



Diane Roy
Director, Regulatory Services

Gas Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence
Email: electricity.regulatory.affairs@fortisbc.com

FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (604) 576-7349
Cell: (604) 908-2790
Fax: (604) 576-7074
Email: diane.roy@fortisbc.com
www.fortisbc.com

October 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)
2015 System Extension Application (the Application)
Response to the B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA) Information Request (IR) No. 1

On June 30, 2015, FEI filed the Application referenced above. In accordance with Commission Order G-143-15 setting out the Amended 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 Brent Graham at 604-592-7857.

Sincerely,

FORTISBC ENERGY INC.

Original signed by: Ilva Bevacqua

For: Diane Roy

Attachments

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

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1 **1.0 Topic: Economic Test**

2 **Reference: Exhibit B-1, p.7**

3 “The Company proposed that a customer contribution would be required for an individual
4 main extension if the benefit-to-cost ratio was below 0.6, but in aggregate, the Company
5 proposed that the benefit-to-cost ratio for all main extensions undertaken for any given
6 year are to be greater than or equal to 1.0. The rationale for this was that if the
7 aggregate of all main extensions in a particular year produced a benefit to-cost ratio of
8 1.0 or more, existing customers would not be negatively impacted from a financial
9 standpoint by the construction of the planned main extensions.

10 The proposal set out in the 1993 Rate Design Application formed the basis for the MX
11 Test that still applies today.” [underline added]

12 1.1 Is the objective of the system extension test that existing customers would not be
13 negatively impacted from a financial standpoint by the construction of the
14 planned main extensions?

15
16 **Response:**

17 This response also addresses BCSEA IRs 1.1.1.1, 1.1.1.2, and 1.1.2.

18 The purpose of the MX Test has been, and continues to be, to ensure the needs of new
19 customers are balanced with the needs of existing customers. That is, new customers should
20 not be unduly burdened with attachment costs and existing customers are not exposed to undue
21 costs from the attachment of the new customers.

22
23 The MX test is a practical and point in time tool for the Company to determine whether a
24 contribution in aid of construction is needed from a potential customer before the Company
25 makes an investment to build the main extension. In this sense, the MX test helps to ensure
26 that a new customer is making an appropriate contribution to the system while the Company
27 and its ratepayers (existing customers) are not overly burdened.

28 However, the true financial impact of a main can be only assessed at or near the end of the
29 useful life of the main. Recognizing the impracticality of this, FEI proposed the periodic Rate
30 Impact analysis, which can provide a periodic analysis of the rate (financial) impacts on existing
31 customers of main extensions in aggregate for the time frame reviewed.

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35 1.1.1 If so, does FEI propose in the present Application that this remain the
36 objective of the system extension test?



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Response:

Please refer to the response to BCSEA IR 1.1.1.

1.1.2 If not, please explain.

Response:

Please refer to the response to BCSEA IR 1.1.1.

1.2 Can the system extension test be described as the “means to an end” where the “end” is that existing customers are (present tense) not negatively impacted from a financial standpoint by the construction of the planned main extensions?

Response:

Please refer to the response to BCSEA IR 1.1.1.

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1 **2.0 Topic: Prudency Review**

2 **Reference: Exhibit B-1, 1996 Utility System Extension Test Guidelines; Exhibit**
3 **A-3, BCUC IR 13.5**

4 Item 4 of the 1996 Utility System Extension Test Guidelines states in part that “The
5 Commission will rely on prudency reviews to examine the accuracy of system extension
6 estimates.”

7 2.1 Has FEI (including its corporate predecessors) ever been the subject of a
8 prudency review involving system extension estimates? If so, please summarize
9 the proceeding(s) and outcome.

10

11 **Response:**

12 The Company has not been the subject of a prudency review process with respect to its
13 decisions to build main extensions under the MX Test. In the Company’s 2012-2013 Revenue
14 Requirements and Rates proceeding, whether the Company has made prudent investments in
15 the Shawnigan Lake Road and West Coast Road main extensions installed in 2009 were
16 questioned. The Commission eventually made no determination as to the prudency of the
17 Shawnigan Lake Road and West Coast Road main extensions given only a short time period
18 had passed since the installation of the mains (see Commission Decision accompanying Order
19 G-44-12, at page 89).

20 FEI also notes that in FEVI’s 2003 Actual Revenue Surplus, Forecast 2005 Royalty Adjust Cost
21 of Gas, Amortization of the Gas Cost Variance Account Balance and 2005 Customer Rates
22 proceeding, the Commission directed the Company by Order G-113-04 to remove \$78,500 from
23 the project costs of the Sooke main extension that was filed as a CPCN application and
24 approved by Order C-15-02.

25

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28 2.2 Is it FEI’s view that a prudency review to examine the accuracy of system
29 extension estimates, as contemplated in item 4 of the Guidelines, would focus on
30 the accuracy of the estimates at the time they were made, i.e., based on the
31 information that was or ought to have been considered at that time, as distinct
32 from focusing on the extent to which in hindsight the objective of the system
33 extension test had been met?

34

35 **Response:**

36 Yes. Prudency is and should be assessed without the benefit of hindsight. Please refer to the
37 responses to BCUC IR 1.13.5 and CEC IR 1.3.1.



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2.3 In FEI's view, would a presumption of prudence apply during a prudence review as contemplated in item 4 of the Guidelines?

Response:

Yes. Please refer to the responses to BCUC IR 1.13.5 and CEC IR 1.3.1.

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1 **3.0 Topic: Social Perspective**

2 **Reference: Exhibit B-1**

3 “5. The Commission recommends that the costs and benefits to be considered in the
4 analysis of proposed system extensions include pre-construction estimates of the
5 following:...

6 f) a reasonable consideration of externalities (for the social perspective evaluation).

7 3.1 In the current Application, by what mechanisms does FEI propose that the social
8 perspective evaluation be included in the system extension policies and tests?

9
10 **Response:**

11 Item 5 of the Guidelines referenced above outlines the recommended pre-construction
12 estimates to be considered in the analysis of proposed system extensions. Guideline 5(f) as
13 noted in the preamble recommends a reasonable consideration of externalities (for the social
14 perspective evaluation). In section 5.2 of the Guidelines, the Commission notes:

15 As noted in the Phase II Decision, which preceded this Decision, the Commission
16 believes that a reasonable consideration of externalities is limited to externality
17 considerations that have the potential, in the judgment of the Commission, to eventually
18 emerge as unavoidable regulatory costs for the Utilities and their customers. [Emphasis
19 added.]

20 The Company’s view of what constitute ‘externalities’ and how they should be considered is
21 consistent with that described by the Commission above. Currently there are no externalities
22 that have been identified by the Company or judged by the Commission to have the potential “to
23 eventually emerge as unavoidable regulatory costs for the utilities and their customers.” Thus,
24 such externalities are not considered in the Company’s Application.

25 With respect to the social perspective as described in section 2 of the Guidelines, please refer
26 to the response to CEC IR 1.2.2.

27 To inform the review of the Company’s MX test, FEI conducted a series of workshops for
28 interested stakeholders seeking access to natural gas to gain an understanding of the barriers
29 to connection that existed. This led to the development of Guiding Principles, which captured
30 the considerations of social benefits and informed the Company’s system extension and MX test
31 review.

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1 **4.0 Topic: Social Costs of Less Efficient Energy Use**

2 **Reference: Exhibit B-1**

3 “6. The Commission recommends that Utility connection charges move toward recovery
4 of the full costs of the service connection up to but not including the meter, and include
5 incremental costs such as applicable system improvement costs. In addition, the
6 Commission recommends that the Utilities come forward with options for connection
7 fees that send an appropriate signal about the net social costs of less efficient energy
8 use.” [underline added]

9 4.1 In the current Application, by what mechanisms does FEI propose to send an
10 appropriate signal about the net social costs of less efficient energy use?

11
12 **Response:**

13 The Company believes that promoting efficient energy use is best dealt with by the Company’s
14 EEC/DSM programs, which are much more developed than they were in 2007. Thus, the
15 Company did not propose a mechanism specifically taking into account the net social costs of
16 less efficient energy use in this Application. However, as explained in the Application (at page
17 59), as customers live in more energy efficient buildings and use more energy efficient
18 appliances, their use per customer is declining. The declining values are reflected in the REUS
19 values used in the MX Test.

20 Please refer to the response to BCUC IR 1.31.1 for a description of the Company’s DSM
21 programs that incentivize the efficient use of natural gas.

22

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1 **5.0 Topic: Consideration of Social or Environmental Impacts**

2 **Reference: Exhibit B-1, 1996 System Extension Guidelines**

3 “10. If a community application for a system extension is close to break-even with
4 respect to the financial cost test, the utility may be required to justify the extension with a
5 preliminary comparative analysis of all feasible alternatives for meeting the community’s
6 energy service needs. This analysis would include recognition of significant social or
7 environmental impacts associated with each alternative. The utility can either file this
8 information voluntarily with its annual statement or expect to file it as part of a CPCN
9 application, should a CPCN be required for the project.”

10
11 5.1 Has FEI ever used the mechanism set out in item 10 of the System Extension
12 Guidelines? If so, please summarize the instances and the outcomes.

13
14 **Response:**

15 The system extension requests that the Company generally receives are for main extensions to
16 connect individual customers (residential/customer/industrial), or are from builder/developers
17 seeking to construct multifamily dwellings or condominiums. Section 7.1 of the Guidelines
18 indicates that guideline 10 referenced above is intended for main extensions for an entire
19 community that is not connected to the electric power or gas grid¹. To date, the Company has
20 not received an application for a system extension from such a community. Therefore, the
21 Company has not used the mechanism set out in item 10 of the Guidelines.

22 Please refer to the response to CEC IR 1.31.1 for a discussion of the reasons why FEI believes
23 that having a supportive government policy is critical to the successful development of a
24 program to serve off system communities that are not currently connected to the electric power
25 or gas grid.

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¹ BCUC Utility System Extension Guidelines, Section 7.1, p. 28-29.



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1 **6.0 Topic: Service Line Cost Allowance**

2 **Reference: Exhibit B-1, p.11**

3 “In 1996, the Company filed a rate design application (the 1996 Rate Design
4 Application), in which the Company sought approval of a SLCA to serve new residential
5 and small commercial customers connecting to existing mains (referred to as ‘infill’
6 customers). While the MX Test can be used to determine if any contribution is required
7 from customers wishing to connect to new mains, the SLCA was intended to determine if
8 any contribution is required from infill customers wishing to connect services from
9 existing mains (i.e. where only a service line is required), where the application of a
10 comprehensive MX Test is administratively impractical.” [underline added]

11 6.1 To clarify, please confirm, or otherwise explain, that the phrase “system
12 extension” applies to both Service Line Cost Allowance (SLCA) for “customers
13 connecting to existing mains (referred to as ‘infill’ customers)” and Main
14 Extension (MX) Test for “customers wishing to connect to new mains.”

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16 **Response:**

17 Confirmed. The phrase “system extension” generally includes both the SLCA for infill
18 customers and the MX Test for customers wishing to connect to new mains.

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1 **7.0 Topic: Clarification**

2 **Reference: Exhibit B-1, s.2.1.4 BC Gas 1996 Application to Revise its System**
3 **Extension Test & 26 Commission Letter L-46-96, p.11**

4 “In response to Commission Order G-80-96 regarding the Generic Review of Utility
5 System Extension Tests, the Company filed its revised System Extension Test
6 Submission on August 30, 1996, which was filed concurrently with the 1996 Rate Design
7 Application. The Company proposed to continue the use of its MX Test as approved by
8 Commission Order G-101-93, but modified the Test in response to the Phase II
9 Reconsideration Decision. Main proposed changes to the Test included: ...

- 10 • The use of the SLCA amount in the MX Test to cap the cost of expected
11 service lines.” [underline added]

12 7.1 Please explain what is meant by “The use of the SLCA amount in the MX Test to
13 cap the cost of expected service lines.”

14
15 **Response:**

16 For clarification, the SLCA amount is not used as an input for the MX Test. Rather, the use of
17 the SLCA amount is to cap the cost *to the Company* for the connection of a service line to an
18 existing main. Should a service line installation cost more than the SLCA amount, then the
19 customer would be required to pay the difference. In this way, the required investment from the
20 Company for the installation of the service line is capped at the SLCA amount.

21

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1 **8.0 Topic: Energy Efficient Credits**

2 **Reference: Exhibit B-1, 2.1.5.2 The Introduction of Consumption Credits to**
3 **Account for the Benefits of Energy Efficiency Measures; s.4.1.4**
4 **Energy Efficiency Credits**

5 “In sum, Order G-152-07 approved the use of energy efficiency credits over and above
6 the average consumption per appliance where warranted in the MX Test.” [p.14]

7 8.1 Please explain the current status quo in terms of how FEI uses “energy efficiency
8 credits.”

9
10 **Response:**

11 Please refer to the response to BCUC IR 1.6.2.

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15 8.1.1 Against what baseline is the +10% and +15% consumption credit
16 applied?

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18 **Response:**

19 The +10% or +15% energy efficiency credits are applied to the annual consumption value for
20 eligible appliances, namely a high efficiency hot water tank or tankless hot water heater and a
21 high efficiency furnace. The annual consumption values per appliance are determined by the
22 REUS (Residential End Use Study). The energy efficiency credits boost the consumption value
23 in the MX test for customers who decided to install high efficiency appliances.

24 The Company has provided below a table illustrating how the energy efficiency credits work
25 using the 2015 MX test and assuming a single residential customer with a \$5,000 cost for a
26 main extension and service line.

Appliances Selected	Current 2015 Consumption without the Application of Energy Efficiency Credits	Consumption with the Application of the 10% Energy Efficiency Credits	Consumption with the Application of the 15% LEED Credits
High Efficiency Furnace and High Efficiency Hot Water Tank	52 GJ + 26 GJ = 79 GJ	52 GJ + 26 GJ = 79 GJ + <u>7.9 GJ (10%)</u> = 87 GJ	52 GJ + 26 GJ = 79 GJ + <u>11.85 GJ (15%)</u> = 91 GJ
Revenue in 2015 MX Test	\$3,148	\$3,475	\$3,638
Required CIAC	\$1,809	\$1,482	\$1,318
Reduction in CIAC from Energy Efficiency Credits	N/A	\$327	\$491

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8.1.2 If FEI uses the REUS figures for average customer and appliance natural gas consumption, where does an “energy efficiency credit” enter the test?

Response:

Please refer to the response to BCSEA IR 1.8.1.1.

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8.1.3 Does FEI give an “energy efficiency credit” for “high efficiency gas-fired space heating and water heating” that merely meets current codes and standards? If so, please explain how this encourages energy conservation and efficiency.

Response:

FEI does not provide energy efficiency credits for high efficiency gas-fired space heating and water heating that merely meets current codes and standards. Please refer to the response to BCUC IR 1.6.2 for details on the use of the energy efficiency credit. As seen in the table provided in that response, the criteria for “high efficiency” (and therefore eligible for applying the energy efficiency credits) is greater than the minimum standard for builders.

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8.2 FEI refers to “discontinuing the use of energy efficiency credit” [p.59]. Please provide an example of the MX Test treatment of a system extension before and after discontinuation of the use of energy efficiency credit.

Response:

Please refer to the response to BCSEA IR 1.8.1.1. In that response, the difference between the first column and the second column (for the 10% credit) or the third column (for the 15% credit) is the impact of discontinuing the credit.

The Company recognizes that removing the energy efficiency credits will result in a higher CIAC for a small number of customers. However, this will also make the MX test easier to understand and administer. Furthermore, incentives in the form of rebates for high efficiency appliances will still be available through the Company’s DSM program, which the Company believes is the most appropriate and effective way to incent energy efficient behavior.

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1 **9.0 Topic: Energy Efficiency Credits**

2 **Reference: Exhibit B-1, 2.2.1 MX Test; 5.4.3 Use per Customer - Consumption**
3 **Credits; 5.5 APPLICATION OF ENERGY EFFICIENCY CREDITS**

4 “Two other considerations are factored in when determining the consumption per
5 customer.

6 First, as discussed in Section 2.5.1.2 above, the Company may encourage the
7 installation of energy efficient appliances by providing the customer with an incentive in
8 the form of additional consumption credits in the MX Test.” [p.19, underline added]

9 “The consumption per customer reflects a credit each new customer receives for gas
10 consumed by the appliance(s) being installed in his/her home. It is derived by multiplying
11 the individual appliances to be installed by the average consumption per appliance.²⁴
12 The individual appliances to be used by the customer are determined through
13 conversations between FEI and its customers. The average consumption per appliance
14 is based on the consumption of existing customers. The values are drawn from the
15 Company’s Residential End Use Study (REUS), which is produced every four years. The
16 Company is currently using data from the most recent 2012 REUS in its MX Test.” [p.19]

17 9.1 To what extent does the Company actually encourage the installation of energy
18 efficient appliances by providing the customer with an incentive in the form of
19 additional consumption credits in the MX Test? Please quantify the response.
20

21 **Response:**

22 Please refer to the response to BCUC IR 1.6.1.
23
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26 9.2 If the energy efficiency of appliances in new construction is higher than in the
27 most recent REUS and this is due codes and standards or market factors that
28 preclude installation of the older, less-efficient types of appliances would FEI still
29 use the REUS figures for appliance efficiency in applying the MX Test? If so,
30 why? If not, please explain what FEI would do instead.
31

32 **Response:**

33 To clarify, FEI does not “use the REUS figures for appliance efficiency in applying the MX Test,”
34 as indicated in the question. The REUS figure applied in the MX Test is an assigned value to
35 represent the average consumption per appliance. The energy efficiency credit is then applied
36 for energy efficiency appliances as described in the response to BCSEA IR 1.8.1.1.

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1 Please refer to the response to BCUC IR 1.35.1 for a discussion of FEI's rationale for continuing
2 to use the REUS values in the MX Test.

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7 "As noted in Section 2.2.1.1.1 of the Application with respect to the way in which
8 consumption per customer is determined for the Test, the volume associated with a
9 customer attachment within the Test is not a forecast of what new customers are
10 expected to consume, as the Commission has been erroneously assuming in the re-run
11 Test. In contrast to both the forecast of costs and attachments, volume is a *credit input*
12 to the Test (similar to other inputs such as O&M and SI charge). It is intended to credit
13 the new customers with an amount of consumption equal to the average consumption of
14 other existing customers on a per appliance basis in order to treat the two groups
15 comparably. The current MX reporting methodology is flawed as it incorrectly compares
16 a consumption credit based on existing customers to the actual consumption of a new
17 customer(s). This flaw has led to a misinterpretation of the data provided in the MX
18 reports. As a part of the Application, the Company is proposing to discontinue the
19 current practice of comparing a consumption credit to actual consumption." [p.78]

20 9.3 If the purpose of the current practice of providing a credit based on REUS figures
21 so as to encourage installation of more-efficient appliances and lower use per
22 customer, should the reporting address the size of the difference between
23 credited use per customer and actual use per customer? If so, does FEI propose
24 such reporting? If not, why not?

25

26 **Response:**

27 No. Please refer to the responses to BCSEA IRs 1.8.1.1 and 1.8.1.3 for a description of how
28 the energy efficiency credits are applied and their intended purpose.

29 Please refer to the responses to BCUC IRs 1.32.1 and 1.32.7.1 for a discussion of the purpose
30 of annual reporting, FEI's reporting proposal and its supporting rationale.

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34 9.4 If actual consumption by new customers (pertinent to system extensions) is a
35 different concept than the size of the credit for MX Test purposes, then does FEI
36 agree that it would be appropriate to report on actual consumption as well as and
37 in comparison to the size of the credit?



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Response:

Please refer to the response to BCSEA IR 1.9.3.

9.5 To the extent that actual consumption by new customers is a different concept than the size of the credit for MX Test purposes is the rationale for the MX Test undermined? In theory, shouldn't the MX Test estimate the actual future costs and benefits to be borne by existing and new customers?

Response:

Please refer to the response to BCUC IR 1.35.1 for a discussion of the rationale for using the consumption of existing customers in the MX Test.

“The Company has proposed to remove the efficiency credits from the Test going forward to make the implementation of the Test simpler and easier to implement. The Company now has a robust Energy Efficiency and Conservation program that encourages customers to use gas more efficiently. As such the Company believes that it does not need to include these credits in the MX Test, in conjunction with the other proposed amendments to the MX Test.” [p.80]

9.6 Please provide a quantitative estimate of the energy savings due to the use of the “energy efficiency credits” in the MX Test, identifying the years applicable.

Response:

As explained in the Application (at page 59), the percentage of customers that have used the credits is small. However, the Company is not able to quantify the direct energy savings attributed to the “energy efficiency credits” or the energy savings that would be foregone due to the absence of such credits, as the Company does not know whether the credits were the primary factor in the customers’ decision to install high efficiency appliances in the first place and what appliances customers would have chosen in absence of the credits.

Additionally, customers may use each gas appliance differently irrespective of the efficiency level. Some customers may have a high efficiency appliance, but due to having a higher temperature set point will consume more gas than a customer with a mid-level efficiency



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1 appliance and a low temperature set point. As noted in the response to BCUC IR 1.4.3 FEI
2 does not have data on new customer appliance specific energy use.

3 The Company believes that an appliance rebate offer through the Company's DSM program is a
4 simple and direct signal that leads customers to make energy efficient choices. Please refer to
5 the response to BCUC IR 1.31.1 for an explanation of the suite of DSM programs available to
6 customers. Conversely, attempting to explain to a customer about the consumption and
7 revenue credits above and beyond the average consumption revenue in the MX test and how
8 that reduces their CIAC is a much less transparent process for customers.

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12 9.7 Please provide a quantitative estimate of the energy savings that would be
13 foregone due to ending use of the "energy efficiency credits" in the MX Test.

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15 **Response:**

16 Please refer to the response to BCSEA IR 1.9.6.

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20 9.8 To be clear, is FEI proposing that instead of using the "energy efficiency credit" it
21 would base the customer consumption credit in the MX Test on anticipated actual
22 consumption (as distinct from the REUS figures)?

23

24 **Response:**

25 To clarify, the Company is proposing the following as it relates to consumption in the MX Test
26 for residential customers:

27 1. Continue the use of REUS to determine the values for the consumption credits by
28 appliance to be used in the MX Test; and

29 2. Discontinue the use of energy efficiency credits in the MX Test.

30

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1 **10.0 Topic: Objective of MX Test**

2 **Reference: Exhibit B-1, 2.2.1 MX Test**

3 “The MX Test assesses whether the main extension is economic, or in other words, it
4 establishes the appropriate level of investment the Company will make on behalf of a
5 customer wishing to attach to the Company’s distribution system. This serves to ensure
6 that the interests of existing and new customers are balanced.” [p.16]

7 10.1 Would FEI agree that the MX Test assesses whether the main extension will be
8 economic based on information used and available at the time the MX Test is
9 run, and that while the objective of the MX Test is that the interests of existing
10 and new customers will be balanced the MX Test is a point-in-time estimate that
11 does not and cannot ensure that the interests of existing and new customers are
12 balanced. If not, why not?

13
14 **Response:**

15 FEI’s views regarding the points put forward in the information request are as follows:

- 16 • The MX Test is a point in time forecast that assesses whether the main extension will
17 balance the interests of new and existing customers based on information available at
18 the time the MX Test is undertaken; and
- 19 • The MX Test does not and cannot guarantee that the interests of existing and new
20 customers are completely balanced, as the test is only a proxy for what may occur in the
21 future. The only way to determine if the addition of a customer is or was economic, and
22 if the interests of new and existing customers are balanced, is at the end of the useful
23 life of the main.

24

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1 **11.0 Topic: Evaluation of system extension from social perspective**

2 **Reference: Exhibit B-1, 2.2.1 MX Test**

3 “The net present value (NPV) calculation is derived using a discount rate based on FEI’s
4 weighted average cost of capital (inflation adjusted and after tax).” [p.17, underline
5 added]

6 The 1996 Utility System Extension Test Guidelines, item 1, states:

7 “2. The Commission recommends that the Utilities evaluate system extensions
8 both from a social perspective, which applies a social discount rate, and a utility
9 perspective, which applies a discount rate based on each utility’s cost of capital.”
10 [p.8, underline added]

11 11.1 Please confirm, or otherwise explain, that FEI’s current MX Test does not use a
12 social discount rate.

13
14 **Response:**

15 Confirmed.
16

17
18 11.2 If confirmed, is FEI’s current MX Test inconsistent with item 2 of the Guidelines in
19 this respect?
20

21 **Response:**

22 Like other utilities in BC, FEI does not apply a social discount rate in evaluating its system
23 extensions. However, FEI does not see this as inconsistent with the Guidelines. The
24 Guidelines, while recommending evaluation from a social perspective, endorsed a discounted
25 cash flow evaluation method. This is the method the Company has been approved to use since
26 1996.

27 Although the proposed MX Test continues to use the discounted rate methodology approved,
28 the Company’s proposal to change some of its parameters was made in consideration of the
29 Guiding Principles from the stakeholder workshops, which factored in the objectives of providing
30 energy choice, supporting government objectives and recognizing First Nations (which are
31 “Societal” or “Social” considerations). The effect of this consideration is an MX Test that lowers
32 barriers (particularly the CIAC) to accessing natural gas services.

33
34 11.3 If confirmed, by what means does FEI’s current MX Test evaluate system
35 extensions from a social perspective?
36



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1 **Response:**

2 Please refer to the response to BCSEA IR 1.11.2.

3

4

5

6 11.4 If confirmed, by what means would FEI's proposed MX Test evaluate system
7 extensions from a social perspective?

8

9 **Response:**

10 Please refer to the response to BCSEA IR 1.11.2.

11

12 11.5 If not confirmed, please explain.

13

14 **Response:**

15 Please refer to the response to BCSEA IR 1.11.2.

16

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1 **12.0 Topic: Reporting**

2 **Reference: Exhibit B-1, 2.2.1 MX Test**

3 “The fact that the DCF analysis assumes no customer additions after an initial five year
4 period makes it an appropriate conservative basis for an ex ante test for main
5 extensions. However, that same feature makes re-running the MX Test each year for
6 past main extensions with updated forecasts inappropriate for determining ex post
7 whether those extensions have been economic. An extension will continue to generate
8 benefits for its service life (in excess of 50 years), and customers will continue to join the
9 system after the fifth year. This is one of the key objections that FEI has to the
10 Commission’s current practice of asking FEI to re-run the MX Test for the purpose of
11 evaluating whether or not past extensions have been beneficial to customers.

12 This is addressed later in sections 3 to 5.”

13
14 12.1 Does FEI disagree in principle with a reporting requirement aimed at determining
15 on an ex post facto basis whether systems extensions are indeed balancing the
16 interests of existing and new customers? If FEI disagrees, why? If FEI does not
17 disagree, how would the current application accomplish this objective?

18
19 **Response:**

20 FEI agrees that an ex post facto analysis aimed at determining whether system extensions are
21 balancing the interests of existing and new customers is appropriate. Thus, the Company has
22 proposed a periodic ex post facto analysis, the Rate Impact analysis, to achieve this. In simple
23 terms, the Rate Impact analysis looks at what customer rates would be in aggregate with and
24 without actual, historical system extensions installed within a predetermined period. It is a point
25 in time analysis that considers whether the incremental revenue and cost of extensions
26 completed in the predefined timeframe raises or lowers customer rates, all else equal.

27
28
29
30
31 “Ensuring that the MX Test is doing what it was intended to do is a reasonable objective.
32 However, some of the annual processes since 2007 have taken on more of a character
33 of hindsight assessments of whether FEI ought to have undertaken particular
34 extension(s). As explained later in this Filing, the evaluation methodology used by the
35 Commission is not fit for the purpose of assessing FEI’s prudence, and there are better
36 ways to assess whether or not the MX Test parameters continue to meet the initial goals
37 of the Test.” [p.23]

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1 12.2 Is it FEI's view that the sole purpose of the existing system extension reporting is
2 to assess FEI's prudence in applying the MX Test?

3

4 **Response:**

5 FEI is unsure as to the sole purpose of the existing MX reporting requirements. In FEI's view,
6 the objective of the annual MX Reporting should be to affirm FEI's compliance with the
7 application of the MX Test during the reporting period, such as to ensure that the PI and
8 aggregated PIs were achieved on a forecast basis. Please refer to the responses to BCUC IRs
9 1.32.1 and 1.32.7.1 for a discussion of FEI's reporting proposal.

10

11

12

13 12.3 Is FEI proposing a better way to assess whether or not the MX Test actually
14 results in a balance of the interests of existing and new customers? If so, what is
15 the proposal? If not, why not?

16

17 **Response:**

18 Yes, please refer to the response to BCSEA IR 1.12.1.

19

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1 **13.0 Topic: Reporting**

2 **Reference: Exhibit B-1, 5.7 NEW REPORTING 1 METHODOLOGY PROVIDED**
3 **[sic]**

4 “Second, the Company is proposing to perform the Rate Impact analysis at the time of
5 future MX applications such as those performed in 1996, 2007 and 2015. The purpose of
6 this analysis would be to assess the effectiveness of the Company’s system extension
7 policies. This analysis will generally be performed *ex-post* installation. Since the true
8 impact of a main extension can only be measured once a material portion of the life of
9 the main has passed, even the Rate Impact analysis has limitations in its usefulness.
10 However, the Company believes this analysis is valid as it provides a practical means to
11 guide the future assessments of our system extension policies and is free of some of the
12 issues associated with re-running the MX Test.” [p.82]

13 13.1 For clarification, please identify the location of the description of the methodology
14 for the analysis the purpose for which would be to assess the effectiveness of the
15 Company’s system extension policies.

16
17 **Response:**

18 Please refer to Section 4.5, page 68 of the Application for FEI’s recommendation to provide the
19 Rate Impact analysis and pages 22 to 27 of Appendix A for a detailed discussion of the
20 methodology.

21
22

23
24 13.2 Does FEI agree that the effectiveness of the Company’s system extension
25 policies should be reported on (a) regularly (according to a defined timeframe)
26 and (b) frequently (e.g., annually? If not, why not?

27

28 **Response:**

29 To the extent that the question asks whether both forms of reporting should be used, FEI
30 agrees. As proposed in the Application, FEI will provide the Commission an annual report on
31 the Company’s compliance with the application of the MX Test and system extension policies as
32 approved by the Commission; and a periodic report, informed by the Rate Impact analysis, that
33 will report on the effectiveness of those policies for a predetermined period of time. Please refer
34 to the responses to BCUC IRs 1.32.1 and 1.32.7.1 for a discussion of FEI’s reporting proposal.

35

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1 **14.0 Topic: Off System Areas**

2 **Reference: Exhibit B-1**

3 FEI's stakeholder consultation included discussion of extensions of natural gas service
4 to areas not connected with the existing system.

5 14.1 Why did FEI decide not to address off system areas in the present Application?
6

7 **Response:**

8 In the Application, the Company identified that having supportive provincial government policy is
9 critical to the successful development of a program to serve off-system areas and this policy is
10 not yet in place. The Company plans to continue discussions with customers and the BC
11 provincial government in this regard.

12 Please refer to the response to CEC IR 1.31.1 for an explanation of why having a government
13 policy in place is critical to the success mentioned above.

14
15

16

17 14.2 What plans if any does FEI have to address policies regarding extensions for off
18 system areas?
19

20 **Response:**

21 Please refer to the response to BCSEA IR 1.14.1.
22
23

24

25 14.3 What is the current status of FEI's plans for Revelstoke?
26

27 **Response:**

28 Currently, the Company is preparing a CPCN application to replace the existing propane
29 storage and gasification facility in Revelstoke with a liquefied natural gas storage and re-
30 gasification facility, and to convert Revelstoke's existing piped propane distribution system to
31 natural gas. The project will also include the conversion of all existing customer appliances
32 from propane operation to natural gas. FEI anticipates filing the application by the end of 2015.

33

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1 **15.0 Topic: GHG Reductions**

2 **Reference: Exhibit B-1, 3.2.4.3 Support Government Objectives**

3 “Expanding access to natural gas service supports the government objectives in two
4 different ways:

5 ...

6 2. Assisting in meeting the legislated greenhouse gas (GHG) emissions targets and
7 related energy objectives set forth in the Clean Energy Act (CEA).” [p.33]

8 15.1 Does FEI agree that the question of whether expanding access to natural gas
9 service assists in reducing GHG emissions and conventional pollution depends
10 on the types of energy (e.g., electricity, wood, oil, diesel) that would be displaced
11 by natural gas?
12

13 **Response:**

14 This answer responds to BCSEA IRs 1.15.1, 1.15.2, 1.15.4, and 1.15.5.

15 FEI agrees that whether expanding natural gas service assists in reducing GHG emissions and
16 pollution depends on the types of energy that would be displaced by natural gas. As discussed
17 in the response to BCUC IR 1.46.1, determining the reduction in GHG emissions is dependent
18 on establishing the emission factor of the energy source being displaced. In that response, FEI
19 describes the potential GHG savings from customers converting from heating oil to natural gas
20 using customer data from FEI’s Switch ‘n’ Shrink program. It also discusses how the lack of
21 data and provincial policy regarding electricity import emission factors prohibits FEI from making
22 an informed, credible GHG comparison for electricity displacement.

23 As the information request relates to the 100,000 BC homes that could convert to natural gas,
24 FEI does not have data on the energy sources used in these individual homes. Anecdotally, in
25 the stakeholder workshops, representatives from off-system communities indicated that heating
26 oil, propane and wood are commonly used in off system communities.

27

28

29

30 15.2 Please provide any evidence FEI has to support a general conclusion that
31 expanding access to natural gas service in B.C. would reduce GHG emissions?
32

33 **Response:**

34 Please refer to the response to BCSEA IR 1.15.1.

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“FEI’s most recent long term resource plan described how a residence converting from using heating oil for heating to natural gas for heating avoids 1.6 tonnes of carbon dioxide equivalent emissions per year.³⁷ The Company estimates there are potentially up to 100,000 additional BC homes in its service territory that could convert from a higher carbon fuel to natural gas³⁸. These homes are within a relatively close proximity (50 metres) of one of the Company’s mains.” ...

“³⁸ Based on the Company’s current Geospatial Information System (GIS) data measuring whether or not a preexisting dwelling had natural gas service.” [p.33, underline added]

15.3 Is FEI proposing to adjust the MX Test or SLCA in some way that would take into account whether the extension in question displaced heating fuels that are higher in GHG emissions than natural gas?

Response:

In this Application, FEI is not proposing to adjust the MX Test or SLCA to account for the extent to which GHG emissions are displaced due to fuel choice. The Company’s Switch ‘n’ Shrink program² provides the appropriate incentive for customers to displace heating fuels that are higher in GHG emissions than natural gas.

15.4 Does the estimate of 100,000 BC homes in FEI’s service territory that “could” convert from a higher carbon fuel to natural gas” assume that all of those homes are using heating oil or propane, and not electricity and/or wood?

Response:

Please refer to the response to BCSEA IR 1.15.1.

² <http://www.fortisbc.com/naturalgas/homes/offers/switchnshrink/pages/default.aspx>

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1
2 15.5 How many of the BC homes in FEI's service territory not connected to natural
3 gas that could convert to natural gas service are confirmed to be using a heating
4 source(s) higher in GHG emissions than natural gas would be? Please provide
5 any studies FEI relies in this regard.
6

7 **Response:**

8 Please refer to the response to BCSEA IR 1.15.1.
9

10
11
12 “Additionally, there are approximately 87,000 people living in 180 off-system
13 communities throughout BC that do not have access to natural gas service³⁹. These
14 homes are often heated with heating oil or propane; moving to natural gas would reduce
15 emissions. Providing the option to access renewable natural gas (RNG) service would
16 further reduce these emissions.” [p.33, underline added]

17 15.6 Please confirm that the reference to off-system communities where homes are
18 heated with heating oil or propane is not directly relevant to the present
19 application that doesn't address off-system extensions. Alternatively, please
20 explain.
21

22 **Response:**

23 Confirmed.
24