electricity Distribution Inc.	567.79	258.73	74,001
Waterloo North Hydro Inc.	597.90	247.32	58,438
Toronto Hydro-Electric System Limited	913.45	369.87	779,176
Hydro One Networks Inc.	1,154.43	416.84	1,361,102

4-SEC-40
[Ex.4, p.5-6] The Applicant notes that it has ring fences 'non-distribution Green Button services'. Please explain the type of costs incurred, the actual costs forecast for 2022, and the methodology used to allocate those costs.

LH Response:

Expenditures incurred in this non-distribution area are primarily related to cloud service fees, labour and benefits and contractor services. Other smaller items include employee development and meeting expenses (including travel). Expenses budgeted for the 2022 fiscal year are as follows:

Nature of Expenditure	2022 Budget
Labour and benefits	59,800
Contractor services	15,000
Employee development	3,100
Employee expenses	300
Meetings	6,200
Cloud services	40,000
	124,400

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 appropriate 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 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.

4-SEC-41
[Ex.4, p.12] Please provide details regarding changes made between the "first draft of the budget" and the final proposed corporate budget.

LH Response:

Changes to OM&A expenditures between budget amounts originally submitted to the Executive Committee and final amounts approved by the Board of Directors are as follows:

OM&A Expenditures for the 2022 Test Year
Budget Revisions

Program	Original Submission	Final Approved	Change
	$	$	$
Asset management	4,368,200	4,209,300	(158,900)
Operations and maintenance	11,985,300	11,765,600	(219,700)
Metering and data management	3,956,400	3,894,100	(62,300)
Information technology	5,447,600	5,243,600	(204,000)
Customer service and collections	3,783,400	3,663,000	(120,400)
Corporate communications	1,401,200	1,387,900	(13,300)
Human resources, health and safety	1,841,200	1,815,500	(25,700)
Facilities and environmental services	3,132,900	3,127,700	(5,200)
Corporate services	5,817,500	5,676,700	(140,800)
Locate services	1,125,700	1,125,700	-
Capital materials supply management	519,500	506,500	(13,000)
	43,378,900	**42,415,600**	**(963,300)**

Adjustments made between original and final budget amounts reduce OM&A expenditures by $963,300 with the majority (90%) of the decrease relating to OM&A labour.

Cloud services segregated from OM&A in Exhibit 4 were reduced by $40k in connection with London Hydro's new Genesys contact centre.

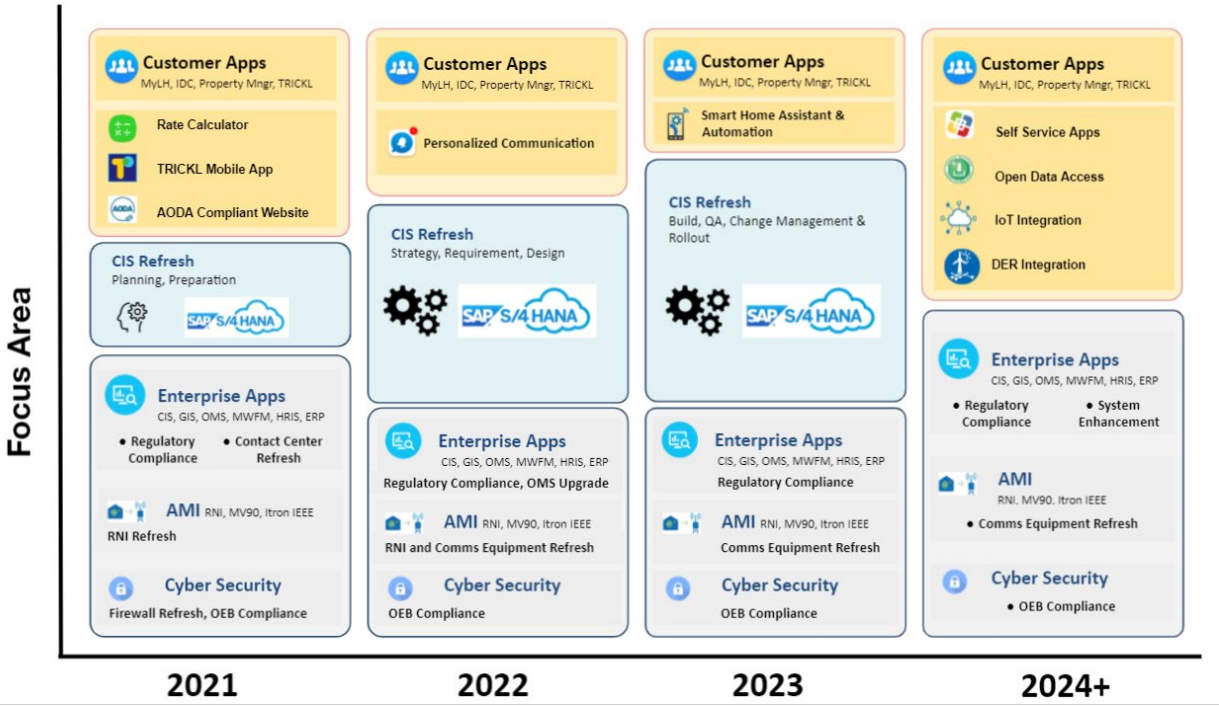
Capital spending increased between the original budget and final approved budget due to spending associated with relocations for the City of London's Bus Rapid Transit ("BRT") project and the London Hydro's SAP Customer Information System ("CIS") refresh.

Capital Spending (CAPEX) for the 2022 Test Year Budget Revisions			
Description	**Original Submission**	**Final Approved**	**Change**
(in thousands of dollars)	$	$	$
Infrastructure	18,778	18,778	-
Demand	14,154	16,288	2,134
Equipment	3,558	3,558	-
Office property and equipment	2,372	2,372	-
Information systems	5,704	5,204	(500)
CIS refresh	-	6,500	6,500
Inventory held for capital projects	(150)	(650)	(500)
Total $	**44,416**	**52,050**	**7,634**

Subsequent to budget development in the spring of 2020, the City of London made significant changes in the planning and design of the BRT project, resulting in delays that are anticipated to be deferred into the 2022 fiscal year. In recent years and continuing into the next five years, there have been significant relocations to accommodate City of London and London Transit initiated projects. The City of London's bus rapid transit adds curbside bus-only lanes throughout the city and transportation improvements to ease congestion and improve safety and efficiency.

London Hydro's CIS refresh project was advanced subsequent to development of the original budget to avoid unnecessary costs associated with obtaining required functionality available in the new SAP HANA 4 system. The CIS refresh is a major project needed to address the obsolescence of the current SAP system and to improve the customer experience and operational efficiencies. In addition to mitigating the technology currency risks of the current solution, this solution enables enhanced cyber security, scalability, flexibility, less customization (complexity) and enhanced customer engagement through accurate, real-time consumption data.

SAP Customer Information Systems Refresh



4-SEC-42
[Ex.4, p.52] Please provide a revised version of Appendix 2-JC that includes three additional columns, showing year-to-date actuals for 2021, and year-to-date actuals at the same point in time in each of 2019 and 2020.

LH Response:

Appendix 2-JC has been revised to include the three additional columns requested under London Hydro IR 4-SEC-42 Attachment 1.

4-SEC-43
[Ex.4, p.57-264] For each program, please provide the number of FTEs allocated in each year between 2017 and 2022.

LH Response:

Budgeted gross FTEs for 2017 through to the proposed 2022 Test Year are listed below:

BUDGETED GROSS FTEs 2017 OEB APPROVED TO 2022 TEST YEAR							
Program	2017 OEB Approved	2018 Budget	2019 Budget	2020 Budget	2021 Bridge Year	2022 Test Year	2022 to 2017 Change
Asset management	39.7	41.3	37.9	39.1	37.3	38.6	(1.1)
Capital materials supply management	7.3	7.3	7.3	6.3	7.0	7.0	(0.3)
Corporate communications	2.5	3.0	4.0	4.0	5.0	5.0	2.5
Corporate services	22.3	21.1	20.9	21.6	19.7	19.5	(2.8)
Customer service and collections	42.6	42.3	42.5	39.6	38.9	39.6	(3.0)
Facilities and environmental services	3.0	3.0	3.3	3.3	2.3	2.3	(0.7)
Fleet services	5.3	5.3	5.3	6.3	8.3	8.3	3.0
Human resources, health and safety	8.5	8.9	9.5	10.5	9.9	10.5	2.0
Information technology	38.8	45.9	44.3	47.3	47.5	48.6	9.8
Metering and data management	28.4	29.6	28.6	29.1	26.8	26.8	(1.6)
Operations and maintenance	113.3	117.0	120.8	119.7	113.2	113.5	0.2
	311.7	324.8	324.5	326.9	316.0	319.7	8.0

It is important to note that the 8 additional FTEs listed above do not have a direct impact on OM&A expenditures. This is because this change is a gross number, meaning that it is before considering labour allocations to capital and billable activities.

For example, even though FTEs have been added to the Information Technology Program, labour and contractor services combined in the IT department have been contained at a 2% CAGR. The additional FTEs have no bearing on OM&A expenditures because the Information Technology Program is highly involved in capital activities and most of the additional FTEs have been allocated out from OM&A expenditures to capital.

4-SEC-44

[Ex. 4, p.320] Please provide a revised version of Appendix 2-K that includes:

a. Two additional added rows, showing total compensation allocated to either capital or OM&A.
b. 2021 actuals.

LH Response:

A revised Appendix 2-K has been provided as requested below:

OEB Appendix 2-K Employee Costs
Gross Labour Costs and Full-Time Equivalents (FTEs)
Before allocations to Capital, Billable, Other

	2017 OEB Approved	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Bridge	2021 YTD Actual	2022 Test
Number of employees (FTEs including PT)								
Management (including executive)	53.0	59.7	57.2	58.5	61.1	63.7	64.5	64.0
Non-management (union and non union)	258.7	240.5	240.2	235.9	233.7	252.3	231.4	255.7
	311.7	300.2	297.4	294.4	294.8	316.0	295.9	319.7
Total salary and wages (incl. OT and incentive pay)								
Management (including executive)	6,608,186	7,504,588	7,531,891	7,888,527	8,463,545	8,980,600	6,416,800	9,226,000
Non-management (union and non union)	21,932,714	20,209,106	21,161,675	21,255,121	21,678,322	24,175,000	16,102,600	25,111,700
	28,540,900	27,713,694	28,693,566	29,143,648	30,141,867	33,155,600	22,519,400	34,337,700
Total benefits (current and accrued)								
Management (including executive)	1,686,929	1,985,263	1,956,005	2,029,491	2,410,380	2,183,748	1,910,120	2,261,176
Non-management (union and non union)	6,570,171	6,114,246	6,206,786	6,196,699	6,930,016	6,728,052	5,442,450	6,983,524
	8,257,100	8,099,509	8,162,791	8,226,190	9,340,396	8,911,800	7,352,571	9,244,700
Total compensation (salary, wages and benefits)								
Management (including executive)	8,295,115	9,489,851	9,487,896	9,918,018	10,873,925	11,164,348	8,326,920	11,487,176
Non-management (union and non union)	28,502,885	26,323,352	27,368,461	27,451,820	28,608,338	30,903,052	21,545,050	32,095,224
	36,798,000	35,813,203	36,856,357	37,369,838	39,482,263	42,067,400	29,871,971	43,582,400
Net labour costs included in Capital / Billable	11,367,100	9,957,527	10,286,503	10,437,197	11,800,434	13,847,000	7,962,216	14,181,800
Net labour costs included in OM&A	25,430,900	25,855,676	26,569,855	26,932,641	27,681,829	28,220,400	21,909,755	29,400,600
	36,798,000	35,813,203	36,856,357	37,369,838	39,482,263	42,067,400	29,871,971	43,582,400

4-SEC-45
[Ex. 4, p.320] With respect to the additional positions added or forecast to be added since 2020, please list each position, their specific department, the recruitment process, and the money they are expected to be begin employment.

LH Response:

New positions added to and deleted from London Hydro's budget since 2020 are as follows:

Program	Position Title	FTE
Operations and Maintenance	Mgr-Developer & Ops Support	1.0
Operations and Maintenance	Mgr Operation Engineering	1.0
Operations and Maintenance	Powerline Maintainer	(1.0)
Operations and Maintenance	Lead Construction Worker	(1.0)
Operations and Maintenance	Non-permanent, temporary, part-time	(0.8)
Asset Management	Mgr Systems Engineering	1.0
Asset Management	Engineering Technician	(0.5)
Asset Management	Non-permanent, temporary, part-time	0.4
Metering and Data Management	Meter Collector/Shop Assistant	1.0
Metering and Data Management	Non-permanent, temporary, part-time	(2.8)
Metering and Data Management	Non-permanent, temporary, part-time	(0.8)
Materials Management	Purchasing Assistant	1.0
Materials Management	Logistics & Operations Supervisory Analyst	1.0
Materials Management	Capital Project & Mat Schedule	(1.0)
Materials Management	Non-permanent, temporary, part-time	(0.3)
Fleet Services	F/T Labourer	1.0
Fleet Services	Shift Auto Truck Coach Tech	1.0
Human Resources, Health and Safety	Health & Safety Analyst	1.0
Human Resources, Health and Safety	Non-permanent, temporary, part-time	(1.9)
Facilities and Environmental Services	Facility & Security Admin Coord	(1.0)
Facilities and Environmental Services	Non-permanent, temporary, part-time	0.3
Corporate Communications	Corporate Communications Asst	1.0
Corporate Communications	Non-permanent, temporary, part-time	(0.5)
Information Technology	Project Manager	1.0
Information Technology	Project Manager	1.0
Information Technology	Manager Cyber Security	1.0
Information Technology	Business Systems Analyst	1.0
Information Technology	Non-permanent, temporary, part-time	0.8
Corporate Services	Non-permanent, temporary, part-time	(0.8)
Customer Services and Collections	Business Systems Analyst	1.0
Customer Services and Collections	Customer Services Rep	1.0
Customer Services and Collections	Customer Services Rep	1.0
Customer Services and Collections	Non-permanent, temporary, part-time	(3.0)
		3.1

When the decision is made to declare a vacancy in a particular cost centre, a staff requisition is circulated electronically to the relevant approvers, up to and including the CEO. Once there is a fully-approved staff requisition, the HR Coordinator, after

consultation with the recruiting team of the department, will post the vacancy. Some vacancies are posted and filled internally, as the Company encourages career growth for existing personnel. When posting externally, vacancies are communicated via the corporate website, LinkedIn and (when industry expertise is desired) on the MEARIE Energy Job Search website or other similar sites (e.g. PEO) utilized by many LDCs in Ontario. As a last resort and for the most challenging recruitment situations, London Hydro at times will obtain the services of a search consultant. In all cases, once a shortlist of candidates is in place, the interview and selection process ensues.

Since 2020, 12.5 full-time positions have been added in the total gross amount of $1,130,000. There were 9.4 part-time positions removed since 2020 in the total gross amount of $630,000, for a net increase in FTEs of 3.1. To maintain confidentiality regarding position salaries, OEB filing requirements with respect to Appendix 2-K instruct LDC's to aggregate categories with others where there are three or fewer employees. Following this objective, London Hydro has not provided a salary breakdown by position in the list above.

4-SEC-46
[Ex. 4, p.311] Please provide a table that shows for each year since 2016, the number of employees eligible to retire, and the number who actually retired.

LH Response:

Below are eligible and actual retirements since 2016 as requested:

	2016	2017	2018	2019	2020	2021 YTD
Eligible retirements	15	30	29	30	35	28
Actual retirements	9	10	12	7	11	15

4-SEC-47
[Ex. 4, p.311] With respect to the pay for performance model:

a. Please provide further details regarding the program, including, but not limited to, who is eligible for the program, how much of their pay is based on the model, what percentage of their performance pay is based on individual vs. corporate targets, for corporate targets how are they set and what are the thresholds.
b. Please provide a table that shows for each year between 2017 and 2022, the total maximum amount of performance pay that could have been paid out, and the actual/forecast amount that was paid.

LH Response:

The question is seeking information that is a commercially sensitive as it relates to compensation to individual positions, which if made public could be detrimental to London Hydro's ability to retain and recruit employees now and in the future. In addition, the question is asking for information which contains personal information in respect to compensation, such that London Hydro is not able to disclose it at all. Accordingly what follows is the information that London Hydro believes it is permitted to disclose in response to the questions asked.

(a)
Strategic and corporate goals for the Company are established collaboratively by the Executive Committee and reviewed by the Board of Directors. The CEO's annual goals and targets are established by the HR Committee of the Board and the CEO, and approved by the Board of Directors.
The CEO and Vice Presidents receive an incentive which is dependant upon the successful completion of corporate and individual targets. The remaining members of management and non-union employees receive an annual, lump-sum stipend based on the Executive Committee's assessment of their individual contribution to the successful completion of the corporation's strategic goals for the year.
See 1-SEC-6 for details associated with the corporate targets.
(b)

The CEOs and VPs on average have earned between 90% and 100% of their planned incentive between 2017 and 2020. For all other employees eligible for incentive payments, due to the manner in which incentive amounts are determined there is no documented, pre-established amount that “could have been paid out” against which one could compare the amount that was paid.

4-SEC-48
[Ex.4, p.374-75] With respect to SR&ED credits:

a. Please confirm that notwithstanding the Applicant's position, it has included all available SR&ED credits in its PILs calculation.
b. Please confirm that the Applicant is seeking recovery from ratepayers through rate base or OM&A for all expenditures that are the basis for the SR&ED credits.
c. Please explain why the Applicant believes that: "This also serves as a disincentive for London Hydro's employees' as the reduction in revenue reduces corporate wherewithal to a certain degree to provide incentives to employees for being innovative."

LH Response:

(a)

London Hydro confirms that this statement is accurate.

(b)

London Hydro confirms that this statement is accurate.

(c)

To clarify, 'incentive' in this context relates to motivation rather than payment. Receiving additional funding for continued innovation would send a clear signal that the innovation work that London Hydro employees are dedicated to is acknowledged; thereby further promoting the Company's innovation culture. Providing additional funding through the SR&ED credits would assist London Hydro in its journey of excellence through innovation and the development new technologies that focus on efficiencies and offering user-friendly tools and applications to customers.

4-SEC-49
[Ex.4, p.364] With respect to Table 4-55:

a. Does the table include the impacts of the approved ACM?
b. The Applicant is forecasting a taxable loss of $3,000,319 in 2021. How is the taxable loss being used? Is it being carried forward into the Test Year? If not, please explain why not.

LH Response:

(a)

Table 4-55 includes Capital Cost Allowance on ACM assets commencing in 2018 when these assets became available for use. Accordingly, ACM funding has been added as well. Depreciation on the ACM assets is included in the proposed 2022 Test Year only since this is the year that these assets are removed from deferral accounts into fixed assets.

(b)

The projected income tax loss for the 2021 Bridge Year was not carried forward to 2022 since it would be carried back to 2018 to recover taxes from that year.

5-SEC-50
[Ex.5, p.6] Please explain what the Applicant plans to do when its swap agreement entered into in 2014 matures.

LH Response:

London Hydro signed a futures contract with TD in December 2020, to take advantage of the low-interest rates, in the amount of $125,000,000 that will be used to repay the "older" SWAP agreements that currently exist with RBC. As the future contract becomes effective on the day that the RBC debt matures (June 30, 2022), TD will be funding the existing debt directly as the loan matures. Thus, no additional actions by London Hydro are needed as the swap agreements mature on June 30, 2022.

5-SEC-51
[Ex.5] Please provide the forecast regulatory ROE for 2021. Please provide supporting calculations.

LH Response:

See LPMA #6

9-SEC-52
[Ex.9, p.130] With respect to the Applicant's proposal with the respect to RTSR charges:

a. Please confirm that the Applicant's proposal to charge RTSR rates on kWh basis for GS>50 Co-Gen, and Large Users classes only for those customers who are net-metered.

LH Response:

London Hydro confirms that the Applicant's proposal to charge RTSR rates on kWh basis for GS>50 Co-Gen, and Large Users classes only for those customers who are net-metered or community net metered.

b. How many customers in each of the GS>50 Co-Gen, and Large Users classes will be eligible for having RSTR charged billed in a kWh basis.

LH Response

Currently the only customers who will be eligible for this application will be the ministry approved Community net metering demonstration project customers, and one other GS>50 kW customer engaged in net metering.

c. Please explain in detail how the charges were converted from kW to kwh?

LH Response

To calculate the charge London Hydro simply changed the denominator from RRR billed kW to RRR billed kWh as used in the OEB RTSR model.

d. Presumably the outcome of this change is that net metering customers are likely to substantially reduce the amount they pay in RTSR, but total RTSR costs payable by the Applicant may not similarly be reduced by the same amount. Please explain what analysis the Applicant has undertaken to ensure that there is no cross-subsidization from non-net metering customers.

LH Response

The purpose of this change is to ensure CNM and net metered customers do not cross subsidize all other customers by not allowing the application of RTSR offsets in the calculation of generation credit. There is the smaller impact of generation shifting RTSR

peak loads and HONI applying gross load billing to obtain lost compensation from generation. This is a manual calculation on the part of HONI.

e. Please provide all internal analysis, studies and/or modelling undertaken by the Applicant regarding this proposal.

LH Response

This is the result of a theoretical thinking process not formally studied.

9-SEC-53
[Ex.9, p.25] With respect to Account 1508 - OEB Cost Assessment Account:

a. The Applicant has included a principal balance in 2016 of $216,337. Please provide the amount included in 2016 rates and the actual OEB cost assessment amount.
b. Please provide the Applicant's 2016 materiality threshold.

LH Response:

a) The approved amount for OEB cost assessment fees included in 2016 rates is $402,200 annually, based on the 2013 COS Decision and Rate Order (EB-2012-0146). The amount for the period of April 1, 2016 to December 31, 2016 is $301,653.

OEB Cost Assessments	**$**	**402,200**
Other Regulatory Items	$	15,000
2013 COS regulatory expenses as approved	$	417,200
For the period of April 1, 2016 to December 31, 2016 (9 months)	**$**	**301,653**

The quarterly OEB assessment costs invoiced to London Hydro totalled $518,030 for the period of April 1, 2016 to December 31, 2016.

OEB Invoice Number	Assessment under Ontario Regulation 16/08 for the period of		Cost Assessment Amount
16171051	April 1 to June 30, 2016	$	172,682
16172051	July 1 to September 30, 2016	$	172,682
16173051	October 1 to December 31, 2016	$	172,666
TOTAL		**$**	**518,030**

b) London Hydro's materiality threshold for 2016 was calculated as 0.5% of its distribution revenue requirement.

MATERIALITY THRESHOLD	2016 Actual
	($)
Distribution Base Revenue Requirement	70,365,659
Materiality Threshold @ .5%	**352,000**

9-SEC-54
[Ex.9, p.130] With respect to Account 1509, please explain how the request for recovery of bad debt charges is consistent with the Report of the Ontario Energy Board Regulatory Treatment of Impacts Arising from the COVID-19 Emergency (EB-2020-0133), June 17 2021.

LH Response:

As described in Response to 9-CCC-52 under Sub-account Bad Debt, the incremental bad debts expense clearly occurred during, and therefore, directly attributable to the extended winter disconnection ban, which was a response to the COVID-19 emergency.

In the OEB's *Report of Regulatory Treatment of Impacts Arising from the COVID-19 Emergency*, issued on June 17, 2021, under Section 4.2.2 Recovery Rate of Eligible Amounts – Exceptional Pool, the OEB's Policy and Rationale is described regarding the recovery of incremental bad debt expense.

In this section, the OEB states that it will allow the recovery of costs necessary to comply with government or OEB actions that provides relief from the impacts of the pandemic to customers. The Exceptional Pool of costs include the incremental bad debt directly attributable to the extension of the winter disconnection ban. London Hydro performed a careful analysis of arrears and included only the net incremental portion of bad debt expense that occurred during the period of the extension of the winter disconnection ban, as described in Response to 9-CCC-52 under Sub-account Bad Debt.

The OEB states in its Report that the Exceptional Pool of costs are eligible for recoveries up to 100% provided they are material and prudently incurred, as well they are subject to an ROE plus 300 bps limitation.

In section 4.3.2 the OEB states that it will apply the criteria of causality, prudence and materiality to the amount recorded in the Account.

Causation: London Hydro asserts that the incremental portion of debt clearly incurred as a result of the pandemic, specifically during the extension of the winter disconnection ban, and in its detailed analysis it examined what the equivalent of forecasted bad debt expense would have been, based on the historical trends, considered being recovered in its base rates during the time of the extended winter disconnection ban.

Prudence: London Hydro complied with the OEB's Decision and Order (EB-2020-0109) as required, and also accommodated customers to be able to manage the impacts of the pandemic and the resulting increased arrears to try to minimize bad debt expense.

Materiality: The incremental bad debt expense recorded in the account exceeds London Hydro's materiality threshold.

Under section 4.3.5 Criteria for Recording Amounts for Bad Debt, the OEB states in its policy that it will allow the inclusion of incremental bad debt attributable to the pandemic in Account 1509, and further, it will allow the incremental bad debt directly attributable to the OEB's extension of winter disconnection ban. London Hydro made a sensible detailed analysis to identify only that portion of the bad debt that is directly attributable to the extension of the winter disconnection ban.

Further in section 4.4 Measuring Incremental Impacts, the OEB describes the baseline test to ensure that only amounts occurred in excess of what is already provided for in rates and in excess of what the utility has experienced in the past during non-pandemic years. The bad debt expense London Hydro included in Account 1509, is the increase that is beyond the typical level of bad debt expense and what is included in its base rates, and clearly attributable to the extension of the winter disconnection ban.

Under section 4.5.1 Period of Account the OEB confirms the effective date of March 24, 2020 for Account 1509. London Hydro recorded incremental bad debt expense in the account subsequent to its establishment date.

Under section 5.1.3 Audited Account Balances the OEB requires that only audited balances be proposed for disposition. London Hydro confirms that the balance presented in Sub-account Bad Debts was audited with its 2020 Financial Statements.

Under section 5.2 Cost Allocation and Rate Design, the OEB also determined that the allocation of the amounts be based on the distribution revenue by rate class approved by the OEB in the utility's last cost-based rate case, and the utility should recover the amounts based on a monthly fixed charge using recent actual customer numbers. London Hydro allocated costs in Account 1509 based on the distribution revenue by rate class and proposed recovery based on a monthly fixed charge in its updated 2022 DVA Continuity Schedule.