Elson
Advocacy

December 18, 2020

BY EMAIL AND RESS

Ms. Christine Long
Board Secretary
Ontario Energy Board
2300 Yonge Street, Suite 2700, P.O. Box 2319
Toronto, Ontario M4P 1E4

Dear Ms. Long:

Re: EB-2020-0249/EB-2018-0219 – PUC Distribution Inc. – The Sault Smart Grid Project

Enclosed please find the interrogatories of Environmental Defence in the above matter.

Yours truly,

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EB-2020-0249/EB-2018-0219
PUC Distribution Inc. - ICM Application

Interrogatories of Environmental Defence

Interrogatory 1

Reference: p. 20

Questions:

(a) The SSG project will result in energy savings and reduced losses. How much GHG emissions (t CO2e) will be avoided over (i) 10 years, (ii) 20 years, and (iii) 40 years. Please make and state assumptions as necessary. Please assume the average carbon content of electricity forecasted by the IESO in its latest annual planning outlook.

(b) The benefits summary estimates savings from avoided distribution system losses. In valuing these savings, did the utility account for the fact that losses are greatest at the time of system peak, and therefore at the time when electricity is the most expensive? If not, please provide a revised estimate that accounts for this, with any caveats as necessary.

(c) Please recreate table 1 on the assumption that electricity demand is 50% higher (e.g. due to the future electrification of fossil fuels used in transportation and space heating).

(d) Please provide a table showing total distribution system losses for the most recent 5 years available, including the 5-year average, in kWh, % of consumption, and % of peak demand. Please provide the forecast total distribution system losses following the implementation of the project as a 5-year average, in kWh, % of consumption, and % of peak demand.

Interrogatory 2

Reference: p. 25

> "In addition to PUC Distribution customer savings, provincial benefits will be achieved through reduced transmission grid and generation costs as less energy will be delivered to the PUC Distribution system."

Question:

(a) Please quantify value of this to the system as best as possible, and include calculations. The avoided cost tables in the annual planning outlook may be of assistance. https://www.ieso.ca/en/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook

Interrogatory 3

Reference: p. 26

Question:

(a) Please compare the technology and approach for VVO/VVM with the pilot project that is wrapping up at Hydro Ottawa. For further details, see its recent rates case and the settlement reached therein.

Interrogatory 4

Reference: Appendix AA13 - Project Benefits Memo, p. 6

Question:

(a) Is the utility currently able to capitalize on the storage capacity of electric vehicles to reduce distribution system costs by: (i) communicating directly with charging stations to reduce load during peak periods, (ii) communicating directly with charging stations to allow power to be drawn from batteries during peak periods, (iii) drawing energy from car batteries connected to charging stations during peak periods, and (iv) communicating directly with charging stations to ensure energy is drawn from the LDC's system at the optimal times?

(b) Will the proposed project allow the utility to undertake the functions described in (a)? If yes, when? What financial benefit would this achieve if 50% of all residential customers had EVs capable of those functions?

(c) Will the project make it easier to carry out distributed energy resource connections? Please explain.

(d) Will the project make it easier to create a capacity map or capacity tool to allow customers to look up their feeder to determine, at least on a preliminary basis, whether there is capacity to connect a distributed energy resource?

(e) Please describe the degree to which certain benefits from the proposed project arise due to the utility-wide scale of the project?

(f) How many jobs will the project create?

(g) How much government revenue will be generated?

(h) How much economic growth will be generated?