

Lisa (Elisabeth) DeMarco Senior Partner Bay Adelaide Centre 333 Bay Street, Suite 625 Toronto, ON M5H 2R2 TEL +1.647.991.1190 FAX +1.888.734.9459

lisa@demarcoallan.com

September 30, 2020

VIA RESS

Ontario Energy Board P.O. Box 2319 2300 Yonge Street, 27th Floor Toronto, ON M4P 1E4 Attention: Registrar

Dear Ms. Long:

Re: Oshawa PUC Networks Inc. Application for 2021 Cost of Service Rates Board File No.: EB-2020-0048

We are counsel to the Distributed Resource Coalition (**DRC**). Please find enclosed DRC's interrogatories to Oshawa PUC Networks Inc., in the above-mentioned proceeding, which are filed pursuant to Procedural Order No. 1.

Sincerely,

Lisa (Elisabeth) DeMarco

 John A.D. Vellone, Counsel, Borden Ladner Gervais LLP David Savage, Oshawa PUC Networks Inc.
Margaret Boland, Oshawa PUC Networks Inc.
Wilf Steimle, Electric Vehicle Society
Cara Clairman, Plug'n Drive

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sched. B, as amended (the **Act**);

AND IN THE MATTER OF an application by Oshawa PUC Networks Inc. (**OPUC**) to the Ontario Energy Board for an Order or Orders approving or fixing just and reasonable rates and other charges for the distribution of electricity as of January 1, 2021.

EB-2020-0048

INTERROGATORIES

OF

DISTRIBUTED RESOURCE COALITION (DRC)

September 30, 2020

- Reference: Exhibit 2, Appendix K
- Preamble: In 2018, OPUC launched E-Mission, "a survey and study to examine the effects that wholesale migration to Electric Vehicle (**EV**) technology could have on the utility's infrastructure", as well as a "comprehensive [EV] strategy aimed at increasing electrification of transportation." OPUC indicates that data collected through the E-Mission initiative will assist OPUC to "plan for the future of electric transportation." (p. 3)
- a) Please provide a brief summary of the aspects or outcomes of the E-Mission initiative that are relevant to OPUC's:
 - (i) proposed rates;
 - (ii) proposed capital plan;
 - (iii) customer needs and preferences;
 - (iv) reliability;
 - (v) vehicle fleet;
 - (vi) current O&M costs associated with vehicle fleet and anticipated O&M costs associated with portion of the fleet anticipated to be electrified; and
 - (vii) any anticipated productivity impacts.
- b) Please provide any and all working papers, reports, and analysis written or carried out in support of OPUC's comprehensive EV strategy aimed at increasing electrification of transportation.
- c) Please indicate how many of each of the following types of customer connections OPUC anticipates in its service territory over the 2021 to 2025 rate period:
 - (i) single residential unit EV charger connections;
 - (i) commercial facility EV charger connections; and
 - (ii) multi-unit residential EV charger connections.

d) Please provide any and all planning assumptions, working papers, reports, and analysis conducted to support OPUC's EV strategy generally and demand forecasts of expected EV penetration on its service territory specifically.

- Reference: Exhibit 2, DSP
- Preamble: OPUC indicates that it will not be pursing funding through distribution rates for any of the four types of activities contemplated in the Ontario Energy Board's "CDM Requirement Guidelines for Electricity Distributors". However, OPUC intends, throughout the five-year Distribution Service Plan, to "monitor less predictable load growth trends, such as electric vehicle uptake, and will consider opportunities for applying for distribution rates to defer infrastructure as appropriate." (p. 78)

a) Please provide:

- expected or predicted load growth trends as a result of EV uptake over the five-year DSP;
- (ii) any anticipated physical or technical distribution system changes, or implications associated with EV-related demand growth; and
- (iii) any and all costs or savings associated with all elements identified in a)(ii), above; and
- (iv) any study or studies done in relation to the distribution system impacts of projected EV growth in the OPUC service territory.

- Reference: Exhibit 2, DSP, Appendix A
- Preamble: OPUC has planned several material investments for the 2021 through 2025 period, including Geographical Information System (GIS) upgrades and enhancements, including regular data model enhancements. OPUC states that the investments will "accommodate emerging technology in the distribution network such as EVs, smart devices, distributed generation." (p. 137)

Further, OPUC intends to invest in upgrades and enhancements to the ODS Systems. OPUC states that this "will be the foundation for adapting to changing customer demands in terms of DERs, EVs and changing customer loading." (p. 160)

- a) Please outline and provide examples of the data model enhancements to the GIS system that OPUC expects will be required to accommodate EVs and DERs.
- b) Please outline how GIS upgrade and enhancements will assist OPUC to accommodate EVs and DERs in the distribution network. In addition, please explain why the use of GIS is important in the context of accommodating DERs and EVs in the distribution network and what customer and/or system efficiencies OPUC anticipates will result from such investments.
- c) Please outline and provide examples, in the context of changing customer demands in terms of EVs and DERs, of the upgrades and enhancements to the ODS Systems.
- d) Please outline how ODS Systems upgrades and enhancements will be the foundation for adapting to changing customer demands with respect to EVs and DERs. In addition, please explain why the ODS Systems is foundational in the context changing customer demands in terms of DERs, EVS and changing customer loading.
- e) Please explain how, if at all, OPUC has addressed the following vehicle manufacturers' announcements on phasing out ICE vehicles or introducing additional EV options, including during the 2021 to 2025 time period:
 - General Motors;

- Ford;
- Volkswagen;
- BMW Group;
- Fiat Chrysler Automobiles Group;
- Toyota Group;
- Hyundai Motor Group;
- Volvo;
- Mercedes-Benz;
- Audi; and
- several others.

- Reference: Exhibit 1, p. 49
 - Exhibit 2, Appendix K
- Preamble: For the 2021 test year, OPUC is requesting \$1.395 million to implement smart grid projects. OPUC indicates that the proposed projects will enable their response to external, internal and regulatory drivers such as DERs and electrification of transport.
- Please provide a breakdown of the proposed \$1.395 million investment for smart grid projects or provide the corresponding reference in Exhibit 2, Appendix K.
- b) Please comment on and provide examples of the external, internal and regulatory drivers associated with DERs, EVs, and the electrification of transport.
- c) Please provide any and all estimates of short-, medium-, and longer-term customer savings that will result from the proposed Advanced Metering Infrastructure (AMI).

- Reference: Exhibit 2, Appendix K, p. 4
- Preamble: OPUC is developing a business case for the electrification of a local bus fleet. The plan would see OPUC install, own and operate EV charging infrastructure at transit depots and on routes. Solar power generated at the depots may be used for charging.
- a) Please provide any and all working papers, reports, and analysis written or carried out in connection with the local bus fleet electrification plan.
- b) Please provide your assessment of the distribution system and ancillary benefits of the electrification of transit in OPUC's service territory on OPUC's distribution system planning, load forecast, productivity, and OM&A costs.
- c) Please advise how the bus fleet electrification initiative fits within any broader climate change mandates, measurements, targets or assessments of the City of Oshawa.

- Reference: Exhibit 2, Appendix K, p. 15
- Preamble: OPUC has partnered with New Energy and Industrial Technology Development Organization (NEDO) for a small deployment of DERs. OPUC indicates that it "continues to explore technologies to manage the inevitable changing demands to be put on the distribution system" and notes that "DER's will have the most significant impact on the shape of system peak of all technologies being considered." (p. 15).
- a) Please identify the DER technologies that OPUC is considering deploying in connection with the NEDO partnership.
- b) Please provide any and all working papers, reports, and analysis written or carried out in connection OPUC's partnership with NEDO and the deployment of DERs.
- c) Please provide all anticipated impacts of DERs in OPUC's service territory on OPUC's distribution system planning, load forecast, productivity, and OM&A costs.
- d) Please explain the role of customer needs and preferences in these initiatives.

Reference: • Exhibit 1, Appendix 1.1

- Exhibit 1, Appendix 1.2
- Exhibit 1, Appendix 1.3
- Exhibit 1, Appendix 1.4
- Preamble: OPUC engaged in customer outreach commitments under the Renewed Regulatory Framework for Electricity Distributors. OPUC utilised a multi-method approach to engaging customers which included three feedback components. The first was an online survey to ask budgetary questions and gather feedback. The second was virtual telephone town halls. The third was four in-person public town halls which included an open forum question and answer period.
- Please provide a copy of all written instructions provided by OPUC in relation to OPUC's customer engagement for the DSP and the reports provided in Exhibit 1, Appendices 1.1 - 1.4.
- b) Please describe any and all feedback related to EVs and DERs.
- c) Please provide any and all notes from the customer engagement relating to EVs/DERs that are supplementary to the reports provided in Exhibit 1, Appendices 1.1 1.4.

ALL OF WHICH IS RESPECTFULLY SUBMITTED THIS

30th day of September, 2020

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Lisa (Elisabeth) DeMarco DeMarco Allan LLP Counsel for DRC

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Jonathan McGillivray DeMarco Allan LLP Counsel for DRC