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January 23, 2020

VIA ELECTRONIC MAIL

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, B.C. V6Z 2N3

Attention: Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Sirs/Mesdames:

Re: British Columbia Hydro and Power Authority ("BC Hydro") Application to Amend Net Metering Service under Rate Schedule 1289 ~ Project No. 1599004

We are counsel to the Commercial Energy Consumers Association of British Columbia (the "**CEC**"). Attached please find the CEC's third set of Information Requests to BC Hydro on rebuttal evidence with respect to the above-noted matter.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION

Christopher P. Weafer

CPW/jj
cc: CEC
cc: BC Hydro
cc: Registered Interveners

COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA

INFORMATION REQUEST #3 TO BC HYDRO AND POWER AUTHORITY ON REBUTTAL EVIDENCE

British Columbia Hydro and Power Authority Application to Amend Net Metering Service under Rate Schedule 1289 ~ Project No. 1599004

January 23, 2020

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34. Exhibit B-12, pages 3-4

Q2. BCCSC states that "Net Metering generators have the ability to incorporate clean emergency back-up power when the grid fails"[5] and that "the Panel must consider the ability for projects within Net Metering RS1289 to supply secure emergency power".[6] What is your response?

A2. For the following three reasons, BC Hydro does not believe that RS 1289 should consider the supply of emergency power either within a customer's site or to other customers on the BC Hydro distribution feeder.

- First, customers can connect back-up generation with clean energy sources via a transfer switch or by using an inverter with a stand-alone

output that is not interconnected with the BC Hydro system.[7] However, in these cases, the back-up generation is for the sole use of the customer and does not provide any benefits to other ratepayers.

- Second, while RS 1289 limits the nameplate rating of a customer's Generating Facility, it does not limit the total amount of generation that can be installed at a customer's site. This means that a customer can install a Generating Facility with separate inverters for the utility connection and for the load requiring a back-up supply. In this scenario, only the utility inverter size would be subject to the requirements of RS 1289 and the back-up supply inverter could be sized to meet the back-up power needs required by the customer.
- Third, BC Hydro has used distributed generators to improve reliability on a distribution feeder section, where traditional wires based solutions are not economical. These systems are referred to as "intentional islands" or "microgrids".

34.1. Please confirm the CEC's understanding from the above that net metering could capably be used to provide clean emergency back-up for a distribution feeder section, and that BC Hydro provides a similar function through two methods, traditional wires-based solutions or "intentional islands"/"microgrids".

34.1.1. Does BC Hydro have complete coverage for its clean emergency back-up or are there areas that are not covered by either of BC Hydro's two solutions? Please explain.

34.1.2. If there are areas that are not covered, please explain if BC Hydro could successfully utilize net metering to improve reliability in those areas.

34.1.3. Could BC Hydro potentially cost-effectively replace its 'intentional islands', either in the future or at present, with net metering? Please explain.

34.1.3.1. If yes, please quantify any cost-benefits that could be available.

35. Exhibit B-12, page 5-6

> There are three potential system benefits associated with having generation near load: a reduction in distribution and transmission losses, capacity benefits (i.e., reduced capital requirements for transmission and distribution infrastructure), and reliability benefits. However, at this time, BC Hydro does not realize these benefits because the installed capacity and volume of energy generated by customer Generating Facilities in the Program is too small to result in any appreciable avoided cost benefits to BC Hydro.[10]

35.1. Please discuss the size of programs that would be needed to achieve material savings in capacity benefits and an order of magnitude $ value estimates of the savings.

35.1.1. Please also provide any ballpark timeframes that are relevant to the practical achievement of the $ savings identified. For instance, BC Hydro maintains its transmission and distribution infrastructure to meet current and expected future load most of which is largely already in place. Assuming there could be reductions in forecast transmission and distribution capital costs with net metering, would it likely require a decade or more before the potential capital cost savings could be realized?

35.1.2. Is it fair to say that BC Hydro would likely be unable to realize significantly reduced capital requirements for transmission and distribution even in the event of an increased program size because realization of the cost savings require that the net metering benefits are dependable and reasonably within BC Hydro's control? Please explain.

35.2. Please discuss the size of programs that would be needed to achieve material savings in distribution and losses and an order of magnitude $ value estimate of the savings.

35.2.1. Please also provide any ballpark timeframes that are relevant to the practical achievement of the $ savings identified.

35.3. Please discuss the types of reliability benefits that could potentially be realized and where these might be applicable. i.e. Are they localized?

35.4. Please discuss the size of programs that would be needed to achieve material improvements in reliability.

35.5. Please provide an order of magnitude $ value estimate of the improvements in reliability if available.

35.5.1. Please also provide any ballpark timeframes that are relevant to the practical achievement of the reliability savings identified.