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VIA COMMISSION E-FILING

British Columbia Utilities Commission
6th Floor – 900 Howe Street
Vancouver, BC V6Z 2V3

Attention: Laurel Ross, Acting Commission Secretary

Dear Madam:

**Re: British Columbia Hydro and Power Authority (BC Hydro)
Project No. 3698781/G-156-15
2015 Rate Design Application Module 1
Association of Major Power Customers (AMPC) Information Request (IR)
No. 1 to Commercial Energy Consumers Association of British Columbia
(CEC)**

We are legal counsel to AMPC in this matter. Further to the Commission's Order G-61-16 dated May 4, 2016, we enclose AMPC's IR No. 1 to CEC.

Please contact the writer if you have any questions.

Yours truly,

Bull, Houser & Tupper LLP



Matthew D. Keen

**ASSOCIATION OF MAJOR POWER CUSTOMERS OF BC (AMPC)
INFORMATION REQUEST NO. 1
TO COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA (CEC)**

**British Columbia Hydro and Power Authority (BC Hydro)
2015 Rate Design Application Module 1**

1.0 Reference: Exhibit C1-10, CEC Intervener Evidence, pp. 21, 33-35.

CEC states the following concerning the potential uptake of the proposed interruptible rate at p. 21:

If greenhouses with existing lighting were to participate there could be up to about 25 MW that might participate and if these greenhouses were to find the rate attractive they may seek to expand the use of lighting, which could take them up toward 80 MW of participating capacity.

CEC has conducted a jurisdictional assessment at pp. 33-35 that considers similar interruptible programs, and provides the following comparators:

Hydro Quebec offers an Interruptible Electricity Option for classes M (Medium Power), G-9 (Medium and Large Power customers with limited use of the power at its disposal) and L (Large Power) customers.

Rochester Public Utilities (RPU) offers an Interruptible Rate (INTR) to all commercial, industrial and governmental customers contracting for electrical service for a period of one year or more with a measure [sic] demand of 100 kW or more. All interruptible loads recognized under the INTR rate schedule are loads that are coincident with RPU's system peak. Nova Scotia Power offers an Interruptible rider to the Large Industrial Tariff. Newfoundland Power offers a seasonal demand charge.

AMPC would like to better understand this evidence.

- 1.1 Please elaborate on the potential of 80 MW of participating capacity from greenhouses under the proposed program, including the source for this number.
- 1.2 Please provide further details of the jurisdictional assessment to allow for a meaningful comparison of CEC's proposal to these comparator programs, including but not limited to:
 - i. the energy and demand charges that apply under the program relative to normal service;
 - ii. whether there is any load factor requirement to participate;
 - iii. whether lower electricity costs for the customer accrue only while interrupted (i.e. compensation for load shaving) or if demand charges are reduced throughout the year; and
 - iv. criteria for enrolment in these programs, including minimum usage during the system peak periods.

2.0 Reference: Exhibit C1-10, CEC Intervener Evidence, p. 12-14.

With respect to greenhouse growers, CEC's evidence indicates:

Demand Charges and Minimum charges can represent a significant burden for general service customers, and is particularly challenging when such customers either do not, or need not cause significant portions of the demand costs. These issues are compounded for customers with more intermittent uses of electricity.

...demand costs are charged to and collected from customers in monthly billings based on the highest demand reached in the month or through a minimum charge, which is set at 50% of the highest demand reached in any one of the 4 months in which peak use on the BC Hydro system may occur. ...

The potential for growers to enhance production through increased lighting is particularly relevant because it potentially represents offsetting revenue for BC Hydro to replace the revenue reduction in demand charges with additional energy sale. Increase productivity for greenhouse growers can create benefits for the overall industry and province. ...

- 2.1 What is the average load factor for greenhouse growers?
- 2.2 Please describe any steps greenhouse growers have taken to reduce their demand charges, or reduce their minimum charges, given they "represent a significant [financial] burden".

3.0 Reference: Exhibit C1-10, CEC Intervener Evidence, p. 12, 14.

With respect to flood pumping agencies, CEC's evidence indicates:

Demand Charges and Minimum charges can represent a significant burden for general service customers, and is particularly challenging when such customers either do not, or need not cause significant portions of the demand costs. These issues are compounded for customers with more intermittent uses of electricity.

...flood pumping requirements are derived from the need to protect dykes and levees along the Fraser River and for tributaries or runoffs running into the Fraser. The cause of flood pumping requirements comes from two sources; rainfalls and spring snow melts. The pumping is required whenever the volumes are sufficient to overwhelm the natural runoff capabilities of the water flows, which happens when the Fraser levels reach certain critical levels.

- 3.1 What is the average load factor for flood pumping agencies?
- 3.2 Please describe any steps flood pumping agencies have taken to reduce their demand charges, or reduce their minimum charges, given they "represent a significant [financial] burden".

4.0 Reference: Exhibit C1-10, CEC Intervener Evidence, pp. 20-21.

CEC's evidence compares its proposed interruptible rate to the availability of shore power:

There is a fairness issue between the Medium and Large General Service Rate classes and other BC Hydro customers. Tariff Supplement (TS) 76, and Rate Schedules (RS) 1280 and 1891 provide for non-firm interruptible energy to be available to Shore Power customers, and non-firm interruptible power is not currently available to General Service customers. Tariff Supplement 76 provides non-firm interruptible electricity for shore power use by Port Metro Vancouver (PMV) for cruise ships docked at Canada Place wharf and Rate Schedules 1280 and 1891 provide non-firm interruptible electricity to Shore Power customers at Transmission and Distribution service levels respectively.

Very significant savings are available to Shore Power customers for their willingness to receive non-firm interruptible service. Many General Service customers are in substantially similar circumstances. Demand charges represent a significant challenge to the cost structures and viability/profitability of these customers, and they are equally willing to receive non-firm interruptible service and manage their demand according to reasonable requirements from BC Hydro to be assured that they will not use energy during peak times.

- 4.1 Please confirm that when greenhouse growers' and flood pumping agencies' service is interrupted under CEC's proposed interruptible rate, those customers will shift some or all of their energy usage that would have occurred during the interruption to other time periods. If not confirmed, please fully explain.

5.0 Reference: Exhibit C1-10, CEC Intervener Evidence, p. 21.

CEC's evidence also compares its proposed interruptible rate to the load curtailment pilot:

Very significant savings opportunities are available to Transmission customers (RS 1823) who are able to reduce their normal load by 5 MW during winter and shoulder seasons when notified in the Load Curtailment Pilot. The Load Curtailment Pilot has just completed Year 1 and is scheduled to commence Year 2 in October 2016. Incentive Options are showing the table opposite.

There are a significant number of MGS and LGS customers who are also capable of reducing significant portions of their load when notified.

- 5.1 Please confirm that the number of hours of curtailment from any single customer available under the load curtailment pilot is greater than those anticipated by CEC to be realized under its proposed interruptible rate. If not confirmed, please fully explain.

6.0 Reference: Exhibit C1-10, CEC Intervener Evidence, p. 25.

With respect to eligibility for the pilot program, CEC suggests that for an LGS customer:

Eligibility could also entail assessment of the customers' load demand as one which would never fall on the coincident system peak.

- 6.1 Does CEC mean that eligibility for its proposed program would depend on whether or not a customer uses electricity at the time of the coincident system peak?

7.0 Reference: Exhibit C1-10, CEC Intervener Evidence, pp. 36-39.

CEC provides a financial analysis to demonstrate the value of its proposed interruptible rate, which includes:

The Revelstoke unit 6 can be added to the BC Hydro hydroelectric system without environmental approvals. The unit would provide approximately 500 MW of capacity. BC Hydro's Base Resource Plan shows that requirement for capacity after demand side management initiatives would be growing at about 150 MW. ...

The Revelstoke 6 Project would be expected to cost about \$420 million. Given that the project would supply 500 MW of capacity the present value of a MW is approximately \$840,000, which equates approximately the \$50,000/MW-year.

The following analysis is made to illustrate the impact of greenhouse lighting load being removed from peak for a Greenhouse using approximately 6 MW of lighting under the assumption that all of the lighting load can be taken off peak. ...

- 7.1 Please provide the supporting calculation or reference that suggests that the \$840,000 present value of a MW equates approximately to the \$50,000/MW-year.
- 7.2 Please provide a similar financial analysis for the cost of the CEC's proposed interruptible rate for flood pumping customers as has been provided for greenhouse growers.