

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2

3 **INTERROGATORY 2A-STAFF-104**

4 **Reference: Appendix 2-AA and Appendix 2-AB**

5

6 **QUESTION:**

7 a) Please update actual capital expenditures for 2023 bridge year in Appendix 2-AA format
8 and Appendix 2-AB format (and update other related tabs in Chapter 2 Appendices
9 accordingly). Please specify for which months actual data has been used versus forecast.

10

11 **RESPONSE:**

12 Please refer to Appendix A and Appendix B for updated OEB Appendices 2-AA and 2-AB for 2023
13 Actuals (as of December 31, 2023), and updated 2024 Bridge.

14

15 Additionally, the following appendixes have been updated for 2023 actuals and updated 2024
16 bridge through interrogatory responses:

17

- 18 • OEB Appendix 2-BA can be found in the response to 1B-SEC-01 (e).
- 19 • OEB Appendix 2-FA-FB can be found in the response to 2A-Staff-109 (a)
- 20 • In-Service Additions by Investment Category can be found in the response to 1B-SEC-01 (d)

21

22 As noted in the Application Update Cover Letter¹, the remaining tabs in Chapter 2 Appendixes will
23 be provided in advance of the Technical Conference.

¹ [EB-2023-0195, Toronto Hydro 2025-2029 Custom Rate Application For Electricity Distribution Rates and Charges – Evidence Update, January 29,2024, page 1.](#)

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2
3 **INTERROGATORY 2A-STAFF-105**

4 **References: Exhibit 2A, Tab 1, Schedule 2 - OEB Appendix 2-BA**
5 **Exhibit 2B, Exhibit E4, Appendix A - OEB Appendix 2-AB**
6 **Exhibit 2B, Section E4, Table 3**

7
8 Preamble:

9 OEB staff have compiled information from the references above to compare yearly expenditures to
10 yearly in service additions in the table below. The “difference” row in the table below also aligns
11 with the difference in closing CWIP in Table 3 in reference 3.

12

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Net Capital Expenditures	448.1	533.2	597.9	582.9	625.3	734.6	767.3	836.2	837.9	825.7
Additions	447.9	485.2	554.4	607.9	606.3	645.9	699.4	795.6	769.2	875.4
Difference	0.2	48.0	43.4	(24.9)	19.0	88.8	67.9	40.6	68.7	(49.6)

13

14
15 **QUESTION (A):**

- 16 a) Please outline the reasons for the year over year variances in the difference between net
17 capital expenditures and in service additions.

18
19 **RESPONSE (A):**

20 Year-over-year variances are attributed to the nature of capital projects resulting in a timing lag
21 between the completion of the project, the close-out process and any validation required to
22 complete a project and bring it into service. Additionally, large projects may incur ongoing
23 expenditure over multiple years before they are put in-service. This difference between capital
24 expenditures and in-service additions remains in Construction Work-in-Progress (“CWIP”) until the
25 expenditures are in service, on project completion.

1 Additionally, Toronto Hydro notes that the yearly expenditures included in the question include
2 Renewable Generation Facility Assets and Other Non-Rate-Regulated Utility Assets¹ whereas the in-
3 service additions do not. Table 1 below provides Capital Expenditures normalized for these
4 expenditures, In-Service Additions as well as Opening and Closing CWIP for the 2020-2029 period.

5

6 **Table 1: Forecasted CWIP (\$Millions)**

	Actuals			Bridge		Forecast				
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening CWIP	381.2	380.6	427.8	471.2	442.4	456.4	536.3	595.1	622.7	681.7
Additions (CAPEX)	447.4	532.4	597.8	579.1	620.3	725.8	758.1	823.2	828.2	812.3
Deductions (In Service Additions)	(447.9)	(485.2)	(554.4)	(607.9)	(606.3)	(645.9)	(699.4)	(795.6)	(769.2)	(875.4)
Closing CWIP	380.6	427.8	471.2	442.4	456.4	536.3	595.1	622.7	681.7	618.6
Difference	(0.5)	47.2	43.3	(28.8)	14.0	79.9	58.7	27.6	59.0	(63.1)

¹ Exhibit 2B, Section E4, Appendix B - OEB Appendix 2-AA

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2

3 **INTERROGATORY 2A-STAFF-106**

4 **Reference: Exhibit 2A, Tab 2, Schedule 1, Appendix D**

5

6 Preamble:

7 In its depreciation report for Toronto Hydro, Concentric noted that “Through the completion of the
8 depreciation study, Concentric was made aware that the currently utilized account structure for
9 facilities was leading to non-homogeneous assets being grouped together. Concentric recommends
10 Toronto Hydro examine the facilities accounts and create a set of accounts that better aligns with
11 the actual use of facilities assets.” Concentric then provided a recommended account structure
12 with proposed useful lives.

13

14 **QUESTION (A) AND (B):**

- 15 a) Using Concentric’s proposed account structure, please provide a comparison of the
16 depreciation expense included in Toronto Hydro’s forecast rates for 2025-2029 and the
17 depreciation expense using the account structure recommended by Concentric.
- 18 b) Please discuss if Toronto Hydro has addressed this recommendation in the current
19 application. If not, why not and how Toronto Hydro plans to address Concentric’s
20 recommendation.

21

22 **RESPONSE (A) AND (B):**

23 The depreciation expense included in Toronto Hydro’s forecast rates for 2025-2029 is using
24 Concentric’s proposed account structure.

25

26 Concentric’s recommendations have been addressed in the current application.

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2

3 **INTERROGATORY 2A-STAFF-107**

4 **Reference:** **Exhibit 2A, Tab 3, Schedule 1, Page.1**

5

6 **Question(s):**

7 a) Please file the Lead-Lag study done by Guidehouse based on 2023 actuals. If the study is
8 not yet completed, please advise when it will be.

9

10 **RESPONSE:**

11 Toronto Hydro has not yet initiated the Lead-Lag study as the 2023 billing data is pending
12 finalization. Please refer to response 1A-Staff-01, a).

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2

3 **INTERROGATORY 2A-STAFF-108**

- 4 **Reference:** **Exhibit 2A, Tab 5**
5 **Exhibit 2B, Section E5.5, pp. 8, 18, 19**
6 **Exhibit 2B, Section E7.2, p**

7

8 Preamble:

9 In reference 1 Toronto Hydro presents Table 1 which includes investments over the 2025-2029 rate
10 period, with footnote 8 that states “Toronto Hydro is not proposing any specific Renewable
11 Expansion investments during 2025-2029.”

12 In Reference 2, Toronto Hydro outlines the specific locations where bus-tie reactors will be
13 installed in Table 9.

14

15 **QUESTION (A):**

- 16 a) Please explain if the plan to install Bus Tie Reactors as outline in reference 2, Table 9 and
17 the related exhibit, are Toronto Hydro’s plans for installation over the 2025-2029 period.

18

19 **RESPONSE (A):**

20 Confirmed. Exhibit 2B, Section 5.5, Table 9 provides the proposed schedule for the bus-tie reactor
21 project.

22

23 **QUESTION (B):**

- 24 b) In reference 2, page 8 Toronto Hydro states it has engaged Hydro One to coordinate bus-tie
25 reactor installations. In reference 2 page 18, Toronto Hydro states the “bus-tie reactor
26 installations will occur in accordance with Hydro One feasibility studies.”

- 27 i. What is the status of the approvals required by Hydro One to install this
28 equipment?

1 ii. If the locations identified are not approved for reactor installation by Hydro One,
2 what actions will Toronto Hydro take to both alleviate the restrictions and handle
3 the excess funds?
4

5 **RESPONSE (B):**

6 Toronto Hydro has submitted applications to Hydro One for the assessment and implementation of
7 a bus-tie reactor for Richview TS. Project timeline discussions are underway.
8

9 Should the proposed locations not be suitable for bus-tie reactor installation following the study,
10 Toronto Hydro would look to leverage other mitigation strategies such as station upgrades and
11 technical policy agreements to improve short circuit capacity in coordination with Hydro One.
12

13 Excess funds, if any, will be recorded in Account 1533¹ and returned to the IESO at the end of the
14 2025-2029 rate period, similar to how excess funds associated with RGCRP in the 2015-2019 period
15 were returned.
16

17 **QUESTION (C):**

18 c) Will the reactors be installed in advance of committed generation connection request to
19 allow for future connections, or will the reactors be installed when and where required for
20 committed generation connection requests?
21

22 **RESPONSE (C):**

23 Bus-tie reactors address the existing and forecasted short circuit constraints at the station buses,
24 based on the DER forecast outlined in Exhibit 2B Section E3. Toronto Hydro intends to install bus-tie
25 reactors at 8 stations as outlined in Section E5.5 in order to accommodate future connections.
26

27 **QUESTION (D):**

¹ Refer to Toronto Hydro's response to 9-Staff-348 (b) for excess funds associated with RGCRP in 2020-2024 that were recorded in the 2020-2024 period.

1 d) Is Toronto Hydro's plans for the Energy Storage System (ESS) to install the equipment on
2 the 9 feeders in advance of committed generation connection requests to allow future
3 generation, or in response to committed generation connection requests?
4

5 **RESPONSE (D):**

6 As described in Exhibit 2B, Section E7.2, Toronto Hydro intends to install energy storage systems on
7 the nine feeders to enable forecasted generation, not in response to committed generation
8 connection requests.
9

10 **QUESTION (E):**

- 11 e) For c) and d) above, if the approach is other than in response to a committed generation
12 connection request,
- 13 i. Please explain why these expenditures prior to committed generation are prudent
14 enhancements to the distribution system.
 - 15 ii. Please outline how this meets the requirements of the renewable enabling funding
16 program.
17

18 **RESPONSE (E):**

19 The proposed investments to accommodate the connection of renewable energy generation
20 facilities are aligned with section 3.3.2 of the Distribution System Code (DSC) and the definition of
21 "*renewable enabling improvement*". It can take one to two years to complete a bus tie reactor or
22 and at least one year to complete an ESS project (depending on the size). If these investments were
23 to be made in response to a committed generation request, rather than proactively, it would result
24 in undue delays and barriers to connecting renewables.
25

26 **QUESTION (F):**

- 27 f) Please provide the number of applications from renewable generators over 10 kW for
28 connection on each of the locations where ESS and reactors are planned to be installed.
29

1 **RESPONSE (F):**

2 There were a total of 40 pre-assessments performed between 2020 to 2023 for project applications
3 on station buses identified on the list of station's proposed for bus-tie reactor installation and feeder
4 candidates for the renewable enabling battery storage system program. For detailed descriptions of
5 the needs at these stations and feeders please refer to the Generation Protection, Monitoring and
6 Control (Exhibit 2B, Section E5.5) and Non-Wires Solutions (Exhibit 2B, Section E7.2) programs,
7 respectively.

8

9 **QUESTION (G):**

10 g) If the forecast demand for Generation Protection - Monitoring Control expenditures does
11 not materialize, how will Toronto Hydro handle the excess funds?

12

13 **RESPONSE (G):**

14 Account 1533- Renewable Generation Connection Funding Adder Deferral Account, as described in
15 Exhibit 9, Tab 1, Schedule 1 at page 17 tracks track variances between 2020-2024 revenue
16 requirement associated with Renewable Enabling Improvements ("REI") investments funded
17 through Provincial Rate Protection and collected through payments from the IESO. Toronto Hydro
18 has requested the continuation of the account in the 2025-2029 rate period. If the forecast demand
19 does not materialize, and thereby, the costs are not incurred, similar to the 2020-2024 rate period,
20 the variance between actual and forecasted revenue requirement will be recorded in the variance
21 account as a payable (credit) balance to the IESO.

22

23 Please refer to Toronto Hydro's response to 9-Staff-348 (b) for the payable (credit) balance recorded
24 for the 2020-2024 period.

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2
3 **INTERROGATORY 2A-STAFF-109**

- 4 **References:** **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S02-3 - OEBAppendices 2-FA-FB**
5 **- Energy Storage_20231117**
6 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S04-5 - OEBAppendices 2-FA-FB**
7 **- GPMC_20231117**
8 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S05-6 - OEB Appendices 2-FA-**
9 **FB- Stations Expansion_20240129**
10 **Exhibit 9, Tab 2, Schedule 1,**
11 **THESL_9_T02_S01Continuity_Schedule_20231117, Tab 2b Continuity Schedule**

12
13 Preamble:

14 OEB staff has identified some issues which may require updates to the Excel models in references
15 1, 2 and 3 as well as Account 1533 recorded in the continuity schedules in reference 4.

16
17 OEB staff notes that the Excel models in references 1 and 2 are hard coded and do not contain any
18 formulas used to derive revenue requirement calculations.

19
20 **QUESTION (A):**

- 21 a) Please provide the Excel models with formulas after Toronto Hydro incorporates all the
22 changes to the Excels models as part of its responses to interrogatories for renewable
23 generation connection rate protection (RGCRP).

24
25 **RESPONSE (A):**

26 Please see Appendix A through C to the response for excel models with formulas reflecting all the
27 additional information and modifications to the model requested within interrogatories for
28 renewable generation connection rate protection (RGCP).

1 **QUESTION (B):**

- 2 b) Based on updated evidence in (a), please provide:
- 3 i. A spreadsheet detailing all the changes made.
- 4 ii. A summary table comparing the following information from the historic period
5 (including 2023 actuals if available) to the forecast period up to 2029:
- 6 • Approved revenue requirement amounts from the OEB’s previously
7 approved decisions
 - 8 • Actual/forecast revenue requirement amounts for provincial rate
9 protection
 - 10 • Variance account balances
- 11

12 **RESPONSE (B):**

- 13 i. Please see Appendix D summarizing the changes made between the Appendices as filed and
14 the revised Appendices. The provided spreadsheet notes changes made, which are also
15 summarized below.
- 16

17 The spreadsheets include specific calculations based on the mix of assets, timing of in-service
18 additions, and different Capital Cost Allowance (“CCA”) assumptions for PILs.

19

20 Toronto Hydro notes that the amounts included in Account 1533 are aligned with the detailed
21 calculations of revenue requirement presented in these appendices, no changes were made to
22 actual revenue requirement presented in account 1533¹ besides updates for 2023 actuals and
23 2024 updated forecast impacts.

24

25 Custom changes were made to Appendix 2-FB in order to facilitate the calculations with
26 formulas and integrate the changes above. Specifically, in OEB Appendices 2-FB for GPMC
27 (Appendix B to the response):

¹ Exhibit 9, Tab 1, Schedule 1, Table 11

- 1 • a new column was added for the 2015 to 2019 years to facilitate different capital
- 2 inputs for the tabs “App.2-FB Calc of Reg A”, “App.2-FB Calc of Reg B” and “App.2-FB
- 3 Calc of Reg C”.
- 4 • In the tab “App.2-FB Calc of REG D”:
- 5 ○ an additional row was added to accommodate a catch-up amortization for the
- 6 2020 In Service Amounts related to 2019 projects.
- 7 ○ an accelerated CCA formula was added for Bill C-97.
- 8 ○ there were changes to the formulas of the Current Year Amortization (before
- 9 additions) line to accommodate assets that are fully depreciated and reach a
- 10 Net Book Value of zero.
- 11 • Tab “App.2-FB Calc of REG Consol” is a consolidation of all the separate formula-based
- 12 calculations from the various tabs described above.
- 13
- 14 ii. Please see Table 1 with the 2020-2024 approved and actual/forecast revenue requirement for
- 15 all the investments.
- 16

17 **Table 1: Approved versus Actual/Forecast Revenue Requirement for provincial rate protection**

	2020	2021	2022	2023	2024
Approved Revenue Requirement	1.4	2.3	2.7	3.0	3.2
GPMC	0.9	1.5	1.7	1.9	2.1
Energy Storage	0.5	0.8	1.0	1.1	1.2
Actual/Forecast Revenue Requirement	0.8	1.3	1.3	1.3	0.9
GPMC	0.8	1.3	1.3	1.3	0.9
Energy Storage	0.0	0.0	0.0	0.0	0.0
Variance Account Balance	(0.7)	(1.0)	(1.4)	(1.7)	(2.4)

Note: Variances due to rounding may exist

18

1 Please see Table 2 with 2025-2029 forecast revenue requirement for all the investments.

2 **Table 2: Forecast Revenue Requirement for provincial rate protection**

	2025	2026	2027	2028	2029
GPMC	1.0	1.2	1.6	2.3	3.4
Energy Storage	0.0	0.1	0.4	1.0	1.5
Stations Expansion	0.0	0.0	0.0	0.0	0.8
Total Forecast Revenue Requirement	1.0	1.3	2.1	3.3	5.8

Note: Variances due to rounding may exist

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2
3 **INTERROGATORY 2A-STAFF-110**

4 **References: Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_X04-5 - OEBAppendices 2-FA-FB -**
5 **GPMC_20231117**
6 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S02-3 - OEBAppendices 2-FA-FB -**
7 **Energy Storage_20231117**
8 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S05-6 - OEB Appendices 2-FA-FB-**
9 **Stations Expansion_20240129**

10
11 Preamble:

12 In references 1, 2 and 3, OEB staff notes that the cost of capital calculations are derived using the
13 same working capital allowance, ROE, short term interest rate, and long term interest rate for each
14 of the entire five year custom IR terms (from 2020-2024 and from 2025-2029).

15
16 **QUESTION (A):**

- 17 a) Please confirm that the working capital allowance, ROE, short term interest and long-term
18 interest rates are fixed for each of the custom IR terms.
- 19 i. If not, please recalculate the cost of capital calculations in references 1 and 2 using
20 approved cost of capital parameters (or proposed numbers if the approved
21 numbers are not available) for each of the years and comment whether the
22 changes in short term and long-term debt values produce revenue requirement
23 amounts that are materially different from those calculated in the original models.
- 24 ii. If the changes in revenue requirement amounts in (i) are material, please revise
25 Excel models in references 1 and 2 as needed.

1 **RESPONSE (A):**

2 Toronto Hydro confirms that the Working Capital Allowance, ROE, Short Term Interest and Long-
3 Term Interest rates are fixed for each of the 2015-2019¹, 2020-2024² and 2025-2029³ Custom IR
4 Terms. Toronto Hydro notes that the Working Capital Allowance rate is not used as there are no
5 OM&A costs related to these investments.

- 6 i. There were no changes to the capital parameters.
7 ii. There were no changes required based on question i)

¹ EB-2014-0116, Reply Submission to Draft Rate Order Comments, January 22, 2016, Schedule 1-1, page 3

² EB-2018-0165, Draft Rate Order, February 12, 2020, Schedule 1-1, page 3

³ EB-2023-0195, Exhibit 5, Tab 1, Schedule 2, Appendix 2-OA

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

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3 **INTERROGATORY 2A-STAFF-111**

- 4 **References: Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S04-5 – OEB Appendices 2-FA-FB -**
5 **GPMC_20231117**
6 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S02-3 – OEB Appendices 2-FA-FB -**
7 **Energy Storage_20231117**
8 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S05-6 - OEB Appendices 2-FA-FB -**
9 **Stations Expansion_20240129**

10
11 Preamble:

12 In references 1 and 2, Tab App.2-FA shows the total capital cost per year in line 62 and Tab App.2-
13 FB shows capital additions per year in line 73. In each model, OEB staff notes that the value in line
14 62 does not reconcile with line 73 for each of the years.

15
16 In reference 3, Tab App.2-FA Proposed REG Inves Cx and Tab App. 2-FA Proposed REG ISA show the
17 total capital cost per year in line 62 and Tab App.2-FB shows capital additions per year in line 73. In
18 the model, OEB staff notes that the sum of the values in line 62 in App.2-FA Proposed REG Inves Cx
19 and in Tab App.2-FA Proposed REG ISA for each year does not reconcile with the value in line 73 for
20 each of the years.

21
22 **QUESTION (A):**

- 23 a) Please explain why the total capital costs in Tab App. 2-FA are different from the capital
24 additions for each of the years and revise the evidence as needed.

25
26 **RESPONSE (A):**

27 The primary reason for the difference between amounts presented in 2-FA and 2-FB is that 2-FA
28 presents capital expenditures incurred by year, whereas 2-FB presents in-service additions. There is
29 a difference in timing between expenditure incurred and when the assets are put in-service (in-

1 service additions). The difference between capital expenditures and in-service additions remains in
2 CWIP. Appendix A and B in the response to 2A-Staff-109 include a presentation of expenditures by
3 year, as well as in-service additions by year.

1

2

Table 2: Opening Accumulated Amortization

Opening Accumulated Amortization	2020
App.2-FB Calc of REG A tab	193,619
App.2-FB Calc of REG B tab	77,286
App.2-FB Calc of REG C tab	306,009
Total	576,913

3

4

Table 3: Opening UCC

Opening UCC	2020
App.2-FB Calc of REG A tab	1,730,565
App.2-FB Calc of REG B tab	544,204
App.2-FB Calc of REG C tab	1,486,032
Total	3,760,802

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2
3 **INTERROGATORY 2A-STAFF-113**

4 **References:** **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_X04-5 - OEBA**ppendices 2-FA-FB -
5 **GPMC_20231117**
6 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S02-3 - OEBA**ppendices 2-FA-FB -
7 **Energy Storage_20231117**
8 **Exhibit 2A, Tab 5, Excel Model - THESL_2A_T05_S05-6 - OEB** Appendices 2-FA-FB-
9 **Stations Expansion_20240129**

10
11 Preamble:

12 In tab App.2-FB in the references, Toronto Hydro provides values for amortization period, CCA Rate
13 Class and CCA Rate in cells B71, B93 and B94.

14
15 **QUESTION:**

16 Please explain the rationale for using these values in the models and provide references to support
17 the use of these numbers (e.g. EB#, exhibit, tab, schedule, date, and page number, etc).

18
19 **RESPONSE:**

20 Please see below comments for each reference.

21
22 *Reference 1: Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_X04-5 - OEBA*ppendices 2-FA-FB -
23 *GPMC_20231117*

24 The average useful life of assets in-service is 27.5 years and aligns with the useful lives used in both
25 the 2020-2024¹ and the 2015-2019 CIR Applications.² It assumes a mix of various distribution assets
26 from these potential investments with useful lives ranging from 15 to 40 years, resulting in an

¹ EB-2018-0165, Exhibit 2A, Tab 6, Schedule 5

² EB-2014-0116, Exhibit 2A, Tab 8, Schedule 1

1 average of 27.5 years. The exception is the Energy Monitoring and Control software,³ which
2 includes IT related assets put in-service in 2019-2020 with an approximate useful life of 5-years.
3 This is reflected in the updated appendices to Toronto Hydro's response to interrogatory 2A-Staff-
4 109.

5
6 With regard to the CCA Classes, for the distribution related assets, CCA Class 47 was used with a
7 CCA Rate of 8%; for IT software related assets, CCA 12 with a CCA rate of 100%; and for IT hardware
8 related assets, CCA Class 50 with a CCA rate of 55%. Please refer to Toronto Hydro's response to
9 2A-Staff-109 for the updated templates.

10
11 Please refer to Exhibit 2B, Section E5.5 for further details about this program.

12
13 Reference 2: Exhibit 2A / Tab 5 / Excel Model - THESL 2A T05 S02-3 - OEBA Appendices 2-FA-FB -
14 Energy Storage 20231117

15 The expected assets from the energy storage investments have an expected useful life of 15 years
16 and a CCA Class of 43.1 with a CCA Rate of 30% based on the expected specifications of the
17 investments. Please refer to Exhibit 2B, Section E7.2 for investments related to Energy Storage
18 Systems for the nature of these investments.

19
20 Reference 3: Exhibit 2A / Tab 5 / Excel Model - THESL 2A T05 S05-6 - OEBA Appendices 2-FA-FB-
21 Stations Expansion 20240129

22 The Stations Expansion investments referenced are capital contributions paid to Hydro One for the
23 Sheppard TS Bus Expansion, where a useful life of 25 years was used. These investments are
24 subject to CCA Class 14.1 which has a CCA Rate of 5%. Please refer to Exhibit 2B, Section E7.4.4.3
25 for additional information.

³ 2A-Staff-114 (a)

1 OEB staff also notes that the revenue requirement amounts for provincial rate protection for the
2 2020-2022 period in the Excel model (reference 3) do not reconcile with actual revenue
3 requirement amounts in Table 11 (reference 5) for the period 2020 - 2022.

4

5 **QUESTION (A):**

6 a) Please provide a list of all the renewable generation connection investments that Toronto
7 Hydro made and received funding from the IESO prior to 2020 as well as a short description
8 of each investment.

9

10 **RESPONSE (A):**

11 The investments made prior to 2020 as part of the Generation Protection Monitoring and Control
12 program over the 2015-2019 period include:¹

- 13 • **Monitoring and Control Buyback:** purchase of customer-installed monitoring equipment
14 for SCADA communication; and
- 15 • **Energy Monitoring and Control:** installation of a Distributed Energy Resource (DER)
16 Management System platform (DER SCADA Management)

17

18 **QUESTION (B) AND (C):**

19 b) In references 3 and 4, please confirm whether revenue requirement amounts in tab App.2-
20 FB in both Excel models are derived based on previously approved investment projects
21 prior to 2020 (if any), plus the revenue requirement derived from capital expenditures
22 from the approved projects from 2020 to 2024 and the proposed projects from 2025-2029
23 or not.

24 c) If not in (b), based on the Excel models in references 3 and 4 and all the past approved
25 investments in (a), please provide the following:

- 26 i. Extend the historic period in the Excel models to reflect the actual capital and start-
27 up OM&A costs incurred starting from the first year that Toronto Hydro made
28 renewable generation connection investments which were approved by the OEB.

¹ EB-2018-0165, Exhibit 2B, Section E5.5 at pages 17-18.

- 1 ii. If the investments made prior to 2020 are substantially different from the
2 investments made during 2020-2024 and from 2025-2029 which require different
3 assumptions for WCA percentage, debt percentages, interest rates, kWh, tax rates,
4 amortization period, and CCA, please create and provide a new Excel model instead
5 of extending the historic period as described in (i). In the new Excel model, please
6 include the revenue requirement calculations starting from the first year that
7 Toronto Hydro made renewable generation connection investments until 2029.
- 8 iii. For the Excel models in (i) and (ii), please calculate actual revenue requirement
9 amounts for provincial protection resulting from actual capital costs, start-up
10 OM&A costs (if any), and depreciation adjustments. Please include 2023 actual
11 results if available at the time of preparing interrogatories.

12

13 **RESPONSE (B) AND (C):**

14 Toronto Hydro confirms that the revenue requirement amounts are composed of investment
15 projects from 2016 to 2029. Please see 2A-Staff-109 for the revenue requirement calculations.

16

17 **QUESTION (D) AND (E):**

- 18 d) From the revised excel models in (c), please provide a summary table showing the revised
19 actual and forecast revenue requirement amounts for provincial rate protection per year
20 for each of the Excel models for the historic period (starting from the first year the
21 investments were made) up to the forecast period ending 2029.
- 22 e) From the summary table in (d), please comment whether the revised actual revenue
23 requirement amounts for provincial rate protection for 2020-2022 reconcile with Table 11
24 in reference 5 or not.
- 25 i. If not, please revise all the evidence affected by the changes in actual revenue
26 requirement amounts (e.g. revise amounts recorded in Account 1533 in the
27 Continuity Schedule) as needed.

1 **RESPONSE (D) AND (E):**

2 Please see Table 1 based on the revised calculations in 2A-Staff-109. This table reconciles to Exhibit
 3 9, Tab 1, Schedule 1, December 19, 2023, at page 19, Table 11 for the 2020 to 2022 actuals and has
 4 been updated to reflect 2023 actuals and an updated 2024 forecast.

5
 6 **Table 1: Revenue Requirement Under Provincial Rate Protection (\$ Millions)**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
GPMC Revenue Requirement	0.1	0.2	0.2	0.8	1.3	1.3	1.3	0.9	1.0	1.2	1.6	2.3	3.4
Energy Storage Revenue Requirement	-	-	-	-	-	-	-	0.0	0.0	0.1	0.4	1.0	1.5
Stations Expansion Revenue Requirement	-	-	-	-	-	-	-	-	-	-	-	-	0.8
Variance	0.1	0.2	0.2	0.8	1.3	1.3	1.3	0.9	1.0	1.3	2.1	3.3	5.8

Note: Variances due to rounding may exist

7

8 **QUESTION (F):**

9 f) From the revised models in (b), for the historical actual capital/start-up OM&A spendings,
 10 please provide details of the work related to renewable generation connection projects
 11 that required these spendings and include the following:

- 12 i. Please provide a list of generation connected, the type of connection, and the
 13 actual amount of spending for each type.
- 14 ii. Please describe the work involved.
- 15 iii. Please explain drivers for any material increases in capital costs and start-up OM&A
 16 costs (if applicable).

17

18 **RESPONSE (F):**

19 i) Toronto Hydro notes that OEB Staff's question assumes these investments were made in
 20 response to committed generation connection requests. As described in the response to 2A-
 21 Staff-108 (e), actual renewable enabling improvement investments were made prior to

1 committed generation connections as to do otherwise would result in undue delays and
2 barriers to connecting renewables. As such, Toronto Hydro does not have a list of generation
3 connected, type of connections and amounts spent per type associated with these
4 investments. Table 2 below provides the cost per unit for monitoring and control equipment
5 and antenna installations.

6

7 **Table 2: Generation Protection Monitoring and Control Investments**

Program	Typical Amount (Per Unit)
Monitoring and Control Equipment	\$10,000
Antenna Installation	\$25,000

8

9 For a breakdown of generations connected to Toronto Hydro's system, please refer to Exhibit
10 2B, Section E3 and E5.1, and for actual and forecast expenditures over the 2020-2029 period,
11 please refer to Exhibit 2B, Section E5.5.4.

12

13 ii) For descriptions of the monitoring and control equipment and antenna installations, please
14 refer to Exhibit 2B, Section E5.5.3.3, Section 3 at pages 12-15.

15

16 iii) The increases are attributed to the system needs identified by Toronto Hydro's DER forecast.
17 The forecast considers a combination of historical trends, project pipeline, economic
18 environment and the current energy policies at the time of the forecast. See Exhibit 2B,
19 Section E5.1.3.2 for further details of Toronto Hydro's DER connection forecast methodology

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2
3 **INTERROGATORY 2A-STAFF-115**

- 4 **References: Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_X04-5 - OEBAppendices 2-FA-FB**
5 **- GPMC_20231117**
6 **Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_S02-3 - OEBAppendices 2-FA-FB**
7 **- Energy Storage_20231117**
8 **Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_S05-6 - OEB Appendices 2-FA-**
9 **FB- Stations Expansion_20240129**

10
11 Preamble:

12 Toronto Hydro provides the forecast revenue requirement amounts for provincial rate protection
13 derived from forecast capital additions in the references.

14
15 **QUESTION (A):**

- 16 a) For the forecast period, please provide the following for each of the models referenced:
17 i) Please describe the information that has led to the forecast of capital additions and
18 start-up OM&A costs (if applicable) for each of the forecast years.
19 ii) Please provide a list of forecast renewable generation connection and type of
20 connection if available.
21 iii) Please explain drivers for any material increases in capital additions and start-up
22 OM&A costs (if applicable).

23
24 **RESPONSE (A):**

25 ***Re – Reference: Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_X04-5 - OEBAppendices 2-FA-FB***
26 ***- GPMC_20231117***

- 27 i) The evidence in Exhibit 2B, Section E5.1 notes that the DER forecast is separated into
28 renewable, energy storage and non-renewable segments. For each segment, forecast DER
29 capacity was approximated using a mathematical model that best represented recent and

1 anticipated growth patterns, considering a combination of historical trends, project
2 pipeline, economic environment and the current energy policies at the time of forecast.

3 ii) Tables 6 and 7 in Exhibit 2B, Section E5.1.

4 iii) The increase is driven by the projected system constraints due to the forecasted growth in
5 DER applications and the investments required to address them. Please refer to Exhibit 2B
6 Section E3 for a detailed description of the forecast and the system constraints.

7

8 ***Re – Reference: Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_S02-3 - OEB Appendices 2-FA-FB***
9 ***- Energy Storage_20231117***

10 i) The Energy Storage (ESS) segment reference refers to Toronto Hydro’s plans to own and
11 operate renewable-enabling energy storage system (REBESS). The forecasted costs for
12 this segment, as well as an explanation of how these costs were derived, are detailed in
13 Exhibit 2B, Section E7.2 at page 3.

14 ii) N/A to this segment

15 iii) N/A to this segment

16

17 ***Re – Reference: Exhibit 2A / Tab 5 / Excel Model - THESL_2A_T05_S05-6 - OEB Appendices 2-FA-***
18 ***FB- Stations Expansion_20240129***

19 i) As per Exhibit 2B E7.4.3 page 4, Toronto Hydro has considered multiple inputs to develop a
20 plan that will satisfy its capacity needs. These inputs are: Toronto Hydro’s 10-Year peak
21 demand forecast, City of Toronto Development plans, and the Future Energy Scenarios
22 (FES).

23 ii) N/A to this segment

24 iii) As described in Exhibit 2B E7.4.3, the increased expenditures in stations expansion are
25 driven by the City of Toronto Development Plans, acceleration of electrification, and a lack
26 of short circuit capacity (required to connect new DERs to Toronto Hydro’s system).

1 **RESPONSES TO ONTARIO ENERGY BOARD STAFF INTERROGATORIES**

2

3 **INTERROGATORY 2A-Staff-116**

4 **REFERENCE: THESL_2A_T03_S01_AppA - Cost of Power_20231117.xls**

5

6 Preamble:

7 In the sheet titled “App.2-ZB_2028 Cost of Power” at cell D69, the kW value for Streetlighting class
8 is the exact same as Large User class, of 3,390,747 kW. It appears that this may be a data entry
9 error.

10

11 **Question(s):**

12 a) Please confirm that this is a data entry error.

13 i. If this is a data entry error, please verify that no other errors exist in the sheets of
14 this file.

15 ii. If any other errors are noted, please identify them.

16 b) Please provide a corrected excel file.

17

18 **RESPONSE**

19 a) Toronto Hydro confirms the data entry error noted above.

20 i) Toronto Hydro verifies this is the only error.

21 ii) Not applicable.

22

23 b) Toronto Hydro submits the excel file for 2A-Staff-116, Appendix A.

1 **RESPONSES TO CONSUMERS COUNCIL OF CANADA INTERROGATORIES**

2

3 **INTERROGATORY 2A-CCC-51**

4 **Reference: Exhibit 2A, Tab 1, Schedule 1, p. 3 - Table 3 2020-2024 In-Service Additions**

5 **Variances**

6

7 Please recast Table 3 2020-2024 In Service Additions Variance to include 2023 actuals.

8

9 **RESPONSE:**

10 Please see Table 1 with 2023 actuals and updated 2024 forecast.

11

12 **Table 1: 2020-2024 In-Service Additions Variances (\$ Millions)**

	2020-2024 DRO	2020-2024 Actual/Bridge	Var. (\$)	Var. (%)
System Access	469.1	632.7	163.6	34.9%
System Renewal	1,535.8	1,396.2	(139.6)	-9.1%
System Service	259.8	271.6	11.8	4.5%
General Plant	403.7	396.9	(6.8)	-1.7%
Other	5.1	4.9	(0.2)	-3.5%
Net In-Service Additions	2,673.4	2,702.3	28.9	1.1%

1 Toronto Hydro has proposed the Demand Related Variance Account² (“DRVA”) as part of the 2025-
2 2029 application, which includes capital-related revenue requirement associated with both
3 programs (Customer Connections and Externally Initiated Plant Relocations and Expansion) that are
4 expected to generate Contributions and Grants. For more information on the DRVA, please see
5 Exhibit 9, Tab 1, Schedule 1, Appendix B and Exhibit 1B, Tab 2, Schedule 1.

² Exhibit 9, Tab 1, Schedule 1, Section 9.2

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RESPONSES TO CONSUMERS COUNCIL OF CANADA INTERROGATORIES

INTERROGATORY 2A-CCC-53

Reference: Exhibit 2A, Tab 2, Schedule 1, Page 3

In accordance with the OEB’s Decision in the 2020-2024 Rate Application (EB-2018-0165) Toronto Hydro retained Concentric Advisors ULC to complete a depreciation study which resulted in changes to depreciation rates effective January 1, 2023. Please provide the annual depreciation expense for Toronto Hydro for each year 2024-2029 under the previous and proposed methodologies.

RESPONSE:

Please see Table 1 for the annual depreciation expense for the 2024-2029 period with and without the asset useful life changes.

Table 1: Depreciation based on asset useful life with and without changes (\$ Millions)

	2024 Bridge	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
Depreciation and Amortization Expense (without UL changes)	291.6	305.0	321.7	344.4	368.6	381.9
Depreciation and Amortization Expense (with UL change)	237.2	247.4	260.1	278.5	300.1	311.2
Difference	(54.4)	(57.6)	(61.5)	(65.9)	(68.5)	(70.6)

1 **RESPONSES TO POLLUTION PROBE INTERROGATORIES**

2
3 **INTERROGATORY 2A-PP-24**

4 **References: Capitalization Policy dated 2023-10-18**
5 **Exhibit 2A, Tab 4, Schedule 1, App A**

6
7 **QUESTION (A):**

8 a) Is THESL requesting OEB approval of the updated Capitalization Policy? If not, what is the
9 process to have a new Capitalization Policy approved for use?

10
11 **RESPONSE (A):**

12 No. This policy was filed in accordance with section 2.2.9 Capitalization of the OEB’s Chapter 2
13 Filing Requirements for Electricity Distributors (December 15, 2022). Toronto Hydro follows the
14 International Financial Reporting Standards (“IFRS”) in updating its Capitalization Policy. This is in
15 line with the expectations set out in the Accounting Procedures Handbook.¹ The process for
16 approving changes to the Capitalization Policy is described in Section 11.2 of the Capitalization
17 Policy which can be found in Exhibit 2A, Tab 4, Schedule 1, Appendix A, and was last approved on
18 October 24, 2023.

19
20 **QUESTION (B):**

21 b) Please provide a summary of the major changes compared to the previous version of the
22 Capitalization Policy, or if easier simply provide a copy in track changes of the 2023 version
23 against the previous version.

24
25 **RESPONSE (B):**

26 Please refer to Exhibit 2A, Tab 4, Schedule 1, page 1-5 for a list of changes to the previous version
27 of the Capitalization Policy.

¹ OEB Accounting Procedures Handbook (issued December 2011) at page 7

1 **QUESTION (C):**

2 c) Cloud computing is typically an O&M expense since there are no physical assets owned by
3 the utility. How does THESL current treat cloud computing (Capital or OM&A) and please
4 explain why these costs should be capitalized in the 2025-2029 rate term.

5

6 **RESPONSE (C):**

7 While typically cloud computing is treated as an O&M expense, the accounting treatment is unique
8 to each contract as described in section 8.1.4 of the Capitalization Policy filed in Exhibit 2A, Tab 4,
9 Schedule 1, Appendix A. Additionally, accounting treatment of cloud implementation costs are also
10 assessed based on the nature of the cost and accounting for under IFRS requirements. Please refer
11 to Appendix C of the Capitalization Policy for the decision tree for this assessment.

12

13 Regarding the treatment of cloud computing costs in the 2025-2029 rate period, please refer to
14 Toronto Hydro's responses to 2B-Staff-263, subparts (a) and (b).

1 **RESPONSES TO POLLUTION PROBE INTERROGATORIES**

2

3 **INTERROGATORY 2A-PP-25**

4 **Reference:** **Exhibit 2A, Tab 2, Schedule 1, Page 3**

5

6 “Concentric Report, plus as summarized in Appendix D at Tables 1 - 3, the financial average service
7 lives of six asset classes were shortened by the Study, and the financial average service lives of 73
8 asset were lengthened by Study, resulting in a significant overall reduction in depreciation
9 expenses.”

10

11 **QUESTION (A):**

12 a) Please explain how the significant increase in service life proposed by Concentric would
13 impact the definition and percent of THESL assets that are at or beyond their useful life.
14 Please also provide a recalculation of the THESL statistics on assets at or beyond useful life
15 if the Concentric recommendations are applied.

16

17 **RESPONSE (A):**

18 Toronto Hydro has already reviewed and made adjustments informed by Concentric’s
19 recommended service lives within the Assets Past Useful Life (“APUL”) metric presented in Exhibit
20 2B, Section A3.1, Page 7. For additional details on Toronto Hydro’s useful life values and their use
21 within the asset management system, please see response to 2B-Staff-131, part (a).

22

23 **QUESTION (B):**

24 b) Please provide a list of the pros and cons (including impacts on rate payer Energy
25 Transition, temporal risk, etc.) of increasing the average accounting life of THESL assets.

26

27 **RESPONSE (B):**

28 The impacts of increasing the average accounting life of Toronto Hydro’s assets include:

- 1 • Depreciation Expense: decreased annual depreciation expense, resulting in a significantly
2 lower revenue requirement in the near future.
- 3 • Rate Base: Lower annual depreciation expense resulting in higher asset book values, thus
4 increasing rate base, the ROE and deemed interest components of revenue requirement
5 gradually, albeit at a lesser magnitude than depreciation.
- 6 • Derecognition: Assets that may be derecognized prior to end of accounting life would have
7 a higher book value at the time of derecognition resulting in an increase to rates.

8

9 **QUESTION (C):**

- 10 c) Is the proposed service life change only for new assets or retroactive?

11

12 **RESPONSE (C):**

13 The proposed service life change was applied prospectively to the depreciation on all assets, both
14 existing assets as of 2022 and new additions from 2023 onwards.

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RESPONSES TO POLLUTION PROBE INTERROGATORIES

INTERROGATORY 2A-PP-26

References: Concentric Report and Table 8: Depreciation and Amortization Expense 2025 to 2029 (\$ Millions) [Exhibit 2A, Tab 2, Schedule 1, Page 6]

Please provide a copy of Table 8 including the impact of the Concentric service life changes. If those were already applied, please provide a copy of Table 8 based on current asset life (i.e. without changes).

RESPONSE:

Please refer to Toronto Hydro's response to interrogatory 2A-CCC-53.

RESPONSES TO SCHOOL ENERGY COALITION INTERROGATORIES

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INTERROGATORY 2A-SEC-30

References: Exhibit 2A, Tab 1

SEC seeks to understand the revenue requirement impact of the proposal capital expenditures. Please provide a table that shows for each year between 2025 and 2029, the revenue requirements, broken down by component, related only to the proposed 2025 to 2029 capital expenditures.

RESPONSE:

Table 1 below presents an estimate of 2025-2029 revenue requirement associated with 2025-2029 capital expenditures broken down by component. The revenue requirement provided below is based on an estimate of the updated 2025-2029 total Revenue Requirement, which includes impact from: (i) the 2023 actuals and updated 2024 forecast (presented in 2A-Staff-104), and (ii) the January 29, 2024 evidence update. The final PILS models for the updated 2025-2029 total Revenue Requirement (Exhibit 6) are not yet available because it was not possible to complete this work within the timelines for responding to interrogatories. This information will be provided in advance of the Technical Conference as indicated in 1A-Staff-01 and noted in the Application Evidence Update cover letter.¹

Table 1: 2025-2029 Estimated Capital-Related Revenue Requirement

	2025	2026	2027	2028	2029	2025-2029
ROE	4.3	19.7	42.1	66.8	90.6	223.5
Deemed Interest	2.8	12.8	27.3	43.3	58.7	144.7
Depreciation	39.6	55.4	83.9	115.9	146.2	441.0
PILS	(0.3)	(12.0)	(29.5)	4.0	(2.9)	(40.7)

¹ [EB-2023-0195, Toronto Hydro 2025-2029 Custom Rate Application For Electricity Distribution Rates and Charges – Evidence Update, January 29,2024, page 1.](#)

Revenue Requirement	46.3	75.9	123.8	230.0	292.5	768.5
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1 *Rounding variances may exist*