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VIA EMAIL

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December 20, 2013

BC HYDRO SMART METER

CHOICES PROGRAM

EXHIBIT A-11

Ms. Janet Fraser
Chief Regulatory Officer
British Columbia Hydro and Power Authority
16th Floor, 333 Dunsmuir Street
Vancouver, BC V6B 5R3

Dear Ms. Fraser:

Re: British Columbia Hydro and Power Authority
Application for Approval of Charges Related to Meter Choices Program

Further to Commission Order G-186-13, which established an Amended Regulatory Timetable with respect to the above noted proceeding, enclosed please find Commission Information Request No. 2.

In accordance with the Regulatory Timetable, please file your responses electronically with the Commission by Friday, January 17, 2014.

Yours truly,

Erica Hamilton

EC/cms

cc: Registered Interveners
(BCH-MeterChoice-RI)

**Application for Approval of Charges Related to
Meter Choices Program**

**22.0 Reference: Exhibit B-5, BCUC IR 1.1.4; Exhibit B-6-1, BCPSO IR 1.1.1; Exhibit B-8
Eligible Customers of the Meter Choices Program**

In Responses to the BCUC IR 1.1.4 and BCPSO IR 1.1.1, BC Hydro indicates that there were approximately 55,000 residential customer premises where smart meters had been put on hold due to customer refusal and approximately 12,000 residential customer premises where smart meters had not been installed due to other reasons.

22.1 Please reconcile the 67,000 (55,000 + 12,000) with the 68,078 (50,946 + 4,020 + 13,112) in the table on enrolment status in Exhibit B-8.

22.2 In Response to BCPSO IR 1.1.1, the respective figures for “eligible premises” as defined in the Smart Meters and Smart Grid Regulation and number of premises where smart meters have been installed are identical, for both the Residential rate class and the General Service rate class. Is this a coincident or are there other reasons that these numbers should be identical?

22.2.1 In the table in BCPSO 1.1.1, the difference between (a) the total number of metered customers’ premises and (b) the number of ‘eligible premises’ is 67,000 for the Residential rate class. This 67,000 is also identical to the total number of smart meter installation that has not been completed (i.e., 55,000 + 12,000). Is that a coincident?

**23.0 Reference: Exhibit B-5, BCUC IR 1.1.5, IR 1.2.3; BCSEA IR 1.3.1, IR 1.3.6.2; Exhibit B-8
Eligibility for Meter Choices Program**

In Responses to the BCUC IR 1.1.5 and BCSEA IR 1.3.1, BC Hydro indicates that approximately 15,000 incomplete smart meter installations are due to reasons other than opposition to smart meters. Out of these 15,000 customers, 12,000 are eligible Meter Choices Program customers.

In Response to BCSEA IR 1.3.6.2, BC Hydro further indicates that this group of 12,000 customers is eligible for the Meter Choices Program.

23.1 The definition of ‘eligible premises’ in the Smart Meters and Smart Grid Regulation states that ‘eligible premise’ does not include a building, structure or equipment where it is impracticable for the authority to install a smart meter. How many of the 15,000 incomplete smart meter installations, and specifically the 12,000 Residential rate class customers, fall into this category?

23.2 In response to BCUC IR 1.2.3, BC Hydro states that the 12,000 residential customers are eligible for all three meter choice options. Assuming that a Residential class customer eligible for the Meter Choices Program but currently being categorized by BC Hydro under the “Voltage Mismatch’ classification now exercises its choice for smart meter, please describe the steps that are necessary for either the customer or BC Hydro to realize the customer choice for smart meter or radio-off meter. Please describe who should pay the additional cost to enable the customer to exercise such choice, and why.

- 23.3 The table in Exhibit B-8 shows that 50,946 eligible customers have made their choices known to BC Hydro as of December 13, 2013. Of this total, how many are from the 12,000 customers?
- 23.3.1 Please provide the smart meter, radio-off meter and legacy meter split from those 12,000 customers who exercised their choices.
- 23.4 Please explain the high percentage of non-installation in the Billing Area 83 (Nakusp) relative to its residential meter population according to the table in BCUC IR 1.2.3.1.

24.0 Reference: Exhibit B-5-1, BCUC IR 1.2.1, IR 1.11.1.1; BCPSO IR 1.14.1; Exhibit B-8 Geographic Distribution of Residential Customers

In its response to BCUC IR 1.2.1, BC Hydro takes the position that there is no compelling reason to believe that the geographic distribution of customers by population density that ultimately choose to participate in the Meter Choices Program will be materially different from the geographic distribution of all residential customers.

- 24.1 According to the table on pages 2 of 4 to 4 of 4 of BCUC IR 1.2.1, only a handful of billing areas out of the 99 billing areas, e.g., 17, 81, 88, 91, 94, 95, 96, 97, 98, have a disproportionate higher number of refusal customers compared to total residential customers. Shouldn't BC Hydro consider this information to be a compelling reason that the geographic distribution of customers who ultimately choose legacy meters or radio-off meters could be materially different from the geographic distribution of all residential customers? If not, why not?
- 24.1.1 For those billing areas provided as examples above, where do they fall in terms of density category?
- 24.2 Exhibit B-8 indicates that as at December 13, 2014, there are 19,836 eligible customers in the Meter Choices Program who have elected (or deemed) Radio-off and Legacy meters (450 + 2,254 + 17,132). Does BC Hydro have the distribution by billing area for these customers?
- 24.2.1 Please provide a response to BCUC IR 1.11.1.1. To what extent does the information in BCUC IR 1.2.1 and the enrolment data to date provide BC Hydro with better estimates of range extender requirements?

25.0 Reference: Exhibit B-8; Exhibit B-5, BCUC IR 1.4.1; Exhibit B-6-1, CEC IR 1.24.5.1 Enrolment Status as of December 13, 2013

In the table in Exhibit B-8, the Meter Choices Program enrolment as of December 13, 2013 shows that 450 eligible customers have chosen Radio-off meters and 19,386 eligible customers have elected Legacy meters, composed of 17,132 deemed and 2,254 who made the choice. BC Hydro states that it expects a continued decline in the number of 'deemed' legacy meter customers.

- 25.1 Assuming that the number of 'deemed' legacy meter customers shows decline and that the total number of customers opting for Legacy meters falls from 19,386 to 15,000, what is the estimated year that replacement legacy meters will no longer be available to Legacy meter customers? Please expand the revised Table 3-11 in BCUC IR 1.17.1 in your response to include an additional column showing the 15,000 Legacy Meter exchanges.

- 25.1.1 If all 19,000 eligible customers who choose legacy meters or are deemed to have chosen legacy meters continued with this choice, is it reasonable to say that some of these customers may have the seals expiring in 2014 and may not be able to have replacement meters at the very start of the opt-out program? If so, what will be BC Hydro's proposal?
- 25.1.2 If not, what is BC Hydro's estimated year that replacement meters will no longer be available under this scenario?
- 25.2 In the Application, BC Hydro proposes to align the charges to approximately 10,000 or about 0.6 percent of customers choosing either legacy meter or radio-off meter. It further assumes that the choices for a radio-off meter and a legacy meter will be 50:50. Please comment if a change in the 50:50 split assumption is warranted in light of the new information in Exhibit B-8.
- 25.3 Please repeat Tables 3-16 and 3-17 in Appendix I of the Application by using the assumption of 5:95 split for radio-off meter and legacy meter based on the last column '20,000 number of meter choice customers' in Table 3-15. Does BC Hydro agree to this assumption? If not, please use an assumption that BC Hydro considers reasonable and that the assumption also reflects the information contained in Exhibit B-8.

**26.0 Reference: Exhibit B-5, BCUC IR 1.6.5.1
Participation Rate and Fees**

In the Response to BCUC IR 1.6.5.1, BC Hydro expects that after a transition period of several months and customers receiving bills with the new charges, it expects additional customers will choose the smart meter option and the participation rate will decline.

- 26.1 If the above assertion is considered true, then is it also true that the monthly fee set to recover cost as currently calculated by BC Hydro could be increased in the future?

**27.0 Reference: Exhibit B-5, BCUC IR 1.7.1; Exhibit B-6-1, Wong IR 1.2.2, Ryder 1.4.3; Exhibit B-1
Application p. 3-5
Credit Charge to Customers**

In Response to BCUC IR 1.7.1 and Wong IR 1.2.2, BC Hydro believes that it has no material cost savings for customers keeping their legacy meters because in nearly all cases BC Hydro has already incurred the cost of attending the premises to install the smart meters. BC Hydro believes that for premises where a legacy meter remains installed, a smart meter or a radio-off meter will be installed eventually when BC Hydro runs out of legacy meter inventory.

In the Application, BC Hydro proposes to recover the cost to reactivate the radio (i.e., an exit fee), as part of the initial charge for choosing a radio-off meter.

BC Hydro also is of the view that there are no material savings when asked in Wong IR 1.2.2 to calculate the annual avoided or deferred capital cost that should accrue to the benefit of an applicable customer if he or she elects to retain a legacy meter.

- 27.1 Isn't it inconsistent to consider costs not yet incurred for radio-off meter choice on the one hand and not consider the savings that are being avoided for the legacy meter choice on the other hand?

27.2 Please provide a response to Wong IR 1.2.2

**28.0 Reference: Exhibit B-6-1, CEC IR 1.3.1
Legacy to Legacy Meter Replacement**

BC Hydro states that it will send notice of legacy-to-legacy meter replacement upon confirming customers' enrolment for customers whose meters have already expired or are expiring in 2013 and 2014.

28.1 Assuming that there are enough legacy meters in BC Hydro's inventory, please confirm that there are no proposed charges for legacy to legacy meter replacement.

**29.0 Reference: Exhibit B-5, BCUC IR 1.9.2, IR 1.20.3; Exhibit B-6-1, Middleton IR 1.12.13, IR 1.12.4
Customer Self-Read and Billing**

In response to BCUC IR 1.9.2, BC Hydro states that it does not expect significant cost savings would result from the introduction of self-read capability.

According to the table in response to BCUC IR 1.4.1, the manual meter reading cost makes up over 43 percent of the total operating cost under the '20,000 meter choices customers' scenario.

29.1 The median consumption of all refusal customers is 11,235 kwh/year (BCUC IR 1.2.1.1). Does BC Hydro agree that the monthly energy cost for a typical customer refusing a smart meter is about \$75 per month? (936 kwh/month at a blended rate of roughly 0.08¢) If not, please provide BC Hydro's estimate.

29.2 Scenario 5 in the table in response to BCUC IR 1.20.3 is based on 10,000 participants in the opt-out program and is the scenario which BC Hydro aligned its proposed charges. Does BC Hydro agree that the tables in BCUC IR 1.20.3 indicate significant reduction in monthly charges for radio-off and legacy meter choice customers if manual meter readings are only carried out for true-ups?

29.2.1 Given the monthly energy cost for a typical customer refusing a smart meter at around \$75, does BC Hydro believe that customers are afforded a meaningful and fair opportunity to opt out of smart meter installation with its \$35 proposed monthly fee for legacy meter choice and \$20 proposed monthly charge for radio-off customers?

29.3 Please explain how migrating to automated and secure 24 x 7 web self-service and structured web forms, which will not have the ability to accept self-reporting of meter reads (Middleton IR 1.12.3) will improve service efficiency.

**30.0 Reference: Exhibit B-5, BCUC IR 1.9.4; Exhibit B-6-1, CEC IR 1.7.1 Attachment 1 Smart Metering & Infrastructure Program Business Case (Business Case)
Prepayment Option**

In its response to BCUC IR 1.9.4, BC Hydro states that it has not considered the option of pre-payment.

30.1 In the Business Case report, on pages 20 and 21, is it not true that BC Hydro examined use cases from other utilities and pre-pay services was considered, if not adopted?

30.1.1 Please provide the date when the Business Case was issued.

30.2 Is it reasonable to conclude that BC Hydro has not considered adopting the option of pre-payment in the Definition Phase and Implementation Phase of Smart Meters implementation because an Opt-out program was not contemplated at that time?

**31.0 Reference: Exhibit B-5, BCUC IR 1.14.2; Exhibit B-6-1, RDCK IR 1.4.0
Radio off Customers Initial Charge**

“The proposed initial charge of \$100 for eligible customers with a legacy meter who chose to have a radio-off meter installed does not include the cost of the installation of the radio-off meter. The charge does include the cost of exchanging the radio-off meter for a smart meter when the customer either moves premises or chooses a smart meter in the future. If an eligible customer requests a radio-off meter for a premises where a smart meter is installed, the initial fee is \$155, which does include the installation cost of the radio-off meter.” (RDCK IR 1.4.0)

BC Hydro believes that a radio-off customer may move to a premises that already has a radio-off meter is about 0.3 percent. Therefore, it has been assumed that the radio-off meter will need to be exchanged for a radio-on meter when the radio-off customer vacates the premises.

31.1 What is the probability of a radio-off customer moving at all within say, 10 years (life of IT Integration), to another premises?

**32.0 Reference: Exhibit B-5-1, BCUC IR 1.16.1
Legacy Meter Option Cost Model**

In response to BCUC IR 16.1, BC Hydro states that the recovery period has been roughly aligned to the period it expects to have legacy meters in its inventory, although this period is dependent on the number of customers who choose the legacy meter option.

32.1 Schedule A-4 in Appendix I shows that 4 years is being used under all levels of legacy meter participation. Is BC Hydro assuming that it will still have legacy meters in its inventory after 4 years under the 10,000 legacy meter scenario?

32.1.1 Does BC Hydro believe that an updated analysis related to recovery period is warranted given the new information contained in Exhibit B-8? If so, please provide an updated analysis.

**33.0 Reference: Exhibit B-6-1, RDCK IR 1.19.0; Exhibit B-8
Theft Detection Solution**

In its response to RDCK 1.19.0, BC Hydro states that reading meters only once per year would pose a risk for customers and also the theft detection solution relies on electricity balance analysis using interval data collected by smart meters and radio-off meters (in conjunction with event alarms and energy profiles). BC Hydro needs to collect the interval data from radio-off meters every two months in order to perform timely electricity balance analysis.

33.1 According to the information contained in Exhibit B-8, only 450 customers have chosen radio-off meters with the remaining being legacy meter customers or deemed legacy meter customers. Does this small number of radio-off customers create limitations for BC Hydro in terms of the supply of interval data?

33.1.1 Given the lack of interval data due to the very small number of radio-off customers, does it not diminish the argument that BC Hydro needs to collect the interval data from radio-off meters at minimum every two months in order to identify electric system issues and perform timely electricity balance analysis?

33.2 If reading meters only once per year poses a risk for customers as they could be faced with a large adjustment when Equal Payment Plan amount is trued up, doesn't this scenario call for a consideration of the "Prepayment Option" mentioned in the Business Case?

**34.0 Reference: Exhibit B-5, BCUC IR 1.6.5; Exhibit B-8
Participation Rate**

In BCUC IR 1.6.5, BC Hydro believes that a participation level of 10,000 seems to be in the right order of magnitude.

34.1 Does the updated information in Exhibit B-8 change BC Hydro's position? If not, why not? If so, would BC Hydro propose a new fee schedule for opt-out customers based on the latest information related to participation level and the split between radio-off and legacy meters?

**35.0 Reference: Exhibit B-5, BCUC IR 1.18.3.1
Field Investigation Resources**

BC Hydro has provided an amortization schedule in Table 3-15 in Appendix I of the Application. Handheld units are given a three year life and check meters are given five year life.

35.1 If the number of eligible customers choosing legacy meters or deemed to have chosen legacy meters is much higher than the original range used by BC Hydro in this Application for capital and operational costs analysis, and if the replacement meters will not be available after 2015, i.e., legacy meters no longer have a sustained presence, please comment on: (a) how BC Hydro will treat the amortization of field investigation resources; and (b) describe its impact on costs to be recovered from radio-off and legacy meter customers.

**36.0 Reference: Exhibit B-5, BCUC IR 1.20.1
Revenue Requirement**

The table in BCUC IR 1.20.1 shows seven scenarios on revenue requirement based on the number of meter choice customers.

36.1 Using only three scenarios: 10,000, 15,000 and 20,000, please replicate the table using operating cost and capital related cost derived from radio-off legacy meter split of 5:95 instead of 50:50 as used in the Application.

36.1.1 Does BC Hydro agree with the assumption of a 5:95 split? If not, please, in addition, use BC Hydro's own assumption in the analysis of revenue requirement and provide the reasons for BC Hydro's assumption.

**37.0 Reference: Exhibit B-5, BCUC IR 1.20.2.1 to IR 1.20.2.4
Revenue Requirement under Varying Assumptions**

37.1 For the three scenarios in the above question, please repeat the tables in BCUC IR 1.20.2.1. In addition, please provide the analysis if BC Hydro's assumption is different from the 5:95 split.

**38.0 Reference: Exhibit B-5, BCUC IR 1.20.3
Opt Out Charges**

38.1 For the three scenarios (10,000, 15,000, and 20,000) in the new revenue requirement analysis, please calculate the Meter Choices Program charges for radio-off and the legacy meter options.

**39.0 Reference: Exhibit B-8
Participation Rate**

In BCUC IR 1.6.5, BC Hydro believes that a participation level of 10,000 seems to be in the right order of magnitude.

39.1 Does the information in Exhibit B-8 change BC Hydro's position on the participation level? If not, why not?

39.2 If so, would BC Hydro propose a new fee schedule for opt-out customers based on the latest information related to participation level and the split between radio-off and legacy meters?