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December 20, 2013

**VIA ELECTRONIC MAIL**

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

**Attention: Ms. Erica Hamilton, Commission Secretary**

Dear Sirs/Mesdames:

**Re: British Columbia Hydro and Power Authority ("BC Hydro") Application for Approval of Charges Related to Meter Choices Program, Project No. 3698760**

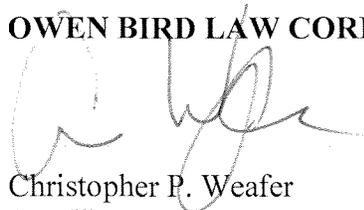
We are counsel for the Commercial Energy Consumers Association of British Columbia (CEC). Attached please find the CEC's second set of Information Requests pertaining to the above-noted matter.

A copy of this letter and attached Information Request has also been forwarded to BC Hydro and registered interveners by e-mail.

Should you have any questions regarding the foregoing, please do not hesitate to contact the writer.

Yours truly,

**OWEN BIRD LAW CORPORATION**



Christopher P. Weafer  
CPW/jlb  
cc: CEC  
cc: BC Hydro  
cc: Registered Intervenors

REQUESTOR NAME: **COMMERCIAL ENERGY CONSUMERS ASSOCIATION  
OF BRITISH COLUMBIA (CEC)**  
IR ROUND NO: **2**  
TO: **BRITISH COLUMBIA HYDRO & POWER AUTHORITY**  
DATE: **DECEMBER 20, 2013**  
PROJECT NO: **3698760**  
APPLICATION NAME: **APPLICATION FOR APPROVAL OF CHARGES  
RELATED TO METER CHOICES PROGRAM**

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**1. Reference: Exhibit B-6-1, CEC 1.1.1 5**

BC Hydro attempted to install smart meters at eligible premises, unless a customer called in advance and requested that their smart meter installation be delayed. An exception is BC Hydro's Nakusp billing area in the West Kootenay region, where meter installations were delayed while BC Hydro engaged local wireless Internet Service Providers regarding their concerns.

- 1.1. Please explain the issue that arose in the Nakusp billing area and why it required BC Hydro to engage wireless Internet Service providers.

**2. Reference: Exhibit B-6-1, CEC 1.1.3**

**RESPONSE:**

As of November 13, 2013:

	Per cent
Unable to Access:	39
Permanent Obstructions:	31
Excessive Height:	8
Unsafe Hazardous:	12
Incorrect Meter Information:	3
Voltage Mismatch:	2.6
Diversions:	0.4
Other:	4

- 2.1. Please confirm, or otherwise explain that BC Hydro will require that all meter installations that have not been completed for 'other reasons' will ensure that the environmental or other cause is appropriately modified to allow for smart meter installation and/or repair hazardous conditions.
- 2.1.1. If confirmed, when does BC Hydro expect to have the changes completed so that all meter locations are available for smart meter installation?
- 2.1.2. If not confirmed, please provide the number of meter installations that BC Hydro does not expect to be modified to enable smart meter installation.

- 2.1.3. If not confirmed, will BC Hydro charge the customers the applicable fees for retaining their legacy meter? Please explain why or why not.
- 2.1.4. If not confirmed, does BC Hydro intend to distinguish between those customers where the conditions are beyond the customers' control and those where they are not? Please explain why or why not.

### 3. Reference: Exhibit B-6-1, CEC 1.1.2.2.2 and Exhibit B-8, Page 1

#### RESPONSE:

BC Hydro's assumption of 10,000 customers electing a legacy meter or radio-off meter includes those residential customers who have refused the installation of a smart meter and those where a smart meter has not been installed for other reasons.

Number of Meters	% of Eligible Meters	Response	Meter Choice	Number of Meters	% of Responses
50,946	75	Made a valid choice, specifically:	Smart meter	48,242	95
			Radio-off meter	450	1
			Legacy meter	2,254	4
4,020	6	Responded with invalid option	Legacy meter (deemed)		
13,112	19	No response	Legacy meter (deemed)		
<b>Total:</b> 68,078	100				

- 3.1. Please update this table with the most recent information.
- 3.2. Please give examples of the types of responses that would have been considered 'invalid'.
- 3.3. Were those responses that were labeled 'invalid' typically indicative of a preference for legacy meters, or more generally indicative of confusion on the part of customers? Please explain.
- 3.4. If some responses were indicative of confusion on the part of customers regarding their options, has BC Hydro already, or will BC Hydro endeavor to resolve them in favour of a Smart Meter prior to April 1, 2014 through personal or other direct contact?
- 3.4.1. If not, please explain why not.
- 3.5. Given the current standings in December 2013, does BC Hydro still expect to have approximately 10,000 customers using legacy meters at the time the charges will be implemented?

- 3.5.1. If not, please provide BC Hydro's current best estimate of the total number of legacy meter customers, and the number of radio-off meter customers that will be in place as April 1, 2014.

**4. Reference: Exhibit B-5, BCUC 1.2.1 (portion of answer)**

The geographic dispersion of these customers by billing area, together with the average consumption (during the period from July 2012 to June 2013) of refusals in each billing area, is provided in the following table. Average consumption for all refusal customers is 14,424 kWh.

Distribution of Total Residential Customers and Customers Refusing a Smart Meter by Billing Area				
Billing Area		Total Residential Customers (%)	Refusal Customers	
			Percent of Total (%)	Average Annual Consumption (kWh)
01	Vancouver	3.7	0.8	3,327
02	Vancouver	2.2	1.0	11,830
03	Vancouver	2.8	1.2	8,194

- 4.1. Please update this table with the most recent information.
- 4.2. What is the average consumption for those customers who have not refused by geographic region?
- 4.3. Would BC Hydro agree that, with the exception of Abbotsford, customers in the lower mainland are disproportionately less likely to refuse smart meters while those on Vancouver Island and Saltspring are disproportionately more likely to refuse smart meters?
- 4.3.1. If not, please explain why not.
- 4.3.2. If so, why does BC Hydro believe that this phenomenon occurred?
- 4.3.3. What measures, if any, will BC Hydro undertake on Vancouver Island to reduce the number of customers refusing smart meters?
- 4.4. Please explain, and provide quantification if available, if BC Hydro would expect to incur different costs in meter reading service and in meter installation costs on Vancouver Island and Saltspring than it would in the lower mainland and address the differential that might occur in travel times between customers.

## 5. Reference: Exhibit B-6-1, CEC 1.5.2 and Exhibit B-6-1, BCPSO 1.11.2

The cost to exchange a legacy meter with a radio-off meter will depend on the location of the installation (i.e., the Lower Mainland as opposed to a remote location) because the majority of the cost is related to travelling to the customer's premises. Based on the Meter Choices Program costs analysis included in the Application, on an average basis BC Hydro expects the cost to remove a legacy meter and replace it with radio-off meter to be as follows:

Radio Off Firmware Update @ \$65 per hour (\$)	26.91
Meter Installation Cost/Site Visit (\$)	55.00
Total (\$)	81.91

Note that all of the above costs are labour costs. Please refer to the responses to BCPSO IR 1.11.2 and BCSEA IR 1.9.6.

### RESPONSE:

The time required to travel to the customer's premises to exchange the meter varies, and is dependent upon travelling distance. Once the meter installer is at the customer's premises, and assuming there is clear access to the existing meter, the meter install process will take approximately 10 to 12 minutes on average with approximately one minute of that time required to remove and replace the meter.

- 5.1. What is the average travel time that is included in the installation cost of \$55?
- 5.2. Why did BC Hydro not include vehicle and other expenses as well as labour costs?
- 5.3. Please provide a list, with quantification of all non-labour costs that are required to exchange a meter including the costs of vehicles and fuel.

## 6. Reference: BCUC 1.2.2

### RESPONSE:

It is not dwelling type that matters in the cost analysis but the proximity of one radio-off or legacy meter to the next. Several radio-off or legacy meters at close proximity in a single meter location could decrease the cost of service. However, one radio-off or legacy meter in each of several apartment buildings may increase the cost of service.

- 6.1. Does BC Hydro have any reason to assume that there will be anything other than equal dispersion of radio-off or legacy meters throughout its service territory?
  - 6.1.1. If yes, please explain how BC Hydro believes that radio-off or legacy meters will be dispersed in its service territory with quantification and expected distances.

## 7. Reference: Exhibit B-6-1, CEC 1.9.5

### RESPONSE:

The charges to be applied to eligible customers where a legacy or radio-off meter remains installed at the customer's premises, as proposed in the Application, are designed to recover forecast "program costs", "investigation costs" and "infrastructure costs" as those terms are defined in Direction No. 4. However, the charges are not designed to recover the costs of communicating with and notifying customers of their eligibility and their options for the Meter Choices Program and the costs of this regulatory proceeding.

- 7.1. Please provide BC Hydro's best estimate of the costs of communicating with, and notifying customers.
- 7.2. Please provide BC Hydro's best estimate of the costs of this regulatory proceeding.

## 8. Reference: Exhibit B-6-1, CEC 1.9.9 and 1.20.1.2

### RESPONSE:

Regulatory activities as a result of the Meter Choices Program are expected to be:

1. Overseeing the application process, which includes, for example:
  1. Input and review of the Application
  2. Management of the IR process
  3. Review of final and reply submissions
  4. Submission of compliance filings as a result of a BCUC direction
  5. Submission to the BCUC with regards to Participant Assistance/Cost Award requests
2. Review of the BC Hydro Standard Charges as part of a future Rate Design Application.

- 8.1. Please confirm that all the costs associated with the Smart Meter choices program are related to Residential service, in that no commercial customers or non-residential service customers are permitted to participate in the meters choices program, regardless of their preferences.

**9. Reference: Exhibit B-6-1, CEC 1.11.2**

**RESPONSE:**

BC Hydro notes the Failed Installation Charge is approved on an interim and refundable basis as per BCUC Order No. G-166-13, effective as of October 25, 2013. As such, BC Hydro confirms that if a BCUC decision determines the final Failed Installation Charge should be more than BC Hydro's proposal of \$65, BC Hydro would seek to recover the difference from those customers where the Failed Installation Charge was applied as an interim approved charge, unless otherwise directed by the BCUC.

- 9.1. If the Failed Installation Charge was reasonably found to be greater than the BC Hydro charge of \$65, and BC Hydro was unable to recover this from the individual customers to whom it was charge, how and from whom would BC Hydro seek to recover the difference?

**10. Reference: Exhibit B-6-1, CEC 1.18.2.1**

**RESPONSE:**

The number of radio-off meters that can be installed in the specified period depends upon a number of factors including, location of installations, weather conditions, and availability of installation resources. BC Hydro expects to begin installing radio-off meters in February 2014, and expects to be substantially complete by April 2014.

- 10.1. Please confirm that weather and installation resource issues that affect installation are more likely to occur outside of the lower mainland than within the lower mainland.
- 10.2. Would BC Hydro agree that weather conditions and installation resources issues could increase the cost of installation by a significant margin? Please explain why or why not.

**11. Reference: Exhibit B-6-1, CEC 1.18.3.1, CEC 1.18.5 and CEC 1.18.6**

**RESPONSE:**

As noted in the response to CEC IR 1.18.2.1, BC Hydro expects to begin the installation of radio-off meters in February 2014. Assuming 5,000 customers choose the radio-off meter installation option, the install rate is expected to be more than 2,000 per month.

**RESPONSE:**

Mass meter deployment was 18 months (July 2011 through December 2012).

**RESPONSE:**

Agreed, due to the ad hoc and lower density nature of radio-off meter installations relative to the mass deployment of smart meters.

- 11.1. Would BC Hydro agree that the installation rate for radio-off meters is predicted to be approximately one 500<sup>th</sup> the rate at which the mass installation was completed?
- 11.2. If not, please explain why not.

**12. Reference: Exhibit B-6-1, CEC 1.21.2 and Exhibit B-8, Page 1****RESPONSE:**

BC Hydro does not have any empirical data that could be used to assess which proportion of customers would choose the legacy meter option and which proportion would choose the radio-off meter option. In the absence of any such empirical data, the expected level of participation was allocated evenly between each meter option.

Number of Meters	% of Eligible Meters	Response	Meter Choice	Number of Meters	% of Responses
50,946	75	Made a valid choice, specifically:	Smart meter	48,242	95
			Radio-off meter	450	1
			Legacy meter	2,254	4
4,020	6	Responded with invalid option	Legacy meter (deemed)		
13,112	19	No response	Legacy meter (deemed)		
<b>Total:</b> 68,078	100				

BC Hydro continues to receive responses from eligible customers, with the majority of these customers selecting the installation of a smart meter. BC Hydro expects a continued decline in the number of "deemed" legacy meter customers.

- 12.1. Would BC Hydro agree that, given the 'no response' and 'invalid response' are deemed to be legacy meters, it is highly unlikely that radio-off meters will account for any more than 10% of the meter choice program, initially?
- 12.1.1. If not, please explain why not and provide updated estimates.
- 12.2. Would BC Hydro agree that customers, with 'no response' & 'invalid response' and therefore with deemed legacy meter treatment, may make a choice for one of the other options when they receive the bill for their legacy meter reading?

- 12.2.1. Would BC Hydro agree that there would be a significant probability that the 'deemed legacy meter' customers may make choices for other options similar to the customers who have made the election in the first place.
  - 12.2.2. Would BC Hydro agree that if the 'deemed legacy meter' customers make choices like the customers making elections in the first place then the total of the 'radio-off' and 'legacy' meter customers could be approximately 5000 and the proportion of 'radio-off' to 'legacy' settle in to approximately 25% 'radio-off' and 75% 'legacy' meter.
- 12.3. Please provide the appropriate costing and charge rates for 5000 customer participants in the meter choice program with a mix of 25% 'radio-off' and 75% 'legacy' meter.