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March 2, 2015

Via Email
Original via Mail

B.C. Sustainable Energy Association
c/o William J. Andrews, Barrister & Solicitor
1958 Parkside Lane
North Vancouver, B.C. V7G 1X5

Attention: Mr. William J. Andrews

Dear Mr. Andrews:

Re: FortisBC Energy Inc. (FEI)

**Multi-Year Performance Based Ratemaking Plan for 2014 through 2019
approved by British Columbia Utilities Commission Order G-138-14 - Annual
Review for 2015 Rates**

**Response to the B.C. Sustainable Energy Association and Sierra Club of British
Columbia (BCSEA) Information Request (IR) No. 1**

On January 14, 2015, FEI filed the Application as referenced above. In accordance with Commission Order G-6-15 setting out the Regulatory Timetable for the review of the Application, FEI respectfully submits the attached response to BCSEA IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc: Commission Secretary
Registered Parties (e-mail only)



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1 1.2 What is the connection, if any, between the Transmission Reportable Incidents
2 metric and GHG Emissions reporting?

3
4 **Response:**

5 GHG emissions resulting from the Transmission Reportable Incidents are reported to the BC
6 Ministry of Environment (MOE) as required by the BC Reporting Regulation under the
7 Greenhouse Gas Reduction (Cap and Trade) Act.

8
9

10
11 1.2.1 When a Transmission Reportable Incident occurs, is the estimated
12 quantity of escaped methane included in FEI's GHG Emissions
13 reporting? (Is a Transmission Reportable Incident considered an
14 operational activity for GHG Emissions reporting purposes?) If not, why
15 not?

16
17 **Response:**

18 Please refer to the response to BCSEA IR 1.1.2.

19

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1 **2.0 Topic: Transmission Reportable Incidents**

2 **Reference: Exhibit B-1-1, Table 13-1; section 13.4.3**

3 “The 2014 result was two reported incidents and consistent with recent years’ historical
 4 results.”

5 2.1 Please provide a table showing 2014 and recent years’ results for Transmission
 6 Reportable Incidents.

7
 8 **Response:**

9 The table below provides the 2014 and recent years’ results for Transmission Reportable
 10 Incidents.

	2012	2013	2014
Transmission Reportable Incidents	0	0	2

11
 12 The two reported incidents in 2014 are based on the new OGC reporting criteria which came
 13 into effect on October 1, 2014. There were zero Transmission Reportable Incidents reported in
 14 2012 and 2013.

15
 16
 17
 18 2.2 Please provide the estimated GHG Emissions (indicating the GWP) associated
 19 with the two Transmission Reportable Incidents reported for 2014.

20
 21 **Response**

22 The table below provides the available GHG emission estimates associated with the two
 23 incidents reported to the OGC for 2014.

Incident	Volume of Gas (Standard Cubic Metre)	GHG Emission (tCO ₂ e) ²
Charles Park	Not Calculated ¹	Not Available ¹
Lumby	104,000	1664

24 ¹ Due to the nature of the leak (i.e., slow release), the volume of gas release was not determined
 25 as part of the OGC Incident report. The GHG emission from this source will be included in
 26 aggregate using company activity data and industry emission factor, in accordance with
 27 WCI350 methodology as referenced in BC Ministry of Environment GHG reporting regulation.

28 ² A global warming potential of 25 was used for methane.



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2.3 Please provide the range (smallest to largest) of estimated GHG Emissions (indicating the GWP) associated with the Transmission Reportable Incidents shown in the historical table requested above.

Response:

Please refer to the responses to BCSEA IRs 1.2.1 and 1.2.2.

2.4 How does the range of estimated GHG emissions due to Transmission Reportable Incidents compare to FEI's annual reported GHG Emissions from operational activities?

Response:

As indicated in the preamble to the IR, there have been very few reportable incidents historically with zero Transmission Reportable incidents in both 2013 and 2012. Consequently, the emissions from transmission reportable incidents are zero or very small compared to FEI's annual reported GHG emissions from operational activities. For example, in 2013, FEI's annual reported GHG emissions from operational activities was 127,940 tCO₂e using GWP values for CH₄ and N₂O of 21 and 310, respectively, whereas the emissions associated with reportable incidents was 0 tCO₂e.

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1 **3.0 Topic: Transmission Reportable Incidents**

2 **Reference: Exhibit B-1-1, Table 13-1; section 13.4.3**

3 “...In the past, the practice has been to report only on the higher pressure transmission
4 events designated as serious. However, the OGC has new reporting criteria effective
5 October 1, 2014, which require the Company to report on more incidents and events. As
6 of October 1, 2014, the Company will be reporting Transmission Reportable Incidents
7 based on the new OGC reporting criteria, including Level 1, 2, and 3 reportable incidents
8 for both transmission and intermediate pressure assets that operate at a pressure
9 exceeding 100 psi. This will include pipelines, mains, services, stations, LNG plants and
10 compressor stations, but will exclude distribution assets that operate below 100 psi. This
11 change in the OGC reporting criteria will likely increase the number of events reported
12 going forward and will limit the comparability of historical performance data for this
13 metric.”

14 3.1 Please confirm that the two Transmission Reportable Incidents in 2014 occurred
15 in the fourth quarter. Is either of both of the two Transmission Reportable
16 Incidents in 2014 reportable only because of the new OGC reporting criteria?
17

18 **Response:**

19 Yes, the two Transmission Reportable Incidents in 2014 occurred in the fourth quarter.

20 Both of the two Transmission Reportable Incidents in 2014 were on intermediate pressure
21 assets (under 300 psi) and both count towards the Transmission Reportable incidents
22 informational SQI because of the new OGC reporting criteria.

23

24

25

26 3.1.1 If so, does this limit the comparability of the 2014 results with the
27 historical Transmission Reportable Incidents results requested above?
28

29 **Response:**

30 Yes. The amount of pipeline subject to the new reporting requirements has increased
31 approximately 25 percent as a result of including intermediate pressure pipelines. Moreover,
32 the severity threshold for reporting incidents has been lowered. This limits the comparability of
33 2014 and future years to historical performance data for this metric.

34

35



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1
2 3.2 While the new OGC reporting criteria will limit the comparability of historical
3 performance for Transmission Reportable Incidents, does FEI agree that going
4 forward the Transmission Reportable Incidents will be a valuable indicator of the
5 integrity of the transmission system over time?
6

7 **Response:**

8 FEI believes that as incident history under the new reporting criteria is established, the metric
9 will emerge as one indicator of the integrity of the transmission system.
10
11

12
13 3.3 Please explain whether and how the Transmission Reportable Incidents metric
14 with the new OGC reporting criteria will overlap with FEI's Leaks per KM of
15 Distribution System Mains metric.
16

17 **Response:**

18 The Transmission Reportable Incidents metric does not overlap with the Leaks per KM of
19 Distribution System Mains metric. The Leaks per KM of Distribution System Mains metric is only
20 for distribution mains (mains with operating pressure under 100 psi), whereas the Transmission
21 Reportable Incidents metric excludes distribution assets that operate below 100 psi.
22
23

24
25 3.4 For clarity, please confirm that the Transmission Reportable Incidents metric
26 records "incidents" concerning the transmission system whereas the Leaks per
27 KM of Distribution System Mains metric records "leaks" concerning the
28 distribution system.
29

30 **Response:**

31 The Transmission Reportable Incidents metric records "incidents" concerning the transmission
32 and intermediate pressure system whereas the Leaks per KM of Distribution System Mains
33 metric records "leaks" concerning distribution mains. Distribution mains have an operating
34 pressure under 100 psi.
35
36



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1
2 3.4.1 Please discuss whether and how FEI records and reports leaks
3 concerning the transmission system and incidents concerning the
4 distribution system. Please specify any changes in this respect that will
5 result from the new OGC reporting criteria.
6

7 **Response:**

8 Leaks and incidents concerning the transmission and distribution systems are recorded in FEI's
9 SAP system.

10 All leaks on the transmission system would be an incident that is reportable to the OGC.
11 Transmission leaks are reportable to the OGC and are classified as a minor incident or a Level
12 1, 2 or 3 emergency based on the OGC incident classification matrix.

13 The distribution system operates below 100 psi which is outside the OGC reporting criteria.

14 The amount of pipeline subject to the new OGC reporting requirements has increased
15 approximately 25 percent as a result of including intermediate pressure pipelines and the
16 severity threshold for reporting incidents has been lowered.

17 Distribution system incidents are reported to the BC Safety Authority in accordance with the
18 Incident Reporting Requirements with Respect to Gas Technology Directive issued February 1,
19 2011. The Leaks per KM of Distribution System Mains metric does not correlate with "incidents"
20 occurring on the distribution system as the list of distribution "incidents" reported to the BC
21 Safety Authority includes emergency orders which include carbon monoxide calls, gas odour
22 calls, hit lines, etc.

23



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1 **4.0 Topic: Leaks per KM of Distribution System Mains**

2 **Reference: Exhibit B-1-1, section 13.4.3**

3 “The Leaks per KM of Distribution System Mains metric, an informational indicator as
4 approved by the Commission, measures the number of leaks on the distribution system
5 per KM of distribution system mains. The metric is intended to be an indicator of the
6 integrity of the distribution system. Each year, approximately one fifth of the distribution
7 system is surveyed for leaks, with the number of leaks varying from year to year,
8 depending on the condition of the pipe surveyed.”

9 4.1 The Leaks per KM of Distribution System Mains metric is intended to be an
10 indicator of the integrity of the distribution system. Does FEI agree that the Leaks
11 per KM of Distribution System Mains metric is an indicator of the ability of the
12 distribution system to prevent fugitive methane emissions?

13
14 **Response:**

15 Yes.

16

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1 **5.0 Topic: Leaks per KM of Distribution System Mains**

2 **Reference: Exhibit B-1-1, Table 13-1; section 13.4.3, p.123**

3 “The 2014 result was 0.0059 and better than recent years’ results (i.e., 2012 at 0.0085
4 and 2013 at 0.0075). Influencing the results is the condition of the distribution system as
5 some sections of the pipeline system are more prone to leaks depending on soil
6 conditions, age of the pipelines, pipeline material and the location of the pipeline. As the
7 distribution system ages, the expected number of leaks may increase depending on the
8 Company’s pipeline renewal/replacement activities. Increases in leak survey activity
9 levels will generally also result in a higher number of leaks detected.”

10 5.1 Please confirm that the relevant units are leaks per kilometer of the length of the
11 distribution system evaluated. Otherwise, please explain.

12

13 **Response:**

14 Not confirmed. The relevant units are the number of leaks detected divided by the total number
15 of kilometres of distribution mains.

16

17

18

19 5.2 Given that “Each year, approximately one fifth of the distribution system is
20 surveyed for leaks,” please discuss whether and how the results of the Leaks per
21 KM of Distribution System Mains metric from year to year can be compared.

22

23 **Response:**

24 Although year to year comparisons of this metric can be made, it is more meaningful to compare
25 the rolling five-year average from year to year. This is due to the fact that there are five distinct
26 leak survey areas, and within each of those areas there are likely different factors that impact
27 the likelihood of leaks occurring there. Year to year comparisons of the rolling five-year average
28 provide a comparison of the latest survey results from all leak survey areas from one year to the
29 next.

30

31

32

33 5.2.1 For example, does the fact that the Leaks per KM of Distribution System
34 Mains value is smaller in 2014 than in 2013 which is smaller than in
35 2012 mean that there is a general improvement in the integrity of the



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1 distribution system, or does it simply reflect the fact that different
2 portions of the distribution system were evaluated in each year?

3
4 **Response:**

5 The fact that the Leaks per KM of Distribution System Mains value is smaller in 2014 than in
6 2013, which is smaller than in 2012, does not necessarily indicate an improvement to the
7 integrity of the distribution system. The value reflects the results of the portion of the system
8 surveyed that year.

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12 5.3 Given that “As the distribution system ages, the expected number of leaks may
13 increase depending on the Company’s pipeline renewal/replacement activities,”
14 is it the Company’s intention that the Leaks per KM of Distribution System Mains
15 metric should stay relatively constant, indicating that the Company’s
16 renewal/replacement activities are ‘keeping up’ with the aging of the distribution
17 system?

18
19 **Response:**

20 Please refer to the response to CEC IR 1.57.1.

21
22

23
24 5.3.1 What is FEI’s objective concerning the results of the Leaks per KM of
25 Distribution System Mains metric over time?

26
27 **Response:**

28 FEI’s objective concerning the results of the Leaks per KM of Distribution System Mains metric
29 is that it provides a high level historical informational or directional indicator of asset
30 performance and associated leak prevention/mitigation activities.

31
32

33



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1 5.4 Please confirm that the Leaks per KM of Distribution System Mains metric
2 reports only the number of leaks, not the size of the leaks. Alternatively, please
3 explain.

4
5 **Response:**

6 FEI confirms this metric reports only the number of leaks, not the size of the leaks.

7
8

9
10 5.5 Please provide any estimate or measurement FEI has of the volume of gas
11 leaked, either at the level of individual leaks or at the level of the distribution
12 system.

13
14 **Response:**

15 Total fugitive emissions from distribution system leaks for mains and services in 2013 as
16 reported to the BC MOE was 394,865 m3. Total fugitive emissions for 2014 is not available at
17 the time of this response.

18
19

20
21 5.6 Please explain why “Increases in leak survey activity levels will generally also
22 result in a higher number of leaks detected,” if the metric is based on the number
23 of leaks per KM of distribution.

24
25 **Response:**

26 This metric is not leaks per km of pipe surveyed, but instead the leaks detected per km of
27 distribution mains in total. Therefore, the total number of kilometers that forms the denominator
28 of the calculation of this metric remains relatively constant from year to year. If the absolute
29 number of leaks detected in a given year increases, due to a factor such as increased leak
30 survey activity level, then the metric will produce a higher result than in a year with less leak
31 survey activity.

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1 5.7 Given that “Increases in leak survey activity levels will generally also result in a
2 higher number of leaks detected,” does FEI do any analysis in which the results
3 of leak survey activity are translated into estimated numbers of leaks for the
4 distribution system as a whole?
5

6 **Response:**

7 No. FEI’s long-term sustainment planning or integrity management processes do not involve
8 the analysis suggested by this question nor is there a requirement to perform this type of
9 analysis.

10
11

12
13 5.7.1 If so, does this analysis take into account that “some sections of the
14 pipeline system are more prone to leaks depending on soil conditions,
15 age of the pipelines, pipeline material and the location of the pipeline”?
16

17 **Response:**

18 Please refer to the response to BCSEA IR 1.5.7.

19
20

21
22 5.7.2 If not, why not?
23

24 **Response:**

25 Please refer to the response to BCSEA IR 1.5.7.

26
27

28
29 5.8 Please provide a table showing all the available historical results for the Leaks
30 per KM of Distribution System Mains metric.
31

32 **Response:**

33 The table below provides the available historical results for the Leaks per KM of Distribution
34 System Mains metric.



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Year	Number of Leaks	Kms of Dist. Mains	Leaks per Km of Dist. Mains
2006	145	18,897	0.0077
2007	88	18,760	0.0047
2008	112	18,897	0.0059
2009	122	18,760	0.0065
2010	140	18,895	0.0074
2011	166	18,974	0.0087
2012	169	19,040	0.0089 ¹
2013	143	19,098	0.0075
2014	114	19,172	0.0059

1 ¹ The Leaks per Km of Distribution Mains result for 2012 is 0.0089 as opposed to 0.0085 previously
2 reported in the FEI Annual Review for 2015 Rates filed January 14, 2015 and Evidentiary Update filed
3 January 29, 2015.

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5.9 If not already discussed, please explain whether and how the results of the Leaks per KM of Distribution System Mains metric are supposed to be interpreted as an indicator of the integrity of the distribution system. Does an annually decreasing trend in the Leaks per KM of Distribution System Mains metric indicate improvement in the integrity of the distribution system? Would an annually increasing trend in the Leaks per KM of Distribution System Mains metric indicate a decline in the integrity of the distribution system?

Response:

16

17

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19

Please refer to the response to BCSEA IR 1.5.3.1. An annual increase or decrease in the number of detected leaks on main does not necessarily indicate a change of overall system conditions. It may simply indicate an increase or decrease in the number of leak detection surveys or a change in geographic location of such a survey in any given year.

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5.10 What are the alternatives to the Leaks per KM of Distribution System Mains metric as a measure of the integrity of the distribution system? Has FEI



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1 considered them? Is the Leaks per KM of Distribution System Mains metric the
2 best way for the Commission and stakeholders to be informed as to the integrity
3 of the distribution system?
4

5 **Response:**

6 FEI proposed in its PBR Application to discontinue the use of Leaks per KM of Distribution
7 System Mains as an SQI as it would provide limited value going forward. In the PBR Decision,
8 however, the Commission ordered FEI to reinstate the indicator.

9 As described in FEI's response to BCUC IR 2.341.1 as part FEI's Application for a Multi-Year
10 Performance Ratemaking Plan for 2014 through 2018 (a copy of which is provided in
11 Attachment 5.10), FEI does not believe there is any one metric that would be an appropriate
12 measure of the integrity of the distribution system.

13 However, the Leaks per KM of Distribution System Mains metric when coupled together with the
14 Public Contacts with Pipeline metric does serve as a high level, historical informational indicator
15 of the integrity of the distribution system.

16
17

18
19 5.11 What is FEI's operational response to specific leaks identified in the leak survey?
20 Are these leaks fixed? If not, why not?
21

22 **Response:**

23 FEI's operational response to specific leaks is governed by internal standard OPM 03-02 Gas
24 Leak Classification and Response. FEI classifies incidents of leaking gas and the method of
25 response based on the following criteria:

- 26 • impact to the safety of public or property;
- 27 • impact to reliability of delivery of gas;
- 28 • impact to the integrity of the gas delivery system;
- 29 • impact to customer or public relations; and
- 30 • impact to the environment.

31
32 Based on the criteria above, FEI classifies leaks into the following three categories:



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- 1 • **Category 1** shall be assigned to a leak which is deemed to require immediate action,
2 and due to its location or intensity may cause an immediate hazard to persons or
3 property.
- 4 • **Category 2** shall be assigned to a leak which due to its location or intensity does not
5 require immediate action but justifies scheduled repair based on future hazard.
- 6 • **Category 3** shall be assigned to a leak which at the time of assessment does not
7 represent an immediate hazard, and can be reasonably expected to remain non-
8 hazardous. Some areas with frost conditions or wall to wall pavement may have
9 Category 3 leaks that require a scheduled date for repair due to the possibility of the
10 frost increasing the severity of the leak.

11
12 Based on the classification, leaks are repaired immediately, scheduled so that the repair is
13 initiated within 7 days, or deferred until Asset Management can or does address them through
14 pipe renewal programs or by other maintenance activities.

15
16
17
18 5.12 If not already discussed in response to the information request above, please
19 explain whether and how the Leaks per KM of Distribution System Mains metric
20 reflects 'incidents' occurring on the distribution system.

21
22 **Response:**

23 Please refer to the response to BCSEA 1.3.4.1.

24
25
26
27 5.13 Please explain whether and how FEI connects the results of the Leaks per KM of
28 Distribution System Mains metric to FEI's estimates of GHG Emissions for
29 reporting purposes. Is there an assumed size of flow per leak? Are GHG
30 Emissions from leakage from the distribution system estimated using other
31 techniques, such as gas flow balances?
32



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1 **Response:**

2 Fugitive GHG emissions from distribution mains are estimated in accordance with Western
3 Climate Initiative quantification methods (WCI.350) as required by the BC MOE GHG reporting
4 requirements.¹ The prescribed methodology involves the use of company activity data (i.e., the
5 total number of leaks measured) multiplied by an equivalent leak factor. The resulting company
6 adjusted activity data is then multiplied by the emission factor as published in WCI350 to
7 estimate the GHG emissions.

8

¹ Available online at:
<http://www2.gov.bc.ca/gov/topic.page?id=7E56C1CB0C524E3BB26EC22323B338A6>.

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1 **6.0 Topic: GHG Emissions from Operational Activities**

2 **Reference: FortisBC Energy Utilities (FEU) 2014 Long Term Resource Plan**
3 **(LTRP), Exhibit A-6**

4 In the FortisBC Energy Utilities (FEU) 2014 Long Term Resource Plan (LTRP)
5 proceeding, the Commission panel ruled in Exhibit A-6 (letter of July 29, 2014) that GHG
6 emissions from the FEU's own facilities, including Stationary Combustion, Venting,
7 Flaring, Fugitive Methane Emissions, and Third Party Line Hits are "operational in
8 nature" and are "more appropriately a matter for revenue requirements proceedings..."

9 6.1 Does FEI agree that the topic of GHG emissions from the FEU's own facilities,
10 including Stationary Combustion, Venting, Flaring, Fugitive Methane Emissions,
11 and Third Party Line Hits is within the scope of the current proceeding?
12

13 **Response:**

14 The topic of GHG emissions from the FEI's own facilities can be relevant to revenue
15 requirements proceedings to the extent that it relates to the costs that the Company is seeking
16 to recover in rates in a particular test year.

17 The current proceeding is not an application through which budgets for managing GHG
18 emissions are to be set, but is rather an annual review of a 6-year PBR period for which the
19 base level of operational costs for activities such as managing GHG emissions has already
20 been set. Accordingly, for this particular proceeding, FEI does not believe that the topic of GHG
21 emissions from the FEI's own facilities is relevant.

22
23

24 6.1.1 If not, why not?
25
26

27 **Response:**

28 Please refer to the response to BCSEA IR 1.6.1.
29



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1 **7.0 Topic: GHG Emissions from Operational Activities**

2 **Reference: FEU 2014 LTRP Proceeding, Exhibit B-4, BCSEA 1.18.4**

3 In the 2014 LTRP proceeding, the FEU provided the following table showing historical
4 estimated GHG emissions related to operational activities:

	Estimated GHG Emission (tCO ₂ e)
2009	171,312
2010	156,467
2011	137,059
2012	134,303

5 **Note:** GWP values for CH₄ and N₂O of 21 and 310, respectively.

6 7.1 Please provide the above table updated to show 2013, and, if possible, 2014.
7 Please indicate the applicable Global Warming Potential (GWP) values.

8
9 **Response:**

10 The 2013 estimated GHG emissions related to operational activities for FEU was 127,940
11 tCO₂e using GWP values for CH₄ and N₂O of 21 and 310, respectively.

12 The 2014 estimated GHG emissions values for 2014 are not available at the time of this
13 response.

14

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1 **8.0 Topic: GHG Emissions from Operational Activities**

2 **Reference: FEU 2014 LTRP Proceeding, Exhibit B-4, BCSEA 1.18.4**

3 “18.8 What steps does FEU intend to take over the plan period to strengthen and
4 improve its monitoring, reporting and mitigation of its own GHG emissions?”

5 **Response:**

6 As part of its provincial regulatory commitments, and in an effort to continually
7 strengthen and improve the emissions’ management program within the company, the
8 FEU are currently developing incident specific emission rates for third party line hits,
9 distribution pipeline blow downs, as well from as installation of sage meters to measure
10 for the fugitive emission from compressor valve seals. Emissions from these sources are
11 essential for the safe and proper operation of FEU assets, and are not intended to
12 reduce emissions, but instead monitor the amount. In addition, as per provincial
13 regulatory requirements, yearly leak detection surveys are conducted at compressor
14 stations, to identify potential sources of fugitive equipment. These surveys are in addition
15 to continuous gas monitors and maintenance activities conducted by FEU operation staff
16 which serve to reduce fugitive emission from FEU facilities.”

17 8.1 Please confirm and if necessary update the above-quoted passage.

18

19 **Response:**

20 Confirmed.

21

22

23

24 8.2 Please describe FEI’s “[GHG] emissions’ management program.”

25

26 **Response:**

27 The quoted phrase “emissions management program” referred to the activities and measures
28 that FEI implements in order to meet BC MOE reporting requirements and industry best
29 practices with regard to managing GHG emissions from operational activities.

30

31

32

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8.3.1 What does FEI intend to accomplish in 2015 in this regard?

3

4 **Response:**

5 The installation of sage meters at FEI compressor stations allows for the continual monitoring of
6 fugitive emission from valve seals. Reporting of these results, consistent with the requirements
7 of the BC MOE GHG Reporting Regulation, will continue in 2015. No additional studies on the
8 development of third party line hits emissions and distribution pipeline blow down emissions
9 factors are planned for 2015.

10

11

12

13 8.4 What “yearly leak detection surveys ... conducted at compressor stations, to
14 identify potential sources of fugitive equipment” occurred in 2014? What were the
15 results?

16

17 **Response:**

18 The stated leak detection surveys were completed in 2014. The empirical results of these
19 surveys will be published on the BC MOE GHG website in aggregate in 2015, when they
20 become available. In general, results of these surveys indicate that the number of leaks at FEI
21 compressor stations are well below industry recommended activity factors and that fugitive
22 emissions from compressor stations comprise a very small percentage of the GHG emissions
23 for FEI.

24

25

26

27 8.4.1 What leak detection surveys at compressor stations does FEI intend to
28 conduct in 2015?

29

30 **Response:**

31 FEI will continue to conduct leak detection surveys at all applicable facilities in 2015 in
32 accordance with the WCI350 methodology as referenced by the BC MOE GHG reporting
33 regulation. Details of the reporting methodology can be found at the MOE’s website
34 (<http://www2.gov.bc.ca/gov/topic.page?id=7E56C1CB0C524E3BB26EC22323B338A6>).



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8.5 Please describe the activities carried out in 2014 that are referred to as “continuous gas monitors and maintenance activities conducted by FEU operation staff which serve to reduce fugitive emission from FEU facilities.”

Response:

The continuous gas monitoring devices referenced in the quoted IR response are permanent devices installed at the FEU’s (now FEI’s) facilities for the safety of workers and the environment. These devices are maintained and operated during the life of the facility as was done by the FEU in 2014.

The maintenance activities referred to are the maintenance activities that are planned for FEU’s (now FEI’s) facilities as part of regular operational activities. These maintenance activities preserve the integrity of the system and therefore serve to reduce fugitive emissions.

8.5.1 What activities of this type does FEI intend to carry out in 2015?

Response:

FEI’s activities for 2015 are the same as the activities discussed in the response to BCSEA IR 1.8.5.

8.6 Where emissions of natural gas sources such as pipeline blow downs are “essential for the safe and proper operation of FEU assets,” what steps if any did FEI take in FEI to reduce the amount of such emissions in order to minimize the contribution to climate change and further BC’s energy objectives?

Response:

FEI interprets this question to ask what steps has FEI taken to reduce GHG emissions due to the day-to-day operation of its assets, rather than inquiring into FEI programs that have



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1 significantly reduced emissions in the province including the use of renewable natural gas
2 sources, participation in the “Call Before You Dig” program, and the Company’s EEC
3 programming. Examples of emission reduction programs include the conversion of gas starters
4 at compressor stations with compressed air and the use of electric compressor units at LNG
5 facilities.

6

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- 1 **9.0 Topic: Carbon Credit**
- 2 **Reference: FEI 2014-2018 PBR Application, Exhibit B-1, section 4.3.5,**
- 3 **Compliance with Emissions Regulations, pp. 302-304**

24 **4.3.5 Compliance with Emissions Regulations**

25 The Compliance with Emissions Regulations Deferral Account, approved by Commission Order
26 G-44-12, captures potential compliance costs and revenues collected from the sale of carbon
27 credits. The account was implemented to capture the growing number of regulations around
28 emissions trading that may result in incremental compliance costs and recoveries during the
29 forecast period. These compliance costs and recoveries are difficult to forecast because of
30 uncertainty around the final form and applicability of emissions trading regulations. Currently,
31 the potential Emissions Trading Regulation (under the *Greenhouse Gas Reduction (Cap and*
32 *Trade) Act*), the Carbon Neutral Government Regulation and the Emission Offsets Regulation
33 (both brought into force under the *Greenhouse Gas Reduction Targets Act*) and the Renewable

1 and Low Carbon Fuel Requirements Regulation (RLCFRR) are two regulatory mechanisms
2 aimed to reduce Greenhouse Gas (GHG) emissions in BC. These regulations, as discussed
3 further below, could impact us in three ways: 1) we could be required to hold allowances or
4 offsets against our own operating emissions under Cap and Trade, 2) we could be required to
5 hold credits equal to our compliance obligation under the RLCFRR and 3) we could sell our
6 credits from customer offerings that result in in GHG reduction projects (offsets), over-
7 performance under the RLCFRR, or from selling allowances or offsets that are surplus to
8 requirements under a potential future Cap and Trade regime.

9 The Emissions Trading Regulation, which has been discussed with partners in the Western
10 Climate Initiative, was initially proposed to start in 2012, but has not been brought into force in
11 BC⁷⁵. Although BC still remains a partner with Western Climate Initiative, there has been no
12 further action with respect to a cap-and-trade legislative model. The timing and implementation
13 of cap and trade will continue to be driven by the political landscape in BC. Therefore, whether a
14 cap-and-trade system comes into play at a national, regional, or provincial level in the future is
15 still unknown at this time and the utilities' requirement to comply with such requirements is yet to
16 be determined.

18 The Province of BC has also legislated the RLCFRR, which addresses the transportation
19 sector's contribution to GHG emissions in BC. Starting on July 1, 2013, Part 3 fuel suppliers will
20 have to meet annual targets, or pay a penalty. Natural gas, propane, electricity and hydrogen
21 are Part 3 fuels if they are sold for use in transportation. "A Part 2 or Part 3 fuel supplier who
22 manufactures fuel in British Columbia for the first time or imports fuel into British Columbia for
23 the first time, or uses it for the first time, is responsible for compliance unless there is a written
24 agreement stating otherwise."



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26 Since we sell natural gas for transportation under various rate classes, we have the opportunity
27 to claim first sale as a 'Part 3' fuel supplier in the Province.⁷⁵ This regulation allows for
28 generation of low carbon compliance credits based on required carbon intensity baseline. Those
29 suppliers who are not in compliance with the mandated reductions in carbon will have to
30 purchase credits from others or pay a penalty of \$200/tonne for deficiencies. As we add more
31 CNG and LNG sales, our credits will increase as they are measured against the conventional
32 fuel intensity baseline, which creates a potential revenue stream for FEI, benefiting our
33 customers through this deferral account mechanism.
34 As an early step in realizing the economic value of GHG emission reductions as carbon offsets,
35 FEI has explored opportunities to sell carbon offsets from the Efficient Boiler Program for
36 commercial customers in its EEC initiative. FEI currently contracts for the ownership of any
37 carbon credits realized as part of its natural gas EEC programs, thereby potentially enabling FEI
38 to monetize these GHG reductions as offsets with a market value. Monetization of offsets from
39

⁷⁵ California started this regime in 2013 and Quebec is scheduled to start in 2014.

⁷⁶ FEI is awaiting further clarification from the Ministry regarding the definition of Part 3 fuel suppliers as it relates to natural gas for transportation.

1 utility EEC programs, however, has not yet been done in BC because a protocol has only just
2 been established that allowed for the quantification and aggregation of emission reductions in
3 projects, and such a project will be subject to third-party validation and verification. Additionally,
4 there is uncertainty around the structure and role the Pacific Carbon Trust will play in BC in the
5 near future. If these revenues materialize FEI would flow these revenues back to customers
6 through this account.

8 As a result of the above-mentioned concerns and uncertainties, it is difficult to forecast costs
9 and revenues associated with carbon credits, cap and trade and RLCFRR regulations.
10 Therefore, for purposes of the 2014 through 2018 PBR Period, additions to this account have
11 not been forecast at this time and the amortization of any balance that accumulates in this
12 account will be addressed in a future rate setting process.

2

3 9.1 Please file a legible copy of section 4.3.5, Compliance with Emissions
4 Regulations, pp. 302-304 of Exhibit B-1 of the FEI 2014-2018 PBR Application.

5

6 **Response:**

7 Please refer to Attachment 9.1.

8

9

10

11 9.2 Please confirm and where necessary update section 4.3.5, Compliance with
12 Emissions Regulations.

13



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1 **Response:**

2 The information provided in Section 4.3.5 Compliance with Emissions Regulations is still
3 correct; however, an update is provided below regarding the new Greenhouse Gas Industrial
4 Reporting and Control Act (Bill 2).

5 The new Greenhouse Gas Industrial Reporting and Control Act (Bill 2) was introduced on
6 October 20, 2014 for the management of GHG emissions from the province's LNG industry. Bill
7 2 seeks to establish a GHG emissions intensity benchmark of 0.16 carbon dioxide equivalent
8 (CO₂e) tonnes per tonne of LNG produced. Regulations outlining a number of details of the
9 new GHG regime for the LNG industry are presently under development.

10 Bill 2 repeals and replaces the *Greenhouse Gas Reduction (LNG Environmental Incentive*
11 *Program) Act*, which was enacted in 2008 as part of the then provincial government's intent to
12 establish an emissions trading system. At the same time, it will repeal the Cap and Trade Act,
13 which was part of the government's Climate Action Plan. Bill 2 does not preclude the possibility
14 of regulated entities using emission offsets from other jurisdictions to meet their compliance
15 obligations as there is discretion in the legislation for the director to establish protocols for
16 emission offset projects.

17 Regulations in support of Bill 2 are anticipated in 2015 and are subject to consultation with First
18 Nations and interested stakeholders.

19
20

21
22 9.2.1 What activity if any occurred in 2014 regarding the Compliance with
23 Emissions Regulations Deferral Account?
24

25 **Response:**

26 There was no activity in 2014 in the Compliance with Emissions Regulations Deferral Account.

27
28

29
30 9.2.2 What events occurred in 2014 regarding "emissions trading that may
31 result in incremental compliance costs and recoveries during the
32 forecast period."
33



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1 **Response:**

2 As indicated in the response to BCSEA IR 1.9.2, regulations in support of the new Greenhouse
3 Gas Industrial Reporting and Control Act (Bill 2) are presently under development and are
4 anticipated in 2015. These regulations may result in incremental compliance costs and/or
5 recoveries once in force; however, actual compliance costs and/or recoveries are not known at
6 this time.

7

8

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10 9.2.3 Please describe whether and to what extent in 2014 FEI was “required
11 to hold allowances or offsets against our [its] operating emissions under
12 Cap and Trade.”

13

14 **Response:**

15 FEI was not required to hold allowances or offsets against its operating emissions under Cap
16 and Trade in 2014.

17

18

19

20 9.2.4 Please describe whether and to what extent in 2014 FEI was “required
21 to hold credits equal to [its] compliance obligation under the RLCFRR
22 [Renewable and Low Carbon Fuel Requirements Regulation].

23

24 **Response:**

25 Effective July 1, 2013, all entities who supply fuel in BC for transportation purposes must comply
26 with the maximum annual carbon intensity limits set under BC’s RLCFRR. Both CNG and LNG
27 carbon intensities fall below the maximum allowable carbon intensity mandated by the
28 RLCFRR. Therefore, FEI will generate credits for its transportation customers who fuel their
29 vehicles with CNG and LNG.

30 The Ministry is currently in the process of updating forms that will allow fuel suppliers to apply
31 for carbon credits for the period from July 1, 2013 to December 31, 2014.

32 Regardless of whether a fuel supplier generated credits or debits under the RLCFRR, fuel
33 suppliers were not required to hold credits in 2014 equal to their compliance obligation under
34 the RLCFRR.



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9.2.5 Please describe whether and to what extent in 2014 FEI “could sell [its] credits from customer offerings that result in GHG reduction projects (offsets), over-performance under the RLCFRR, or from selling allowances or offsets that are surplus to requirements under a potential future Cap and Trade regime.”

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Response:

10 FEI will be able to sell carbon credits earned under the RLCFRR for the period from July 1,
11 2013 to December 31, 2014. As indicated in the response to BCSEA IR 1.9.2.4, the Ministry is
12 in the process of updating forms that will allow fuel suppliers to apply for carbon credits for the
13 period from July 1, 2013 to December 31, 2014. The Ministry may facilitate the sale of carbon
14 credits; however, the sale process has not yet been finalized.

15

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9.2.6 In 2014, what if any “clarification from the Ministry regarding the definition of Part 3 fuel suppliers as it relates to natural gas for transportation” did FEI receive?

19

20

21

22

Response:

23 The RLCFRR defines a fuel supplier as someone who either manufactures or imports fuel and
24 then sells it or uses it in BC. There was uncertainty regarding the ownership of credits based on
25 the definition of “manufacture”. The Ministry issued Information Bulletin RLCF-009 in July 2013,
26 which was intended to clarify the ownership of carbon credits as it relates to the term
27 “manufacture”. The following is an excerpt from the Bulletin RLCF-009:

28

29

30

31

“Natural Gas – In the case of Compressed Natural Gas, the manufacturer is the person who owns the natural gas when it is compressed for use in transportation. In the case of Liquefied Natural Gas, the manufacturer is the person who owns the natural gas when it is liquefied.”

32

33

34

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36

FEI performs the liquefaction process at both its Tilbury and Mt. Hayes plants. Therefore, based on the definition of manufacture, FEI owns all carbon credits related to LNG sales. The act of compression, however, occurs after the natural gas has passed through the meter set, meaning that ownership of the fuel has transferred to the customer. In this instance the



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1 customer is the owner of the fuel at the time of manufacture and therefore is the appropriate
2 person to claim the carbon credits.

3 However, the GGRR Incentive Funding application states that all customers who receive
4 incentive funds under this program will transfer their right to claim carbon credits to FEI.

5 Communications with the Ministry confirmed that the definition of manufacture provided in
6 Bulletin RLCF-009 will continue to apply; however, it is appropriate for FEI to claim carbon
7 credits on behalf of its customers, as the administrative burden associated with the filing of
8 carbon credits may act as a deterrent for these customers to apply for carbon credits. FEI will
9 therefore aggregate all applicable CNG and LNG transportation volumes and claim carbon
10 credits based on this total volume.

11
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14 9.2.7 In 2014, has FEI claimed “first sale as a ‘Part 3’ fuel supplier in the
15 Province” given that FEI “sell[s] natural gas for transportation under
16 various rate classes”?

17

18 **Response:**

19 Please refer to the response to BCSEA IR 1.9.2.4. FEI will claim carbon credits as a Part 3 fuel
20 supplier once the Ministry has updated all claim forms.

21
22

23

24 9.2.8 In 2014, has FEI claimed low carbon compliance credits associated with
25 CNG and LNG sales? To what extent has this created a “revenue
26 stream for FEI, benefiting our customers through this deferral account
27 mechanism”?

28

29 **Response:**

30 Please refer to the response to BCSEA IR 1.9.2.5. FEI will claim low carbon compliance credits
31 associated with CNG and LNG sales once the Ministry has updated all claim forms, and the sale
32 process has been determined.

33

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1 9.2.9 What activities has FEI undertaken in 2014 to “explore[] opportunities to
2 sell carbon offsets from the Efficient Boiler Program for commercial
3 customers in [FEI’s] EEC initiative”?

4
5 **Response:**

6 In November 2013, the Companies made a decision not to pursue further the opportunity to
7 aggregate and monetize the carbon offsets related to the Efficient Boiler Program, due to
8 uncertainty about the future of the Pacific Carbon Trust, with whom the Companies had been
9 dealing on this project. Thus, there were no activities undertaken in 2014 to explore
10 opportunities to sell carbon offsets from the Efficient Boiler Program.

11
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14 9.2.10 FEI states, “FEI currently contracts for the ownership of any carbon
15 credits realized as part of its natural gas EEC programs, thereby
16 potentially enabling FEI to monetize these GHG reductions as offsets
17 with a market value.” Was FEI able to monetize any carbon credits in
18 2014? What are the prospects for doing so in 2015? Has there been
19 any implementation of the “protocol ... for the quantification and
20 aggregation of emission reductions in projects”?

21
22 **Response:**

23 No, FEI was not able to monetize any carbon credits in 2014. Please refer to the response to
24 BCSEA IR 1.9.2.9. There are no prospects for doing so in 2015, and there has not been any
25 implementation of the protocol referred to in the information request.

26
27

28
29 9.2.11 What is the current structure and role the Pacific Carbon Trust in BC as
30 it relates to monetization of low carbon compliance credits by FEI?

31
32 **Response:**

33 The Pacific Carbon Trust (PCT) program was eliminated in late 2013. Prior to 2013, when the
34 PCT was still in effect, the PCT did not play a role in FEI’s monetization of low carbon
35 compliance credits as they relate to the NGT program or DSM programs.



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9.2.12 To what extent is FEI now in a better position to “forecast costs and revenues associated with carbon credits, cap and trade and RLCFRR regulations” than it was at the time of the PBR application?

Response:

Please refer to the response to BCSEA IR 1.9.2.5. The carbon credit sales process has not yet begun; therefore, FEI is not yet in a better position to forecast costs and revenues associated with the RLCFRR regulation.

As indicated in the response to BCSEA IR 1.9.2, the Greenhouse Gas Industrial Reporting and Control Act (Bill 2) seeks to establish a GHG emissions intensity benchmark of 0.16 carbon dioxide equivalent (CO₂e) tonnes per tonne of LNG produced. Regulations outlining a number of details of the new GHG regime for the LNG industry are presently under development. These regulations may result in incremental compliance costs and/or recoveries during the forecast period; however, the amount of compliance costs and/or recoveries are not known at this time.

9.2.13 Is there any change at the present time to FEI’s statement in the PBR application that “for purposes of the 2014 through 2018 PBR Period, additions to this account have not been forecast at this time and the amortization of any balance that accumulates in this account will be addressed in a future rate setting process”?

Response:

FEI has not forecast any additions to the Emissions Regulations Account for 2015. If material additions occur in 2015, the amortization of this account will be addressed when FEI files the Annual Review for 2016 Delivery Rates. Any forecast additions for 2016 through 2019 will be addressed as part of the annual reviews to determine rates for those years.

Attachment 5.10



FortisBC Energy Inc. (FEI or the Company) Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 (the Application)	Submission Date: December 6, 2013
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1 **341.0 Reference: SERVICE QUALITY INDICATORS**

2 **Exhibit B-1, pp. 75-6, 214; Exhibit B-1-1, Appendix B2**

3 **Service Quality Indicators and System Leaks**

4 “Service Quality Indicators (SQIs) are used in the context of PBR to ensure that the
5 utility is encouraged to pursue efficiencies that do not sacrifice service quality.” (Exhibit
6 B-1, p.75)

7 341.1 In Table B6-9, the proposed SQIs that have Benchmarks all appear to be related
8 to direct contact between the utility and customers. Why do the proposed SQIs
9 not also include measures that reflect the condition of the gas delivery system,
10 which will impact safety, reliability and cost experienced by customers now and in
11 the future?

12

13 **Response:**

14 FEI’s proposed SQIs have been chosen to reflect a broad range of business processes that are
15 important elements of customer service. For the proposed PBR Plan, this ensures that service
16 quality and impact to the customer are not affected during the PBR period.

17 Maintaining the condition of the system according to existing codes and standards, while not
18 specifically linked to a proposed SQI, is the minimum expectation in terms of safety and
19 reliability of the gas system and is a non-discretionary obligation of FEI.

20 It is difficult to establish an appropriate overall SQI with respect to system condition other than a
21 system reliability index for which FEI is already at 99.999%. (The system reliability index
22 measures percent of time gas supply is available to customers excluding supply lost when gas
23 lines are damaged by third parties.)

24 In addition to the system reliability index measured internally, FEI’s Integrity Management
25 Program (IMP) is a fundamental component to our corporate commitment to safe and reliable
26 energy delivery to customers and is a regulated requirement (*Pipeline and Liquefied Natural
27 Gas Facility Regulation*, B.C. Reg. 281/2010, C. 7 and the Canadian Standards Association
28 standard for Oil and Gas Pipeline Systems CSA Z662-11). The IMP organizational framework
29 contains a number of measures of performance in developing plans to manage potential
30 hazards to our system, completion of preventive and monitoring activities, and hazard event and
31 incident occurrences. IMP measures, examples of which are provided below, contribute to a
32 complex overall view of system health:

- 33
- Above ground leaks;
- 34
- Below ground leaks;



FortisBC Energy Inc. (FEI or the Company) Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 (the Application)	Submission Date: December 6, 2013
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- 1 • OGC reportable events;
- 2 • System damages;
- 3 • Damages from natural hazards;
- 4 • Pipe condition (cathodic protection, in-line inspections, pipe and coating) ;
- 5 • Materials quality; and
- 6 • Gas quality.

7
8 While the above measures are important elements of the IMP and system health and
9 performance, there is no one indicator that would be appropriate as an SQI. All are in place
10 collectively to ensure FEI maintains the system.

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Attachment 9.1



Diane Roy
Director, Regulatory Affairs

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June 10, 2013

Via Email
Original via Mail

British Columbia Utilities Commission
Sixth Floor
900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

Re: FortisBC Energy Inc. (FEI)
Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018

Enclosed please find FEI's Application for Approval of a Multi-Year Performance Based Ratemaking (PBR) Plan for the years 2014 through 2018.

If you require further information or have any questions regarding this submission, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

cc (e-mail only): FEU 2012-2013 RRA Registered Parties

1 operating costs for FEI’s Public Underground Location Services department by improving data
2 consistency and enabling further process automation.

3
4 The Project involves several “streams”. With the completion of the Technology Stream, this
5 project has delivered a significant financial benefit that has reduced the long term O&M costs
6 required for processing BC One Call tickets by approximately \$600 thousand per year. The
7 increased benefit is attributable to a higher than expected reduction in ticket processing time.
8 Further benefits are expected as the Data Consistency and Conflation Streams are completed.

9
10 The Technology Stream was completed on schedule and the Conflation Stream is on track to be
11 completed in 2014 as planned. The completion of the Data Consistency Stream has been
12 extended from 2014 to 2017 to take advantage of resource synergies with the Conflation
13 Stream. When the Conflation Stream is complete, resources will be redeployed to the Data
14 Consistency Stream. The forecasted overall FEU budget of \$2.3 million remains the same as
15 the amount included in the 2012-2013 RRA and is provided in the table below.

16
17 **Table D4-4: FEU BCOneCall Ticket Process Improvement Project Costs (\$ thousands)**

Stream	2012 Actual	2013 Forecast	2014 Forecast	2015 Forecast	2016 Forecast	2017 Forecast	Total
Data Consistency Stream	20	380	450	150	150	120	1,270
Conflation Stream	130	700	200				1,030
Total	150	1080	650	150	150	120	2,300

18
19 The \$2.3 million amount shown in the table above is an estimate of the total project costs; only
20 the actual project costs will be recorded in the deferral account and ultimately recovered from
21 customers. Further, the additions to this account are allocated amongst the FEU on the basis of
22 average customers. Forecasted additions to this account are amortized in rates over five years
23 with any variances from amounts forecast amortized in rates beginning the following year.

24 **4.3.5 Compliance with Emissions Regulations**

25 The Compliance with Emissions Regulations Deferral Account, approved by Commission Order
26 G-44-12, captures potential compliance costs and revenues collected from the sale of carbon
27 credits. The account was implemented to capture the growing number of regulations around
28 emissions trading that may result in incremental compliance costs and recoveries during the
29 forecast period. These compliance costs and recoveries are difficult to forecast because of
30 uncertainty around the final form and applicability of emissions trading regulations. Currently,
31 the potential Emissions Trading Regulation (under the *Greenhouse Gas Reduction (Cap and*
32 *Trade) Act*), the Carbon Neutral Government Regulation and the Emission Offsets Regulation
33 (both brought into force under the *Greenhouse Gas Reduction Targets Act*) and the Renewable

1 and Low Carbon Fuel Requirements Regulation (RLCFRR) are two regulatory mechanisms
2 aimed to reduce Greenhouse Gas (GHG) emissions in BC. These regulations, as discussed
3 further below, could impact us in three ways: 1) we could be required to hold allowances or
4 offsets against our own operating emissions under Cap and Trade, 2) we could be required to
5 hold credits equal to our compliance obligation under the RLCFRR and 3) we could sell our
6 credits from customer offerings that result in GHG reduction projects (offsets), over-
7 performance under the RLCFRR, or from selling allowances or offsets that are surplus to
8 requirements under a potential future Cap and Trade regime.

9 The Emissions Trading Regulation, which has been discussed with partners in the Western
10 Climate Initiative, was initially proposed to start in 2012, but has not been brought into force in
11 BC⁷⁵. Although BC still remains a partner with Western Climate Initiative, there has been no
12 further action with respect to a cap-and-trade legislative model. The timing and implementation
13 of cap and trade will continue to be driven by the political landscape in BC. Therefore, whether a
14 cap-and-trade system comes into play at a national, regional, or provincial level in the future is
15 still unknown at this time and the utilities' requirement to comply with such requirements is yet to
16 be determined.

17
18 The Province of BC has also legislated the RLCFRR, which addresses the transportation
19 sector's contribution to GHG emissions in BC. Starting on July 1, 2013, Part 3 fuel suppliers will
20 have to meet annual targets, or pay a penalty. Natural gas, propane, electricity and hydrogen
21 are Part 3 fuels if they are sold for use in transportation. *"A Part 2 or Part 3 fuel supplier who
22 manufactures fuel in British Columbia for the first time or imports fuel into British Columbia for
23 the first time, or uses it for the first time, is responsible for compliance unless there is a written
24 agreement stating otherwise."*

25
26 Since we sell natural gas for transportation under various rate classes, we have the opportunity
27 to claim first sale as a 'Part 3' fuel supplier in the Province.⁷⁶ This regulation allows for
28 generation of low carbon compliance credits based on required carbon intensity baseline. Those
29 suppliers who are not in compliance with the mandated reductions in carbon will have to
30 purchase credits from others or pay a penalty of \$200/tonne for deficiencies. As we add more
31 CNG and LNG sales, our credits will increase as they are measured against the conventional
32 fuel intensity baseline, which creates a potential revenue stream for FEI, benefiting our
33 customers through this deferral account mechanism.

34
35 As an early step in realizing the economic value of GHG emission reductions as carbon offsets,
36 FEI has explored opportunities to sell carbon offsets from the Efficient Boiler Program for
37 commercial customers in its EEC initiative. FEI currently contracts for the ownership of any
38 carbon credits realized as part of its natural gas EEC programs, thereby potentially enabling FEI
39 to monetize these GHG reductions as offsets with a market value. Monetization of offsets from

⁷⁵ California started this regime in 2013 and Quebec is scheduled to start in 2014.

⁷⁶ FEI is awaiting further clarification from the Ministry regarding the definition of Part 3 fuel suppliers as it relates to natural gas for transportation.

1 utility EEC programs, however, has not yet been done in BC because a protocol has only just
2 been established that allowed for the quantification and aggregation of emission reductions in
3 projects, and such a project will be subject to third-party validation and verification. Additionally,
4 there is uncertainty around the structure and role the Pacific Carbon Trust will play in BC in the
5 near future. If these revenues materialize FEI would flow these revenues back to customers
6 through this account.

7
8 As a result of the above-mentioned concerns and uncertainties, it is difficult to forecast costs
9 and revenues associated with carbon credits, cap and trade and RLCFRR regulations.
10 Therefore, for purposes of the 2014 through 2018 PBR Period, additions to this account have
11 not been forecast at this time and the amortization of any balance that accumulates in this
12 account will be addressed in a future rate setting process.

13 **4.4 ACCOUNTS TO BE DISCONTINUED**

14 **4.4.1 Depreciation Variance**

15 The Depreciation Variance deferral account was in place for two years only (2012 and 2013) as
16 approved through Commission Order G-44-12:

17
18 *“The Commission Panel directs that a deferral account be established to capture the*
19 *variances between forecast depreciation and actual depreciation in the test period as*
20 *well as the directly attributable variance between forecast tax impacts and actual tax*
21 *impacts for the test period only.”*

22
23 FEI will amortize the forecasted 2013 ending balance of this account in 2014.

24
25 As this account was only in place for two years, with its discontinuation, FEI is proposing to
26 return to the practice of depreciating assets at the beginning of the year after which the assets
27 are placed in service. This is a return to the treatment FEI used during its last PBR, from 2004
28 through 2009. Under the present PBR, and as discussed in Section B of this Application, the
29 incentive to find efficiency savings in capital is a key component of the PBR Plan design, and is
30 present in PBR plans that incorporate capital as part of the formula, and supported by PBR
31 theory for both rate cap and revenue cap type models. In FEI's PBR Plan proposal, the capital
32 incentive is made up of three components – earned return, depreciation and taxes. A
33 depreciation variance deferral account would take away all of the incentive related to capital
34 with the exception of the small earned return component. With depreciation expense
35 commencing in the year following when the assets are placed in service, the variance in
36 depreciation expense from year to year will be driven by the formula vs. actual capital spending
37 from prior years.

38
39 To summarize, FEI believes it is appropriate for FEI to return to the previously approved PBR
40 method relating to depreciation, which is allowed under US GAAP and achieves same the