



January 24, 2014

EMAIL: Commission.Secretary@bcuc.com

Ian Webb
T: 604.631.9117
F: 604.694.2932
iwebb@lawsonlundell.com

B.C. Utilities Commission
Box 250, 900 Howe Street
Sixth Floor
Vancouver, B.C.
V6Z 2N3

Attention: Erica Hamilton

Dear Ms. Hamilton

**British Columbia Utilities Commission
British Columbia Hydro and Power Authority
Application for Approval of Charges Related to the Meter Choices Program
Project No. 3698760**

On behalf of British Columbia Hydro and Power Authority, we respectfully submit the enclosed Final Submissions in accordance with the regulatory timetable established by Order No. G-186-13.

Yours truly,

LAWSON LUNDELL LLP

Ian Webb

cc: BCUC Project No. 3698760 (Application for Approval of Charges Related to Meter Choices Program) Registered Intervener Distribution List.

1600 Cathedral Place
925 West Georgia Street
Vancouver, British Columbia
Canada V6C 3L2
604 685 3456
604 669 1620
www.lawsonlundell.com
Vancouver
Calgary
Yellowknife

British Columbia Utilities Commission

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

**FINAL SUBMISSIONS OF
BC HYDRO**

January 24, 2014

PART 1 – INTRODUCTION

1. BC Hydro has installed and put into operation smart meters at the premises of the majority of its customers. As of July 2013 approximately 75,000 smart meters had not yet been installed at customer premises due to requests by customers that the meter exchange be put on hold or for various other reasons.
2. On July 18, 2013, the Government of British Columbia announced its decision that BC Hydro will offer new meter options and related services to certain customers. The Government policy stipulated that meter choices would be offered to only those residential customers who did not already have a smart meter installed at their premises. It also stipulated that eligible customers choosing an alternative meter option will have to pay additional charges designed to recover the costs attributable to providing services in relation to the option.
3. The Government policy was subsequently enacted as Direction No. 4 to the British Columbia Utilities Commission (“**BCUC**”). Direction No. 4 came into effect on September 25, 2013.
4. In response to the Government policy and Direction No. 4, on October 7, 2013 BC Hydro filed with the BCUC an Application for Approval of Charges Related to Meter Choices Program (the “**Application**”, Exhibit B-1). A copy of Direction No. 4 is provided in Appendix B to the Application.
5. The Application sought the following Orders, pursuant to Direction No. 4 and sections 58 to 61 of the *Utilities Commission Act*:
 - An Order approving: (1) Electric Tariff terms and conditions related to the Meter Choices Program, effective as of October 25, 2013 on a final and permanent basis; (2) the failed installation charge of \$65 per occurrence, effective as of October 25, 2013 on an interim and refundable basis; and (3) approval to record certain costs in the existing SMI Regulatory Account.

- Following a hearing regarding the proposed charges, an Order approving: (1) the \$65 failed installation charge effective as of October 25, 2013 on a final and permanent basis; (2) the \$35 per month charge associated with a legacy meter effective as of December 2, 2013 on a final and permanent basis; and (3) the \$100 and \$155 initial charges¹ and \$20 per month charge associated with a radio-off meter effective as of April 1, 2014 on a final and permanent basis.

6. For convenience a table² was provided in the Application that sets out the proposed charges for eligible customers who retain a legacy meter or have a radio-off meter installed at their premises. The table is reproduced below.

	Radio-Off Meter		Legacy Meter
	Existing Meter: Legacy	Existing Meter: Smart ²	
Initial Charge (\$)	100	155	N/A
Monthly Charge (\$)	20	20	35

7. On October 9, 2013, the BCUC issued Order No. G-166-13 granting the following approvals in accordance with Direction No. 4:

- approval of the new Electric Tariff terms and conditions related to the Meter Choices Program effective as of October 25, 2013 on a final and permanent basis;³

¹ The proposed \$100 initial charge applies to eligible customers who have a legacy meter installed at their current premises, and elect to have that meter replaced with a radio-off meter in accordance with the Electric Tariff. The proposed \$155 initial charge applies to eligible customers who have a legacy meter or a radio-off meter installed at their current premises, move to a new premises that has a smart meter installed, and elect to have the smart meter replaced with a radio-off meter in accordance with the Electric Tariff.

² The table is presented on pages 1-3 and 3-2.

³ Order No. G-166-13, section 3.

- approval of the proposed failed installation charge effective as of October 25, 2013 on an interim and refundable basis;⁴ and
- authorization for BC Hydro to include certain costs in its existing SMI Regulatory Account.⁵

8. On October 11, 2013, the BCUC issued Order No. G-167-13 which:

- approved the proposed charge of \$35/month to be applied to customers that have a legacy meter installed at their premises, effective as of December 2, 2013 on an interim and refundable basis;⁶
- approved the proposed initial charges of \$100 and \$155, and the \$20/month charge to be applied to customers that have a radio-off meter installed at their premises, effective as of April 1, 2014 on an interim and refundable basis;⁷ and
- established a regulatory timetable for the proceeding to review the remaining issues arising from the Application.⁸

9. Accordingly, the items that remain to be approved by the BCUC and therefore the issues within the scope of this proceeding, are as follows:

- (1) the appropriate monthly charge to be applied to customers that have a legacy meter installed at their premises, on a final and permanent basis;
- (2) the appropriate initial charges and monthly charge to be applied to customers that have a radio-off meter installed at their premises, on a final and permanent basis; and

⁴ Order No. G-166-13, sections 1 and 2.

⁵ Order No. G-166-13, section 4.

⁶ Order No. G-167-13, section 6.

⁷ Order No. G-167-13, section 7.

⁸ Order No. G-167-13, sections 3 and 4.

(3) the appropriate failed installation charge to be applied to customers at premises where failed installations occur, on a final and permanent basis.

10. For the benefits of interveners, it must be emphasized that the scope of issues before the Panel in this proceeding is narrow. The Panel described its role in procedural Order No. G-167-13, as follows:

“In reviewing the Application for approval of Charges Related to Meter Choices Program, the written hearing is limited in scope to the recovery of costs of providing services to customers in relation to their choice of meters. Direction No. 4, section 4 establishes limits on the Commission’s powers to review the Application.”⁹

11. Eligibility to participate in the Meter Choices Program and fundamental features of the program’s design were established by Government policy as specified in Direction No. 4. For greater certainty, the Electric Tariff terms and conditions related to the Meter Choices Program, including eligibility criteria for the Program and the conditions under which legacy and radio-off meters may be retained at the premises of eligible customers, have already been approved by the BCUC on a final and permanent basis in accordance with Direction No. 4, section 3(3). Accordingly, issues related to the conditions of the Meter Choices Program are not within the scope of this proceeding.

PART 2 – INTERVENERS

12. Numerous parties filed letters of comment as interested parties. The following parties have actively¹⁰ intervened in the written proceeding:

- British Columbia Pensioners’ and Seniors’ Organization et al (“**BCPSO**”);
- BC Sustainable Energy Association and the Sierra Club of British Columbia (“**BCSEA**”);

⁹ Order No. G-167-13, section 4.

¹⁰ Those parties who filed information requests are considered “active” interveners.

- Commercial Energy Consumers Association of British Columbia (“CEC”);
- Citizens for Safe Technology Society and Nomi Davis (“CSTS”);
- Regional District Central Kootenay (“RDCK”);
- District of Metchosin; and
- individuals J. Hurd, D. Barbisan, R. Middleton, J. Skogstad, D. Wong, J. Stachow; J. and B. Mansell, R. Polden and N. Ryder.

13. The written proceeding has included two rounds of information requests (“IRs”) and responses.

PART 3 – SUBMISSIONS

14. The submissions in this part address the issues that appear to have emerged through the IR process in relation to the proposed charges that remain subject to final approval by the BCUC.

3.1 Issues Common to Proposed Legacy and Radio-off Meter Charges

3.1.1 Charges are designed to recover incremental costs on a postage stamp basis

15. Section 3(1)(a) of Direction No. 4 requires the BCUC to set rates for BC Hydro that allow BC Hydro to recover “program costs”, “investigation costs” and “infrastructure costs” from eligible customers at premises where a legacy meter or radio-off meter is installed.¹¹

¹¹ Per Direction No. 4, section 1, “program costs” means costs related to the installation and operation of, and services related to, legacy meters or radio-off meters at applicable premises, including, without limiting this, costs related to (a) computer hardware and software systems respecting the use and operation of legacy meters or radio-off meters, (b) the conversion of radio-off meters into smart meters for future customers, (c) attendance at an applicable premises to install a legacy meter or radio-off meter. “Investigation costs” means costs related to investigating and identifying the location of unmetered loads referred to in section 4(1)(a)(iv) of the Smart Meters and Smart Grid Regulation, B.C. Reg. 368/2010, in areas where the installation of one or more legacy meters reduces or would reduce the accuracy of electricity balance analyses performed to estimate the extent and location of these loads. “Infrastructure costs” means costs related to the installation and operation of communications infrastructure in areas where the installation of one or more legacy meters or radio-off meters hinders or would hinder the transmission of information among smart meters.

16. Chapter 3 of the Application describes the expected incremental program, investigation and infrastructure capital and operating costs BC Hydro will incur to provide eligible customers with the legacy and radio-off meter options in accordance with the Electric Tariff and Direction No. 4. All costs identified are fully incremental and arise solely as a result of offering the meter choices to eligible customers. The analytical approach used to estimate these costs involved an assessment of the incremental requirements resulting from the implementation of the Program.¹²
17. The approach is also consistent with the BCUC decisions regarding rates for FortisBC customers that choose the radio-off meter option of FortisBC's Advanced Metering Infrastructure ("**AMI**") Project. Specifically, in the BCUC's Order No. G-220-13 Reasons for Decision dated December 13, 2013 (the "**FBC AMI Radio-off Option Decision**")¹³ the BCUC confirmed its principle that the "incremental cost of opting-out of the AMI program will be borne by the individual choosing to opt-out".¹⁴
18. The new charges are proposed to be applied on a postage stamp basis across the service territory, wherein total incremental costs to provide the service are divided by the appropriate number of units (in the case of the legacy and radio-off meter charges, the number of customers forecast to choose the particular option).¹⁵ The charges are not proposed to vary by the geographic location of the Meter Choices customer, the proximity of the customer to other Meter Choices customers, or by the proximity of the customer to areas where there is currently no field area network or wide area network coverage for smart meter telecommunications. The circumstances in the previous sentence are not relevant when setting rates on a postage stamp basis.
19. The new charges have been calculated on a cost-of-service basis. The charges have not been designed to incent eligible customers to select a smart meter or radio-off meter in preference over the legacy meter option. Moreover, the charges have

¹² Exhibit B-11, responses to BCPSO IRs 2.9.4 and 2.9.4.4.

¹³ A copy of the FBC AMI Radio-off Option Decision is attached to Exhibit B-11, response to BCSEA IR 2.17.1.

¹⁴ FBC AMI Radio-off Option Decision, page 6.

¹⁵ Exhibit B-6-1, response to CSTS IR 1.40; and Exhibit B-11, response to CSTS IR 2.19.

not been designed to fall under a preconceived maximum amount in proportion to an individual customer's monthly electricity bill.¹⁶ The amount of a customer's bill is not relevant to the determination of a cost-based charge for a service.

20. Certain interveners suggested in their IRs that the new charges should be discounted for low income or disabled customers. The BCUC has consistently rejected requests for such discounted rates. Moreover, BC Hydro believes that discounting rates for a customer or customers on the basis of the personal characteristics of the customer(s) would not be permissible under the *Utilities Commission Act*. Subsidising rates for utility service to low income or disabled customers is a matter for government policy and not considered under the *Utilities Commission Act* and regulation provisions of general application. Furthermore, governments generally choose to deliver their assistance programs through direct channels rather than indirectly through subsidised utility rates.¹⁷

3.1.2 Merits of a Meter Self-Read Program

21. Several intervener and BCUC staff IRs asked about the merits of a program under which Meter Choices Program customers self-read the legacy or radio-off meters at their premises and submit the meter data to BC Hydro by phone or email. The proposal would have BC Hydro rely on the self-read data for billing purposes, and read these meters only once or twice per year to verify the self-read data and make any required billing adjustments. The assumption in suggesting such a program is that the reduced frequency of meter reading by BC Hydro would save significant cost, thereby reducing the legacy and radio-off meter charges.

22. There is no legal reason why a customer cannot read the meter installed at their premises. The issue is whether it would be cost-effective for BC Hydro to read the meters less often than the standard bi-monthly schedule. BC Hydro believes the proposal would not be practicable or cost-effective. BC Hydro does not recommend

¹⁶ Exhibit B-10, response to BCUC IR 2.29.2.1.

¹⁷ Exhibit B-6-1, response to Polden IR 1.3.2.

such a meter self-read program, and does not intend to institute a policy of self-reads.¹⁸

23. The key evidence BC Hydro submitted regarding this issue is the responses to BCUC IRs 1.9.2 and 2.29.3. Additional evidence regarding this issue is provided in the confidential response to BCUC IR 2.33.1.1. BC Hydro urges the Panel to review the confidential evidence as it will not be summarized here. A summary of the public evidence is provided below.

- Regular and accurate meter readings are necessary to ensure that accurate bills are produced. Timely and accurate billing has benefits to the customer (eliminates the need for billing adjustments later) and to BC Hydro (revenue assurance and the timely collection of revenue).
- There is the potential for deliberate underreporting of consumption.
- It is not possible to self-read the interval data, events and alarms captured by radio-off meters.
- 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. BC Hydro also needs to collect actual consumption from legacy meters on a timely basis in order to support electricity balance analysis. Electricity balance analysis identifies anomalies in the electric system which may be caused by over-loaded transformers, malfunctioning equipment, meter tampering, or theft of power.
- BC Hydro's trained Field Metering Analysts ("**FMA**s") have the equipment and expertise to manually read legacy meters and download meter data from radio-off meters. FMAs ensure that meters are read accurately and on a specific schedule that aligns with each customer's scheduled billing date.

¹⁸ Exhibit B-5, response to BCUC IR 1.9.2.

- Customers might not be diligent in recording and submitting the self-read data on the specific schedule that aligns with their scheduled billing date. Despite best intentions, customers might not be willing to plan their lives around their specific meter self-read schedule.
- A large scale self-read program could result in several thousand self-reads submitted to BC Hydro by phone or email each month. Information technology (“IT”) investment would be necessary to accommodate such a program.
- BC Hydro does not expect significant cost savings would result from the introduction of a self-read program. Travel is a significant portion of the meter reading cost in both rural and urban areas because meters requiring manual reads are dispersed throughout the service territory. Even if the majority of legacy and radio-off meter customers commit or are required to self-read the meter and submit the data on the required billing schedule, FMAs will still need to travel to each area to download interval and event data from radio-off meters as well as those legacy meters where the customer does not participate in the self-read program. Where the customer has not provided a self-read as scheduled, a special dispatch of an FMA might be required to obtain the reading, requiring incremental exception management processes and increasing costs. Therefore, significant savings would not be expected.
- Over time BC Hydro expects that Meter Choices Program participants will transition to radio-off meters¹⁹ and FMAs will need to travel to each area to download interval and event data from these meters. Any IT investment to support a self-read program for legacy meters would need to be collected from participating customers on that basis. As the number of legacy meters decreases, the fixed costs per customer would increase.

¹⁹ Refer to section 3.1.3 of these submissions.

24. For all of the reasons above, BC Hydro submits that it would not be practicable or cost-effective to institute a meter self-read program for eligible customers with a legacy or radio-off meter installed at their premises.
25. In addition, the BC Hydro Electric Tariff provides the following with respect to meter reading frequency:

5.1. Meter Reading

The interval between consecutive meter readings shall be at the sole discretion of BC Hydro.

Where the Rate Schedule under which a Customer takes service does not require measurement of the Customer's demand, the meter will normally be read at intervals of two months. Where the Rate Schedule under which a Customer takes service requires measurement of the Customer's demand, the meter or meters will normally be read at intervals of one month.

26. FortisBC has a similar provision in its Electric Tariff.²⁰ In the FBC AMI Radio-off Option Decision, the BCUC made the following determination regarding FortisBC's position that radio-off meters should be read by the utility bi-monthly:

Commission Determination

The Panel finds that downloading consumption and operational data from Radio-off AMI Meters on a bi-monthly basis appropriately preserves certain benefits of the AMI project. Namely, the collection of hourly interval data is required in order to preserve the theft reduction benefits of the AMI project. In the view of the Panel, the bi-monthly process proposed by FortisBC is a reasonable balance between the immediate collection of hourly interval data from standard radio-on AMI meters contemplated as part of the AMI project and the submissions by several interveners that the meter reading frequency should be reduced to less than bi-monthly or supplemented with customer self-reads. In addition, the Panel notes that the practice of bi-monthly meter reading is consistent with existing rate schedules. (FortisBC Reply Submission, p. 13)

27. As discussed above, BC Hydro believes that it needs to read radio-off meters on a bi-monthly basis for the same reasons as have been supported by the BCUC. For similar reasons, BC Hydro believes that it should read legacy meters on a bi-monthly basis. Further, BC Hydro does not expect significant cost savings would result from the introduction of a self-read program for legacy meters especially if FMAs are in the field to read radio-off and legacy meters on a bi-monthly basis for customers that do not self-read, and further incremental IT expenditures and exception

²⁰ FortisBC Electric Tariff, section 6.1 and rate schedules.

management processes would be required to develop the capability to process self-read data efficiently.

3.1.3 Assumed Participation Rates in the Meter Choices Program

28. To forecast the costs associated with the continued use of legacy meters and the installation and use of radio-off meters, and to calculate the charges to be applied per customer to recover those costs, BC Hydro has had to assume values for certain key variables. These assumptions include the number of eligible customers who choose or are deemed to choose legacy and radio-off meters.
29. BC Hydro assumed in the Application that the number of customers who choose either a radio-off or legacy meter will fall within the range of 5,000 to 20,000 (between 0.3 per cent and 1.2 per cent of total residential customers), and proposed charges aligned to approximately 10,000 or about 0.6 per cent of customers choosing either of these options. BC Hydro further assumed that of the 10,000, 50 per cent (5,000) will choose the radio-off meter and 50 per cent will choose the legacy meter.²¹ Certain forecast cost elements are sensitive to the number of Meter Choices Program participants while others are insensitive.²²
30. Following completion of the Meter Choices Program enrolment period and as of December 13, 2013, approximately 19,000 eligible customers chose or were deemed to have chosen the legacy meter option and 450 chose the radio-off meter option. Several intervener and BCUC staff IRs asked for BC Hydro's views on whether the assumptions of 10,000 participants and a 50:50 split between legacy and radio-off meters continue to be appropriate given the enrolment data.
31. First, it is important to consider the conditions under which eligible customers may retain legacy and radio-off meters at their premises in accordance with the BC Hydro Electric Tariff as amended by BCUC Order No. G-166-13. The Tariff conditions will impact the number of legacy and radio-off meters over time.

²¹ Application, section 3.3, pages 3-3 to 3-4.

²² Application, Table 3-3. For example, IT capital and operating costs are insensitive to the participation rate.

32. Pursuant to the Tariff conditions related to the Meter Choices Program, the number of legacy meters can only decline while the number of radio-off meters will increase to a peak and then decline as overall participation in the Meter Choices Program declines. This pattern is a sure result of the following basic parameters of the Program:

- overall participation in the Program was capped at the number of residential premises that did not have a smart meter installed at the time of Program enrolment, and can only decline thereafter due to attrition such as customers choosing a smart meter;²³
- as legacy meters with expired Measurement Canada seals are removed from service, some of these will be replaced with radio-off and smart meters due to an exhausted legacy meter replacement inventory;²⁴
- the number of legacy meters will further decline because eligible customers that move to new premises will no longer be eligible for the legacy meter option. The number of radio-off meters is expected to increase because eligible customers that move to new premises will be eligible for the radio-off meter option at the new premises; and
- eligible customers can at any time switch from the legacy meter option to the radio-off meter option or to the smart meter, but customers are not permitted to switch from a smart or radio-off meter to a legacy meter.

33. In summary, the total number of legacy and radio-off meters can only decrease, the number of legacy meters can only decrease, and the number of radio-off meters can increase but only up to the number of remaining eligible customers which itself will decline over time. Accordingly, there will necessarily be a point in time when there

²³ As at January 10, 2014, the total number of customers that chose or are deemed to have chosen the legacy meter and radio-off meter options was 19,302 out of total eligible customers of 68,078. Exhibit B-10, response to BCUC IR 2.25.2.

²⁴ Application, section 3.4.2.5; Exhibit B-5, response to BCUC IR 1.17.1; and Exhibit B-10, response to BCUC IR 2.25.1.

will be 10,000 Meter Choices Program participants. The number of participants will continue to decline below 10,000 after that point has passed. There will also be a point in time when the split between legacy and radio-off meters is 50:50, though that point in time is unlikely to align with the point at which there are 10,000 participants overall.

34. Thus, the issue appears to be whether the assumptions of 10,000 participants overall and a 50:50 split will be borne out “soon enough” for those assumptions to be a basis for setting charges that will be effective now. BC Hydro does not believe that a departure from those assumptions would be warranted. The key evidence BC Hydro submitted regarding this issue is the responses to BCUC IRs 2.25.2 and 2.25.3. A summary of that evidence is provided below.

- BC Hydro began sending bills inclusive of the legacy meter charges on January 14, 2014. It is expected that despite BC Hydro’s communications efforts to date, a considerable number of eligible customers who as of yet have not responded will choose a smart meter once they receive a bill with the charge and realize they are deemed to have chosen the legacy meter.
- Eligible customers that have indicated they wish to retain their legacy meter at no cost (i.e., that have submitted an enrolment form indicating an invalid option) will be faced with an economic decision when the charges appear on their bills, and again when the BCUC issues its final decision establishing permanent charges. These events will remove any doubt that the economic decision will need to be made.
- The charges for the radio-off meter option are lower over the long term compared to the legacy meter option, suggesting that customers who base their decision on economic factors will migrate to the radio-off meter option.
- Pursuant to the Tariff, eligible customers that move to new premises will no longer be eligible for the legacy meter option, suggesting further migration to

radio-off and smart meters. Based on historical data, on average about 20 per cent of BC Hydro's customers move on an annual basis.

- The number of legacy meters remaining in service will decrease over time as the respective Measurement Canada seals expire and the inventory of legacy meters is exhausted. Again, the number of legacy meters will decline and radio-off meters will proportionately increase.
- Based on the above considerations, BC Hydro expects that participation in the Meter Choices Program will fall below 10,000 by the end of calendar 2014.
- With respect to the assumed 50:50 split of legacy and radio-off meters, it is important to note that the radio-off meter charges are generally insensitive to the number of radio-off meters. Using the assumption of 20,000 Meter Choices Program participants (1,000 radio-off meters and 19,000 legacy meters) in place of the assumed 10,000 used in the Application (5,000 radio-off and 5,000 legacy meters), the calculated initial radio-off charge falls from \$99.16 to \$96.74, and the monthly charge falls from \$19.89 to \$14.01.²⁵ Moreover, 19,000 legacy meters would not be sustainable beyond 2014 because with that number of legacy meters on the system there would be approximately 10,000 Measurement Canada seal expiries and only 7,400 legacy meter replacements in inventory. The difference of about 2,500 meters would be replaced with radio-off or smart meters at the customer's option.

3.1.4 Transformers required for range extenders

35. As smart meter density decreases due to legacy and radio-off meters remaining on the system, range extenders are deployed to maintain the integrity of the mesh telecommunications network.²⁶ The cost of incremental range extenders is an "infrastructure cost" under Direction No. 4. The actual number of range extenders

²⁵ Exhibit B-10, response to BCUC IR 2.25.3. Also refer to the response to BCUC IR 2.36.1.

²⁶ Application, section 3.4.1.5.

required is difficult to predict as it depends on actual geographic distribution of radio-off and legacy meters and topography.

36. BC Hydro had estimated that 81 per cent of range extenders would require a transformer to step down primary voltage to secondary. Range extenders operate at secondary voltage.²⁷ Based on current information as of January 6, 2014, in the response to Wong IR 2.2.1 BC Hydro revised its estimate from 81 per cent to 56 per cent of range extenders requiring a transformer. As noted in that IR response, a change in the assumption in the cost analysis from 81 per cent to 56 per cent would reduce the monthly charges for the radio-off and legacy meter options by \$0.46 per month.

3.1.5 Future update of Meter Choices Program charges

37. Certain interveners canvassed through IRs the merits of either maintaining the new charges on an interim and refundable basis for an extended period, or updating the charges after a short period of time, as a response to uncertainty about Program participation rates and other cost drivers.

38. The BCUC considered this issue for FortisBC, and made the following determination in its FBC AMI Radio-off Option Decision (at page 19):

Commission Determination

The Panel does not consider it reasonable to retroactively adjust or refund the Per-premises Setup Fee charged. To do so would create rate uncertainty for those customers making a decision as to whether or not to participate in the Radio-off AMI Meter Option. Removing rate uncertainty is consistent with the Commission's approach to setting rates based on evidence provided in a rate proceeding. Accordingly, the Panel sets the Per-premises Setup Fee as permanent. For clarity, the Premises Setup Fee is \$60 for those customers that elect to participate prior to the commencement of AMI project deployment in their region and \$88 for those customers that elect to participate after this time.

After full implementation of the AMI project FortisBC may bring forward an application for review of future Radio-off AMI Meter Option rates, following its normal practice.

²⁷ Exhibit B-6-1, response to BCPSO IR 1.15.1.

39. In addition, BC Hydro provided the following comments on this issue in its response to BCUC IR 2.26.1:²⁸

“With the decline in participation over time, costs per participant may increase. However, it is a somewhat separate issue whether the standard charges should also be increased and, if so, how often they should be increased. BC Hydro believes that rate stability is particularly important for this type of charge because customers will continue to make decisions based in part on the level of the charges. Further, some Meter Choices Program decisions are irrevocable. For example, a customer that chooses a radio-off meter does not have the right to subsequently choose a legacy meter. And a customer that chooses a smart meter does not have the right to subsequently choose a legacy or radio-off meter. Therefore, BC Hydro believes that a level of rate stability and predictability is appropriate for these charges, and that they should not be updated too frequently.”

40. Thus, BC Hydro supports the determination of the BCUC regarding rate certainty as quoted above.²⁹ The charges should be set on a permanent basis, and updated in a future application in the normal course of business. Moreover, the regulatory costs of a stand-alone application for approval to update the charges would eclipse any benefit from such updating. It would be more efficient to update the charges as part of a future general rate design application.

3.2 Issues Specific to Proposed Legacy Meter Charges

3.2.1 Risk to Smart Metering Program benefits

41. Economic theory suggests that demand for legacy meters will increase and/or remain high as the charge for the legacy meter option decreases.³⁰

²⁸ Exhibit B-10.

²⁹ Exhibit B-11, response to CSTS IR 2.20.

³⁰ Exhibit B-6-1, response to CSTS IR 1.26.

42. BC Hydro filed several IR responses with the BCUC on a confidential basis where the information contained in the response related to the theft detection solution enabled by the Smart Metering Program. BC Hydro urges the Panel to review the information in the confidential responses to BCUC IRs 1.18.1, 1.18.1.2, 2.33.1.1, as well as Exhibit B-9, the responses to the confidential BCUC IRs submitted to BC Hydro and marked as Exhibit A-12.
43. A key point of those responses is that large numbers of legacy meters remaining on the system could have a significant detrimental impact to the benefits of the Smart Metering Program theft detection solution, increasing costs for all customers. Due to confidentiality concerns, the information will not be discussed in further detail here.
44. In addition to the risks to Smart Metering Program benefit realization, a large number of legacy meters will not be sustainable due to Measurement Canada seal expiries. If 15,000 customers retain a legacy meter, beginning in 2014 there will be insufficient legacy meters in inventory to replace all meters with expiring seals.³¹ If 19,000 customers retain a legacy meter, in 2014 there will be insufficient legacy meters in inventory to replace 2,500 of the legacy meters with expired Measurement Canada seals.³² These 2,500 meters would need to be replaced with radio-off or smart meters. If 10,000 customers retain a legacy meter, the inventory of replacement legacy meters would be exhausted in 2015.³³
45. A lower monthly charge for customers with legacy meters installed at their premises, other things being equal, will be expected to result in higher demand for legacy meters for a longer period of time. A large number of legacy meters remaining on the system in response to such demand might have significant impacts to Smart Metering Program benefits to the detriment of all customers. Moreover, such demand for legacy meters would not be met in any event due to Measurement

³¹ Exhibit B-10, response to BCUC IR 2.25.1.

³² *Ibid*, response to BCUC IR 2.25.1.1.

³³ *Ibid*, response to BCUC IR 2.32.1.

Canada meter seal expiry and an exhausted replacement inventory. Such unserved demand might result in conflict.

46. For the reasons above, BC Hydro urges the BCUC to exercise caution if it considers using its discretion to reduce the legacy meter charge.

3.2.2 Deferred capital cost savings

47. Several intervenor and BCUC staff IRs asked about potential savings in relation to eligible customers electing to retain the legacy meter and, thereby, deferring the requirement for BC Hydro to purchase and install a smart meter at the customer's premises. BC Hydro provided an estimate of the time value of money savings in the response to Wong IR 2.1.1.³⁴ The estimated savings are \$1.03/month applicable to the legacy meter option only. There are no such potential savings for the radio-off meter option because this option requires the existing meter to be replaced with a smart meter with the radio transmitters deactivated.

3.2.3 Applicability of the Canadian Charter of Rights and Freedoms

48. In the BCUC proceeding to review the FortisBC Application for a Radio-off Advanced Metering Infrastructure Meter Option, the CSTS and RDCK submitted arguments related to alleged discrimination under the *Utilities Commission Act* and/or the Canadian Charter of Rights and Freedoms (the "*Charter*"). The BCUC found that the *Charter* is not applicable to FortisBC and, in any event, that the FortisBC Radio-off Meter Option is not discriminatory under the *Utilities Commission Act*.
49. In this proceeding, RDCK asked IRs that suggest RDCK intends to again submit arguments about alleged discriminatory treatment contrary to the *Charter*. The key BC Hydro response to the RDCK IRs related to the *Charter* is as follows:

"No, BC Hydro cannot confirm that section 32(b) and sections 7, 11 and 15 of the *Constitution Act, 1982* (the "*Charter*") apply to all of its operations.

³⁴ Exhibit B-11. Further detail was provided in Exhibit B-10, confidential response to BCUC IR 2.27.2.

Agents of the Crown are not necessarily considered to be government for the purposes of the *Charter*. Further, the *Charter* is not relevant here because there is no conduct or decision of BC Hydro at issue in this BCUC proceeding that could be considered an infringement of a *Charter* right. In addition, the BCUC does not have jurisdiction over constitutional questions.”³⁵

50. It is not clear what, if any, arguments RDCK might propose to make in relation to the *Charter*, particularly given that the conditions under which a legacy meter may remain installed at a customer’s premises have already been incorporated into the Tariff by Order No. G-166-13, in accordance with Direction No. 4. In addition, section 4 of Direction No. 4 provides specific prohibitions against offering meter choices to certain classes of customers. As noted in the response quoted above, BC Hydro is not aware of any conduct or decision at issue in this proceeding that could be considered an infringement of a *Charter* right. If RDCK or another intervener submits argument in relation to the *Charter*, BC Hydro will respond in its reply submissions as appropriate.

3.3 Issues Specific to Proposed Radio-off Meter Charges

3.3.1 Lower than assumed participation in radio-off meter option

51. As discussed in section 3.1.3 of these submissions, above, the Application proposes charges aligned to approximately 10,000 or about 0.6 per cent of customers choosing either the legacy or radio-off meter options. BC Hydro further assumed that of the 10,000, 50 per cent (5,000) will choose the radio-off meter and 50 per cent will choose the legacy meter. Following completion of the Meter Choices Program enrolment period and as of December 13, 2013, only 450 eligible customers chose the radio-off meter option.

52. Although the number of customers selecting the radio-off meter as at December 13, 2013 is much lower than the 5,000 assumed in the Application, the initial charge for

³⁵ Exhibit B-11, response to RDCK IR 2.3.0.

a radio-off meter is not particularly sensitive to the overall number of radio-off meters, although that number does have a bearing on the monthly charge.³⁶

53. Moreover, the number of radio-off meters is expected to increase over time to a peak and then decline. The reasons for this pattern are elaborated above in section 3.1.3 of these submissions.

3.3.2 Structure of radio-off meter charges

54. BC Hydro's Application proposes to include in the initial radio-off meter charges of \$100 and \$155,³⁷ the \$55 cost that BC Hydro will eventually incur to attend at the customer's premises to install a smart meter. This will be an incremental meter exchange, and the costs fall within the definition of "program costs" in Direction No. 4.

55. This \$55 is an incremental cost for the radio-off meter option because when a radio-off meter customer moves to new premises or chooses to switch to a smart meter, BC Hydro will have to attend at the customer's premises to re-activate the radio transmitters in the meter.³⁸ The transmitters cannot be re-activated remotely over the air. The \$55 cost associated with re-activating the transmitters is based on the average cost of attendance at a customer's premises to install a smart meter, taking into account travel time as well as a relatively short time manually reactivating the radio transmitters with an optical probe.

56. The BCPSO, BCSEA, CEC and BCUC staff asked IRs in relation to the proposed rate structure for recovering the "exit cost" and whether an alternative to the proposed structure might be preferable and/or permissible under Direction No. 4.

57. An alternative approach for recovering the "exit cost" would be to charge the \$55 when the customer either moves from the premises or requests that the radio-off

³⁶ Refer to section 3.1.3 of these submissions.

³⁷ Refer to footnote 1.

³⁸ Exhibit B-5, response to BCUC IR 1.14.1; Exhibit B-11, responses to BCPSO IR 2.28.1 and CEC IR 2.5.1.

meter be switched to a smart meter.³⁹ This alternative approach would reduce the initial radio-off meter charges from \$100 and \$155, to \$45 and \$100, respectively.

58. It is uncertain as to whether or not the alternative approach described above would encourage participation in the radio-off option as this would depend on the customer preference for an initial charge relative to an exit charge.⁴⁰

59. With respect to the requirements of Direction No. 4, the Direction requires the BCUC to set rates that enable BC Hydro to recover the prescribed costs but it does not speak to how the rates should be structured in terms of initial, monthly and/or exit charge components.

3.4 Issues Specific to Failed Installation Charge

3.4.1 Application of Failed Installation Charge

60. Section 3(1)(c) of Direction No. 4 requires the BCUC to set rates for BC Hydro that allow BC Hydro to recover “failed installation costs” from customer at premises where a failed installation occurred.⁴¹

61. Several intervenor and BCUC IRs sought better understanding of the circumstances that would lead to the levying of the failed installation charge. In essence, these IRs sought confirmation that the charge would not be applied vindictively. For example, Mr. Stachow submitted the following IR:⁴²

“Page 1-3 at lines 10-13 discusses the Failed Installation Charge. I find BC Hydro’s definition of this new proposed charge to be highly imprecise and recommend that it be clarified considerably. Numerous times I have informed BC Hydro in writing that I refuse a smart meter. How can I then be subject to a Failed

³⁹ Exhibit B-10, response to BCUC IR 2.27.1; Exhibit B-11, responses to BCPSO IR 2.28.1, BCSEA IR 2.21.2 and CEC IR 2.12.2.1.

⁴⁰ *Ibid*, response to BCSEA IR 2.21.2.

⁴¹ Per Direction No. 4, section 1, “failed installation costs” means costs related to attendance at a premises to install a legacy meter, radio-off meter or smart meter where installation is not carried out because of either an objection made by a customer or an obstruction.

⁴² Exhibit C26-2, Stachow IR 1.4.0.

Installation charge? You already know I don't want a smart meter, so why bother attempting to do so anyway. Is this simply an attempt to frustrate your customers who retain legacy meters? Since you already know I don't want a smart meter, I should be at no risk of being charged this proposed fee, however, as I read The Program, it seems to me that BC Hydro could send a smart meter installer to my home on a daily basis and rack up \$65 per visit, all the while knowing that I don't want a smart meter. Why is your definition so imprecise? Can you make it more understandable? Should a person like myself fear that I will be charged a Failed Installation Charge, even though you already know I don't want an smart meter installed?"

62. Questions about the circumstances in which the failed installation charge will be levied are not strictly speaking within the scope of this proceeding because the criteria for applying the charge have already been incorporated into the Electric Tariff on a final and permanent basis by Order No. G-166-13.⁴³ However, BC Hydro took the opportunity to alleviate concerns about the application of the failed installation charge. Specifically, in its response to CSTS IR 1.64 BC Hydro said the following:

"Where a customer who is eligible for the Meter Choices Program elects or is deemed to elect the legacy meter option, BC Hydro would not attend at the customer's premises to exchange the meter installed there except when the legacy meter seal expires, the meter breaks or the customer elects to have the meter changed to a radio-off or smart meter. There would be no attempted installation, and therefore no failed installation or failed installation cost, where the eligible customer elects or is deemed to elect to retain the legacy meter, and the meter is functioning properly with a valid seal."

63. BC Hydro also confirmed that for customers that choose the smart meter or radio-off meter, and therefore a meter exchange is required at their premises, a letter is sent

⁴³ Order No. G-166-13, section 3, approved the new terms and conditions in section 6 of the BC Hydro Electric Tariff as filed in Appendix C of the Application.

to the customer providing notice that any obstructions or barriers that could prevent the exchange must be removed:

“You don’t need to be home as long as we have safe and clear access to our meter – please remove any barriers that could prevent the exchange. Meter installation will usually take place Monday to Friday between 8 a.m. and 8 p.m. PST. Meter installers will knock on your door before starting any work and always wear photo identification badges. If BC Hydro or our authorized contractor cannot access the meter a failed installation cost will be added to your bill. If you need to make access arrangements, please contact a Smart Metering Specialist as soon as possible at 1 800 409 8199.”⁴⁴

64. BC Hydro trusts that intervenor concerns about the application of the failed installation charge have been alleviated.

3.4.2 Cost components of the Failed Installation Charge

65. The Application requests that the quantum of the failed installation charge be set at \$65 per occurrence, consisting of \$55 for the cost of attending at the customer’s premises and \$10 for call center costs.

66. The \$55 component is based on current estimated costs to travel to the customer’s premises and exchange a meter, as discussed above. It is the same as the cost component for attending at customer premises to install a radio-off meter as reflected in the radio-off meter charge.

67. BCPSO submitted IRs that tested whether the current standard collection charge of \$39 in the BC Hydro Electric Tariff would be an appropriate proxy for the cost of traveling to the customer’s premises to exchange a meter but then not actually completing the work. BC Hydro’s evidence⁴⁵ is that the collection charge is not an appropriate proxy for such costs because the work reflected in the collection charge

⁴⁴ Exhibit B-6-1, responses to BCPSO IRs 1.4.1.1 and 1.4.2.

⁴⁵ Exhibit B-11, response to BCPSO IR 2.18.1.

is materially different from the work reflected in the failed installation charge. The collection charge relates to attending at a customer's premises for the purpose of disconnecting electricity service, whereas the failed installation charge relates to attending at the customer's premises for the purpose of exchanging the meter. A different, and more expensive, skill set is required to install a meter. Furthermore, the collection charge is outdated, whereas the failed installation charge reflects current cost estimates.

68. The \$10 component is based on an average call center call length of about five minutes,⁴⁶ accounts for productive ("talk-time") and nonproductive time of call center agents,⁴⁷ and represents incremental call center costs due to the requirement to handle calls related to failed installations.⁴⁸

**ALL OF WHICH IS RESPECTFULLY SUBMITTED
THIS 24TH DAY OF JANUARY 2014**



Ian D. Webb

Counsel for BC Hydro and Power Authority

⁴⁶ Application, section 3.6.2, page 3-28.

⁴⁷ Exhibit B-5, responses to BCUC IRs 1.21.3.2 and 1.21.3.3; and Exhibit B-6-1, response to CEC IR 1.47.3.

⁴⁸ *ibid*, response to BCUC IR 1.21.3.