

Elexicon Energy Inc.

Answer to Interrogatory from  
Power Workers' Union

Interrogatory PWU-1:

Ref 1: Appendix B, Page 41 of 56

Elexicon identified 4 alternatives with respect to the Sustainable Brooklin Project:

1. Extend feeders from Whitby TS DESN 1 to serve the North Brooklin area, with funding through this ICM, and with the WSG enabling DER integration capability (preferred);
2. Proceed with system enhancement by extending the feeders from Whitby TS DESN 1 to serve the North Brooklin area with developers paying a capital contribution as per the DSC, with the extension of the duration of capital contribution period from 5 years to 15 years;
3. Build a new TS to serve the North Brooklin area, funded by Elexicon's existing rates; and,
4. Utilize existing 44kV feeders to the North Brooklin area, funded by Elexicon's existing rates.

Ref 2: Appendix B-2, Page 20 of 37

Total Gross Capex of Option 3 = ~\$50 MM

Ref 3: Appendix B, Page 48 of 56

Approval of the Sustainable Brooklin DSC Exemption and ICM Request will allow Elexicon to credibly pursue opportunities to defer or avoid material capital investments in the future; this has the potential to create significant ratepayer benefits.

As stated in section 2.1.4.1, Elexicon's service territory, including the WRZ, have experienced and are anticipated to continue experiencing, significant customer and load growth. Current growth forecasts suggest the need for a new regional supply point ("New TS") in the early-to-mid 2030's; an investment that will incur significant costs for ratepayers in a status quo scenario. To put this in context, Elexicon is nearing completion of its \$40MM Seaton TS, which will once completed provide additional capacity for the Seaton area developments and will support additional capacity on the Whitby TS.

Questions:

- a) Given the higher cost of Option 3 than Option 1, would Elexicon be able to fund Option 3 using existing rates or would it require an ICM?
- b) Is the rough estimate of \$50MM in Reference 2 based on the \$40MM cost of Seaton TS?

- c) Please provide an estimate of the capital costs of project deferrals enabled by the ICM projects.
- d) Please provide an estimate of the capital costs of the projects that will be avoided due to the ICM projects.
- e) Please provide an estimate of the bill impacts of the projects listed in parts c) and d).

Response:

- a) Elexicon would not be able to fund Option 3 through existing rates.
- b) Yes, the estimate is based on the Seaton TS costs, and also accounts for increases in material costs and inflation.
- c) Elexicon does not have a specific estimate of the capital costs of project deferrals. Please see Appendix B page 48 and Appendix B-4 page 29, which outlines the forecast net present value of notional capital deferrals across various assumption scenarios.
- d) Please see response to part c above.
- e) Please see response to part c above.

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Interrogatory PWU-2:

Ref 1: Appendix B, Page 11 of 56, Table 1

**Table 1: WSG Net Benefits**

| <b>Customer Annual Benefit Summary</b>        |            |
|---|------------|
| <i>(All Dollars Listed in Thousands CAD)</i>  |            |
| Cost of Power (WRZ)                           | \$ 108,526 |
| Projected % Energy Savings from WSG           | 3.00%      |
| Total Purchased Power Savings from WSG (A)    | \$ 3,256   |
| ICM Additional Revenue (B)                    | \$ 4,120   |
| Additional OM&A Expenses (C)                  | \$ 324     |
| Operating Efficiencies from WSG (D)           | \$ 41      |
| Sub-Total of Savings (E = A-B-C+D)            | \$ (1,147) |
| Projected VoLL Benefit from Reliability (F)   | \$ 1,820   |
| Annual Net Benefit to WSG Customers (G = E+F) | \$ 673     |

Questions:

- a) Do “Projected % Energy Savings from WSG” include reductions in variable revenues paid by customers?
- b) Please provide calculations for the \$1,820k projected VoLL Benefit from Reliability.

Response:

- a) The “Projected % Energy Savings from WSG” is attributed to a reduction in the Cost of Power for the Whitby Rate Zone, as passed on to customers on the upstream (i.e. non-distribution) portion of their bills. No changes to the variable distribution component of customer bills are incorporated into the figure presented.
- b) Please see response to VECC-02.

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Interrogatory PWU-3:

Ref 1: IRM Application, Page 43 of 47

1. ICM funding of \$36,739,433 for the Whitby Smart Grid Project ("WSG Project"), including a proportionate share of Advanced Distribution Management System ("ADMS") and SCADA costs, in the WRZ;
2. ICM funding of \$6,431,567 for a proportionate share of the ADMS and SCADA costs of the WSG Project, in the Veridian Rate Zone ("VRZ"); and

Ref 2: Appendix B, Page 6 of 56

1. ICM funding of \$43.171MM for the Whitby Smart Grid Project (the "WSG"), including a proportionate share of Advanced Distribution Management System ("ADMS") and Supervisory Control and Data Acquisition ("SCADA") costs, in the Whitby Rate Zone ("WRZ");
2. ICM funding of \$6.431MM for a proportionate share of the ADMS and SCADA costs of the WSG, in the Veridian Rate Zone ("VRZ");2 and

Questions:

- a) Please confirm the amount of ICM funding for the WSG in Reference 2 should be \$36.739MM

Response:

- a) Confirmed.

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Interrogatory PWU-4:

Ref 1: Appendix B, Page 9 of 56

2) Customer Reliability Improvements: The WSG will implement fault location and distribution automation that will improve customer reliability. In the WRZ, SAIFI is expected to improve from 0.87 to 0.28 and SAIDI is expected to improve from 1.03 to 0.45. The estimated annual customer reliability benefits are approximately \$1.828MM6;

Questions:

a) The above excerpt references footnote 6 but there is no footnote 6 in Appendix B.

Please provide the correct reference.

Response:

Footnote 6 reference is Appendix B-1 - Whitby Smart Grid Business Case. Page 10 of 67

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Interrogatory PWU-5:

Ref 1: Appendix B-1, Page 19 of 67

The tables below show the P10 load breakdown between the 27.6 kV and 44 kV systems. Table 9 shows the P10 load forecast divided into the 27.6 kV and 44 kV systems and the combined 27.6 kV and 44 kV forecasts. Tables 10 and 11 show the divided P10 load forecast for the low and high Brooklin scenario. Highlighted cells show when the individual 27.6 kV or 44 kV systems will begin to exceed capacity.

Questions:

a) Tables 9, 10, and 11 do not include highlighted cells. Please provide the tables with highlights identifying where the system exceeds capacity.

Response:

- a) The following tables with cells highlighted shaded and text in red font indicate where the system exceeds capacity:
- Table 1 shows the capacity analysis for the Region of Durham scenario
  - Table 2 and Table 3 show the capacity analysis for the low and high Brooklin scenarios.

Table 1: Capacity Analysis - Region of Durham Scenario

| Year | Whitby<br>27.6 kV | Ajax-<br>Pickering<br>27.6 kV | All<br>27.6 kV | Whitby<br>44 kV | Ajax-<br>Pickering<br>44 kV | All 44 kV | Total |
|------|-------------------|-------------------------------|----------------|-----------------|-----------------------------|-----------|-------|
| 2022 | 0.0               | 99.4                          | 99.4           | 236.0           | 222.2                       | 458.2     | 557.7 |
| 2023 | 0.0               | 104.2                         | 104.2          | 240.4           | 223.7                       | 464.2     | 568.4 |
| 2024 | 5.7               | 109.0                         | 114.7          | 239.3           | 225.2                       | 464.5     | 579.2 |
| 2025 | 7.6               | 113.8                         | 121.5          | 241.9           | 226.7                       | 468.6     | 590.1 |
| 2026 | 9.7               | 118.6                         | 128.3          | 244.7           | 228.2                       | 472.8     | 601.1 |
| 2027 | 15.3              | 123.2                         | 138.6          | 252.3           | 229.6                       | 481.9     | 620.4 |
| 2028 | 21.4              | 127.9                         | 149.2          | 260.4           | 231.0                       | 491.4     | 640.6 |
| 2029 | 27.8              | 132.5                         | 160.2          | 269.0           | 232.4                       | 501.4     | 661.7 |
| 2030 | 34.5              | 137.1                         | 171.6          | 278.1           | 233.9                       | 512.0     | 683.6 |
| 2031 | 41.7              | 141.7                         | 183.5          | 287.8           | 235.3                       | 523.1     | 706.6 |
| 2032 | 46.0              | 147.0                         | 193.1          | 293.5           | 236.9                       | 530.5     | 723.5 |
| 2033 | 50.3              | 152.3                         | 202.7          | 299.3           | 238.6                       | 537.9     | 740.6 |
| 2034 | 54.7              | 157.6                         | 212.3          | 305.1           | 240.2                       | 545.3     | 757.7 |
| 2035 | 59.0              | 162.9                         | 222.0          | 311.0           | 241.8                       | 552.8     | 774.8 |
| 2036 | 63.4              | 168.3                         | 231.6          | 316.8           | 243.5                       | 560.3     | 792.0 |
| 2037 | 67.8              | 173.1                         | 240.9          | 322.7           | 245.0                       | 567.7     | 808.6 |
| 2038 | 72.2              | 178.0                         | 250.1          | 328.6           | 246.5                       | 575.1     | 825.3 |
| 2039 | 76.6              | 182.8                         | 259.4          | 334.6           | 248.0                       | 582.6     | 842.0 |
| 2040 | 81.0              | 187.7                         | 268.7          | 340.6           | 249.5                       | 590.0     | 858.8 |
| 2041 | 85.5              | 192.6                         | 278.1          | 346.5           | 251.0                       | 597.5     | 875.6 |

Table 2: Capacity Analysis - Brooklin Low Scenario

| Year | Whitby<br>27.6 kV | Ajax-<br>Pickering<br>27.6 kV | All<br>27.6 kV | Whitby<br>44 kV | Ajax-<br>Pickering<br>44 kV | All 44 kV    | Total        |
|------|-------------------|-------------------------------|----------------|-----------------|-----------------------------|--------------|--------------|
| 2022 | 0.0               | 99.4                          | <b>99.4</b>    | 234.7           | 222.2                       | <b>456.9</b> | <b>556.3</b> |
| 2023 | 0.0               | 104.2                         | <b>104.2</b>   | 238.7           | 223.7                       | <b>462.4</b> | <b>566.6</b> |
| 2024 | 4.7               | 109.0                         | <b>113.7</b>   | 238.0           | 225.2                       | <b>463.2</b> | <b>577.0</b> |
| 2025 | 6.6               | 113.8                         | <b>120.4</b>   | 240.4           | 226.7                       | <b>467.1</b> | <b>587.5</b> |
| 2026 | 8.5               | 118.6                         | <b>127.1</b>   | 243.0           | 228.2                       | <b>471.1</b> | <b>598.2</b> |
| 2027 | 13.6              | 123.2                         | <b>136.8</b>   | 249.8           | 229.6                       | <b>479.4</b> | <b>616.2</b> |
| 2028 | 18.9              | 127.9                         | <b>146.7</b>   | 256.9           | 231.0                       | <b>487.9</b> | <b>634.7</b> |
| 2029 | 24.5              | 132.5                         | <b>157.0</b>   | 264.5           | 232.4                       | <b>496.9</b> | <b>653.9</b> |
| 2030 | 30.6              | 137.1                         | <b>167.7</b>   | 272.5           | 233.9                       | <b>506.4</b> | <b>674.0</b> |
| 2031 | 37.0              | 141.7                         | <b>178.7</b>   | 281.0           | 235.3                       | <b>516.3</b> | <b>695.0</b> |
| 2032 | 40.6              | 147.0                         | <b>187.6</b>   | 285.9           | 236.9                       | <b>522.8</b> | <b>710.4</b> |
| 2033 | 44.2              | 152.3                         | <b>196.5</b>   | 290.7           | 238.6                       | <b>529.2</b> | <b>725.7</b> |
| 2034 | 47.8              | 157.6                         | <b>205.4</b>   | 295.5           | 240.2                       | <b>535.7</b> | <b>741.1</b> |
| 2035 | 51.4              | 162.9                         | <b>214.4</b>   | 300.4           | 241.8                       | <b>542.2</b> | <b>756.6</b> |
| 2036 | 55.1              | 168.3                         | <b>223.3</b>   | 305.3           | 243.5                       | <b>548.7</b> | <b>772.1</b> |
| 2037 | 58.8              | 173.1                         | <b>231.9</b>   | 310.2           | 245.0                       | <b>555.1</b> | <b>787.0</b> |
| 2038 | 62.4              | 178.0                         | <b>240.4</b>   | 315.1           | 246.5                       | <b>561.6</b> | <b>802.0</b> |
| 2039 | 66.1              | 182.8                         | <b>249.0</b>   | 320.0           | 248.0                       | <b>568.0</b> | <b>817.0</b> |
| 2040 | 69.9              | 187.7                         | <b>257.6</b>   | 325.0           | 249.5                       | <b>574.5</b> | <b>832.0</b> |
| 2041 | 73.6              | 192.6                         | <b>266.2</b>   | 330.0           | 251.0                       | <b>581.0</b> | <b>847.1</b> |



Table 3: Capacity Planning - Brooklin High Scenario

| Year | Whitby<br>27.6 kV | Ajax-<br>Pickering<br>27.6 kV | All<br>27.6 kV | Whitby<br>44 kV | Ajax-<br>Pickering<br>44 kV | All 44 kV | Total |
|------|-------------------|-------------------------------|----------------|-----------------|-----------------------------|-----------|-------|
| 2022 | 0.0               | 99.4                          | 99.4           | 234.7           | 222.2                       | 456.9     | 556.3 |
| 2023 | 0.0               | 104.2                         | 104.2          | 238.8           | 223.7                       | 462.5     | 566.7 |
| 2024 | 4.8               | 109.0                         | 113.8          | 238.1           | 225.2                       | 463.3     | 577.2 |
| 2025 | 6.7               | 113.8                         | 120.5          | 240.6           | 226.7                       | 467.3     | 587.8 |
| 2026 | 8.6               | 118.6                         | 127.3          | 243.2           | 228.2                       | 471.4     | 598.6 |
| 2027 | 13.9              | 123.2                         | 137.1          | 250.2           | 229.6                       | 479.8     | 617.0 |
| 2028 | 19.3              | 127.9                         | 147.2          | 257.5           | 231.0                       | 488.5     | 635.7 |
| 2029 | 25.1              | 132.5                         | 157.6          | 265.3           | 232.4                       | 497.7     | 655.3 |
| 2030 | 31.3              | 137.1                         | 168.4          | 273.5           | 233.9                       | 507.4     | 675.8 |
| 2031 | 37.9              | 141.7                         | 179.6          | 282.2           | 235.3                       | 517.5     | 697.1 |
| 2032 | 41.6              | 147.0                         | 188.6          | 287.2           | 236.9                       | 524.1     | 712.7 |
| 2033 | 45.3              | 152.3                         | 197.6          | 292.2           | 238.6                       | 530.8     | 728.4 |
| 2034 | 49.1              | 157.6                         | 206.7          | 297.2           | 240.2                       | 537.4     | 744.1 |
| 2035 | 52.8              | 162.9                         | 215.8          | 302.3           | 241.8                       | 544.1     | 759.9 |
| 2036 | 56.6              | 168.3                         | 224.9          | 307.3           | 243.5                       | 550.8     | 775.7 |
| 2037 | 60.4              | 173.1                         | 233.5          | 312.4           | 245.0                       | 557.4     | 790.9 |
| 2038 | 64.2              | 178.0                         | 242.2          | 317.5           | 246.5                       | 564.0     | 806.2 |
| 2039 | 68.1              | 182.8                         | 250.9          | 322.6           | 248.0                       | 570.6     | 821.5 |
| 2040 | 71.9              | 187.7                         | 259.6          | 327.8           | 249.5                       | 577.3     | 836.9 |
| 2041 | 75.8              | 192.6                         | 268.4          | 332.9           | 251.0                       | 583.9     | 852.3 |

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Interrogatory PWU-6:

Ref 1: Appendix B, Page 15 of 56

On December 20, 2021, the OEB issued its Conservation and Demand Management Guidelines for Electricity Distributors (EB-2021-0106) ("CDM Guidelines"). Under the CDM Guidelines, Elexicon must make reasonable efforts to incorporate consideration of CDM activities into its distribution system planning process to avoid or defer spending on traditional infrastructure.

Ref 2: CDM Guidelines (EB-2021-0106), Page 18 of 29

The IESO's 2021-2024 CDM Plan includes a budget of \$65.6 million over the four-year period for the Local Initiatives Program (LIP), which will deliver CDM savings in targeted areas of the province, as identified through the regional planning process. This funding for the LIP is recovered from all Ontario electricity customers through the Global Adjustment charge.

Questions:

- a) Has Elexicon had discussions with the IESO with respect to CDM funding of either ICM project as a Local Initiatives Program or other 2021-2024 CDM Framework program?
- b) Has Elexicon applied for funding from any other government entity (other than funding received from Natural Resources Canada)?

Response:

- a) Elexicon has not yet held any discussions with the IESO with respect to CDM funding of either project, but does plan to do so upon OEB approval of the Whitby Smart Grid project.
- b) Elexicon has not applied for funding from any other government entity other than funding received from Natural Resources Canada.

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Interrogatory PWU-7:

Ref 1: Appendix B-1, Page 56 of 67

Table 26 shows the percentage of spend that the Whitby Smart Grid would account for in each OEB category, as well as the percentage against the overall capital allocation. As can be seen this would have a significant impact on the amount of spending and therefore projects that Elexicon would have to defer or cancel in order to deliver the Whitby Smart Grid under Option 2.

On average, Elexicon would need to defer or cancel 25% of its current capital spending to accommodate the Whitby Smart Grid project under current capital allowances.

*Table 27: Whitby Smart Grid Percentage of Current Forecast Capital Expenditure by OEB Category*

| OEB Category   | Percentage of current approved capital spend |      |      |      |      |      |         |
|----------------|--|------|------|------|------|------|---------|
|                | 2023   | 2024 | 2025 | 2026 | 2027 | 2028 | Average |
| CPI Adjusted   |  |      |      |      |      |      |         |
| GENERAL PLANT  | 87%  | 211% | 226% | 194% | 130% | 186% | 172%    |
| SYSTEM ACCESS  | 87%  | 94%  | 90%  | 88%  | 80%  | 86%  | 88%     |
| SYSTEM RENEWAL | 52%  | 60%  | 50%  | 61%  | 65%  | 62%  | 58%     |
| SYSTEM SERVICE | 98%  | 94%  | 181% | 323% | 346% | 557% | 267%    |
| Total          | 19%  | 23%  | 24%  | 28%  | 27%  | 29%  | 25%     |

Questions:

- a) Please confirm table referenced in the preamble should be Table 27.
- b) Are the forecast capital expenditures used in the derivation of Table 27 for the Whitby Rate Zone or Elexicon?
- c) What projects would have to be deferred to accommodate the Whitby Smart Grid project?
- d) What are the impacts of deferring the projects listed in response to part b) on reliability?

Response:

- a) Confirmed.
- b) The forecast capital expenditures are for Elexicon (all rate zones).
- c) Elexicon has not identified specific projects it would choose to defer. Elexicon's capital forecast represents the essential projects for it to connect new customers and continue delivering safe and

reliable service to its existing customers. Elexicon does not see a combination of deferrals which would allow for completion of the Whitby Smart Grid within current rates, while maintaining the commitments noted above.

d) Deferral of system renewal projects can impact customers by Elexicon not replacing or refurbishing its existing grid, with expected negative impacts on reliability. Deferral of system access projects will mean Elexicon will be out of compliance with its mandate to connect customers, and as an outcome new customers will not have electricity. System service and General Plant deferrals can create an indirect negative impact on reliability given these categories includes expenditures to support information technology software systems, fleet, and communications and distribution automation systems. As noted, the impact of such substantial deferrals would be untenable in Elexicon's assessment.

Elexicon Energy Inc.

Answer to Interrogatory from

Power Workers' Union

Interrogatory PWU-8:

Ref 1: Appendix B, Page 49 of 56

The Developers identified that if Elexicon had pursued a Brooklin TS rather than the Brooklin Line, no capital contribution would have been required by the Developer or any other developers under the applicable provisions of the TSC and DSC. The Developers assert that its members will be effectively penalized as a result of Elexicon's choice of upstream solutions to bring additional capacity to North Brooklin; simply because the most prudent investment, while still substantial in cost, requires application of Section 3.2 of the DSC. Of note, the Developers will still be required to pay capital contributions for distribution assets downstream of Brooklin Line regardless of the OEB's Decision on Elexicon's DSC Exemption and ICM Projects.

Questions:

- a) Does Elexicon include customer contributions in its evaluation of the most costeffective option?
- b) If the Sustainable Brooklin cost more than the Brooklin TS but the customer contribution was greater than the difference would Elexicon be incentivized to select the less economic option as it would result in a lower revenue requirement?

Response:

- a) Yes.
- b) Elexicon makes investment decisions on the basis of sound system planning and overall economic efficiency / customer value; not in the manner described in the question. Elexicon has selected the option that delivers the overall best value to the ratepayers as described in section 4.1.2 Sustainable Brooklin (Appendix B, Page 41 of 56).

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Answer to Interrogatory from

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Interrogatory PWU-9:

Ref 1: EE\_2013\_LRAMVA\_20220727, Tab '5. 2015-2027 LRAM'

Questions:

a) Why do 2018 Save on Energy Heating and Cooling, Save on Energy Instant Discount, and Save on Energy Smart Thermostat program savings persist for only 3 years, but savings from the same programs implemented in other years persist for longer periods?

Response:

Savings from these 2018 programs will persist for additional years. There is no volumetric distribution rate for residential use after 2020 so the inclusion of that persistence does not affect the LRAMVA claim. However, the persistence has been included in the updated LRAM Model submitted with the IR Responses. See *“EE\_IR\_Response\_PWU9\_Staff35\_20221018\_LRAM Model”*