

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 1-DRC-1**

4 Reference:

- 5 • Exhibit 1, Tab 2, Schedule 1
6 • Exhibit 4, Tab 1, Schedule 1, p. 18

7

8 Preamble: Elexicon Energy Inc. (“EE”) notes the changing customer behaviours around electricity
9 use (e.g. electric vehicles [“EVs”] and heat pumps). EE further notes that electrification trends and
10 the integration of distributed energy resources (“DERs”) will increase system complexity, impacting
11 load profiles, grid operations, and customer usage patterns.

12

13 a) Please discuss the impacts of the growing consumer interest in EVs and associated increase in EV
14 penetration in EE’s service territory, on EEs distribution system planning, load forecast,
15 productivity, and OM&A costs.

16 b) Please identify in the record where EE provides details of how technological advancement will
17 require training their workforce over the course of 2027-2031 period to ensure EE is able to sustain
18 a safe and reliable grid as the energy transition accelerates.

19 c) Please confirm and comment on whether the anticipated increased adoption of DERs and EVs
20 over the 2027-2031 period and beyond will require investments in EE’s workforce and please
21 discuss what will be involved in training the workforce for EE’s proposed approach (timeframes,
22 new approaches, etc.).

23 d) Please comment on what training, programs, and investments will be needed if a more
24 ambitious energy transition and EV and DER adoption scenario occurs over the next five years and
25 beyond. In your response, please comment on what training and upgrading of workforce skills will
26 be needed to ensure that EE’s workforce is able to meet the challenges of an accelerated energy
27 transition in this and the next decade and how does this compare to EE’s current approach and the
28 approach proposed in the Application.

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2 e) Similarly, please discuss any disadvantages where a lower electrification scenario materializes.

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5 **RESPONSE:**

6 a) Elexicon has seen increases in EV adoption across its service territory since 2020 and has factored
7 in EV adoption rates into the system peak load forecast through 2031. Exhibit 2B, Tab 3, Schedule
8 1, Page 15, 23 – 27, outlines how EVs adoption rates are factored into Elexicon’s load forecast.
9 Details on the various regional system peak load forecasts and the effect that EVs will have can
10 also be found in Exhibit 2B, Tab 3, Schedule 2, Page 56-63. Elexicon’s current capacity constraints
11 present immediate challenges to providing timely and economic connections, with 76% of
12 Elexicon’s substations having less than 1,000 kVA of available capacity. Targeted investment to
13 alleviate these capacity constraints and enable the electrification transformation for
14 technologies like EVs is a critical objective of Elexicon’s investment plan over the 2027-2031
15 period. In addition, increasing customer adoption of electric vehicles and the resulting growth
16 in EV penetration are not anticipated to result in incremental OM&A impacts over the 2027–
17 2031 period, as Elexicon’s existing distribution system planning functions are expected to be
18 sufficient to support EV-related planning activities.

19

20 b) As provided in Exhibit 4, Tab 1, Schedule 1, Section 4.3.3, Elexicon’s current investments in grid
21 technologies require updated skills and capacity to operate and maintain. To ensure that
22 employees can work in a healthy and safe manner and are competent and skilled in their
23 respective positions, Elexicon has invested in both job-specific and broader training programs
24 (see Exhibit 4-Tab 2-Schedule 1, p. 37). As technological advancements continue and the energy
25 transition accelerates, Elexicon will need to continue to proactively train and upskill its workforce
26 to maintain a safe, reliable and resilient grid. This includes continued investment in trades
27 training to support new and evolving grid technologies, along with targeted upskilling beyond
28 current operating practices. As Elexicon modernizes its distribution system, eases capacity

1 constraints, and responds to significant growth in its service territory, ensuring workers are
2 prepared to operate and maintain a larger number of and more advanced systems is critical.

3

4 c) Yes, as part of the workforce plan that is outlined in Exhibit 4, Tab 2, Schedule 1, p. 28, Lines 12-
5 15, Elexicon acknowledges and anticipates targeted investments in the workforce will be
6 required as a result of increased capacity and grid modernization. Workforce training will need
7 to focus on understanding how to safely and effectively integrate, operate, and manage these
8 new technologies within the current grid. Increased staffing and specialized training underpins
9 the additional funding request for the SCC, as an adequately trained workforce is essential to
10 reliably maintain and operate company assets in a growing and increasing complex operating
11 environment.

12

13 d) Elexicon's current approach represents a paced and targeted hiring strategy as commented on
14 in Exhibit 4, Tab 2, Schedule 1, Section 4.1, Lines 4-11. If a more ambitious energy transition and
15 EV and DER adoption scenario occurs, Elexicon would have to evaluate whether scaled-up
16 investment in workforce capacity and skills would be required. In any event, Elexicon would still
17 be leveraging technological transformation and effective outsourcing to balance both response
18 and cost.

19

20 e) Elexicon's workforce plan is neither 'advantaged' nor 'disadvantaged' by a lower electrification
21 scenario. Elexicon's limited workforce additions as detailed in Staff-103 will be focused on
22 addressing its urgent system needs regardless of the pace of electrification given the severity of
23 existing capacity constraints. See Exhibit 1, Tab 2, Schedule 1, pg.3.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 1-DRC-2**

4 Reference:

- 5 • Exhibit 1, Tab 2, Schedule 1

6

7 Preamble:

8 As EV adoption increases, it is expected that more customers will require guidance on how their
9 new vehicle affects electricity usage, billing, and home charging.

10

11 a) Please explain what steps are required and what costs are incurred for a single residential unit to
12 install and connect an EV home charger through the typical layout process. In your response,
13 please discuss any known or anticipated challenges encountered by EE’s customers.

14 b) Please explain what steps are required and what costs are incurred for commercial facilities or
15 multi-unit residential buildings to carry out the necessary upgrades to connect EV chargers. In your
16 response, please discuss any known or anticipated challenges encountered by EE’s customers.

17 c) Please indicate how many of each of the following types of customer connections EE facilitated
18 in its service territory in the previous 5-year period-present:

19 (i) single residential unit EV charger connections;

20 (ii) commercial facility EV charger connections; and

21 (iii) multi-unit residential EV charger connections.

22 d) Please indicate how many of each of the following types of customer connections EE anticipates
23 in its service territory over the 2027-2031 rate period:

24 (i) single residential unit EV charger connections;

25 (ii) commercial facility EV charger connections; and

26 (iii) multi-unit residential EV charger connections.

27 e) Please provide and/or summarize any and all working papers, reports, and analysis conducted to
28 support EE’s demand forecasts of expected EV penetration on its service territory that is in addition
29 to any materials included in the Application.

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f) Please indicate whether or not EE has considered or will consider bidirectional, “vehicle to grid” (“V2G”), “vehicle-to-home” (“V2H”), “vehicle-to-business” (“V2B”, and together with V2G and V2H, “V2X”)) flow, and if so, please provide any and all assumptions and data considered by EE not provided in the Application.

RESPONSE:

- a) Residential EV charger installation typically follows one of the two pathways:
 - 1) **No utility involvement:** Where the customer’s existing service capacity is sufficient (i.e. no service upgrade is required), the installation is completed entirely on the customer's side of the meter with ESA approval. In these cases, Elexicon is generally not involved.
 - 2) **Utility Involvement (Service upgrade or System Modification Required):** Where the installation requires a confirmation of service capacity, service upgrade or modifications to the distribution system, the customer submits an upgrade request to Elexicon. Elexicon reviews the request, assesses system capacity, and where applicable issues an Offer to Connect (OTC). The OTC outlines the required work (layout) and any applicable costs. Upon execution of the OTC, Elexicon proceeds with utility side work. Following completion of the customer side work and satisfaction of the connection requirements including Inspection of completed customer work and ESA Connection Authorization, Elexicon completes final connection activities, and the service is energized.
- In terms of anticipated challenges by customers, it’s typically related to confirming available service capacity, coordinating the customer portion of the work through a contractor, and obtaining ESA approval. In terms of costs, customer side costs (EV charger equipment, wiring, panel upgrades) are borne by the customer, and any utility side costs are site specific and are determined in accordance with Elexicon Conditions of Service (COS) and, where applicable, through an OTC.

1 Elexicon also tracks commercial EVSE-related requests and is aware of 35 such requests in
2 various stages, including initial request, in progress, and completed connections.

3

4 d) As explained in response to part (c) above, Elexicon does not maintain a dedicated system of
5 record that identifies EV charger connections by customer class. Accordingly, Elexicon is
6 unable to quantify the forecasted number of single-unit residential, commercial, or
7 multi-unit residential EV charger connections anticipated over the 2027–2031 period.
8 Elexicon’s EV penetration assumptions used for forecasting purposes are addressed in
9 response to (e).

10

11 e) The relevant analysis conducted by Elexicon regarding expected EV penetration which
12 supports the load forecasts that inform the investment plan has been shared in the
13 Application. For EV penetration assumptions used in the peak load forecast, please refer to
14 Exhibit 2B, Tab 3, Schedule 1, pp. 23-25. Further EV penetration details for the revenue load
15 forecast can be found in Exhibit 3, Tab 1, Schedule 1, Appendix A. Publicly available sources
16 of information that informed the forecast include historical vehicle registration data from
17 the Ontario Ministry of Transportation,¹ federal EV adoption targets,² and light-duty vehicle
18 peak impacts from a Natural Resources Canada study.³

19

20 f) Elexicon has not undertaken any specific analysis, modeling, or planning activities related to
21 V2X, nor has it incorporated V2X assumptions into its load forecast, system planning, or
22 proposed investments in this Application.

¹ Government of Ontario, "Vehicle Population Data," (2025). Available:
<https://data.ontario.ca/dataset/vehicle-population-data>.

² Government of Canada, "Canada’s Electric Vehicle Availability Standard (regulated targets for zero-emission vehicles)", (2023).

³ Natural Resources Canada, "Electric Vehicle Charging Infrastructure for Canada," (2024). Available:
<https://natural-resources.canada.ca/energy-efficiency/transportation-energy-efficiency/resource-library/electric-vehicle-charging-infrastructure-canada>.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 1-DRC-3**

4 Reference:

- 5 • Exhibit 1, Tab 5, Schedule 1

6

7 Preamble:

8 EE's rate framework provides Cost of service rebasing in 2027, followed by a Custom Revenue Cap
9 Index ("CRCI") applied in each of years two through five (2028-2031), as follows:

10

11 $CRCI = I_n - X + G + IPD_{oma} + RGF$

12

13 where,

- 14 • "I" is OEB's annually published Inflation Factor applicable to electricity distributors;
15 • "X" is the sum of the fixed productivity factor plus a fixed utility-specific stretch factor;
16 • "G" is a fixed factor representative of the growth in utility costs associated with output growth;
17 • "IPD" is a fixed factor representative of the rate at which EE's OM&A input costs are increasing
18 relative to the rate of inflation provided for in "I"; and
19 • "RGF" is calculated as the increase in current year Service Revenue Requirement ("SRR") relative
20 to prior year SRR, net of I, G and IPD_{oma}

21

22 a) Please outline EE's assumptions in the two-component "X" productivity factor in the above
23 equation regarding capacity, load changes, and leveraging due to EVs and other DERs in each of
24 years two through five.

25 b) Please outline EE's assumptions in the "G" term in the above equation regarding capacity, load
26 changes, and leveraging of EVs and other DERs in each of years two through five.

27 c) How were each of DERs, EVs, and EV charging infrastructure treated for the purpose of setting
28 the "IPD" factor at which EE arrived?

29

1

2 **RESPONSE:**

3 [Response provided by Clearspring]

4 a) The forecast scenario used in the benchmarking research, which supports the stretch factor
5 recommendation portion in the X Factor is based on a medium customer, medium EV, and
6 high beneficial electrification scenario.

7

8 b) The same forecast is used for the G Factor term.

9

10 c) The assumptions on these items do not impact the IPD term.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 1-DRC-4**

4 Reference:

- 5 • Exhibit 1, Tab 7, Schedule 2, Appendix A

6

7 Preamble: EE engaged Innovative Research Group Inc. (“Innovative”) to design,
8 execute and document the results of its application-specific customer engagement activities.

9

10 a) Please provide a copy of or summarize written instructions provided by EE to Innovative in
11 relation to the respective customer engagement mandate and the report provided in Exhibit 1, Tab
12 7, Schedule 1, Appendix A (the “Innovative Report”).

13 b) Please provide a copy of or summarize all written instructions provided by EE to Innovative in
14 relation to customer engagement with respect to consumer choice in integrating new technologies
15 like EVs, solar power, and battery storage (including V2X).

16 c) Please describe all measures undertaken by EE and Innovative to invite and ensure the
17 participation of EV stakeholders and other DER customers (including EV drivers, owners of DERs, EV
18 associations, and DER industry associations) in EE’s application-specific customer engagement
19 activities.

20 d) Please provide or summarize any and all notes relating to EVs and DERs from each of the
21 customer engagements that are supplementary to the Innovative Report.

22

23

24 **RESPONSE:**

25 a) Written instructions provided by EE to Innovative were set out in the Consulting Service
26 Agreement, which is provided as Attachment 1a to 1-SEC-03.

27

- 1 b) Written instructions provided by EE to Innovative were set out in the Consulting Service
2 Agreement referenced in part (a).
3
- 4 c) In Phase I of the customer engagement, random samples of customers were invited to
5 provide feedback. In Phase II, participation in the customer engagement was open to all
6 customers – including EV drivers and owners of DERs. Specific outreach to EV or industry
7 associations was not included as part of INNOVATIVE’s customer engagement program for
8 EE.
9
- 10 d) There are no supplementary notes related to EVs and DERs that have not already been
11 included in the INNOVATIVE Report.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 1-DRC-5**

4 Reference:

- 5 • Exhibit 1, Tab 7, Schedule 2

6

7 Preamble:

8 EE notes that through its ongoing and future customer engagement it will leverage the strategic
9 insights gathered during the 2024-2025 period to strengthen its relationships with customers,
10 support effective grid planning, and take actions to facilitate the energy transition.

11 EE further notes that interest in potential adoption of DER solutions is a key accounts customer
12 priority and that customers are concerned about DER connection requirements and timelines,
13 particularly for DER requests greater than 10kW that require increased stakeholder engagement
14 with longer associated timelines.

15

16 a) Please discuss or summarize how the outcomes and priorities of EE's customers have changed
17 compared to historical equivalents and discuss any trend lines in customer priorities related to the
18 adoption and integration of technologies like DERs, EVs, and battery storage (including V2X).

19 b) Please provide further details and discuss the key accounts customer priority for adoption of
20 DER solutions.

21 c) Please summarize and discuss the concerns from customer regarding DER connection
22 requirements and timelines (e.g., type of customer, type and size of DER, etc.) and how EE intends
23 to respond to these concerns.

24 d) Please discuss what EE means by "Work with internal teams at Elexicon to improve internal
25 processes including DER connection workflows and capacity expansions to reduce administrative
26 burden and accelerate turnaround times."

27 e) Please provide details about the identified "Coordinate Municipal Energy Planning and
28 Engagement" initiatives (Energy Efficiency, DERs, electrification and other customer-focused

1 programs to support aligned communications, timely project execution and enhanced municipal
2 partnerships.)
3 f) Please describe and discuss the impacts of the types of required stakeholder engagements
4 referenced in the preamble.
5
6

7 **RESPONSE:**

8 a) Elexicon has not conducted a formal survey on customer priorities for DERs, EVs, or battery
9 storage (including Vehicle to Grid i.e. "V2X"). However, through discussions with the Key
10 Accounts team, key account customers have shown interest in DERs such as batteries (BESS) and
11 solar PVs to mitigate electricity costs (see response in part b below). For further information on
12 the Key Accounts team, please see the description of the Customer Experience and Contact
13 Centre segment provided in Exhibit 4 - Tab 1 - Schedule 5, Section 3.1, and Exhibit 1 - Tab 7 -
14 Schedule 2, Section 3.1.
15

16 b) The Elexicon Key Accounts team held introductory meetings with customers in 2024 and 2025 to
17 understand their electricity needs. Customers expressed interest in DERs, including battery
18 storage, solar, and other technologies. The Key Accounts team worked with these customers and
19 the Elexicon Planning team to advance projects that were ready for implementation. Five
20 projects (4 solar, 1 synchronous generation) have been approved; one battery (BESS) was
21 withdrawn, one (solar) could not proceed due to capacity constraints, and several projects have
22 not yet been submitted to Elexicon. Some customers have recently indicated they may delay DER
23 investments due to global economic uncertainty. These were informal discussions and priorities
24 were not ranked.
25

26 c) Elexicon received feedback from customers pursuing DER projects greater than 10 kW (non-
27 micro) during the connection process regarding connection requirements and timelines.
28 Primarily customers asked about the overall time required to complete connections from start

1 to finish. Elexicon reviewed and explained DER connection requirements and timelines with
2 customers, including guiding them to resources such as:

- 3 • the online application process and step by step guidelines on the website.
- 4 • the Distributed Energy Resource (DER) Generator Information Package which outlines
5 application requirements and review timelines in accordance with the OEB's Distribution
6 System Code (DSC) and Distributed Energy Resources Connections Procedures (DERCP)
7 requirements.
- 8 • the Preliminary Consultation Information Request (PCIR) form, which provides customers
9 with additional information on connection details and available capacity before proceeding
10 with a full application and incurring detailed engineering study costs.
- 11 • the list of restricted feeders, to help customers identify areas that currently cannot
12 accommodate DER connections.

13 d) Connections to Elexicon's distribution system require coordination across several Elexicon
14 departments. Elexicon periodically reviews these processes to improve efficiency and cost-
15 effectiveness. Recent initiatives include digitizing connection applications and transitioning service
16 requests to an online application process. Elexicon maintains a continuous improvement approach
17 and will continue to enhance connection processes on a regular basis.

18
19 e) Elexicon currently engages stakeholders and customers through multiple departments for
20 different activities. As noted in Exhibit 1, Tab 7, Schedule 2, Section 3.3, Table 2, this initiative is
21 planned for 2027 to better align messaging and understanding of customer preferences across
22 engagement activities and internal departments.

23
24 f) Elexicon will strengthen customer relationships and support their priorities. Elexicon's Key
25 Accounts team has identified several actions to improve customer experience and coordination as
26 detailed in Exhibit 1, Tab 7, Schedule 2, Section 3.4, Table 3. These initiatives position Elexicon
27 to deliver more proactive, integrated and efficient services while supporting long-term
28 customer and system outcomes.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

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3 **INTERROGATORY 2-DRC-6**

4 Reference:

- 5 • Exhibit 2B, Tab 3, Schedule 1

6

7 Preamble

8 As part of EE’s Asset Management (“AM”) process that describes key elements and methodologies
9 that have informed the development of EE’s Capital Expenditure Plan, the EV forecast estimates
10 peak load impacts associated with the growing adoption of EVs, and considers vehicle population,
11 EV sales targets and adoption rates and the load impact per EV.

12

13 a) Please indicate whether EE has evaluated managed EV charging (including time-of-use
14 optimization, demand response, or utility-coordinated charging) as a means of mitigating peak
15 demand.

16 b) Please provide any analysis comparing:

17 (i) unmanaged EV charging load impacts; and (ii) managed or optimized charging scenarios.

18 c) Please discuss whether announced allowance of up to 49,000 Chinese EVs into the Canadian
19 market, with the most-favoured-nation tariff rate of 6.1%,and the introduction of the Electric
20 Vehicle Affordability Program:

21 (i) impacts or changes any of EE’s AM analysis; and/or

22 (ii) alters the forecast of the number of EVs in EE’s service territory and the share of light vehicles
23 that are expected to be EVs.

24 d) Please discuss how EE’s current EV adoption forecast reflects existing and current federal policy
25 and incentives, and whether EE intends to update its assumptions if it does not.

26 e) Please provide any available updates to EE’s forecasted annual EV sales as a percentage of new
27 vehicle sales in its service area in 2027, 2030, and 2035.

28 f) Has EE undertaken any benchmarking or comparative analysis of its EV adoption and load
29 forecasts against those of other Ontario LDCs? If not, please explain why EE did not undertake such

- 1 benchmarking. If yes, please 1 See Prime Minister of Canada, “Prime Minister Carney forges new
2 strategic partnership with the People’s Republic of China focused on energy, agri-food, and trade”,
3 (16 January 2026). provide a summary of the results of any such benchmarking, including a
4 comparison of:
- 5 (i) projected EV penetration rates (as a % of customers or vehicles);
 - 6 (ii) projected EV-related annual load; and
 - 7 (iii) load growth attributable to EVs over the test period (2026 and beyond).
- 8 g) Please indicate how many of each of the following types of customer connections EE facilitated
9 in its service territory over the 2026-2031 period:
- 10 (i) single residential unit EV charger connections;
 - 11 (ii) commercial facility EV charger connections;
 - 12 (iii) condo EV charger connections; and
 - 13 (iv) renewable energy and back up generation, including the type of facility (solar roof top, solar
14 thermal, wind, energy storage) and the customer breakdown for such facilities (residential, general
15 service, commercial/industrial, and/or large industrial).
- 16 h) Please indicate how many of each of the following types of customer connections EE anticipates
17 in its service territory over the 2026-2031 period:
- 18 (i) single residential unit EV charger connections;
 - 19 (ii) commercial facility EV charger connections
 - 20 (iii) condo EV charger connections; and
 - 21 (iv) renewable energy and back up generation, including the type of facility (solar roof top, solar
22 thermal, wind, energy storage) and the customer breakdown for such facilities (residential, general
23 service, commercial/industrial, and/or large industrial).
- 24 i) Have any EE customers been prevented from or delayed in installing EV charges as a result of
25 capacity constrains in EE’s distribution system? If so, how many customers have been prevented or
26 delayed and for how long?
- 27 j) Please provide details as to the areas in EE’s service territory experience the highest reliability
28 and safety risks associated with EV adoption and DER connections (such as neighbourhood, number
29 of DERs connected, overview of risks and reliability issues, customer concerns, etc.). If EE is unable

1 to provide further details, please explain why not and whether such information may be obtained
2 in this proceeding or subsequent proceedings.

3 k) What are the consequences if EV growth rates exceed EE's "High Scenario" forecasts? Please
4 include in your response a discussion on what challenges this will present in terms of EE's ability to
5 meet the higher demand and any consequences it may have on EE's ability to meet demand past
6 2031 if demand continues to accelerate more quickly than anticipated.

7 l) Please discuss the disadvantages and downside risks to EE's distribution system, customers,
8 investments in EVs and DERs, infrastructure, and/or workforce of underinvesting in EV
9 infrastructure and DER connection and adoption infrastructure if an accelerated energy transition
10 causes a higher electrification scenario to materialize compared to the one relied upon in the
11 Application. Please also discuss the implications of underinvestment over the rate period (2027-
12 2031), mid-term (2031-2041), and long-term (2041 onwards).

13 m) Similarly, please discuss any disadvantages where a delayed energy transition causes a lower
14 electrification scenario to materialize.

15 n) Please comment on known barriers to EV adoption in EE's service territory, including for multi-
16 unit rental residential, and how the Application seeks to address these barriers and ensure
17 equitable access to charging infrastructure for all customers.

18 o) Does EE have any programs to support the upgrading of supply infrastructure to enable EV
19 charging infrastructure when EE is planning expansion or upgrades? If yes, please provide details. If
20 no, please discuss what types of programs could be developed to support proactive and future
21 infrastructure upgrades to enable equitable access to EV charging infrastructure for all customers.

22 p) Please provide EE's views on any barriers to EV adoption for residents of multi-unit complexes in
23 EE's service area. Among any other views, please provide specific comment on whether multi-unit
24 residential complexes represent one of the more challenging venues for EV adoption, and whether
25 EE agrees that addressing those challenges should be prioritized. Please explain EE's position on
26 each of these points.

27 q) Please describe any ongoing activities or initiatives proposed by EE that can help to address
28 challenges specific to EV transition in multi-unit residences by way of proactive infrastructure
29 upgrades or future upgrades. Please include any planned or anticipated initiatives at the system-

1 wide level in addition to any more localized initiatives.

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3

4 **RESPONSE:**

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6 a) Elexicon has not undertaken a formal evaluation of managed electric vehicle (EV) charging
7 (including time-of-use optimization, demand response, or utility-coordinated charging) as a
8 firm peak demand mitigation resource. Elexicon's EV load forecast reflects expected
9 adoption and charging behaviour under current customer practices and existing rate
10 structures, without assuming incremental system peak mitigation from managed charging.

11

12 b) Elexicon has not undertaken a quantitative comparison between unmanaged and managed
13 EV charging scenarios at this time.

14

15 c) While these measures may support EV affordability and near-term market availability, they
16 do not materially alter Elexicon's asset management analysis at this time. Elexicon's EV
17 forecast is explicitly structured using Low, Medium, and High adoption scenarios to remain
18 robust across a range of policy and market conditions. The High EV scenario reflects an
19 accelerated transition consistent with achieving federal electrification ambitions, including
20 full alignment with Zero-Emission Vehicle (ZEV) sales mandates. By contrast, the selected
21 Medium EV scenario continues to represent a prudent planning reference given ongoing
22 policy, trade, and adoption uncertainty. The Low EV scenario represents incremental EV
23 adoption without policy acceleration and is considered the business-as-usual scenario. As a
24 point of comparison, the repeal of the federal Zero-Emission Vehicle (ZEV) sales mandate
25 and the new federal government directional target of 90% of light duty ZEV sales by 2040 is
26 closely aligned with Elexicon's selected Medium EV scenario, which accounts for 100% ZEV

1 sales by 2040¹. In this context, the Medium scenario represents a prudent and balanced
2 planning reference, providing sufficient capacity without over-reliance on the most
3 optimistic assumptions, while the Low and High scenarios serve as sensitivity bounds for
4 assessing downside and upside electrification risks.

5

6 d) Elexicon’s current EV adoption forecast reflects existing federal policy direction and incentive
7 programs, as described in response to part (c), and is structured to explicitly account for
8 uncertainty in policy implementation and market outcomes. Elexicon has developed Low,
9 Medium, and High EV adoption scenarios for planning purposes, as described in Exhibit 2B,
10 Tab 3, Schedule 1, pp. 25. The Medium EV scenario is selected for capacity planning and
11 reflects Elexicon’s best assessment of EV adoption under current policy signals and market
12 conditions. In recognition of ongoing uncertainty related to federal and provincial policy
13 changes, incentive availability, vehicle affordability, and consumer behaviour, Elexicon has
14 also developed Low and High EV scenarios. These scenarios are intended to bracket a
15 reasonable range of potential adoption outcomes and to test system sensitivity to more
16 accelerated or more delayed electrification trajectories.

17

18 e) The chosen Medium EV growth scenario assumes that the percentage of new light-duty
19 vehicle sales that are ZEV are 2%, 18%, and 60% in 2027, 2030, and 2035 respectively.

20

21 f) A direct benchmarking study comparing EV adoption levels between Elexicon and other
22 Ontario local distribution companies (LDCs) was not undertaken. However, a comparative
23 review of load forecasting methodologies, including the treatment of electric vehicle (EV)
24 load, was completed. This review assessed Elexicon’s approach relative to those used by
25 other major LDCs in southern Ontario and concluded that the load forecast scenarios and
26 methodology, including the segmentation of impacts from both light-duty passenger

¹ Prime Minister of Canada, “Prime Minister Carney launches new strategy to transform Canada’s auto industry”, (February 5, 2026).

1 vehicles and medium and heavy-duty vehicles, were aligned to industry best practices.
2 Elexicon's EV load forecast focused on ensuring that Elexicon's forecasting methodology is
3 robust and consistent with industry best practices.

4

5 g) Please refer to the response in 1-DRC-2, part (c).

6

7 h) Please refer to the response in 1-DRC-2, part (d).

8

9 i) Yes, there have been customers that have been delayed from connecting due to capacity
10 constraints, this is specifically related to preliminary Electric Vehicle Supply Equipment
11 (EVSE) connection requests, which generally require more load. At this point in time, nine
12 requests have been deferred due to capacity constraints. Elexicon works with customers to
13 provide alternatives, for example providing less load to initiate the connection of fewer
14 charger connections and working to increase this load as more capacity becomes available.
15 Generally, the timelines are on a case-by-case basis, and it will depend on a variety of factors,
16 including the region/location the EV charger requests are made, the amount of load that is
17 requested, and the potential solutions available.

18

19 j) Please refer to the response in 1-PP-11, part b) for further details on Elexicon's service
20 territory that have had DER connections affected due to short circuit capacity constraints on
21 certain feeders that are part of the Elexicon distribution system. Additionally, the
22 corresponding references to the OEB Centralized Capacity Information Map (CCIM) and
23 Elexicon's Restricted Feeder List are provided within that response.

24

25 k) If EV adoption were to exceed Elexicon's High Scenario forecast, the primary consequence
26 would be the earlier emergence of capacity constraints on portions of Elexicon's distribution
27 system, including feeders, transformers, and station supply infrastructure. Higher EV
28 penetration would increase coincident peak demand, potentially requiring certain

1 capacity-driven investments to be advanced or expanded within the 2027–2031 period to
2 maintain reliability and accommodate customer connections.

3 If EV growth were to continue accelerating beyond 2031 at levels sustained above the High
4 Scenario, Elexicon would face increased challenges meeting demand without additional
5 capital investment, likely requiring earlier development of new station capacity, feeder
6 reinforcements, and other system upgrades to preserve reliability and contingency margins.
7 That said, Elexicon notes that its High EV Scenario assumes that 100% of new light-duty
8 vehicle sales and medium- and heavy-duty vehicle sales are ZEV by 2035 and 2040,
9 respectively. Elexicon has been diligent in reviewing current federal and provincial policy,
10 monitoring market developments, and engaging regularly with municipal planning
11 departments across its service territory to track growth trends. Based on these reviews,
12 Elexicon considers the High Scenario to represent a reasonable upper-bound planning
13 sensitivity at this time.

- 14
- 15 I) Elexicon is experiencing grid capacity constraints across portions of its distribution system,
16 including feeders, municipal stations, and upstream supply, please refer to Exhibit 2B, Tab 3,
17 Schedule 2, pp. 49 to 54. If electrification accelerates beyond the assumptions relied upon
18 and infrastructure investment does not keep pace, these constraints would intensify,
19 increasing reliability risk and reducing Elexicon’s ability to accommodate new load, including
20 EV load. This would lead to greater reliance on interim operational measures and a higher
21 likelihood that customer connections are deferred or limited due to capacity constraints.
22 With respect to workforce impacts, an accelerated energy transition may require upskilling
23 of existing staff, as well as additional resources beyond what has been forecasted to address
24 increased workload volumes. Over the mid- to long- term, persistent underinvestment could
25 result in structurally constrained portions of the system that are more costly and complex to
26 remediate, and reduced ability to efficiently support continued electrification and DER
27 growth.

1 m) Elexicon notes that many of the proposed investments are driven by existing or near-term
2 capacity constraints, reliability needs, and asset condition requirements, and would remain
3 required under the Low electrification scenario.

4
5 n) As a distribution utility, Elexicon Energy’s role in EV adoption is to provide sufficient
6 distribution system capacity to connect customer-requested EV charging infrastructure
7 across all customer classes, including single-unit residential, multi-unit and rental residential,
8 and commercial and industrial customers. From a distribution system perspective, the
9 primary barrier to EV adoption in Elexicon’s service territory is existing and forecasted
10 capacity constraints at stations and on portions of the distribution system. These constraints
11 affect the ability to accommodate new EV charging connections, particularly higher-load or
12 clustered installations such as those associated with multi-unit residential buildings. These
13 limitations are reflected in the OEB’s Capacity Contribution Information Map (CCIM) –
14 Available Load Capacity.

15 EV adoption in multi-unit and rental residential buildings also faces additional barriers
16 outside of Elexicon’s direct control, including limited existing building capacity, higher
17 upgrade costs, split incentives between owners and tenants, and more complex
18 implementation requirements. While these challenges are largely customer- and
19 building-driven, adequate distribution system capacity is a necessary enabling condition for
20 addressing them. While Elexicon does not have specific programs for multi-unit and rental
21 residential buildings, system-wide capacity investments proposed by Elexicon seek to
22 address these barriers by investing in system capacity expansion to support
23 electrification-related growth, including EV charging. As shown in Exhibit 2B, Tab 1, Schedule
24 1, Figure 1, approximately 36% of the proposed investment plan is dedicated to enabling
25 growth, which includes forecast EV and electrification demand over the 2027–2031 period.
26 Subject to approval, these investments will add approximately 180 MVA of station capacity
27 and 101 MVA of distribution system capacity (Exhibit 2B, Tab 2, Schedule 2, Tables 9 and 10).
28 By alleviating capacity constraints, the proposed investments enable EV charging
29 connections across customer classes and reduce the risk that system limitations

1 disproportionately affect higher-density or rental communities. Accordingly, while Elexicon
2 does not directly influence EV adoption decisions, Elexicon’s proposed investments address
3 the system-level barriers within Elexicon’s control and supports more equitable access to EV
4 charging infrastructure across its service territory.

5

6 o) Elexicon Energy does not currently offer a standalone program specifically designed to fund
7 or proactively upgrade supply infrastructure solely for the purpose of enabling EV charging.
8 However, Elexicon supports EV charging deployment through its existing connection,
9 planning, and system expansion processes, which are designed to accommodate
10 customer-driven EV charging requirements as they arise.

11 At the connection stage, Elexicon has established processes and application forms that
12 enable customers and developers to identify EV charging requirements as part of service
13 connection or upgrade requests, for both residential and non-residential customers (electric
14 vehicle supply equipment (EVSE) connections). These processes allow customers to specify
15 EV charger type, charging level, and anticipated electrical demand, enabling Elexicon to
16 assess and design the appropriate supply infrastructure to support the requested EV
17 charging installations.

18 At the development and planning stage, proponents of new developments or
19 redevelopments typically include EV charging requirements in their project designs,
20 including the number of chargers, charging levels, and associated load. These inputs are
21 reviewed by Elexicon’s distribution planning team to determine whether distribution system
22 reinforcements or expansions are required and to ensure that any planned infrastructure
23 upgrades are appropriately sized to meet EV charging needs.

24 At the system planning level, Elexicon’s load forecasting and capacity planning processes
25 incorporate EV and broader electrification growth assumptions. These assumptions inform
26 station and feeder expansion plans to ensure sufficient capacity is available across the
27 service territory to enable EV charging connections over the planning horizon.

28 Elexicon’s current approach ensures that EV charging infrastructure is supported through
29 established planning and connection processes, and Elexicon’s proposed system capacity

1 investments further strengthen the ability of the distribution system to enable EV adoption
2 in an equitable manner across all customer classes.

3

4 p) Elexicon makes reasonable efforts, within its role as a licensed electricity distributor, to
5 enable and support customers who choose to adopt EVs. Elexicon recognizes that the
6 implementation of EV charging infrastructure in multi-unit residential buildings (MURBs)
7 may involve considerations that differ from other residential housing forms.

8 MURBs can present site-specific challenges related to building design, electrical room
9 capacity, space constraints, and the complexity of internal wiring within existing structures,
10 which may affect the feasibility and timing of EV charging installations. These considerations
11 are generally outside the direct control of the electricity distributor. Elexicon also recognizes
12 that higher customer density in MURBs can, in certain circumstances, support more efficient
13 use of electrical infrastructure and enable shared or publicly accessible charging installations,
14 depending on site configuration and location.

15 Elexicon supports EV adoption across all customer classes and housing types and does not
16 take a position on the economics of EV charging deployment within MURBs or on decisions
17 by property owners or condominium corporations to request service upgrades or new
18 connections. Such decisions are determined by customers based on site-specific financial,
19 governance, and operational considerations.

20 More broadly, Elexicon enables EV charging through customer-initiated connection
21 processes and OEB-approved rate design intended to support the efficient integration of EV
22 charging load. For example, Elexicon offers the Electric Vehicle Charging (“EVC”) Rate for
23 eligible EV charging stations, which is designed to better reflect the cost characteristics of EV
24 charging infrastructure. While not specific to MURBs, this rate demonstrates Elexicon’s
25 general approach to supporting EV charging on a technology- and customer-neutral basis.

26

27 q) Elexicon does not have any ongoing or proposed activities that specifically target challenges
28 unique to the adoption of EVs in MURBs through proactive or localized infrastructure
29 upgrades. More broadly, Elexicon maintains a capital growth program that is intended to

1 support the long-term growth in electricity demand across its service territory, including
2 incremental demand associated with EV adoption by all customer classes. Elexicon’s planned
3 system investments are designed to maintain system reliability, address capacity constraints,
4 and accommodate forecast load growth on a system-wide basis, consistent with applicable
5 planning criteria, regulatory requirements, and customer-initiated connection or upgrade
6 requests.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 2-DRC-7**

4 Reference:

- 5 • Exhibit 2B, Tab 3, Schedule 2, Appendix A
6 • Exhibit 2B, Tab 4, Schedule 3, Appendix P

7

8 Preamble:

9 EE's grid modernization plan entails an accelerated pace of investments in scaling proven
10 technologies to provide near and long-term reliability, resiliency and efficiency benefits, including:

- 11 • an incremental test-and-learn approach for emerging solutions and investments to address
12 future expectations with respect to the integration of DERs, and increased load growth resulting
13 from electrification of the grid as well as customer growth within the region;
14 • DERMS to coordinate decentralized generation and storage; and
15 • Distribution System Operator (DSO) enablement modules to support bi-directional power flow
16 and local energy markets.

17

18 a) Please explain the criteria used by EE to classify solutions as "proven" versus "emerging."

19

20 b) Please describe in detail the governance framework for the test-and-learn approach, including:

- 21 (i) project selection criteria;
22 (ii) performance metrics; and (iii) decision thresholds for scaling or discontinuing initiatives.

23 c) Please explain how ratepayer risk is managed in respect of pilot or test-and-learn investments.

24 d) Please confirm whether EE has any planned or ongoing EV-related pilot projects as part of the
25 test-and-learn approach, including:

- 26 (i) managed charging;
27 (ii) smart charging infrastructure; or (iii) V2X pilots.

28 e) Please describe how lessons learned from any pilot projects that result from grid modernization
29 investments will be incorporated into future planning.

- 1 f) Please identify any dependencies (technical, regulatory, or market-based) required for DERMS
2 functionality.
- 3 g) Please describe EE's understanding of the DSO role and how it differs from its current role as a
4 distributor.
- 5 h) Please identify all DSO-related modules or functionalities proposed in the DSP.
- 6 i) Please provide the total forecast cost of any anticipated DSO enablement investments, by year
7 and program.
- 8 j) Please explain the extent to which DSO functionality is dependent on:
9 (i) IESO market reforms;
10 (ii) OEB policy direction; and (iii) third-party participation.
- 11 k) Please identify the portions of the distribution system currently capable of accommodating bi-
12 directional flows.
- 13 l) Please describe the technical limitations of the existing system in supporting such flows.
- 14 m) Please provide the incremental investments required to enable bi-directional capability, by
15 asset class (e.g., feeders, substations, protection systems).

16
17

18 **RESPONSE:**

- 19 a) Elexicon classified grid modernization solutions as "proven" where the technology has an
20 established operational track record within the electricity distribution sector, is commercially
21 available at scale, and can be implemented using mature utility practices with known
22 performance outcomes. Proven solutions are generally supported by vendor history, peer
23 utility adoption, and demonstrated reliability benefits such as improved visibility, fault
24 isolation, restoration response, or operational efficiency.
- 25 Solutions were considered "emerging" where the technology is earlier in its adoption lifecycle,
26 has more limited utility deployment experience, or where standards, integration requirements,
27 business cases, or operational practices are still developing. These solutions still offer value,
28 but require further industry maturity, piloting, or internal readiness before broader
29 deployment.

- 1 b) Where technologies involve a test-and-learn approach, Elexicon limits initial deployment to
2 targeted portions of the system rather than broad system-wide implementation until
3 performance and benefits are demonstrated under actual operating conditions.
4 Potential initiatives are selected based on alignment with objectives such as reliability
5 improvement, operational efficiency, resiliency, system capacity, and future readiness.
6 Additional considerations include technology maturity, peer utility experience, compatibility
7 with existing systems, cybersecurity requirements, implementation complexity, scalability, and
8 overall cost effectiveness. Priority is generally given to applications on feeders or locations
9 where a measurable operational value is expected.
10 Performance is assessed using metrics appropriate to the specific initiative, which may include
11 outage frequency and duration impacts, restoration time improvements, reduced manual field
12 interventions, enhanced system visibility, device reliability, data quality, and actual costs
13 relative to expected benefits.
14 Following implementation, results are reviewed through Elexicon's internal governance
15 processes. Broader deployment would generally be considered where the initiative
16 demonstrates reliable performance, measurable operational benefits, effective integration,
17 and reasonable value for money.
18 Some recent examples of test-and-learn projects include the Whitby Smart Grid (WSG) and the
19 Communicating Fault Circuit Indicator (CFCI) project, and Electric Vehicle charging pilots at
20 Elexicon offices.
21
- 22 c) Ratepayer risk for pilot or test and learn investments are managed in a number of ways
23 including; clear definition of the purpose of the investments and implement only to the scale
24 necessary to identify the benefits, use emerging technologies that have been used in similar
25 distribution environments, engage reputable vendors and partners, leverage activity with other
26 utilities where possible, employ lessons learned from other test cases, and use a rigorous
27 project management process.
28

- 1 d) Yes, Elexicon has ongoing EV-related pilot projects as part of a test and learn approach. The EV
2 related pilot projects are not for managed charging, smart charging infrastructure, or V2X
3 pilots. The EV chargers are provided at various Elexicon offices for free public charging of
4 electric vehicles. The pilots provide Elexicon with an opportunity to study EV demand, EV
5 charging profiles, and to understand the impact of EV charging on the distribution system.
6
- 7 e) Lessons learned from any pilot or phased grid modernization initiatives will be incorporated
8 into Elexicon’s existing asset management, capital planning, and continuous improvement
9 processes. Following implementation, Elexicon would assess operational performance,
10 reliability outcomes, system integration experience, maintenance requirements, customer
11 impacts where applicable, and actual costs relative to expectations.
12 Findings would be used to refine business cases, technical standards, deployment strategies,
13 vendor selection, implementation methods, and prioritization criteria for future investments.
14 Where pilots demonstrate strong results, lessons learned may support broader deployment
15 planning. Where outcomes are mixed or below expectations, Elexicon would adjust scope,
16 modify the application, or defer further rollout. This approach ensures future planning
17 decisions are informed by practical operating experience and evidence gained from initial
18 deployments.
19
- 20 f) In Ontario, Distributed Energy Resource Management Systems (“DERMS”) depends primarily
21 on three items: utility-grade technical integration, compliance with Ontario and federal rules,
22 and enough market/program structure to make dispatch and settlement worthwhile.
23 Technical dependencies: DERMS used in Ontario need to connect with utility operations
24 systems such as ADMS, SCADA, Geographic Information Systems (GIS), Customer Information
25 System (CIS), outage management, and forecasting tools. It also needs reliable two-way
26 communications with DERs like batteries, EV chargers, solar inverters, smart thermostats, and
27 controllable loads, using whatever protocol stack the devices support. For Ontario
28 deployments, interoperability and vendor-neutral integration are significant because utilities
29 often manage mixed fleets across municipal, distribution, and behind-the-meter assets.

1 Regulatory dependencies: Ontario DERMS must fit within the Ontario Energy Board and IESO
2 framework, plus applicable safety, privacy, and cybersecurity requirements. If the DERMS is
3 coordinating interconnection or export, it must align with local distributor technical
4 requirements, connection agreements, and Ontario’s distributed generation rules. If it is used
5 for demand response, capacity-style programs, or market participation, it also must reflect
6 IESO program rules and settlement requirements.

7 Market dependencies: In Ontario, DERMS value usually depends on whether there is a clear
8 program or market signal behind the control action. That can mean peak shaving, transformer
9 overload management, feeder deferral, demand response, or participation in IESO-led
10 programs. The stronger the price signal, incentive program, or procurement need, the more
11 useful the DERMS becomes; without that, it is mostly an operational visibility tool.

12

13 g) Elexicon’s traditional utility role is mainly to own, operate, and maintain the distribution
14 system, restore outages, connect customers, and deliver electricity reliably within a regulated
15 monopoly framework. A Distribution System Operator (“DSO”) role goes beyond that and adds
16 active system operation: coordinating DERs, optimizing local grid conditions in real time, and
17 potentially enabling DERs to provide distribution services and, in some models, wholesale
18 market services.

19

20 h) Elexicon has not proposed a standalone DSO program or dedicated DSO platform within the
21 2027-2031 DSP. References to DSO-related functionality are limited to potential future
22 capabilities that may be enabled through planned upgrades to existing Operational Technology
23 systems, primarily within the ADMS/DERMS platform. These functionalities are expected to be
24 foundational in nature and may include enhanced DER visibility, monitoring, coordination of
25 connected DER resources, and support for future distributed system operations as market
26 frameworks and regulatory requirements evolve.

27 At this stage, the 2027-2031 DSP does not contemplate advanced or fully developed DSO
28 market functions, nor a separate DSO operating model.

- 1 i) Elexicon has not identified any forecast expenditures specifically allocated to DSO enablement
2 investments and no standalone costs have been assigned to DSO functionality within the
3 forecast period. Any potential future DSO-related capabilities would be incidental to the
4 broader ADMS/DERMS upgrades and enhancements program, which is primarily intended to
5 support grid operations, system visibility, automation, outage response, and DER integration.
6 The forecast expenditures for the ADMS/DERMS upgrades and enhancements program are
7 identified in Exhibit 2B, Tab 4, Schedule 3, Appendix P, Table 4.
- 8 j) DSO functionality is moderately dependent on IESO market reforms when the DSO model is
9 supposed to interact with wholesale market mechanisms or coordinated dispatch. The IESO's
10 approach is grounded in reliability and cost effectiveness, and it supports a graduated path that
11 starts with simpler capabilities within the current framework. That means Ontario can develop
12 some DSO functions before full market redesign, but more advanced DSO models become
13 much easier if IESO settlement, bidding, dispatch, and coordination rules evolve to
14 accommodate DERs and local flexibility services.
- 15 ii) DSO functionality is highly dependent on OEB policy direction and the OEB is the body
16 defining the policy framework and expectations for electricity distributors' DSO capabilities.
17 Current regulations provide tools for DER integration but do not fully define DSO roles and
18 responsibilities. In practical terms, that means the OEB determines whether DSOs remain an
19 expanded distributor function, what neutrality safeguards apply, how costs are recovered, and
20 whether a more formal local-market model is authorized.
- 21 iii) DSO functionality is also dependent on third-party participation, especially if Ontario wants
22 flexible, scalable, market-like DSO services. Aggregators, DER owners, technology providers,
23 and other service firms are needed to supply assets, telemetry, control platforms, and
24 operational services that a DSO cannot efficiently build and own on its own. Ontario planning
25 documents explicitly describe the transition as requiring coordinated action across LDCs, the
26 IESO, aggregators, technology providers, regulators, and policymakers.

- 1 k) The Elexicon distribution system is generally capable of accepting bi-directional flow (feeder
2 and substations). There are a few DER connection constrained areas and are identified on the
3 OEB CCIM¹ and on the Elexicon restricted feeder list².
4
- 5 l) Bi-directional flow on the Elexicon distribution system is dependent on technical constraints
6 such as short-circuit capacity and thermal loading as well as coordination with any relevant
7 protection settings and systems.
8
- 9 m) Elexicon is planning to perform analyses on technical and system constraints to bi-directional
10 flows. One such study being currently assessed is a short circuit capacity constraint solution for
11 currently constrained Elexicon feeders. The study and analysis will inform the incremental
12 investments necessary to eliminate the constraint.

¹ [Centralized Capacity Information Map | Ontario Energy Board](#)

² [Elexicon-Energy-Restricted-Feeders.pdf](#)

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 2-DRC-8**

4 Reference:

- 5 • Exhibit 2B, Tab 4, Schedule 3, Appendix P

6

7 Preamble:

8 EE's Operational Technology ("OT") Systems Program is a strategic investment in OT systems
9 modernization, ADMS/DERMS enhancements, and grid modernization to support reliability,
10 cybersecurity resilience, outage response, and efficient operations.

11

12 a) Please discuss the impacts on EE's system if the OT Systems Program is delayed.

13 b) Please describe if and/or how dispatch instructions or curtailments issued through

14 ADMS/DERMS will be prioritized where multiple DERs or EV assets are affected, including whether
15 priority will be based on contract type, market participation, or system need.

16 c) Please explain how EE will determine and communicate locational constraints for DERs and EV
17 charging assets, including how:

18 (i) frequently they will be updated; and (ii) they will be communicated to DER owners or
19 aggregators.

20 d) Please confirm whether EE intends to publish feeder-level or station-level capacity maps suitable
21 for DER and EV project siting decisions, and provide the expected timing.

22 e) Please identify which DER and EV-enabling capabilities will be fully functional by the start of each
23 year of the DSP period (2027-2031), including automated interconnection, dynamic hosting
24 capacity, DER registration, telemetry aggregation, and dispatch coordination.

25 f) Please explain the risks to DER and EV owners and aggregators if the timing of the ADMS/DERMS
26 investments is delayed, including whether such delays would limit participation in non-wires
27 solutions or wholesale markets or result in additional costs or requirements for DER proponents.

28 g) Please confirm whether EE has undertaken any analysis of EVs as grid-interactive resources
29 (including as dispatchable or flexible load, storage, or supply resources). If yes, please provide

- 1 and/or summarize all studies, analyses, or internal assessments. If no, please explain why not,
2 given the projected increase in EV adoption within EE's service territory.
- 3 h) Please confirm whether EE's proposed ADMS/DERMS investments will support bidirectional EV
4 charging (including V2X). If yes, please describe the specific functionalities, technical requirements,
5 and timelines for enabling such capabilities. If no, please explain:
- 6 (i) whether such capabilities were considered;
7 (ii) why they were not included; and
8 (iii) whether they are expected to be required within or beyond the DSP period.
- 9 i) Please identify any barriers (technical, regulatory, market, or standards-related) to implementing
10 V2X capabilities.

11

12

13 **RESPONSE:**

- 14 a) If Elexicon's OT Systems Program is delayed Elexicon would experience increased operational,
15 compliance and cyber security risk. In the near term, a delay could result in certain vendor-
16 supported OT systems operating beyond recommended maintenance or lifecycle periods. This
17 would limit access to vendor-provided updates, including functional enhancements, defect
18 corrections, and critical cyber security patches, and could place the utility out of compliance
19 with vendor support requirements.
- 20
- 21 b) Over the long term, continued operation on unsupported or aging platforms would increase
22 reliance on interim or compensating controls, elevate operational and cyber security risks, and
23 potentially increase total costs compared to a timely program implementation. These risks
24 would compound over time as systems drift further from vendor-supported configurations.
25 Internal compensating controls, however, are not a substitute for vendor supported solutions
26 and are generally less effective, more resource-intensive and more costly to sustain. The
27 process of how dispatch instructions or curtailments issued through ADMS/DERMS will be
28 prioritized where multiple DERs or EV assets are affected, including whether priority will be
29 based on contract type, market participation, or system need, will be developed after Elexicon

- 1 has built the necessary foundational systems and communication protocols are in place to
2 support participation in a DSO.
3
- 4 c) Elexicon communicates locational DER connection constraints to customers through a list of
5 restricted feeders posted through the Ontario Energy Board Centralized Capacity Information
6 Map (CCIM)¹. Customers can also contact an Elexicon DER connection representative directly to
7 discuss their DER connection constraint and receive up-to-date information.
8
- 9 d) Elexicon's feeder-level or station-level capacity maps for DER or EV project siting are published
10 within the Ontario Energy Board Centralized Capacity Information Map (CCIM). The CCIM is
11 intended to support system growth and early-stage planning by providing transparent,
12 province-wide capacity information for both load and DER connections.
13
- 14 e) During the rate period, Elexicon will assess the DER and EV ecosystem, existing capabilities, and
15 operational needs. Our assessment will inform whether enhancements to existing systems or
16 the adoption of new technologies are needed. Any additional detail on capability readiness
17 and implementation timing will be provided through future planning and engagement
18 processes.
19
- 20 f) Please refer Exhibit 2B - Tab 4 - Schedule 3 - Appendix P, Page 35.
21
- 22 g) Elexicon has not undertaken its own analysis of EVs as grid interactive resources. Elexicon views
23 V2X technology as an emerging technology that currently is not mature enough for pilot
24 testing. In addition, Elexicon is concerned with the liability and risks associated with using third-
25 party owned vehicles and batteries in larger scale V2X pilots. As V2X technology matures and
26 the liability and risk issues are mitigated, Elexicon will consider conducting its own V2X pilot
27 testing. In the interim, Elexicon has monitored other V2X pilots and studies over the past 5

¹ <https://www.oeb.ca/ontarios-energy-sector/centralized-capacity-information-map>

1 years for information and knowledge and to inform distribution system planning and
2 investments. The pilots and studies include:

- 3 • IESO, “Demand & Conservation Planning Technical Paper: Electric Vehicles,” July 2025,
- 4 • Dunsky for IESO, “Ontario’s Distributed Energy Resources Potential Study; “Sept. 2022,
- 5 • AlectraDrive @Home final/public report, IESO Grid Innovation Fund, Plug’n Drive / Strategy
6 Policy Economics, “EV Batteries Value Proposition for Ontario’s Electricity Grid and EV
7 Owners, “July 2020,
- 8 • Natural Resources Canada, “Vehicle to Grid Demand Response (V2G-DR)”,
- 9 • Peak Power, Bi-Directional EV Pilot Project Toronto”, OEB / Guidehouse, "Facilitating the
10 Integration of Electric Vehicles in Ontario, “Jan. 2023,
- 11 • OEB FEIWG presentation, “Vehicle-to-Building/Grid,” July 2021, and,
- 12 • Clean Energy Canada / Brattle, “The Value of Using DERs for Distribution System Services in
13 Ontario, “Apr. 2026.

14
15 h) The proposed ADMS/DERMS investments during the current rate period are not intended to
16 directly enable bidirectional EV charging, including vehicle-to-grid (V2G) or broader V2X
17 functionality.

18 During the rate period, the utility will assess existing ADMS and SCADA functionalities and
19 undertake further analysis as part of the development of a Distribution System Operator (DSO)
20 roadmap. This roadmap will be informed by OEB regulatory direction, IESO market
21 development, operational readiness, and customer use cases, including the anticipated growth
22 of EV adoption and emerging bidirectional charging technologies.

23 The utility expects that bidirectional EV charging and V2X capabilities may be required in future
24 periods as regulatory, market, and technical conditions mature, and these requirements will be
25 considered in subsequent planning cycles beyond the current DSP period.

26

27 i) At this time, Elexicon has not assessed the technical limitations associated with
28 accommodating V2X capabilities, nor has it received any related connection requests. In

1 addition, the regulatory framework and applicable standards to support V2X are not yet
2 established.

1 **RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES**

2

3 **INTERROGATORY 2-DRC-9**

4 Reference:

- 5 • Exhibit 2A, Tab 4, Schedule 3, Appendix M

6

7 Preamble:

8 EE notes that as part of its Fleet Renewal it continues to monitor the market and other utility
 9 experiences for other EVs, to understand if and when other types of EVs may be suitable.

10 a) Please complete the following chart indicating the breakdown of vehicle type
 11 in EE’s current vehicle fleet:

Vehicle Type	Fully Electric	Plug-in Hybrid	Hybrid	Non- EV/Hybrid	Total
Heavy Duty Vehicles					
Medium Duty Vehicles					
Light Duty Vehicles					

12

13

14 b) What proportion of EE’s planned fleet renewal investment will or could involve fully electric
 15 and/or hybrid vehicles? Please complete the following chart indicating EE’s anticipated breakdown
 16 of vehicle type in EE’s planned fleet renewal investment (2027 to 2031):

Vehicle Type	Fully Electric	Plug-in Hybrid	Hybrid	Non- EV/Hybrid	2027- 2031 Total
Heavy Duty Vehicles					
Medium Duty Vehicles					
Light Duty Vehicles					

1

2 c) Please indicate the estimated quantum of efficiency savings (including fuel cost savings) that EE
 3 anticipates it will achieve by utilizing hybrid vehicles and EVs rather than traditional internal
 4 combustion engine vehicles.

5

6 **RESPONSE:**

7 a)

8 **Table 1: Current Vehicle Fleet (Actual as of 04-22-2026)**

Vehicle Type	Fully Electric	Plug-In Hybrid	Hybrid	Non- EV/Hybrid	Total
Heavy Duty Vehicles				52	52
Medium Duty Vehicles				21	21
Light Duty Vehicles	1	1		64	66

9

10 b) Elexicon plans to replace the internal combustion engine SUVs as they come due for
 11 replacement with fully electric EVs throughout 2027-2031 and will monitor market
 12 availability and costs on an ongoing basis throughout the rate period.

13

14

15

16

1 **Table 2: 2031 Final Fleet Estimate**

Vehicle Type	Fully Electric	Plug-In Hybrid	Hybrid	Non-Ev/Hybrid	Total
Heavy Duty Vehicles				64	64
Medium Duty Vehicle				25	25
Light Duty Vehicles	8			67	75

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c) Elexicon anticipates achieving total efficiency savings of approximately 25-55% per vehicle annually by utilizing electric vehicles in place of traditional internal combustion engine vehicles. These savings are primarily driven by reduced fuel/energy costs and lower maintenance requirements. Elexicon has focused its EV replacement plan primarily on SUVs that are utilized by the Asset Management department for site visits. Elexicon’s service territory is discontinuous and geographically expansive, requiring traditional internal combustion engine vehicles to safely service those districts. The vehicle replacement timeline are driven by lifecycle requirements (age/mileage/condition) over 2027-2031.

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RESPONSES TO DISTRIBUTED RESOURCE COALITION INTERROGATORIES

INTERROGATORY 3-DRC-10

Reference:

- Exhibit 3, Tab 1, Schedule 1, Attachment 3-2

Preamble:

EE engaged Power Advisory to develop weather-normal customer and load forecasts for each of its rate zones.

a) Please discuss how Power Advisory and EE’s load forecast considers the impact and integration of EVs and EV charging infrastructure and provide or summarize any and all related analysis, working papers, and/or reports not already included in Power Advisory’s report.

b) Please provide, in the chart format below, an assessment of the impacts on loads and demands — including the load forecast — of EE’s estimate of EVs and distributed generation in each year and any supporting references.

	2025	2026	2027	2028	2029	2030	2031
EVs (number, kW or kWh)							
EV charging infrastructure (number, kW or kWh)							
Distributed Generation (number, type, kW or kWh)							
etc.							

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1 **RESPONSE:**

2 a) The Exhibit 3 load forecast is based on a forecast of the number of EVs in the service area
3 which is used to forecast EV charging loads for the purpose of developing a forecast of billing
4 determinants.

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6 b) The number of new EVs included each year in the updated load forecast filed as 3-SEC-68
7 Attachment 1 and MWh associated with the new EVs is provided in Table 1. The Exhibit 3
8 load forecast does not have a specific forecast of EV charging infrastructure or distributed
9 generation. For further information on historical and forecast EV charging please see 1-DRC-
10 2.

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Table 1: New EVs in Updated Load Forecast

	2025	2026	2027	2028	2029	2030	2031
# new EVs	1,473	2,017	2,581	3,167	3,776	4,408	5,063
New EV MWh	7,638	7,824	9,391	10,854	14,322	16,916	18,598

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