

FEI 2016 RATE DESIGN

EXHIBITC13-2

Ms. Diane Roy
Vice President, Regulatory Affairs FortisBC Inc.
16705 Fraser Highway
Surrey, BC V4N 0E8

Dear Ms. Roy:

Re: FortisBC Energy Inc.
Project No. 3698899 / Order G-6-17 2016 Rate Design Application

May 11, 2017

FEI 2016 RATE DESIGN

Further to your December 19, 2017 application on the above noted matter, enclosed please find Cascadia Energy Ltd Information Request No. 1.

Yours truly,



Nick Caumanns
President

Question 1

Page 10-14

14 In part due to the above described balancing provisions, the amount of inventory held on FEI's

15 System can vary.

- a. Please describe whether this inventory is physical or virtual.
- b. What is theoretically the maximum amount of inventory that the system can hold?
- c. What is the minimum volume obligation FortisBC has to return inventory to customers on any given day?
- d. What is the approximate range of physical "line-pack", in its conventionally understood meaning and stated in energy units of GJ's, that the FortisBC system has?

Question 2

Page 10-14

28 As seen in Figure 10-5 below, gas supply frequently deviates from demand by as much as

29 50,000 GJ/day once the day comes to a close.

- a. Given that Fortis allows up to 40,000 of inventory return is 50,000 GJ of "under-supply" causing a 10,000 GJ variance onerous over the total load?
- b. What is the maximum amount of over supply?
- c. When do under-supply situations occur in terms of peak or non-peak days?
- d. When do over-supply situations occur in terms of peak and non-peak days?

Question 3

Page 10-14

30 These imbalances require FEI to use

31 midstream resources to withdraw or inject quantities of gas, often on an intraday basis, to

32 balance the entire System.

- a. What is the coincidence of the use of these resources by FortisBC for core market and transport customer use? In other words, are these resources used coincidentally for the two different customer groups or are they used specifically for transport customer group?
- b. What are the actual costs incurred in the use of the resources in each of the last three gas years?
- c. What is the incremental costs caused by the transportation customer groups for the use of these resources in each of the last three years?

Question 4

Page 10-15

18...Under normal

19 circumstances, FEI requests that shipper agents holding both daily and monthly balanced

20 groups keep to a 2 to 3 day pack/draft balancing inventory level, which FEI has deemed to be

1 reasonable to manage the System as a whole.

- a. Why has FortisBC “deemed” this as a reasonable amount?
- b. When was the 2-3 day amount determined as reasonable?
- c. For inventories larger than 2-3 days, where is the inventory held?
- d. For all inventories held, what is the risk to FortisBC for holding those inventories?
- e. For all inventories held, what is the cost to FortisBC for holding those inventories?

Question 5

Page 10-16

22...These provisions include the ability for FEI

23 to limit or reduce inventory, to modify the shipper agent’s requested quantities to limit or adjust

1 its inventory accumulation, and to limit or remove a shipper agent’s excess inventory and return

2 it at a later date.

- a. Given the complete control FortisBC has over the timing and amount of inventory return, why are additional restrictions needed?
- b. What control does FortisBC not have under the present rules and structures that the proposed changes will provide?

Question 6

Page 10-18

**21 Balancing Tolerance: There are no daily balancing requirements applicable to monthly
22 balanced customers whereas daily balanced transportation customers are held to a
20%
23 tolerance level.**

- a. Are there any times when this is not true, such as during supply restrictions?

Question 7

Page 10-19

7 10.4.1 Balancing Provisions

**8 Monthly balanced customers do not incur the same charges that daily balanced
customers are**

**9 subject to, which does not accord with Principle 3 or Principle 8. Monthly
balanced customers**

10 can incur significant daily imbalances, with no charges or tolerance limits.

- a. Please confirm that the transportation contract is between FortisBC and the individual transportation service customer.
- b. Please describe, generally, the differences between small volume transport customers accessing rates 23, 25, 27 and large volume customers using rate 22, in terms of resources, gas market sophistication, awareness of daily loads and other relevant factors.
- c. Please describe the potential impact of a Rate 23, 25, or 27 customer in terms of daily imbalance on the operations of the utility ?
- d. What effect does limiting small volume customers to daily balancing match Principle 5. Principle 4, Principle 3?

Question 8

Page 10-18

24 FEI understands that customers are capable of balancing to a tighter tolerance level and

25 that numerous other jurisdictions require tighter tolerance levels.

- a. Please provide support for your statement of tighter tolerances in other jurisdictions?
- b. Please provide a listing of other jurisdictions and their balancing provisions delineated by customers size and class.
- c. Why does FortisBC believe that the precedent in “other jurisdictions” make a relevant template for, or justify how, balancing tolerances or provisions should be set in British Columbia?

Question 9

Page 10-19

In addition to tightening the tolerance to 10%, FEI is proposing to amend the 31 balancing charges to provide an incentive to encourage more efficient use and discourage

32 inefficient use of the FEI System resources, in accordance with Principle 3. As discussed

33 below, FEI is proposing a tiered charge whereby charges increase as tolerance ranges are

34 exceeded, which achieves Principle 5.

And

Page 10-25

10.6.2.3 Balancing Option 3 – Daily Balancing

20 The third option would be to remove the monthly balancing provisions entirely and move all

21 transportation customers to daily balancing. Based on the principle of fairness, this option

22 would treat all customers and shipper equally.

- a. Please detail which resources are being used inefficiently?
- b. What is the expected cost savings of this change?
- c. Please describe how application of the same balancing provisions for small unsophisticated transport customers and large volume more sophisticated customers accords to Principle 8, where the basic fairness test is equal and reasonable access to

a similar type of service (transportation service)?

- d. How would an individual Rate 23 transportation customer deal with daily balancing and a 10% tolerance?

Question 10

Preamble:

All customers in the FortisBC service area are captive to FortisBC. In dealing with core market customers, FortisBC has access to core market resources, including information resources, to manage load swings. Some of these resources are captured by mid-stream charges, however some are part of costs paid for by all customers who pay transport charges. These resources are excluded from access by transportation customers.

For example, FortisBC has real-time access to system flows for all of its customers. Transport customers do not have access to their own flow information which could potentially help them manage peak-day and other constrained events.

Page 10-24

The combination of improved technology and increased nomination cycles has resulted in

2 greater ability for market participants to match supply and demand more closely on a daily

3 basis. The examples provided here show that shipper agents with both large and small

4 customer groups are able to manage and balance within a tighter tolerance. FEI's upstream

5 and downstream pipelines have operational requirements to balance daily and, as such,

6 balancing transportation service daily would align better operationally.

7 Transportation customers have access to tools to amend gas requirements on the day to reflect

8 changes in load.

- a. Please describe the changes in technology over the past 5 years that give customers better ability to understand "changes in load".
- b. How has FortisBC transportation volumes reporting (i.e. burn reports) changed over the last 5 years? 10 years?

- c. What changes has FortisBC proposed to match increased load information with the proposed tighter tolerances?
- d. In proposing to tighten tolerances, how will Fortis increase the timeliness of the flow information provided customers?
- e. In proposing to tighten tolerances, how will Fortis increase the accuracy of the flow information provided customers?
- f. In proposing to tighten tolerances, can Fortis provide SCADA data for all customers subject to those new tight tolerances?

Question 11

Page 10-25

FEI is held to daily balancing at the major interconnecting points at the Lower Mainland

33 and Interior, and in the interest of fairness, FEI proposes that daily balancing provisions apply

34 equally across all regions.

- a. Please explain why this is a relevant argument in favour of similar rules for FortisBC transport customers?
- b. Does FortisBC postulate that typical transport customers have similar resources and access to the market that FortisBC does?
- c. Does the ‘principle of fairness’ apply between the utility and its customers?
- d. If yes to c. , should FortisBC only be allowed access to its own flow data two days after the fact and that data be based on unverified estimates as a matter of “fairness”?

Question 12

Page 10-28

Table 10-5 & 10-6

- a. Please provide the relevant dates and amount and type of reduction for the time period indicated.

- b. Please update the table to include the most recent winter.
- c. Please explain the difference between Table 10-5 and Table 10-6 on page 10-30.
- d. Please detail the dates to which imbalance return, or any other restrictions applied to Rate 7 or Rate 14 customers during the date ranges shown in the tables.

Question 13

Page 10-30 & onwards

- a. Please describe, in summary the jurisdictions where all conditions of :
a low balancing tolerance (<20%) AND daily balancing AND suspension of balancing were simultaneously in effect.

From 10-1 Black & Veatch Transportation Service Model Review

Page 2

Daily balancing is required by many LDCs, typically depending on proximity to major market hubs,

- a. Please discuss how the BC Gas system and its proximity to either Stn 2, or Sumas market hubs, and the very limited supply options its transport customers have, comports to this description , i.e closer to major market hub= tendency to daily balancing?
- b. In how many jurisdictions studied did the utility have 'carte blanche' allowance to limit or curtail such as FortisBC has?

Page 5

3.2 BASE CASE – REPLACEMENT COST OF BALANCING RESOURCES

The aggregate total of all shipper agents' annual balancing costs (consisting of reservation and commodity charges in the base case) was divided by the total transportation throughput on the System (72,381,734 GJ for 2015) to arrive at the average cost of securing balancing resources per GJ under various threshold cases (5-20%).

- a. Did the cost study consider the benefits of the extra gas supply from transportation customers available to the utility on peak days when customers typically oversupply expected demand to avoid penalties and such gas is available to the utility by default?

- b. What is the option analysis value of this implicit resource?
- c. Were the costs calculated as incremental or stand alone?
- d. If stand-alone, why? Why would an incremental cost analysis not be more realistic and fair?

Page 9

4.1 REVIEW OF SHIPPER AGENTS' BALANCING HISTORY

Given the shipper agents' different strategies, FEI sought to determine if some strategies allow shipper agents to consistently balance their load to specific thresholds, namely 20% (the current threshold on the system), and 10%. The goal was to be able to assess the feasibility of balancing to these thresholds: if several shipper agents are currently balancing to a 10% or 20% level, it is reasonable to suggest that it is feasible for shipper agents not currently balancing to these thresholds to change their nomination patterns to also meet these thresholds.

An analysis of balancing data from 2014 and 2015 found that nearly half of the shipper agent pools are consistently balancing to 10% and 20% thresholds, while the other pools are frequently out of balance, in some cases by a large margin.

Preamble: This study is in the vacuum of Fortisbc enforcing the current authorities they have with regard to managing balancing and inventories.

- a. Please detail how many times and in what manners customers have been warned in regards to nomination practices.
- b. Please detail cases where restrictions, outside of normal notices, were enforced to correct poor nomination practices by customers.
- c. Has FortisBC ever suspended inventory return to enforce inventory levels or nominating practices?
- d. Detail ANY ways in which FortisBC has EVER attempted to enforce what it considers reasonable nominating practice.

Question 14

Page 6-30

1 6.5.1 R:C Ratios – The Range of Reasonableness

**2 R:C ratios are assessed based on whether or not they fall within an established “range of
3 reasonableness”. FEI believes that the appropriate range of reasonableness for
evaluating its
4 R:C ratios is 90 per cent to 110 per cent. In theory, the R:C ratio should equal
100% for each
5 rate schedule, indicating that the revenues recovered from each rate schedule
would equal the
6 indicated cost to serve them. However, achieving unity implies a level of
precision that does not
7 exist with any COSA. As a COSA study necessarily involves assumptions,
estimates,
8 simplifications, judgments and generalizations, a range of reasonableness is
warranted and
9 accepted when evaluating the appropriateness of the R:C ratios.**

- a. The total annual costs in the COSA study exceed \$780,000,000. The range of reasonableness for R:C ratios is given as 90-110 percent, or a 20% band. Given that the 20% band on the total costs is \$156,000,000 how is this broad level of cross subsidy warranted ?
- b. Even if inaccuracies exist to prevent exact cost assignments, what is the rationale for not using the derived values as representing the best available data and methodology?
- c. Rate 27 Customers and Rate 22 Customers pay 7 and 18 times their costs of service respectively. Given the range of 110-90 % described above, how is this justified.
- d. Given that residential customers underpay their costs by 6.9% on \$510 Million (or about \$35 Million while Rate 22 Customers overpay by 1764% on \$806K costs, or about \$13 Million, why should these two rate classes not be rebalanced?

Question 15

Page 6-35

**RS 22 is
17 predominantly interruptible and RS 7/RS 27 is fully interruptible. These rates
do not drive
18 system capacity additions, and consequently are not allocated any
demand-related costs.**

- a. FortisBC does not build capacity for these clients. What is the avoided cost of that capacity? In other words, if FortisBC had built the capacity to make these customers firm, what would the incremental cost be, on a total and per GJ basis, be? What is the VALUE of interruptibility that FortisBC gets from these clients?
- b. If any interruptible customer wishes to upgrade to full firm service, are they required to pay for or contribute to the system upgrades required, and in what ways, specifically?
- c. If Interruptible customers do not drive system capacity additions, and if they must pay for such additions if they were to become fully firm, why are they not considered marginal customers and charged the marginal cost of service rates?
- d. Bypass customers pay firm rates that are in some cases as low as the rates interruptible customers should pay based on the COSA. Are interruptible customers charged higher rates simply because they are 'captive' and they have no other choice?