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**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-220-13**

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IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

FortisBC Inc.
Application for a Radio-Off
Advanced Metering Infrastructure Meter Option

BEFORE: L.F. Kelsey, Commissioner
D.M. Morton, Commissioner
N.E. MacMurchy, Commissioner
December 19, 2013

O R D E R

WHEREAS:

- A. On July 26, 2012, FortisBC Inc. (FortisBC) applied to the British Columbia Utilities Commission (Commission), pursuant to sections 45, 46 and 56 of the *Utilities Commission Act*, for approval of the Advanced Metering Infrastructure (AMI) Project;
- B. Order C-7-13 dated July 23, 2013, granted FortisBC a Certificate of Public Convenience and Necessity (CPCN) for the AMI Project (AMI Decision). The approval was subject to the condition that FortisBC confirm in writing that it would file an application for an opt-out provision by November 1, 2013, based on principles set out in the AMI Decision;
- C. On July 31, 2013, FortisBC confirmed in writing that it would file an application for an opt-out provision;
- D. On August 30, 2013, FortisBC filed an application for a Radio-Off AMI Meter Option (Application) based on principles set out in the AMI Decision. The Application sets out the rates and processes for customers who choose the Radio-Off AMI Meter Option. Specifically, the proposed rates per customer are as follows:
 - Per-premises setup fee: \$110.00; and
 - Bi-monthly per-read fee: \$22.00.
- E. Order G-142-13 dated September 9, 2013 directed FortisBC to promptly publish notice of the Application in specific newspapers and to distribute copies of Order G-142-13 and its Appendices in a timely fashion, via email, to the Registered Interveners and Interested Parties in the AMI Project CPCN proceeding. The Order also directed those parties wishing to participate in the review of the Application to register as soon as possible;
- F. Order G-154-13 dated September 18, 2013 established a written hearing process and a Regulatory Timetable for the review of the Application;
- G. Order G-160-13 dated October 1, 2013 established an Amended Regulatory Timetable in order to allow for a filing deadline for Participant Assistance/Cost Award budgets;

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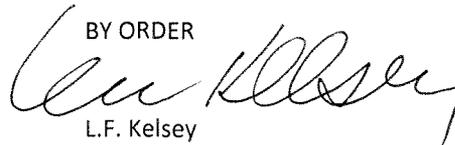
- H. On October 18, 2013, FortisBC filed responses to Information Requests (IRs) from the Commission and Interveners;
- I. Order G-176-13 dated October 24, 2013 directed FortisBC to file complete responses to specific IRs and respond to additional questions. The Order also established a Further Amended Regulatory Timetable; and
- J. The Commission Panel has reviewed the Application, the evidence and the written submissions and sets the rates for the Radio-off AMI Meter Option service.

NOW THEREFORE for the reasons stated in the Decision attached as Appendix A to this Order and pursuant to sections 59 and 60 of the *Utilities Commission Act*, the Commission orders as follows:

1. The rates proposed in the FortisBC Inc. Application are not approved as filed.
2. The following rates for the Radio-off AMI Meter Option service are considered just and reasonable and are approved as permanent rates:
 - Per-premises setup fee - Customers who choose the Radio-off AMI Meter Option prior to the commencement of AMI project deployment in their region: \$60.00;
 - Per-premises setup fee - Customers who choose the Radio-off AMI Meter Option after the commencement of AMI project deployment in their region: \$88.00; and
 - Bi-monthly per-read fee: \$18.00.
3. FortisBC must track the actual number of Radio-off AMI Meter Option participants and the actual annual manual meter reading costs separately from other costs and submit a report on these items with the British Columbia Utilities Commission on or before September 30, 2016.
4. FortisBC Inc. must resubmit Rate Schedule 81 incorporating all of the applicable directives outlined in the Decision attached as Appendix A to this Order, on or before January 27, 2014.
5. FortisBC Inc. is directed to comply with all other directives in the Decision attached as Appendix A to this Order.

DATED at the City of Vancouver, in the Province of British Columbia, this 19th day of December 2013.

BY ORDER



L.F. Kelsey
Commissioner

Attachment



IN THE MATTER OF

FORTISBC INC.
APPLICATION FOR THE ADVANCED METERING INFRASTRUCTURE
RADIO-OFF AMI METER OPTION

REASONS FOR DECISION

December 19, 2013

BEFORE:

L.F. Kelsey, Panel Chair / Commissioner
D.M. Morton, Commissioner
N.E. MacMurchy, Commissioner

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EXECUTIVE SUMMARY

On August 30, 2013, FortisBC Inc. filed its Radio-Off AMI Meter Option Application with the British Columbia Utilities Commission. The Application was filed to meet a requirement of Commission Order C-7-13, which was issued on July 23, 2013, and granted FortisBC a Certificate of Public Convenience and Necessity for an Advanced Metering Infrastructure project. The AMI Decision required FortisBC to file an application for an opt-out provision by November 1, 2013, based on principles set out in the AMI Decision. The scope of the Application was limited to the opt-out principles outlined by the Commission in Order C-7-13.

The Commission previously determined that FortisBC account holders (customers) who are scheduled to have an AMI meter installed can choose to have an AMI meter installed that has the wireless transmit functions disabled. This is referred to as the Radio-off AMI Meter.

In its Application FortisBC proposed that:

- Customers may choose to have a Radio-off AMI Meter put in place at any time;
- Customers wanting to have a Radio-off AMI Meter must complete and sign an application form as prescribed by FortisBC;
- FortisBC will charge a per-premises setup fee of \$110.00. This fee applies to customers who elect to have a Radio-off AMI Meter installed during the initial AMI project roll-out, to customers who elect to have a Radio-off AMI Meter put in place subsequent to the AMI meter being installed and to existing participants in the Radio-off AMI Meter Option that move premises;
- FortisBC will read the Radio-off AMI Meter every two months, charging a \$22.00 fee for each reading; and
- A customer electing to switch from a Radio-off AMI Meter to a standard radio-on AMI meter will pay a final manual meter reading fee of \$22.00.

The Commission Panel agrees with the FortisBC proposal that customers may choose to have a Radio-off AMI Meter put in place at any time.

The Panel reviewed the fees proposed and had concerns about the accuracy of the stated costs and does not accept the proposed fees as being just and reasonable.

The Panel determines that:

- **FortisBC must confirm with the Commission on or before January 27, 2014 that the enrolment process for the Radio-off AMI Meter Option is comparable to the process a customer must follow to obtain general electric service. Processes that impose an unnecessary barrier for those wishing to avail themselves of the service are not acceptable to the Commission;**
- **Customers who elect, prior to the deployment of AMI meters in their region, to have a Radio-off AMI Meter put in place will be charged a per-premises setup fee of \$60.00;**
- **Customers who elect, subsequent to the deployment of the AMI meters in their region, or customers who have previously had a Radio-off AMI Meter installed and move premises, will be charged a per-premises setup fee of \$88.00;**
- **The Radio-off AMI Meter will be read every two months and customers will be charged an \$18.00 fee for each reading;**
- **A customer electing to switch from a Radio-off AMI Meter to a standard radio-on AMI meter will pay a final manual meter reading fee of \$18.00; and**

- **The per-premises setup fees and the bi-monthly manual meter reading fee are set on a permanent basis. FortisBC is directed to track manual meter reading costs associated with the Radio-off AMI Meter program and to provide a report on these costs and the number of participants to the Commission by September 30, 2016, irrespective of whether or not a fee revision is proposed.**

1.0 THE APPLICATION

On August 30, 2013, FortisBC Inc. (FortisBC) filed its Radio-Off AMI Meter Option Application (the Application) with the British Columbia Utilities Commission (Commission). FortisBC is an investor-owned, regulated utility engaged in the business of generation, transmission and distribution and bulk sale of electricity in the southern interior of British Columbia, serving over 162,000 customers directly and indirectly through municipally owned utilities in its service area.

The Application was filed to meet a requirement of Commission Order C-7-13, which was issued on July 23, 2013 and granted FortisBC a Certificate of Public Convenience and Necessity (CPCN) for an Advanced Metering Infrastructure (AMI) project, subject to certain conditions (AMI Decision).¹ The specific condition leading to the Application was a requirement that FortisBC file an application for an opt-out provision by November 1, 2013, based on principles set out in the AMI Decision.

The Commission previously determined that FortisBC account holders (customers) who are scheduled to have an AMI meter installed can choose to have an AMI meter installed that has the wireless transmit functions disabled (Radio-off AMI Meter).

Key components of the FortisBC Application are:

- Customers may choose to have a Radio-off AMI Meter put in place at any time.
- Customers wanting to have a Radio-off AMI Meter must complete and sign an application form as prescribed by FortisBC.
- FortisBC will charge a per-premises setup fee of \$110.00 (Per-premises Setup Fee). This fee applies to customers who elect to have a Radio-off AMI Meter installed during the initial AMI project roll-out, to customers who elect to have a Radio-off AMI Meter put in place subsequent to the AMI meter being installed and existing participants in the Radio-off AMI Meter Option that move premises.
- FortisBC will read the Radio-off AMI Meter every two months, charging a \$22.00 fee for each reading (Per-read Fee).
- A customer electing to switch from a Radio-off AMI Meter to a standard radio-on AMI meter will pay a final manual meter reading fee of \$22.00.

2.0 BACKGROUND AND REGULATORY PROCESS

2.1 Order C-7-13 Granting a CPCN to FortisBC to Install Advanced Metering Infrastructure

Order C-7-13 grants a CPCN to FortisBC (subject to conditions) for the AMI project. It was issued following an extensive regulatory process that included Community Input Sessions and a two week Oral Hearing. As set out in the AMI Decision, the Commission considered a wide variety of issues including:

- Economic and rate impacts;
- Assessment of policy and environmental issues including implications for greenhouse gas emissions and theft reduction benefits;
- Health implications associated with radio frequency emissions;
- Safety and privacy issues; and
- Applicability of the *Clean Energy Act*.

¹ *In the Matter of FortisBC Inc. and an Application for a Certificate of Public Convenience and Necessity for the Advanced Metering Infrastructure Project, Decision and Order C-7-13, July 23, 2013 (AMI Decision)*

The AMI Decision is available on the Commission's website.²

2.1.1 Findings in Order C-7-13 Regarding an Opt-out Provision

In the application for a CPCN to acquire and install advanced metering infrastructure, FortisBC did not provide any provision for customers to opt-out of the requirement to have a radio-on AMI meter installed at their premises. The position adopted in the application was that FortisBC would work with customers who had concerns about the installation of a radio-on AMI meter, but if these concerns could not be satisfied and the customer continued to refuse to have a meter installed, then FortisBC would discontinue service to that customer.

On page 148 of the AMI Decision the Commission states:

"In Section 6.5.2, the Panel identified a potential risk to the implementation schedule arising from a protracted difference of views concerning the Project. This risk could increase costs to and reduce potential benefits from the Project, which would be detrimental to all FortisBC ratepayers. The Panel is of the view that an opt-out program could mitigate these potential schedule impacts. On the issue of financial or medical hardship, the Panel is of the view that a properly designed opt-out program allows individuals to decide not to accept a transmitting AMI meter while protecting the remaining FortisBC customers from the increased costs associated with the opt-out Program."

Therefore, to mitigate this potential risk to the implementation schedule, the Commission directed FortisBC to bring forward an application for an opt-out program based on the following principles:

- **Customers may choose to opt-out of accepting a wireless transmitting meter.**
- **Customers who choose to opt-out will be provided with an AMI meter that has the wireless transmit functions disabled. Transmit functions on these meters will remain disabled until the individual chooses to opt back in to the AMI program; in the event that the customer moves to a new property, the opt-out choice will move with the customer.**
- **The incremental cost of opting-out of the AMI program will be borne by the individual choosing to opt-out.**

The Commission also noted in the AMI Decision that as radio-frequency (RF)-related issues, including health, security and privacy had been extensively dealt with, the opt-out provision application should be limited to dealing with the issues associated with the an opt-out option that is set out in accordance with the principles outlined above.³

2.2 Regulatory Process for the Current Proceeding

Following the August 30, 2013 filing of the Application, the Commission issued Order G-142-13, dated September 9, 2013, directing FortisBC to publish notice of the Application in specific newspapers and to distribute copies of Order G-142-13 and its Appendices to registered Interveners and Interested Parties in the FortisBC AMI proceeding (AMI Proceeding).

By Order G-154-13 dated September 18, 2013, the Commission established a written hearing process and a Regulatory Timetable for the review of the Application. Subsequent Orders, G-160-13 and G-176-13 dated October 1, 2013 and October 24, 2013 respectively, amended the original timetable set out in Order G-154-13.

² http://www.bcuc.com/Documents/Proceedings/2013/DOC_35184_C-7-13_FBC-AMI-ProjectDecision-WEB.pdf

³ AMI Decision, pp. 148-149.

The final regulatory process included the following components:

- | | |
|---|-------------------------------|
| • Intervener and Interested Party Registration Deadline | Wednesday, September 25, 2013 |
| • Commission and Intervener Information Request Number 1 | Friday, October 4, 2013 |
| • Filing of Participant Assistance/Cost Award Budgets | Friday, October 11, 2013 |
| • FortisBC Response to Commission and Intervener Request No.1 | Friday, October 18, 2013 |
| • FortisBC Response to Directives No. 2 and 3 of G-176-13 | Wednesday, October 30, 2013 |
| • FortisBC Final Written Submission | Wednesday, November 6, 2013 |
| • Intervener Final Written Submission | Wednesday, November 13, 2013 |
| • FortisBC Written Reply Submission | Wednesday, November 20, 2013 |

2.3 Scope of the Proceeding

The Panel, in determining the scope of the Proceeding, was mindful of the directives contained in Order C-7-13 and the principles described in section 2.1.1 above. Consequently, in Directive 2 of Order G-154-13, the Panel provided the following direction to participants on the limited scope of the proceeding:

“2. In reviewing the Radio-Off Advanced Metering Infrastructure Meter Option Application, the written hearing is limited in scope to the opt-out principles outlined by the Commission Panel in Order C-7-13. ...” (Order G-154-13)

2.4 Evidence and Submissions

Nine parties were registered as Interveners in the proceeding. Five of these parties filed Information Requests (IRs), to which FortisBC replied. Eight of the Interveners filed Final Submissions. One Interested Party also filed IRs with FortisBC. FortisBC declined to answer the IRs of the Interested Party on the basis that (a) there is no provision for interested parties to put forward IRs; (b) the Interested Party was not a direct customer of FortisBC; and (c) many of the questions put forward by the Interested Party had already been answered in responses to Interveners and certain questions were out of scope. (Exhibit B-3)

Despite the Panel's specific directive on the limited scope of the proceeding, a number of parties in both their IRs to FortisBC and in their Final Submissions dealt with issues that were out of scope. Given the clear direction on the limited scope of the proceeding and the extensive regulatory process that led to the AMI Decision, which dealt with many of the out of scope issues, the Panel has disregarded evidence and submissions that could be seen as outside the limited scope of this proceeding. The Panel also found some instances where information that was not part of the evidentiary record was brought forward in Final Submissions. For example, Director of Electoral Area “D” of the Regional District of Central Kootenay (RDCK) introduced an Ernst & Young study commissioned by the Economics Ministry of the Federal German Republic in its Final Submission (RDCK Final Submission, para. 12). Final Submissions are to be based on the material contained in the evidentiary record. For this reason the Panel places no weight on information that has been introduced in Final Submissions that is not found within the evidentiary record.

The Panel considers that the specific items discussed in the sections below, while they may be seen as out of scope, should be clarified.

2.4.1 FortisBC Radio-off AMI Meter Option Application Form

In its Application FortisBC states that a customer electing the Radio-off AMI Meter Option must communicate that choice to FortisBC by completing and signing an application form set out by the Company and delivering it by one of the following methods:

- (a) mailing it to FortisBC;
- (b) submitting the form by fax; or
- (c) emailing a completed and signed form to FortisBC. (Exhibit B-1, p. 3)

In its Final Submission British Columbia Pensioners' and Seniors' Organization *et al.* (BCPSO) states:

"BCPSO questions the limitations of these methods. All three of these "alternative means" require a certain level of literacy and cognitive ability. Limiting communications options in this way makes it difficult for a segment of the population to exercise the Radio-Off option. Further, it is unclear why a one-to-one telephone conversation with a customer service person could not "constitute a valid means of communicating a customer's choice to participate in FBC's Radio-Off Option." Meter technicians conducting site visits could also carry copies of the form, and concerned customers could fill them out with the technician's assistance at that time." (BCPSO Final Submission, p. 2)

FortisBC in reply asserts that it is standard and reasonable practice to require signed forms and a clear record of customer participation. FortisBC further suggests that customers with challenges with regard to literacy or cognitive ability can seek assistance in filling out the form from the FortisBC Contact Center staff or from friends, family or others as appropriate. (FortisBC Reply Submission, pp. 6-7)

FortisBC proposes that customers can elect to participate in the Radio-off AMI Meter Option at any time. (Exhibit B-7, CEC IR 6.1) The Commission Panel agrees with this proposal as being reasonable.

The Panel views the election of the Radio-off AMI Meter Option as comparable to the process customers must go through to elect other forms of service, including the obtaining of electric service in the first place. FortisBC must deal with customers at different levels of literacy or cognitive ability in initiating these services. The Panel believes that the election process for participating in the Radio-off AMI Meter Option should be no more onerous than the process for initially obtaining electrical service. **FortisBC is directed to confirm with the Commission on or before January 27, 2014 that the enrolment process for the Radio-off AMI Meter Option is comparable to the process a customer must follow to obtain general electric service. Processes that impose an unnecessary barrier for those wishing to avail themselves of the service are not acceptable to the Commission.**

2.4.2 Change of Circumstances Argument

RDCK challenged the Application on the basis that "a change of circumstances" has occurred, specifically due to the following events:

"On September 25, 2013, the Lieutenant Governor in Council issued Enacting Direction No. 4 (B.C. Reg. 203/2013, 319/2013) to the B.C. Utilities Commission and, on October 9, 2013, with respect to an application by B.C. Hydro for Approval of Charges Related to the Meter Choices Program, the Commission issued Order G-166-13 which stated in part:

"B. The Lieutenant Governor in Council issued Direction No. 4 on September 25, 2013, and provides direction to the BCUC with respect to implementing the Government of British Columbia policy that BC Hydro will offer new meter options and related services to eligible customers who choose not to have a smart meter at their premises, and that eligible customers choosing an alternative meter option will have to pay additional charges designed to recover the costs attributable to their chosen option;

C. Section 3(2) of Direction No. 4 provides direction to the BCUC to allow BC Hydro to establish a regulatory account for the recovery of program costs, investigation costs and infrastructure costs not recovered from customers at premises where a legacy meter or radio-off meter is installed, and costs related to smart meters, which are incurred during the period of January 1, 2013 to March 31, 2014. In accordance with section 3(2), BC Hydro proposes to add these costs to the existing SMI Regulatory Account established pursuant to Commission Order G-64-09 to avoid the creation of a new regulatory

account, to enable BC Hydro to recover those costs in the same manner as SMI Program costs, and is consistent with Direction No. 4;

...

E. Pursuant to the Government policy, BC Hydro is offering the following meter options to eligible customers that do not have a smart meter installed at their premises:

1. the installation of a standard smart meter,
2. the installation of a radio-off meter, or
3. the existing legacy meter can remain installed at the premises;”

(RDCK Final Submission, para. 5)

FortisBC in reply disagrees that there is a significant change in circumstances, stating:

“There has been no change in circumstances applicable to FortisBC or this Application since the Commission Radio-Off Principles were set out by the Commission in its Decision on FortisBC’s AMI CPCN Application. The BC Hydro Direction does not change the facts which were before the Commission on the AMI CPCN Application but, rather, expresses the Government’s instructions (made without engagement in a process similar to that which the Commission undertook) with regard to BC Hydro, the publicly-owned utility. If the Government had intended to bind the Commission in respect of dealings with FortisBC and its customers, it could have enacted a regulation or other legislation which applied generally or applied expressly to FortisBC. Further, the Commission has previously held that the rates applicable to FortisBC and BC Hydro need not be the same. The Commission Panel involved in FortisBC’s 2012-2013 Revenue Requirements Application, where such issues were canvassed, noted that it had “no mandate, nor does it find it appropriate, to require FortisBC to manage its utility business to produce rates or programs identical to those of BC Hydro.” (FortisBC Reply Submission, pp. 2-3)

The Panel finds that directions from the Government of British Columbia to the Commission relating to BC Hydro have no bearing on FortisBC’s application for a Radio-off AMI Meter Option. The Panel concurs with the statement made by the Commission in the FortisBC 2012-2013 Revenue Requirements and Integrated System Plan Decision⁴ that the Commission has “no mandate, nor does it find it appropriate, to require FortisBC to manage its utility business to produce rates or programs identical to those of BC Hydro.”⁵

2.4.3 Argument that the Application is Discriminatory and Violates both the Canadian Charter of Rights and Freedoms and the Human Rights Act

A further challenge to the Application was raised by Citizens for Safe Technology Society (CSTS). CSTS argues that because there are no special provisions with respect to the fees to be charged to persons with disabilities, such as those who are sensitive to electromagnetic radiation, the opt-out program put forward by FortisBC will have a discriminatory effect and hence is in violation with the *Canadian Charter of Rights and Freedoms* (Charter), and specifically with Section 15 of the Charter. (CSTS Final Submission, pp. 17-18)

Section 15 of the Charter states:

- (1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

⁴ *In the Matter of an Application by FortisBC Inc. for Approval of 2012-2013 Revenue Requirements and Review of the 2012 Integrated System Plan*, Decision and Order G-110-12, August 15, 2012 (2012-2013 RRA/ISP Decision)

⁵ 2012-2013 RRA/ISP Decision, pp. 20-21.

- (2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

FortisBC in reply notes that (a) the Charter is “limited to government actors” and does not apply to FortisBC as a privately owned company; (b) there is no evidence to support that the opt-out fees would be in breach of Section 15 of the Charter; and (c) there is no discrimination on any other grounds found in the Charter. FortisBC states that the Commission in the AMI Decision was not persuaded that there is a causal link between RF emissions and electromagnetic hypersensitivity (EHS). FortisBC further submits that “the Radio-Off Option does not constitute discrimination under the Human Rights Code, R.S.B.C. 1996, c. 210, which is the subject of one case that CSTS includes in its submission (though CSTS does not specifically claim in its submissions that it will be violated)” as it is equally available to all eligible customers. (FortisBC Reply Submission, pp. 19-22)

RDCK submits that charging different rates based upon meter preference is discriminatory under section 59 of the *Utilities Commission Act* (Act). (RDCK Final Submission, para. 10) In reply, FortisBC states that “the proposed Radio-Off Option fees do not constitute rate discrimination under section 59 of the *Utilities Commission Act* or at all. All eligible FortisBC customers have access to the same AMI meters at the same prices. They may choose the default radio-on AMI meters or, if they wish, radio-off AMI meters at a price representing the additional incremental costs associated with providing and reading radio-off AMI meters.” (FortisBC Reply Submission, para. 54)

The issue of potential discriminatory effects of the AMI project on persons who claim to be sensitive to electromagnetic radiation was first raised in the AMI Proceeding. In that proceeding, after a full consideration of the applicability of the Charter, including Section 15, the Commission Panel agreed with FortisBC that the Charter does not apply to non government actors. Although this issue of violation of the Charter rights of individuals with disabilities has again been raised, there has been no additional analysis provided concerning the applicability of the Charter to FortisBC. **Accordingly, the Panel finds the Charter is not applicable to FortisBC.**

The Panel also finds that the Radio-off AMI Meter Option put forward by FortisBC, including the fees that must be paid, is not discriminatory under the *Human Rights Code*. Parties are free to choose if they will participate in the program and all parties making this choice are treated in an equal manner.

The Panel notes that the Radio-off AMI Meter option is available under exactly the same terms to all FortisBC ratepayers, as is the radio-on option. Each of the options has its own costs and attributes, which are reflected in the rates. The Panel finds that charging different rates based upon meter preferences is not unduly discriminatory under section 59 of the Act.

2.5 Context of the Decision

The Commission Panel, in reviewing the Application, has considered sections 59 and 60 of the Act. Specifically:

Section 59(1) of the Act states:

- “A public utility must not make, demand or receive
- (a) an unjust, unreasonable, unduly discriminatory or unduly preferential rate for a service provided by it in British Columbia, or
 - (b) a rate that otherwise contravenes this Act, the regulations, orders of the commission or any other law.”

Section 59(5) of the Act states:

“In this section, a rate is "unjust" or "unreasonable" if the rate is

- (a) more than a fair and reasonable charge for service of the nature and quality provided by the utility,
- (b) insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property, or
- (c) unjust and unreasonable for any other reason.”

Section 60(1)(a) of the Act states:

“In setting a rate under this Act

- (a) the commission must consider all matters that it considers proper and relevant affecting the rate
- (b) the commission must have due regard to the setting of a rate that
 - (i) is not unjust or unreasonable within the meaning of section 59...
 - (iii) encourages public utilities to increase efficiency, reduce costs and enhance performance,”

The definition of “rate” in section 1 of the Act includes “a general, individual or joint rate, fare, toll, charge, rental or other compensation of a public utility.” In this proceeding and Decision, the term ‘fee’ and ‘rate’ have the same meaning.

The Panel has assessed this Application in the same manner that it assesses any application for a new rate or service. Specifically, the Panel is concerned that FortisBC provide the service using rates that are not unjust, unreasonable or unduly discriminatory while meeting the opt-out principles set out by the Commission in the AMI Decision. The costs for both the Per-premises Setup Fee and for the Per-read Fee must be just and reasonable. Charges should recover only the incremental costs that should be properly attributed to the customers electing to use this optional service in order to ensure there is not a cross-subsidy by the customers not opting out.

Any deviation from the principle of setting the rates in a just and reasonable manner, or the putting in place of unnecessarily onerous processes for applying for the service, which could provide a barrier to those wishing to avail themselves of the service, is not acceptable.

3.0 RATE IMPLICATIONS

3.1 Estimates

The AMI Decision requires the individual choosing to opt-out to bear the incremental cost of opting-out of the AMI program.⁶ In the Application, costs are identified for two activities, specifically \$110 for the Per-premises Setup Fee (Exhibit B-1, p. 5) and \$22 for the Per-Read Fee (Exhibit B-1, p. 7). To arrive at these fees the Application identifies the work associated with each activity and the resulting labour and vehicle costs, in addition to other cost estimates and assumptions, such as the Radio-off AMI Meter Option participation rate. FortisBC presents these components as inputs to the total cost for each activity and the proposed fee.

The Panel has serious concerns about the accuracy of the stated costs and will not accept the proposed Per-premises Setup Fee and Per-read Fee for the following reasons.

During the IR process it became apparent that several of the inputs to the Radio-off AMI Meter Option fees are not precise. Rather they are estimates developed looking at the work as discreet building blocks and in isolation of other work which offers opportunities for an increase in efficiency, reduced cost and enhanced performance.

In response to BCUC IR 3.1 (Exhibit B-4) concerning the costs for Metering Analyst time included in the Per-premises Setup Fee FortisBC states:

“The detailed process (and resulting timings) required for this function are to be developed during the Define/Design stage of the project. At that time, more precise definitions and work breakdowns (between Meter Analyst and Contact Centre work) will be known and assigned.”

⁶ Order C-7-13, Directive 1(c); AMI Decision, p. 148.

This qualification was repeated for the costs for Contact Center time included in the Per-premises Setup Fee. (Exhibit B-4, BCUC IR 5.3)

With respect to the vehicle cost inputs to the Per-read Fee Fortis BC states:

“It is anticipated that there will be no vehicles assigned solely to meter reading. It is anticipated that the work associated with gathering a relatively small number of manual meter reads from disparate locations throughout the service territory will form part of other roles within the Company – roles for which vehicles are already assigned.

Final decisions of this nature will be concluded during the Define/Design phase of the project.”

(Exhibit B-4, BCUC IR 6.3)

In its Final Submission FortisBC states:

“54, Due to inherent uncertainty in the Contact Centre and Metering Analyst time estimates, FortisBC proposes the following reconciliation process.

(a) FortisBC will track actual meter analyst costs directly related to the activities described in paragraphs 52 and 53, above, starting November 1, 2013 and until the AMI project is complete;

(b) Within three months of AMI project completion, FortisBC will file a report with the Commission detailing the meter analyst costs incurred and the number of Radio-Off Option meter installations;

(c) If the sum of the average meter analyst and TCC [undefined, but taken to refer to the Contact Centre] costs per Radio-Off Option meter differs by more than \$5 from the estimate in this Application (excluding range extender costs), FortisBC will adjust the fees as follows:

- (i) If the actual average cost is less than the estimated cost by more than \$5, FortisBC will retroactively refund the difference, with interest, to Radio-Off Option Customers and adjust the tariff rate to the actual average cost on a go-forward basis;
- (ii) If the actual average cost is more than the estimated cost by more than \$5, FortisBC will adjust the tariff rate to the actual average cost on a go-forward basis. For clarity, FortisBC does not intend to retroactively charge Radio-Off Option Customers for these additional costs.”

(FortisBC Final Submission, pp. 16-17)

Section 2.5 of this Decision explains the expectations of the Commission with respect to providing the Radio-off AMI Meter Option using rates that are just, reasonable and not unduly discriminatory. The Commission accepts that FortisBC has not yet had an opportunity to turn its mind to any detailed process planning for the opt-out related activities. The Commission expects that FortisBC will approach this planning work with the objective of finding all efficiencies possible in providing the Radio-off AMI Meter Option service. This work will take some time. In the meantime, customers who are considering opting-out must be given rates that are just and reasonable. The following sections of this Decision set out the Panel’s determination in this regard.

3.2 Per-premises Setup Fee

FortisBC proposes a Per-premises Setup Fee of \$110 to recover the costs associated with configuring a Radio-off AMI Meter within the AMI system. FortisBC asserts that this covers all incremental labour costs for FortisBC Contact Centre and Metering Analyst staff time, in addition to incremental capital costs. The components of the proposed Per-premises Setup Fee are presented in the following table:

Proposed Per-premises Setup Fee	Minutes	Rate	Total per Customer
Contact Centre	60	\$ 51.41	\$ 51.41
Metering Analyst	60	\$ 57.14	\$ 57.14
Allowance for RF Range Extenders			\$ 2.12
Total			\$ 110.67
Proposed Per-premises Setup Fee			\$ 110.00

(Exhibit B-1, p. 5)

For the reasons outlined below, the Panel does not find the Per-premises Setup Fee of \$110 proposed by FortisBC in the Application to be just and reasonable. In addition, the Panel finds it appropriate that there should be a separate Per-premises Setup Fee for those customers who elect to participate prior to the commencement of AMI project deployment in their particular region and those who elect to participate after this time.

FortisBC proposes to provide 30 days notice to customers of AMI project deployment in their particular region. Accordingly, the pre-AMI project deployment Per-premises Setup Fee outlined below in this Decision is for those customers who elect to participate prior to the commencement of AMI project deployment *in their particular region* rather than prior to overall AMI project deployment. The process and deadlines for this are discussed further in Section 3.2.4 of this Decision.

The Panel has assessed the cost components behind the Per-premises Setup Fee and determined fees that are just and reasonable. The Panel used the best data made available in the evidence. It then rounded the resulting fees, recognizing that some uncertainties still remain. **The following Per-premises Setup Fees are approved:**

Pre-Commencement of AMI Project Deployment

Approved Per-premises Setup Fee	Minutes	Rate	Total per Customer
Contact Centre	35	\$ 50.50	\$ 29.46
Metering Analyst	30	\$ 56.13	\$ 28.06
Allowance for RF Range Extenders			\$ 2.12
Total			\$ 59.64
Final Approved Per-premises Setup Fee			\$ 60.00

Post-Commencement of AMI Project Deployment

Approved Per-premises Setup Fee	Minutes	Rate	Total per Customer
Contact Centre	35	\$ 50.50	\$ 29.46
Metering Analyst	60	\$ 56.13	\$ 56.13
Allowance for RF Range Extenders			\$ 2.12
Total			\$ 87.71
Final Approved Per-premises Setup Fee			\$ 88.00

3.2.1 Per-premises Setup Fee – Pre-Commencement of AMI Project Deployment

3.2.1.1 Cost Components

Contact Centre

The Contact Centre costs included in the Per-premises Setup Fee are a function of both time estimate and an hourly rate. The Panel considers each of these components individually.

The Per-premises Setup Fee includes \$51.41 for one hour of FortisBC Contact Centre staff time. The hourly labour rate of \$51.41 is calculated by inflating the 2010 Contact Centre Agent hourly rate to 2016 at 1.8 percent per annum and adding a fringe benefit load factor. (Exhibit B-4, BCUC IR 5.1.1 - 5.1.1.1)

BCPSO contends that the labour costs included in the Per-premises Setup Fee, for both Contact Centre and Metering Analyst time, are “artificially inflated” to 2016 as the full deployment of the AMI is expected by the end of 2015. (BCPSO Final Submission, p. 3) In its Reply Submission, FortisBC maintains that the escalation to 2016 is reasonable given that the deployment will be complete at the end of 2015 and submits that “To the extent that there might be a slight overpayment by Radio-Off Option Customers who begin to exercise the Radio-off Option earlier than others, it will be offset by the likelihood of an adjustment lag (due to the use of 2016 dollars rather than 2017 dollars) until completion of the adjustment process in 2017 or later.” (FortisBC Reply Submission, p. 15)

The Panel does not consider it reasonable to inflate the hourly labour rates used in the calculation of the Per-premises Setup Fee to arrive at a 2016 rate. The Panel expects that a significant portion of Radio-off AMI Meter Option customers will elect to participate in the program before the completion of deployment of the AMI project at the end of 2015.

Accordingly, the Panel considers it reasonable to inflate the hourly labour rates used in the calculation of the Per-premises Setup Fee, including both Contact Centre and Metering Analyst rates, to arrive at a 2015 rate. For the Contact Centre, this results in an hourly rate of \$50.50.⁷

One hour is an estimate for the time required for the following Contact Centre actions: discuss AMI-related concerns, prepare and print email information packages, discuss options, assist customers with application form, process the application form and forward the account to the Metering Analyst. FortisBC submits that the estimated amount of time required for each action is not provided in response to BCUC IR No. 1 (Exhibit B-4), given that “[t]he detailed process (and resulting timings) required for [the Contact Centre] function are to be developed during the Define/Design stage of the project.” (Exhibit B-4, BCUC IR 5.3) In response to Directive 2 of Order G-176-13, FortisBC provided estimates of the amount of time required for each action required by the Contact Centre. The total average time for Contact Centre activities is 58.75 minutes. (Exhibit B-4-1, BCUC IR 5.2)

In response to BCUC IR 5.4 (Exhibit B-4), FortisBC submits that under the pre-AMI system the average time spent by the Contact Centre to set-up a new customer is 13 minutes if an account does not already exist and 9 minutes if an account does exist, in addition to 3 minutes on average to complete a billing order once a meter reading returns. Additionally, if the actual premises does not yet exist 19 additional minutes on average is required for various actions.

BCPSO asserts that only those costs incurred by the Contact Centre “from the point of processing the [application] Form forward” should be included in the Per-premises Setup Fee for two reasons. First, BCPSO argues that it is unfair that only those customers that participate in the Radio-off AMI Meter Option are charged a fee for their dealings with the Contact Centre when customers that ultimately choose not to participate in the Radio-off AMI Meter Option may call the Contact Centre regarding the Radio-off AMI Meter Option and request an information package. Second, BCPSO submits that the budget included in the FortisBC AMI Project CPCN application included incremental costs for an increased call volume to the Contact Centre in 2013, 2014 and 2015. (BCPSO Final Submission, p. 3)

⁷ 2016 Contact Centre hourly rate of 2016 of \$51.41 divided by 1.018 = \$50.50.

Commission Determination

The Panel is not persuaded that that the Contact Centre time estimate used to calculate the Per-premises Setup Fee should be greater than 35 minutes, which is the highest end of the range of time required to setup a new customer in the pre-AMI system, under the most complex set of circumstances. The Panel finds that a Contact Centre time estimate of 35 minutes is reasonable.

The average amount of time to setup a new customer and complete a billing order under the pre-AMI system can be as little as 12 minutes if an account already exists. On the highest end of the range, in those situations where both an account and the premises do not yet exist, the average amount of time to setup a new customer is 35 minutes. However, the Panel expects that the majority of customers choosing to participate in the Radio-off AMI Meter Option, particularly in the early stages of the program, will likely already have accounts and premises. The Panel recognizes that in the context of the Radio-off AMI Meter Option additional time may be required to discuss issues specific to the Radio-off AMI Meter Option program.

The Panel also takes note of BCPSO's submission regarding the Contact Centre costs included in the Per-premises Setup Fee. The Panel agrees with BCPSO that customers that ultimately choose not to participate in the Radio-off AMI Meter Option may call the Contact Centre to discuss their concerns and options surrounding the program and request an information package, in addition to those customers that do elect to participate in the Radio-off AMI Meter Option.

The Panel accepts that it is reasonable to include Contact Centre time for performing administrative tasks associated with preparing the account for those customers who have elected to participate in the Radio-off AMI Meter Option in the calculation of the Per-premises Setup Fee. These administrative tasks include assisting customers with the application form, processing the application form and forwarding the account to the Metering Analyst. However, Contact Centre time for discussing AMI-related concerns, preparing and printing email information packages and discussing options are likely to be incurred in connection with both Radio-off AMI Meter Option participants and those customers that ultimately elect to not participate in the program. FortisBC estimates that these tasks will comprise 41.25 minutes of the one hour time estimate. (Exhibit B-4-1, BCUC IR 5.2) Accordingly, excluding these tasks would reduce the Contact Centre time proposed in the Application to 18.75 minutes.

Based on the estimate provided, the other Contact Centre enrollment activities identified in IRs and recognizing that this is a new activity, the Panel considers it reasonable to base its decision on the 35 minute average time to setup a new customer in the pre-AMI system under the most complex set of circumstances. **Using the time estimate of 35 minutes and an hourly rate of \$50.50, the Panel finds that the reasonable Contact Centre cost per customer to include in the Per-premise Setup Fee is \$29.46.**⁸

Metering Analyst

The Metering Analyst costs included in the Per-premises Setup Fee are a function of both a time estimate and an hourly rate. The Panel considers each of these components individually.

The Per-premises Setup Fee includes \$57.14 for one hour of Metering Analyst staff time. The hourly labour rate of \$57.14 is calculated by increasing the 2011 hourly rate for a Metering Analyst to 2016 at 1.8 percent per annum and adding a fringe benefit load factor. (Exhibit B-4, BCUC IR 2.1.1)

Under the Radio-off AMI Meter Option program, FortisBC proposes that the installation, in instances where a standard AMI meter is not yet installed, and configuration within the AMI system of the Radio-off AMI Meters be performed by FortisBC employees. (Exhibit B-4, BCUC IR 3.3) This is different from the deployment of standard radio-on AMI meters, which will be subcontracted under the Itron contract at an estimated average per meter deployment cost of \$39. (Exhibit B-4-1, Additional BCUC IR 1.0) FortisBC has not factored in any AMI-deployment cost savings into the Per-premises Setup Fee for the following reasons:

⁸ 2015 Contact Centre hourly rate of $\$50.50 \times 35/60 = \29.46 .

“Without a reasonable way to forecast the proportion of radio-off customers that may decide that they wish to have a radio-off meter after deployment is complete or that decide to refuse a meter installation (and then apply for a radio-off meter) when the AMI installer attends their premises, FortisBC has assumed that there will be no AMI deployment-related cost savings. Also, there would be no avoided project costs after AMI deployment was completed at the premises, or in cases where the AMI installer otherwise properly attended the radio-off premises to install a regular AMI meter.” (Exhibit B-4-1, Additional BCUC IR 2.0)

One hour of Metering Analyst staff time is an estimate for the time required for the following actions: processing the application form, searching the CIS system [undefined, but taken to refer to the Customer Information System] for relevant information, physically retrieving the meter from inventory, downloading security keys, driving to the premises, exchanging the meter, disabling the LAN and downloading meter information, driving back to the office and configuring the customer meter within CIS. FortisBC submits that “[t]he travel time to attend the customer premises is expected to be a significant portion of the hour.” (Exhibit B-4, BCUC IR 3.1; Exhibit B-4-1, BCUC IR 3.1) Like the Contact Centre time, FortisBC did not provide the estimated amount of time required for each action in response to BCUC IR 1 (Exhibit B-4) but did provide the estimate in response to Directive 2 of Order G-176-13. (Exhibit B-4-1, BCUC IR 3.1)

In response to BCUC IR 3.1.2 (Exhibit B-4), FortisBC submits that under the pre-AMI system the average time spent by an employee in a role similar to the Metering Analyst to setup a new customer and connect them to a new meter is 45 minutes. This includes the time required to perform the following actions: retrieve order request, confirm required meter type, retrieve meter from warehouse, install meter, seal meter and update order request with installation details. FortisBC notes that this time can vary, depending on the installation location.

BCPSO submits that the costs associated with Metering Analyst time included in the Per-premises Setup Fee should be lower for those customers that choose to participate in the Radio-off AMI Meter Option after an AMI meter has been installed at their premises. (BCPSO Final Submission, p. 4)

Commission Determination

For the reasons outlined above, the Panel does not consider it reasonable to inflate the hourly labour rates used in the calculation of the Per-premises Setup Fee to arrive at a 2016 rate. The Panel finds that the hourly labour rates used in the calculation of the Per-premises Setup Fee should be inflated to arrive at a 2015 rate. For the Metering Analyst, this results in an hourly rate of \$56.13.⁹

The Panel is not persuaded that one hour is a reasonable Metering Analyst time estimate for those customers that elect to participate in the Radio-off AMI Meter Option prior to AMI project deployment in their region. The Panel finds that a Metering Analyst time estimate of 30 minutes is reasonable.

For context, the average amount of time to connect a new customer to a new meter under the pre-AMI system is 45 minutes. In addition, the Panel considers that the following actions will be required during AMI project deployment, regardless of whether or not the customer receiving the meter chooses to participate in the Radio-off AMI Meter Option program or not:

- Physically retrieving the meter from inventory;
- Driving to the customer premises;
- Exchanging the meter; and
- Driving back to the office.

⁹ 2016 Metering Analyst hourly rate of 2016 of \$57.14 divided by 1.018 = \$56.13.

The estimated amount of time for the above-noted actions as part of the one hour estimate of Metering Analyst time is 30 minutes. (Exhibit B-4-1, BCUC IR 3.1)

An alternative approach that could be considered is the deduction of the \$39 estimated average per meter deployment cost under the AMI project from the FortisBC Metering Analyst costs. However, the Panel does not consider this to be reasonable, given that the installation and deployment of meters under the Radio-off AMI Meter Option and the AMI project require different actions as they are treated as two separate programs.

Given that several actions included in the FortisBC Metering Analyst time estimate will be required during AMI project deployment, regardless of whether or not the customer receiving the meter chooses to participate in the Radio-off AMI Meter Option program, the Panel finds that a 30 minute time estimate is reasonable.

Using the time estimate of 30 minutes and an hourly rate of \$56.13, the Panel finds that the reasonable Metering Analyst cost per customer to include in the Per-premises Setup Fee is \$28.06.¹⁰

Allowance for RF Range Extenders

The Per-premises Setup Fee includes \$2.12 per customer for additional RF range extenders required to preserve the reliability of the RF mesh in the presence of the “network gaps” created by the AMI Radio-off Meters. (Exhibit B-1, p. 5) FortisBC assumes 2.1 additional RF range extenders will be required, with capital and installation costs of \$187 and \$520 per unit, respectively. FortisBC proposes to recover the total incremental capital and installation costs related to additional RF range extenders from Radio-off AMI Meter Option participants through the one-time Per-premises Setup Fee. (Exhibit B-2, Electronic Attachment, “Radio-off Fee Derivation”)

The Irrigation Ratepayers Group (IRG) supports the cost estimate for the RF range extenders as reasonable. (IRG Final Submission, para. 31)

The Commercial Energy Consumers Association of British Columbia (CEC) argues that there is other equipment required to manually read the Radio-off AMI Meters and that these should be accounted for as incremental costs in the Per-premises Setup Fee; however, CEC notes that these costs are “not likely [to] add more than a few percent to the total installation fee.” (CEC Final Submission, p. 8)

CSTS submits that the cost of RF range extenders should not be included in the Per-premises Setup Fee as the cost is “inappropriate, unprincipled and unfair” and is “arbitrary and based on conjecture.” (CSTS Final Submission, pp. 7-8)

Commission Determination

The Panel accepts the capital and installation costs associated with the additional RF range extenders of \$2.12 per customer included in the Per-premises Setup Fee as reasonable. With respect to the method of recovery of these costs from the Radio-off AMI Meter participants, the Panel recognizes that alternatively, the depreciation costs associated with the RF range extenders could be recovered from participants through the Per-read Fee. **However, in order to ensure that the full amount of incremental costs are recovered from Radio-off AMI Meter Option participants and considering that the capital and installation costs are relatively small compared to the other Per-premises Setup Fee costs, the Panel finds the proposed method of recovery to be reasonable.**

3.2.2 Per-premises Setup Fee – Post-Commencement of AMI Project Deployment

The approved Per-premises Setup Fee for those customers that elect to participate in the Radio-off AMI Meter Option subsequent to the commencement of the AMI project deployment in their region is summarized on page 14 of this Decision.

¹⁰ 2015 Hourly labour rate of \$56.13 x 30/60 = \$28.06

3.2.2.1 Cost Components

Contact Centre

The Panel does not find any reason to vary the Contact Centre costs included in the Per-premises Setup Fee for those customers that elect to participate in the Radio-off AMI Meter Option subsequent to commencement of AMI program deployment in their region. Contact Centre costs are discussed in Section 3.2.1.1 of this Decision.

Metering Analyst

As discussed in Section 3.2.1.1 of this Decision, the Panel finds that an hourly rate of \$56.13 for the Metering Analyst is reasonable for use in the calculation of the Per-premises Setup Fee.

For those customers that elect to participate in the Radio-off AMI Meter Option subsequent to the commencement of AMI project deployment in their region, the Panel accepts the Metering Analyst time estimate of one hour as reasonable. These customers include existing Radio-off AMI Meter Option participants that move from one property to another and new Radio-off AMI Meter Option participants.

The majority of Metering Analyst actions included in the one hour time estimate will be required following the mass deployment of AMI meters, regardless of whether or not the premises already has a standard radio-on AMI meter installed. As noted by FortisBC, the majority of the one hour time estimate is for driving to and from the customer premises. Driving to and from the customer premises is estimated to take 20 minutes of the one hour time estimate; however, FortisBC submits that it could vary depending on where the customer is located within the service territory. (Exhibit B-4-1, BCUC IR 3.1) This action will be required in all instances and will result in incremental costs.

The Panel is aware that a few actions will not be required if the premises already has a standard radio-on AMI meter installed, specifically retrieving the meter from inventory and exchanging the meter. FortisBC estimates that these actions will require 10 minutes of the one hour time estimate (Exhibit B-4-1, BCUC IR 3.1). However, given that the time estimate related to driving to and from the customer premises could vary from the 20 minute time estimate, the Panel does not consider it appropriate to make any adjustments to FortisBC's one hour Metering Analyst time estimate proposal.

The Panel notes that FortisBC has not included any vehicle costs in the calculation of the Per-premises Setup Fee, while an hourly vehicle rate of \$23.95 was used in the calculation of the Per-read Fee discussed below in Section 3.3.3 of this Decision. There is no evidence on the record in this proceeding regarding vehicle costs as they relate to the Per-premises Setup Fee and accordingly, the Panel has not considered these costs further here.

Allowance for RF Range Extenders

The Panel does not find any reason to vary the allowance for RF range extenders included in the Per-premises Setup Fee for those customers that elect to participate in the Radio-off AMI Meter Option subsequent to commencement of AMI program deployment in their region. RF range extenders are discussed in Section 3.2.1.1 of this Decision.

3.2.3 Adjustment Mechanism

FortisBC acknowledges that there is uncertainty regarding the estimate of Contact Centre and Metering Analyst costs. Accordingly, in response to Directive 2 of Order G-176-13 FortisBC proposes a reconciliation process for these costs. Under the proposed process, FortisBC will submit a report to the Commission within three months of the completion of the AMI project detailing the actual Metering Analyst and Contact Centre costs incurred and the number of Radio-off AMI Meter installations starting on November 1, 2013 until the project is complete. If the average cost per customer is less than the estimated cost by more than \$5, FortisBC will retroactively refund the difference. If the average cost per customer is greater than the estimated cost by more than \$5, FortisBC will adjust the rate on a go-forward basis. Capital costs related to the RF range extenders are excluded from the reconciliation process proposed by FortisBC. (Exhibit B-4-1, BCUC IR 3.1, 5.2)

IRG supports the adjustment mechanism proposed by FortisBC in response to Directive 2 of Order G-176-13. (IRG Final Submission, para. 30)

BCPSO argues that there is uncertainty regarding the number of RF range extenders that will be required because of the Radio-off AMI Meter Option and accordingly submits that these costs should be included in the adjustment mechanism process proposed by FortisBC. (BCPSO Final Submission, p. 5)

CEC submits that overhead charges could be applicable to Contact Centre and Metering Analyst costs and should be included any future Commission review of costs. (CEC Final Submission, p. 8)

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.

3.2.4 Process

FortisBC proposes in the Application that all customers will receive notice 30 days prior to scheduled AMI project deployment in their region. The notice will "...clearly indicate that customers can select the Radio-Off Option, set out the means by which that choice must be communicated to FortisBC, and provide the fee schedule associated with that option." (Exhibit B-1, p. 4)

As highlighted in Section 3.2 of this Decision, the Panel finds it appropriate that there should be a separate Per-premises Setup Fee for customers who elect to participate prior to the commencement of AMI project deployment in their particular region. **FortisBC is directed to report to the Commission on or before January 27, 2014 on the process and deadlines for those customers that elect to participate in the Radio-off AMI Meter Option prior to commencement of the AMI project deployment in their region. The report must include the following:**

- **Final process and timeline for notifying customers of the scheduled AMI project deployment in their region, including the number of days notice that will be provided;**
- **Final process and timeline for notifying customers of both the Radio-off AMI Meter Option, and the requirements and deadlines for opting out prior to the commencement of AMI project deployment in their region; and**
- **The number of days ahead of AMI project deployment in their region that will be required for customers to elect to participate in the Radio-off AMI Meter Option in order to qualify for the \$60 Per-premises Setup Fee.**

In the event that this activity must be developed during the Define/Design stage of the AMI project and will not be available by the stated deadline, FortisBC may apply for relief.

3.3 Per-read Fee

FortisBC proposes a Per-read Fee of \$22 to recover the cost of manually downloading consumption and operational data from Radio-off AMI Meters on a bi-monthly basis. FortisBC asserts that this covers all incremental labour costs for FortisBC staff involved in the manual meter reading process, in addition to incremental vehicle costs.

For the reasons outlined below, the Panel finds that a Per-read Fee of \$18 is reasonable. This is calculated by applying the determinations described below with respect to the total time per read and hourly vehicle rate to FortisBC's financial model, included in Exhibit B-2, Electronic Attachment, "Radio-off Fee Derivation."

The Panel assessed the cost components of the Per-read Fee and determined fees that are just and reasonable. The Panel used the best data made available in the evidence. It then rounded the resulting fee, recognizing that some uncertainties still remain.

3.3.1 Alternatives to Bi-monthly Manual Meter Reading

Several of the Interveners contend that alternatives to the bi-monthly manual meter reading process proposed by FortisBC could reduce costs to Radio-off AMI Meter Option participants. Specifically, BCPSO questioned "...whether a few less manual meter reads per year by FBC (supplemented by customer self-reads) would impact the theft reduction and other benefits of the AMI system enough that it would outweigh the costs saved by avoiding manual reads." (BCPSO Final Submission, p. 8)

CSTS submits that manual meter reading by FortisBC staff should be required as little as annually and proposes monthly billing based on either of the following methods:

1. Estimates based on prior year's billings;
2. Customer reporting by phone, photograph or web portal. (CSTS Final Submission, p. 5)

FortisBC maintains that the process of manually downloading consumption and operational data from Radio-off AMI Meters by FortisBC staff on a bi-monthly schedule is required in order to preserve certain benefits of the AMI project, in particular the theft reduction benefits. Theft reduction benefits are dependent on the collection of hourly interval data from AMI meters, which is used for the energy balancing. (Exhibit B-5, BCPSO IR 2.1) In addition, FortisBC submits that bi-monthly manual meter reading also maintains safety and outage response benefits and the expected conservation effect of the AMI project. (Exhibit B-4, BCUC IR 9.4)

British Columbia Sustainable Energy Association and Sierra Club British Columbia (BCSEA), CEC and IRG support the bi-monthly manual meter reading process proposed by FortisBC, in order to preserve the benefits of the AMI project. (IRG Final Submission, paras. 17-18; CEC Final Submission, p. 3) BCSEA submits that "The theft-reduction benefit of the AMI program depends on the utility receiving hourly interval data from all the AMI-meters at least bimonthly. Retrieving the interval data from the meter requires a specialized device and computer security measures." (BCSEA Final Submission, pp. 7-8)

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)

3.3.2 Participation Rate

The proposed Per-read Fee of \$22 assumes a Radio-off AMI Meter Option participation rate of 0.5 percent, based on the experience of similar programs in the United States. FortisBC collected data from the November 2012 issue of *Power Grid International*, where the average opt-out rate of seven similar programs in the United States is 0.4 percent. (Exhibit B-2,

November 2012 issue of *Power Grid International*, “Smart Meter Opt-out Policies Explained”, p. 3) FortisBC submits that “Because the Company recognises that there is controversy about what the actual participation rate will be, it submits that that its conservative estimate is an appropriate compromise between the experience of utilities in other jurisdictions and the possibility that a larger than expected number of customers will wish to select the Radio-off Option.” (FortisBC Reply Submission, p. 9)

In response to BCUC IR 1.3 and 1.3.1 (Exhibit B-4), FortisBC submits that the only other jurisdiction in Canada that it is aware of with a fee-based opt-out program is Quebec, where Hydro Quebec reports an approximate opt-out rate of 0.2 percent as of June 30, 2012.

Some Interveners argue for participation rates other than 0.5 percent. RDCK submits that the participation rate proposed by FortisBC underestimates the number of customers who want to participate in the Radio-off AMI Meter Option program. (RDCK Final Submission, para. 23) Conversely, CEC argues that 0.5 percent is overestimated and the 0.35 percent median participation rate experienced by similar programs in the United States should be chosen. (CEC Final Submission, p. 5)

CSTS contends that “... the preferable approach would be for FBC to determine what percent of its customer base wishes to opt out and to develop an opt-out fee structure on the basis of a predetermined participation rate. In the interim, any opt-out fee should be suspended or set at a nominal level so as to ensure that no willing participant is deterred by a fee that ultimately fails to receive final approval.” (CSTS Final Submission, p. 16) In reply, FortisBC submits that a predetermined participation rate is not a feasible approach given that customers will not know the approved fees in advance. (FortisBC Reply Submission, p. 9)

IRG finds the 0.5 percent participation rate proposed by FortisBC to be reasonable. (IRG Final Submission, para. 22)

Commission Determination

The Panel is in agreement with FortisBC that 0.5 percent is an appropriate compromise between the 0.4 percent average opt-out rate experienced by similar programs in the United States and the possibility that the actual participation rate may be higher than expected. The 0.5 percent participation rate is based on the experience of similar programs in the United States, where the average opt-out rate is 0.4 percent. The Panel notes that the opt-out rate reported by Hydro Quebec as of June 30, 2012 is lower at 0.2 percent; however, this is based on experience during the implementation phase and accordingly, is not representative of the completed project.

The Panel considers that the CSTS proposal to suspend the opt-out fee or set the opt-out fee at a nominal rate is not feasible given that customers would not have the fee information required to make a decision as to whether or not to participate in the Radio-off AMI Meter Option.

3.3.3 Cost Components

The proposed Per-read Fee of \$22 includes all incremental labour and vehicle costs required to manually download consumption and operational data from Radio-off AMI Meters, based on FortisBC’s estimated total time per read of 16 minutes. (Exhibit B-2, Electronic Attachment, “Radio-off Fee Derivation”)

Total Time per Read

The estimated total time per read of 16 minutes is comprised of 13 minutes of travel time and 3 minutes of read time, which captures the time to manually download data from the Radio-off AMI Meter. The travel time estimate assumes that the Radio-off AMI Meter Option participants are equally distributed over the FortisBC service territory and that the average travel speed between reads is 30 km/hr. (Exhibit B-1, p. 6; Exhibit B-2, Electronic Attachment, “Radio-off Fee Derivation”)

With respect to the average travel speed of 30 km/hr., FortisBC submits that the estimate was developed as follows:

“In the absence of existing data a sensitivity analysis using reasonably possible average travel speeds was performed. In determining “reasonably possible average travel speeds” it was assumed that balancing highway speeds utilized between rural locations of radio-off meters with “near walking speeds” utilized in urban areas would result in an average speed somewhere below legal urban speed limits.

The sensitivity analysis resulted in the following (where “Travel time” includes both “Between read time” and “Mobilization time”):

Sensitivity to Travel Time	
at 20kmh :	20 min
at 30kmh :	13 min
at 40kmh=	10 min

FortisBC selected 30 km per hour as a reasonable average travel speed resulting in the average travel time of 13 minutes used as a component of the per read fee proposed.” (Exhibit B-7, CEC IR 10.2.1)

The read time estimate is developed based on supplier estimates that the work involved in manually downloading interval data can take between 3 to 5 minutes. FortisBC submits that the selected read time estimate of 3 minutes is “[i]n keeping with the Company’s conservative approach to estimating fees applicable to the proposed Radio-off option...” (Exhibit B-7, CEC IR 11.1)

IRG submits that there is uncertainty surrounding the travel time estimate, specifically the average travel speed and the distance between reads, given that the distribution of Radio-off AMI Meter Option participants is unknown. IRG proposes that the FortisBC estimate be implemented and adjusted for actual travel time at a later date. IRG supports the read time estimate proposed by FortisBC as reasonable. (IRG Final Submission, paras. 25-26, 35-36)

CEC argues that the travel time estimate is underestimated for several reasons. First, CEC contends that the travel time is linked to the participation rate, which it argues should be lower. Second, CEC submits that the average travel speed should be closer to 25 km/hr to reflect that “it is more likely that highway travel will occur once for a number of reads in a residential area increasing the proportion of slower residential area travel.” CEC also argues that the read time estimate is underestimated and 4 minutes is more reasonable. (CEC Final Submission, pp. 6-7)

Commission Determination

The Panel finds a total time per read of 14 minutes in the calculation of the Per-read Fee to be reasonable. This allows for 10 minutes travel time and 4 minutes read time.

The Panel is in agreement with IRG that the travel time estimate is likely to vary from the actual travel time, given that the distribution of the Radio-off AMI Meter Option participants in the FortisBC service territory is presently unknown.

However, in the absence of evidence of the actual location of Radio-off AMI Meter Option participants at this time, the Panel considers the FortisBC assumption that the Radio-off AMI Meter Option participants are equally distributed over the FortisBC service territory to be reasonable.

FortisBC notes that the sensitivity analysis provided in response to CEC IR 10.2.1 represents the “reasonably possible average travel speeds” derived by “balancing highway speeds utilized between rural locations of radio-off meters with “near walking speeds” utilized in urban areas.” The sensitivity analysis provided includes “reasonably possible” speeds of 20 km/hr, 30 km/hr and 40 km/hr. FortisBC has not provided further details on why 30 km/hr specifically was chosen for the calculation of the Per-read Fee. The Panel questions the use of “near walking speeds” in FortisBC’s calculation of reasonably possible speeds in urban areas. The Panel is not persuaded that 30 km/hr is a reasonable average travel speed. **The Panel finds that an average travel speed of 40 km/hr in the calculation of the Per-read Fee, which FortisBC includes in its sensitivity analysis of reasonably possible speeds, is reasonable.** Using FortisBC’s financial model (included in

Exhibit B-2, Electronic Attachment, “Radio-off Fee Derivation”) to make this adjustment results in an estimated travel time of 10 minutes.

The Panel finds a read time estimate of 4 minutes in the calculation of the Per-read Fee to be reasonable. The Panel agrees with CEC that a read time estimate of 4 minutes is more reasonable than the 3 minutes used by FortisBC in the calculation of the Per-read Fee, as this represents the average of the supplier’s estimate that the work involved in manually downloading interval data takes between 3 to 5 minutes.

Labour and Vehicle Costs

The estimated total time per read is applied to the hourly labour and vehicle costs of \$59.57 and \$23.95, respectively, to arrive at the Per-read Fee.

The hourly labour rate of \$59.57 is calculated by inflating the Customer Service Person 2012 hourly rate to 2016 at 1.8 percent per annum and adding a fringe benefit load factor. FortisBC submits that this estimated rate is consistent with those in the most recent FortisBC Revenue Requirements Application. (Exhibit B-4, BCUC IR 7.2.1-7.2.1.1)

The hourly vehicle rate of \$23.95 is developed by dividing the 2012 vehicle expenses for the applicable vehicle class by the total actual hours charged out for that class and escalating annually at 1.8 percent to 2016. Additional cost recovery components including financing costs are also added. (Exhibit B-4, BCUC IR 6.1) The average actual cost of a 2012 meter reading vehicle is \$5,990. With respect to the 2012 meter reading vehicle costs, FortisBC submits the following:

“Providing information for one meter reading vehicle is not an accurate representation of the group because the utilization and cost of a meter reading vehicle fluctuates depending on the service territory and the unit itself. Furthermore, servicing customers who have chosen the radio-off option will be a component of a different job than performed in 2012 and the vehicles used for those purposes will fall within the Radio-Off fee. The existing vehicle cost has no impact on the radio-off metering costs.” (Exhibit B-4, BCUC IR 6.2)

FortisBC further submits that no vehicles will be allocated exclusively to meter reading Radio-off AMI Meters and instead meter reading will be performed by other vehicles as “part of other roles within the Company.” (Exhibit B-4, BCUC IR 6.3)

IRG submits that there is uncertainty regarding the estimated vehicle costs per read. (IRG Final Submission, para. 37)

Commission Determination

FortisBC inflates, at 1.8 percent per annum, the hourly rates for both labour and vehicle costs to arrive at an estimate of 2016 rates. **The Panel finds this approach reasonable for the Per-read Fee given that the completion of the AMI project is anticipated at the end of 2015 and the meter reading activity extends beyond project completion.** However, the Panel is not persuaded that the hourly vehicle rate of \$23.95 is reasonable. **The Panel finds that a reasonable hourly vehicle rate in the calculation of the Per-read Fee is \$16.11.**

FortisBC has provided the average actual annual cost of a 2012 meter reading vehicle to be \$5,990. Inflated to 2016 dollars using FortisBC’s inflation rate of 1.8 percent per annum, the Panel notes that this results in a 2016 average annual cost of a meter reading vehicle of \$6,433. Furthermore, the estimated annual hours required to travel to and manually download data from Radio-off AMI Meters is 973 hours.¹¹ Accordingly, using the 2016 average annual meter reading vehicle cost of \$6,433 will result in an hourly vehicle rate of \$6.61. **This calculation is theoretical in nature and does not consider unspecified factors, including how the manual meter reading function will be configured within FortisBC operations. In order to account for these uncertainties the Panel considers that grossing this rate up is fair. In the absence of any evidence to the contrary, the Panel finds 25 percent is reasonable. This results in an estimated hourly rate for one meter reading vehicle of \$8.26.**¹²

¹¹ 695 participants x 6 reads per year x 14 minutes per read (as per Section 3.3.3 above) = 58,380 minutes / 60 minutes = 973 hours.

¹² \$6.61 + 25% = \$8.26

The Panel is aware that FortisBC intends to utilize vehicles that are assigned to other roles within the Company for manually reading the Radio-off AMI Meters, rather than using dedicated meter reading vehicle(s). The hourly vehicle rate of \$23.95 is based on a dividing a pool of annual costs for an entire vehicle class by the total number of hours charged out for that vehicle class. However, the Panel is not persuaded that assigning an hourly vehicle rate for an entire vehicle class to the Per-read Fee is the appropriate approach, in particular given the discrepancy between the hourly vehicle rate of \$23.95 included in the Per-read Fee and the hourly vehicle rate for one meter reading vehicle of \$8.26, as estimated by the Panel. FortisBC has not provided details of the types of vehicles, the number of vehicles or the different uses for the vehicles included in the applicable vehicle class. The Panel notes that the utilization of vehicles included in the applicable class could vary significantly from meter reading.

The Panel considers that \$16.11 is the reasonable vehicle hourly rate to use in the calculation of the Per-read Fee, as this represents the middle point between the rate of \$23.96 proposed by FortisBC for a vehicle class and the rate estimated by the Panel of \$8.26 for operating one meter reading vehicle.

3.3.4 Adjustment Mechanism

FortisBC proposes to track the actual number of Radio-off AMI Meter Option participants and actual manual meter reading costs and to suggest fee revisions, if appropriate, in the next Cost of Service/Rate Design Application. (Exhibit B-1, p. 7) FortisBC currently has a five year Performance Based Ratemaking application before the Commission and FortisBC submits that the Company "...could perform a full cost of service study as early as 2017." (Exhibit B-4, BCUC IR 10.1)

CEC recommends that the costs be updated annually but a period of three years after implementation is allowed before any major changes in the assumptions used to derive the fees are made. (CEC Final Submission, p. 10)

BCPSO argues that required fee adjustments should be evident by the end of 2015 and accordingly, fee adjustments should be made as soon as possible. (BCPSO Final Submission, p. 8)

BCSEA and IRG supports FortisBC's proposal to put forward any required fee revisions with the next Cost of Service / Rate Design Application. (BCSEA Final Submission, p. 6; IRG Final Submission, para. 40)]

Commission Determination

Given that the completion of the AMI project is expected by the end of 2015, the Panel agrees with BCPSO that the actual number of participants and manual meter reading costs should be reported as early as possible. **Accordingly, the Panel directs FortisBC to track the actual number of Radio-off AMI Meter Option participants and the actual annual manual meter reading costs separately from other costs. FortisBC must provide a report on these items to the Commission by September 30, 2016, irrespective of whether or not a fee revision is proposed.**

3.4 Reverting to a Standard Radio-on Meter

FortisBC proposes that Radio-off AMI Meter Option participants can elect to revert back to a standard radio-on AMI meter at any time and will only be charged one final Per-read Fee. (Exhibit B-1, p. 8)

CEC and IRG supports the process for dealing with customers reverting back to a standard radio-on AMI meter, as proposed by FortisBC. (CEC Final Submission, p. 11; IRG Final Submission, para. 41)

Commission Determination

The Panel supports the process as proposed by FortisBC, including the final Per-read Fee charge. However, for the reasons outlined in Section 3.3.3 above, the Panel does not approve the Per-read Fee of \$22 proposed in the Application and FortisBC is instead directed to use the final Per-read Fee approved in this Decision of \$18.

3.5 Rate Schedule 81

The Application includes proposed Rate Schedule 81. Rate Schedule 81 includes the charges and terms and conditions applicable to customers that have a Radio-off AMI Meter installed at their premises.

The proposed Rate Schedule 81 indicates that a False Site Visit Charge may apply. Specifically, Rate Schedule 81 includes the following:

“If the Company attends a Customer’s Premises at the request of a Customer but, on attending, is unable to install a Radio-Off Meter because the **Customer refuses access** or because the facilities required to be provided by the Customer are found to be deficient, the False Site Visit Charge set out in Rate Schedule 80 may be charged.” [emphasis added] (Exhibit B-1-1, Errata 1)

The False Site Visit Charge is included in FortisBC’s existing Rate Schedule 80, as follows:

“A charge of \$182.00 per occurrence may be levied if a FortisBC representative attends a Customer’s Premises at the request of a Customer but, on attending, is unable to perform the requested work because the facilities required to be provided by the Customer, for this purpose, are found to be deficient.” (Exhibit B-6, BCSEA IR, Attachment 18.2)

Rate Schedule 80 is included in FortisBC’s Electric Tariff and contains charges for connection or reconnection of service, transfer of account, testing of meters, and various customer work. (Exhibit B-6, BCSEA IR, Attachment 18.2)

IRG supports Rate Schedule 81, including the False Site Visit Charge. (IRG Final Submission, paras. 39, 43) CEC also supports the False Site Visit Charge as reasonable. (CEC Final Submission, p. 10)

BCPSO submits that the False Site Visit Charge is “vague” and “has the potential for overly broad application.” BCPSO recommends that FortisBC be required to “explicitly notify” customers that the charge exists when the installation appointment is made. (BCPSO Final Submission, pp. 5-6)

BCSEA supports the objective of informing the Radio-off AMI Meter Option participants of the False Site Visit Charge; however, takes no position as to whether or not this should be included in the proposed Rate Schedule 81. (BCSEA Final Submission, p. 7)

Commission Determination

The Panel notes that the False Site Visit Charge is already included in existing Rate Schedule 80. The proposed Rate Schedule 81 includes the False Site Visit Charge and notes that the charge may apply if the “Customer refuses access.” This specific cause for applying the charge is not included in the existing Rate Schedule 80. The Panel recognizes that additional wording included in Rate Schedule 81 adds clarity to the False Site Visit Charge to account for circumstances that were not previously contemplated. However, the Panel does not consider it appropriate to include the False Site Visit charge in Rate Schedule 81 when it is already applicable under Rate Schedule 80. **Accordingly, the Panel directs FortisBC to submit an updated Rate Schedule 80 for approval with the Commission in order to capture any proposed changes to the False Site Visit charge. For clarity and transparency, at the time of providing notice of the AMI project deployment and the Radio-off AMI Meter Option FortisBC is directed to advise customers that the False Site Visit Charge may apply.**

FortisBC must file Rate Schedule 81, updated to include the Per-premises Setup Fee and Per-read Fee approved in this Decision and exclude the False Site Visit Charge, with the Commission for approval on or before January 27, 2014.