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October 4, 2022

Commercial Energy Consumers Association of British Columbia
c/o Owen Bird Law Corporation
P.O. Box 49130
Three Bentall Centre
2900 – 595 Burrard Street
Vancouver, BC
V7X 1J5

Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

Re: FortisBC Energy Inc. (FEI)
Transportation Service Report (Report) ~ Project No. 1599346
Response to the Commercial Energy Consumers Association of British
Columbia (CEC) Information Request (IR) No. 1

On June 15, 2022, FEI filed the Report referenced above. In accordance with the amended regulatory timetable established in British Columbia Utilities Commission Order G-262-22 for the review of the Report, FEI respectfully submits the attached response to CEC IR No. 1.

For convenience and efficiency, FEI has occasionally provided an internet address for referenced reports instead of attaching lengthy documents to its IR responses. FEI intends for the referenced documents to form part of its IR responses and the evidentiary record in this proceeding.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Diane Roy

Attachments

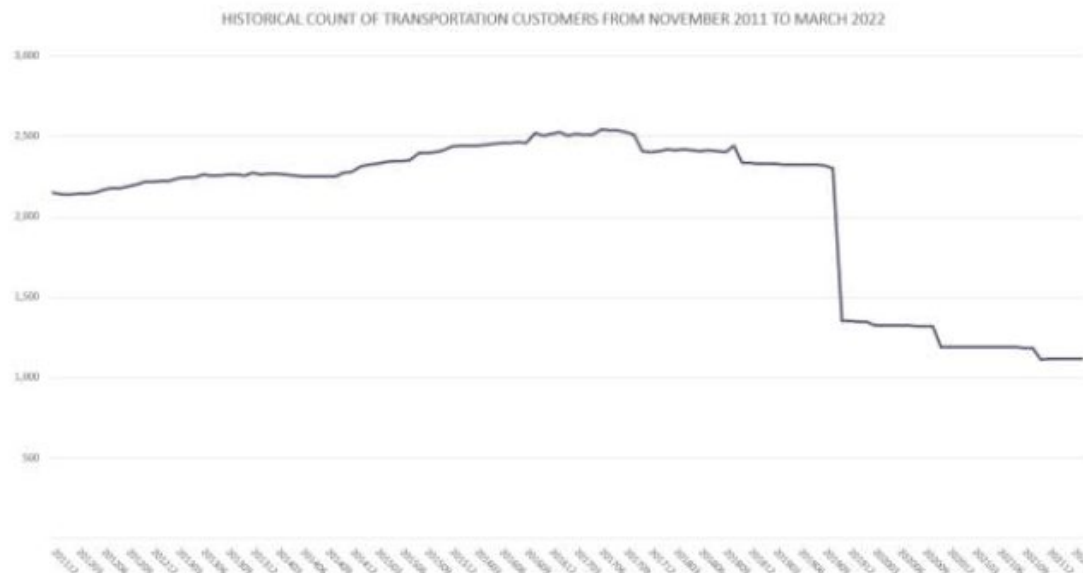
cc (email only): Commission Secretary
Registered Parties

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1 1. **Reference: Exhibit B-1, pages 6 and 7**

FEI's Transportation Service Model was developed in 1993 as part of the FEI Phase B Rate Design Application and Decision.⁸ Until the 2016 RDA Decision changes were implemented, the rules and operating practices for the Transportation Service Model had remained essentially the

Figure 3-1: FEI Transportation Service Customer Count – 2011 to March 2022



In November 2019, nearly 950 transportation service customers returned to receive sales (bundled) service⁹ directly from FEI. Sales (bundled) service customers receive their commodity as well as delivery service from FEI. The constrained regional market conditions in the years leading up to 2019, particularly at the Sumas market hub, were a contributing factor to the large number of customers returning to sales service. However, the October 9, 2018 pipeline rupture on the Enbridge Inc. (Enbridge) Westcoast Energy Inc. (WEI) T-South pipeline (Enbridge Incident), which exacerbated constrained market conditions, likely also factored into the decisions of many transportation service customers to return to sales service in November 2019. The Enbridge Incident restricted capacity at the already constrained Sumas market hub, which emphasized the commodity price risk to which some transportation service customers were exposed. As a consequence of the market conditions exacerbated by the Enbridge Incident, many transportation service customers faced market shock in their energy bills during Winter 2018-2019, which may have solidified their decisions to move to sales service in order to minimize their price-risk exposure or gas costs. As of March 2022, there were approximately 1,118 transportation service customers (down roughly 56 percent) from a peak of 2,541 customers in June 2017.

- 2
- 3 1.1. The CEC is unable to read the numbers on either the X- or Y-axis in either Word
- 4 or PDF. If possible, please provide the graphic in a greater resolution.

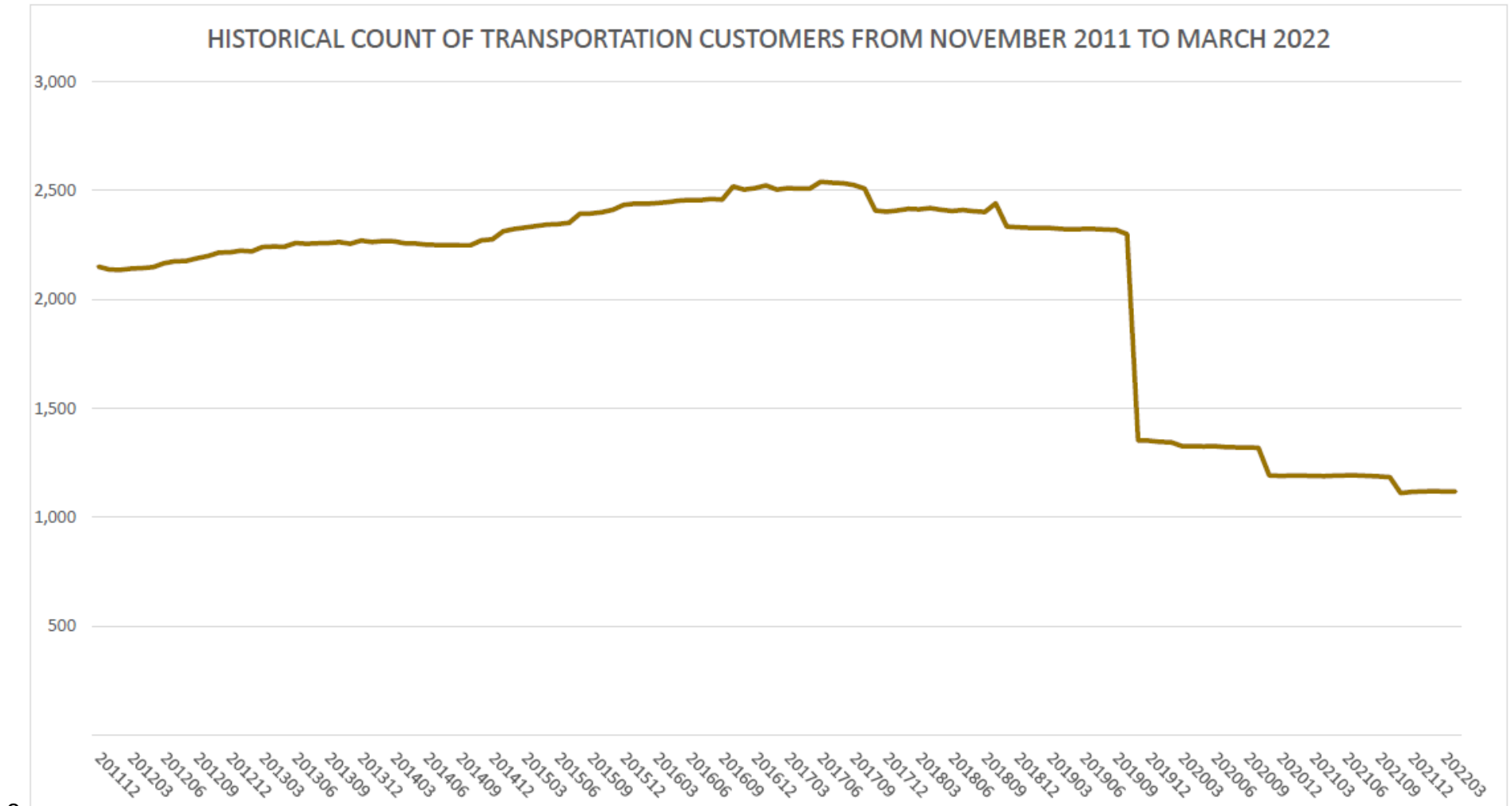
5

6 **Response:**

7 Figure 3-1 below is provided in landscape format with better resolution.

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2

3

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1.2. Does FEI expect that there will be a substantial return to transportation service, or does FEI expect that the service will continue or decline over the next 10 years? Please provide an explanation for FEI's views.

Response:

It is difficult for FEI to speculate whether there will be an increase or decrease in customers moving to Transportation Service over the next 10 years as many factors and decisions in the market could influence customers' decisions to participate in the Transportation Service Model. Some of these factors include large-scale industrial projects and additional pipeline infrastructure and capacity in the region which are discussed further below.

FEI has been concerned with the potential movement between sales (bundled) service customers and Transportation Service customers since 2014. It was at this time that large-scale industrial projects proposed in the region began securing firm transportation service capacity on WEI's T-South pipeline. The concern was that the incremental demand from these projects could pose a risk to any customer that relies on supply at the Huntingdon/Sumas market.¹ Many of the Lower Mainland Transportation Service customers have this supply exposure, given that they do not have the credit or financial capabilities to secure long-term pipeline capacity on third party pipelines. FEI's sales (bundled) service customers do not currently rely on the Huntingdon/Sumas market because of various gas supply strategies that FEI has implemented through its Annual Contracting Plans. For instance, FEI secured additional T-South capacity back in 2014 to mitigate future load growth and to allow for the potential of Transportation Service customers moving back to the bundled service. The Enbridge Incident, as discussed in the preamble above, exemplified the risk of relying on Huntingdon/Sumas supply, and was the leading factor for the substantial drop of customers participating in the Transportation Service Model, as illustrated in Figure 3-1 above.

FEI expects that the Huntingdon/Sumas market will continue to have significant supply risks and pricing volatility going forward until pipeline resources are added to the region. The planned addition of the Woodfibre LNG project demand will provide additional supply and pricing risks, as Woodfibre LNG has already secured firm transportation capacity on the T-South system for a significant portion of their demand requirements. Based on these existing market conditions, the Transportation Service Model in the Lower Mainland may continue to experience a decline in customers in the short to medium term (1 to 5 years).

Market conditions will evolve over the longer term, which will make it difficult for FEI to determine the status of the Transportation Service Model within the 5 to 10 year planning horizon. For instance, if a pipeline is constructed in the region within the 5 to 10 year horizon, the supply and

¹ The Huntingdon/Sumas market has historically experienced periods of volatile pricing during periods of high demand in the Pacific Northwest region and when the Westcoast T-South system experiences planned or unplanned pipeline restrictions.

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- 1 pricing risks at the Huntingdon/Sumas market could be alleviated, depending on the sizing of the
- 2 project, for example. Any prolonged duration in which the Sumas price is lower than FEI's rate
- 3 for sales customers could result in customers returning to the Transportation Service Model.

4

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1 **2. Reference: Exhibit B-1, page 8 and page 17**

Shipper agents are responsible for nominating to FEI the physical gas supply required to meet the demand of their customers, as well as for meeting the balancing requirements of their customers as outlined in the transportation rate schedules. In order to meet these obligations, shipper agents are responsible for understanding the demand patterns and load requirements of their customers; developing forecasting tools to anticipate changes in demand; and monitoring weather, operational changes on FEI's system, and pipeline interruptions affecting supply deliveries, as well as other indicators that might impact the demand from their customers and their ability to balance their gas supply delivered to FEI's system appropriately.

2

3 2.1 Please provide an overview of the role and activities associated with shipper
4 'balancing'. Is this considered to be a difficult or time-consuming task, and if so,
5 why? How can balancing be done efficiently by shipper agents?

6

7 **Response:**

8 Balancing refers to a shipper agent's obligation to "balance" by matching supply volumes with
9 their customer demand on a daily basis. As supply and demand may never be perfectly aligned,
10 there are rules and guidelines for under- and over-deliveries when and as they occur. The New
11 Rules updated the balancing provisions on FEI's system to more closely align with industry
12 standard. In many ways, the activity of balancing demand and supply is the main responsibility
13 that shipper agents have on behalf of the customers they represent.

14 Shipper agents are held to daily balancing rules whereby supply must be equal to or greater than
15 demand on a daily basis, and in addition they must balance to a 10 percent tolerance. The 10
16 percent tolerance applies for under-deliveries (i.e., when total supply is less than customer
17 demand). When under-deliveries exceed the 10 percent tolerance, charges are incurred. Further,
18 as was the case prior to implementation of the New Rules, if under-deliveries exceed the 20
19 percent tolerance, charges are applied.² When colder weather occurs, FEI may increase the
20 balancing tolerance to 5 percent and the balancing charges increase under those conditions to
21 incent shipper agents to balance within the 5 percent during this time.

22 The charges in place for balancing under both the 20 percent, 10 percent and 5 percent tolerances
23 provide an incentive for shipper agents to balance, and if balancing charges are incurred, the
24 revenue from those charges compensate core customers for the costs of using of midstream
25 resources which core customers pay for. The daily balancing provisions combined with charges
26 for under-supply generally incent shipper agents to over-deliver to avoid incurring penalties. When
27 shipper agents over-supply on a day, their excess supply or imbalance is tracked and can be
28 used at a later date. There are no balancing charges in the tariffs for over-supply scenarios
29 because FEI has been able to effectively work with shipper agents to ensure their inventory levels
30 are kept reasonable. However, FEI does have tools within the tariff to adjust shipper agents
31 inventory (as further discussed in the responses to BCUC IR1 7 series) if required. FEI requests

² The 20 percent tolerance and associated charges were in affect prior to the New Rules and continues to remain within the Table of Charges.

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1 that shipper agents hold a maximum inventory not greater than 2 to 3 days of volumes based on
2 the average daily demand of their group of customers. FEI offers the imbalance return service to
3 enable shipper agents access to their system inventory.

4 Similar to shipper agents, FEI is responsible for system balancing through management of the
5 OBAs at the interconnects and manages the demand needs of core customers on a daily basis
6 through resources secured under the ACP. With respect to how difficult it may be to balance,
7 shipper agents have been balancing within the provisions of the Transportation Service Model for
8 decades, which suggests these responsibilities and obligations for balancing are manageable and
9 not unduly difficult.

10 FEI does not believe that balancing is a difficult or an overly time-consuming task, provided
11 shipper agents have invested the time to develop their own tools and business models to manage
12 their customer demand to balance on FEI's system. Similar to FEI, shipper agents should develop
13 forecasting tools to anticipate customer demand, secure the appropriate resources (supply and
14 pipeline capacity), develop direct relationships with customers to understand their business
15 needs, and provide daily over-sight to respond to intra-day changes in load. Some shipper agents
16 are able to manage the demand/supply balance of their customers more effectively than others
17 which may speak to their individual business and operational decisions and investment in systems
18 or processes to manage their business.

19

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1 **3. Reference: Exhibit B-1, page 17 and page 18**

The purpose of implementing daily balancing provisions and decreasing the balancing tolerance to 10 percent under the New Rules was to incent shipper agents to better match their daily supply requirements with the daily demand from their customers. Because FEI must balance the system as a whole each day, and core sales customers pay for the midstream resources (both contracted and variable), it would not be fair if FEI needed to incur incremental costs to acquire additional variable midstream resources (paid for by core sales customers) to balance the demand of transportation service customers if shipper agents fail to do so. By isolating the supply and demand imbalances of transportation service customers exclusively, as shown in Figures 5-1 and 5-2 below and the related discussion, FEI has observed that the New Rules have properly incented transportation service shipper agents to balance more tightly. The result of shipper

agents balancing more tightly is less reliance on FEI's midstream resources (paid by core customers) to support the Transportation Service Model.

- 3.1. Please provide a brief description of the activities involved and what it means for FEI to 'balance' its system every day. Is this a financial balancing as well as a physical balancing?

Response:

As discussed in the response to BCUC IR1 1.3, FEI manages OBAs at interconnect locations on both the Westcoast T-South and TC Energy FoothillsBC systems. Both FEI and shipper agents deliver supply to these interconnect locations on a daily basis to serve the demand of their respective customer groups. On any given day, the total supply could be greater than (i.e., pack) or less than (i.e., draft) the total demand requirement at the interconnect locations. FEI may then need to reduce the total supply to address a pack situation or increase the total supply to address a draft situation, depending on the overall health and operating conditions of the T-South or FoothillsBC systems, and the current account of the OBAs.

FEI may implement resources as provided for in the ACP to physically balance the supply and demand at a given interconnect location. This may include movements at upstream or downstream storage facilities such as injection into storage (to address a pack) or withdrawal from storage (to address a draft). While there is no financial balancing, costs may be incurred through midstream variable costs, storage variable costs or market transaction costs.

- 3.2. Please provide the approximate annual proportion of GJ that shipper agents use as a % of FEI's total system.

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1 **Response:**

2 The Transportation Service Model customers accounted for approximately 31 percent of the total
3 annual throughput on FEI's system in 2021.

4
5
6
7 3.3. What is the cost, if any, to core customers of having a balancing tolerance of 10%?
8

9 **Response:**

10 Depending on the operational conditions at the time, there may be costs incurred for balancing
11 under the 10 percent tolerance as FEI may use resources secured for core customers in the ACP
12 for system balancing within this range.

13 The balancing charges in place for balancing beyond the 10 percent tolerance are meant to serve
14 as an incentive to shipper agents to balance within the 10 percent tolerance. When shipper agents
15 exceed this tolerance, the charges incurred are collected to compensate core customers for the
16 variable costs of system balancing. The revenue from balancing service charges, as well as from
17 all other charges included in the transportation tariffs, are credited to or offset the midstream costs
18 and serve to reduce the Storage and Transport Charge core customers pay.

19
20
21
22 3.4. Would there be any justification for having shipper agents pay a fee such that they
23 would be paying their appropriate portion of the midstream resources? Please
24 explain why or why not.
25

26 **Response:**

27 The option of a balancing fee was explored in the 2016 RDA³ to account for the use of core
28 customer midstream resources by Transportation Service customers. In the 2016 RDA, FEI
29 provided a summary of the replacement cost study, conducted by consultant Black & Veatch, of
30 the market value of the balancing services provided by FEI.⁴ The replacement cost, as detailed
31 in the 2016 RDA, Table 10-7, provided the total replacement cost of balancing services, at the
32 time, by tolerance, and the resulting per GJ cost or fee that would apply to the throughput for all
33 Transportation Service customers. For the following reasons which continue to remain valid, FEI
34 did not propose a fee-based approach.

³ Section 10.7.5 Balancing Tolerance and Charges, Option 1 – Balancing Fee (service offering), page 10-33, 2016 RDA.

⁴ FEI 2016 RDA, Section 10.7.4.

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- A charge applied to all throughput for all shipper agents would penalize the Transportation Service customers of shipper agents that are more proactively and closely managing balancing on FEI's system;
- A fee-based approach does not provide an incentive to balance more closely and effectively removes the obligation for shipper agents to manage matching supply and demand, which is a fundamental change to the Transportation Service Model and may result in unintended consequences for shipper agents, FEI and its core customers;
- Shipper agents raised concerns during the 2016 RDA workshops about the methodology and inputs to calculate the value of the balancing fees; and
- Shipper agents were of the view that applying a tighter tolerance would provide a better incentive to improve balancing behaviour versus applying a fee or charge.

In the 2016 RDA Decision, the Panel did not direct the imposition of a balancing fee or charge. Instead, the Panel stated:

The Panel finds the resulting tiered structure of the balancing charges to be just, reasonable and not unduly discriminatory in that this rate structure is consistent with rate design principles of fair apportionment of costs among customers and price signals that encourage efficient use of resources.⁵

⁵ Decision and Order G-135-18, p. 67.

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1 **4. Reference: Exhibit B-1, page 18 and page 20**

The fluctuation of system supply volumes from shipper agents has changed since the implementation of the New Rules. Figure 5-1 shows the system imbalances borne by transportation customers exclusively in the Lower Mainland. The orange line represents the distribution or range of system imbalances for two years prior to the implementation of the New Rules. Prior to implementation of the New Rules, with daily and monthly balancing provisions in place, and a tolerance of 20 percent, 98 percent of the time system imbalances ranged from -60 TJ to +60 TJ. In contrast, for the three winters following the implementation of the New Rules, where exclusively daily balancing and a reduced tolerance of 10 percent was in effect, 97 percent of the time imbalances tightened to -20 TJ to +40 TJ. Further, the data shows that, nearly 65 percent of the time, imbalances fell within the 0 to 20 TJ range, which from a system perspective is an insignificant volume for FEI to manage. To put this volume into perspective, 20 TJ is less than 5 percent of the total system throughput from sales customers in the Lower Mainland on an average winter day, which ranges from 500 to 700 TJ. Based on this analysis, the improvement both in volume of imbalances as well as the range of imbalances suggests that, in order to balance the system as a whole on a daily basis, FEI is incurring lower variable midstream costs to balance the Transportation Model supply/demand imbalances as compared to before implementation of the New Rules.

Conclusion:

Since the implementation of the New Rules, midstream resources have not had to change for the purpose of providing balancing services to the Transportation model. Therefore, FEI has not had to incur any additional fixed (contracted) midstream resources for this purpose. As the data in Figures 5-1 and 5-2 demonstrates, supported by the analysis in Atrium Economics Report, the New Rules have achieved the desired outcome; namely to incent shipper agents to balance and manage their day-to-day business and their customers' daily supply and demand more tightly,

2
3 4.1. Please quantify the change in variable midstream costs that are accruing to
4 balance the Transportation Model as compared to before the implementation of
5 the New Rules.

6
7 **Response:**

8 Please refer to the response to BCUC IR1 1.4.1.

9

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1 **5. Reference: Exhibit B-1, page 21 and page 22**

Imbalance return is an interruptible service on FEI's system and is a source of supply to assist shipper agents in balancing their customers' demand and supply requirements within the balancing tolerances under the New Rules. Imbalance return is an interruptible service because, if operational requirements necessitate, such as when colder weather occurs or during a supply restriction, FEI may need to reduce or eliminate access to imbalance return. In addition to balancing FEI's system overall on a daily basis, FEI's midstream group is also responsible for managing inventory levels for the imbalance return service, determining whether and when restrictions or interruption of the service is necessary, and identifying the amount of imbalance return available to each shipper agent. FEI notes that when restrictions or interruption of the imbalance return service are in place, shipper agents are required to deliver physical supply to FEI's system to meet their customer demand while adhering to the balancing tolerance in place at that time.

When it is necessary for FEI to restrict or interrupt access to imbalance return, shipper agents are incented to direct supply deliveries to interconnection points which discourages or prevents the use of drafting to match supply and demand for their customers on FEI's system. The imbalance

Typically, under normal operating conditions, the following volumes of imbalance return are available to shipper agents and transportation service customers on a daily basis:

- a. Lower Mainland region: 20,000 GJ
- b. Interior region: 40,000 GJ
- c. Columbia region²⁵: 10,000 GJ

5.1. Are shipper agents charged for the imbalance return service?

5.1.1. If yes, please provide the tariff rates, and, if no, please explain why not.

Response:

Shipper agents are not charged for the imbalance return service. Imbalance return is a mechanism for shipper agents to access their banked supply left on FEI's system.

The rules and balancing charges that govern the transportation tariffs incent shipper agents to nominate accurately; however, shipper agents may over-deliver to account for volatility in their customer group and to avoid penalty. These over-deliveries are tracked in the WINS system which provides a record of excess supplies left on FEI's system. In order to allow access by shipper agents to their banked supplies, FEI developed the imbalance return service as a business practice without charges, given shipper agents have already paid for the gas delivered onto FEI's system.

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5.2. Is it fair to consider the imbalance return service as a safety net for when shipper agents are unable to balance correctly? Please explain.

Response:

Under certain circumstances, it is fair to consider the imbalance return service as a safety net for when shipper agents are unable to balance correctly. Specifically, if shipper agents have oversupplied in the past and built up an imbalance return balance, then the supply from imbalance return could be a safety net for shipper agents in the case of unplanned higher customer usage, especially from more volatile, less predictable customers. Please also refer to the response to CEC IR1 5.1.

5.3. Does the interruptible nature of the imbalance return service mean that core customers are essentially provided with priority over the shipper's imbalance return service, but not necessarily over the end customers of the shippers? Please explain.

Response:

Yes, the interruptible nature of the imbalance return service means that core customers are essentially provided with priority over the shipper agent's imbalance return service, but not necessarily over the end-use customers of the shipper agents.

FEI interrupts the imbalance service when colder weather occurs. The action of interrupting imbalance return is to control drafting by shipper agents and their transportation customers, to preserve and protect resources held for core customers. As midstream resources are contracted and paid for by core customers, FEI typically eliminates the imbalance return service to signal to shipper agents to nominate and provide greater physical supply and rely less on their banked gas, so the shipper agents' customers can continue to operate uninterrupted. As appointed shipper agents on behalf of Transportation Service customers, it is the shipper agents' responsibility to meet the delivery requirements of their customers under all operational conditions including normal and colder weather conditions, as well as pipeline or capacity restrictions.

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6. Reference: Exhibit B-1, page 22

The method FEI uses for allocating imbalance return volumes by region is handled through operational business rules which were reviewed with shipper agents in late 2018 and, based on their feedback, were revised and implemented effective November 1, 2018 (coincident with the implementation of the New Rules). The calculation which forms the basis of the allocation of available imbalance return volumes within each region for each shipper agent is based on each shipper agent's previous 30 day average demand. The allocation is revised and reset at the beginning of each month and applies for the duration of that month. FEI provides an example of how the allocation of available imbalance return gas volumes is calculated for shipper agents in the Interior region in Table 5-1 below. As noted above, the Interior region is allocated a total of 40,000 GJ of imbalance return gas monthly.

Table 5-1: Imbalance Return Calculation Example

Service Area:	Average 30 Day Demand	Percentage Allocation	Allocated Amount
Interior			
Shipper Agent A	15,000	29%	11,600
Shipper Agent B	7,500	14%	5,600
Shipper Agent C	2,000	4%	1,600
Shipper Agent D	1,500	3%	1,200
Shipper Agent E	6,000	12%	4,800
Shipper Agent F	8,000	15%	6,000
Shipper Agent G	12,000	23%	9,200
	52,000		40,000

6.1. Please confirm that the Demand and Allocated Amounts are in GJ, and please relabel the Table to show the metric and the region.

Response:

Confirmed. The Table 5-1 has been updated with new labels.

Updated Table 5-1: Imbalance Return Calculations Example

	<i>GJ/day</i> Average Daily Demand Previous 30 Days <i>a</i>	% Allocation Percentage <i>b = a/Total</i>	<i>GJ/day</i> Allocated Amount <i>c = 40,000 x b</i>	<i>GJ/day</i> Allocated Amount (Rounded) <i>d = Round (c)</i>
Service Area: Interior				
Shipper Agent A	15,000	29%	11,538	11,500
Shipper Agent B	7,500	14%	5,769	5,800
Shipper Agent C	2,000	4%	1,538	1,500
Shipper Agent D	1,500	3%	1,154	1,200
Shipper Agent E	6,000	12%	4,615	4,600
Shipper Agent F	8,000	15%	6,154	6,200
Shipper Agent G	12,000	23%	9,231	9,200
Total (All Shipper Agents)	52,000	100%	40,000	40,000

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6.2. How did FEI select the total allocation of 40,000 GJ for the Interior region? Please provide the allocations for each region and how they were determined.

Response:

Under normal operating conditions, FEI provides a total allocation of imbalance return in each of the following regions:

- Lower Mainland = 20,000 GJ per day
- Interior = 40,000 GJ per day
- Columbia = 9,500 GJ per day
- East Kootenay Exchange = 500 GJ per day

Each of the above regional total allocations of imbalance return are determined by using a combination of the corresponding shipper agent average daily demand at each region, FEI's average daily demand at each region, and the FEI daily and cumulative OBAs at interconnect locations related to each region. The current total allocation quantities of imbalance return, if fully subscribed and utilized, represent a daily quantity that FEI believes it can manage while providing an interruptible service to shipper agents.

As variables change over time for a given region, FEI periodically reviews the total allocation of imbalance return to determine if it is still valid. For example, on November 1, 2019, FEI reduced the Lower Mainland quantity from 40,000 GJ per day to 20,000 GJ per day due to a decrease in shipper agent daily average demand and an increase in FEI's core daily average demand with the movement of some customers from the Transportation Service Model to the Essential Service Model.

6.3. Is it reasonable to expect that one month of a shipper agent's demand will be reasonably representative of the following month, or does demand change substantially between months? Please explain.

Response:

Generally, a shipper agent's demand does not change substantially between months and, therefore, the percentage allocation and allocated amount of volumes remains relatively similar from one month to the next. Demand can, however, vary by shipper agent, depending on the heating load versus process load makeup of their shipper group. For heating load-based

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1 customers, the average demand in the summer is typically significantly lower than average
2 demand in the winter. As well, customer additions or deletions will also impact changes in demand
3 month over month.

4
5
6
7 6.4. Please explain why does FEI not use a forecast of demand to establish the
8 allocation of the imbalance return between shipper agents.

9
10 **Response:**

11 FEI believes that actual historical demand is a better method for allocating imbalance return to all
12 shipper agents, as historical demand takes into account the actual demand characteristics of the
13 group of customers as a basis to pro-rate the available amount. A forecast approach would
14 produce “a best estimate allocation” at the time of the calculation; however, factors such as
15 weather, unplanned customer upsets, and customer demand volatility, could potentially result in
16 a less accurate estimate.

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1 **7. Reference: Exhibit B-1, page 24**

1. **REQUEST 1: RELEASE A LARGER TOTAL VOLUME OF IMBALANCE RETURN AS A WHOLE**

FEI considers that the current volume of imbalance return allocated by region is reasonable as it is based on the total volume under which FEI can efficiently manage, operate and balance the system daily. The total volume of imbalance return represents approximately 20 percent, 45 percent and 40 percent of the average daily winter transportation service load in the Lower Mainland, Interior and Columbia regions respectively.²⁶ Given that the total amounts of imbalance return allocated by region are rarely fully utilized or relied upon by shipper agents on a daily basis, the current volume of imbalance return allocated by region appears to be sufficient. FEI recognizes that having access to their allocated banked supply through the imbalance return service is a valuable tool for shipper agents to assist them in meeting their daily load and balancing requirements. FEI also recognizes that access to additional volumes of imbalance return would make daily balancing easier for shipper agents. However, because FEI manages the needs of the system as a whole, it requires the operational flexibility to restrict or interrupt the imbalance return service when conditions necessitate (typically during colder weather or supply restrictions/disruptions, i.e. the Enbridge Incident), FEI does not recommend increasing the volumes available under the interruptible imbalance return service. Additionally, FEI wants to avoid the potential for shipper agents to increasingly rely on this interruptible imbalance return service as a source of supply for balancing purposes. Therefore, FEI concludes that the volume of imbalance return by region available to shipper agents remains reasonable to assist in managing their customer demand and, to support FEI's operational flexibility requirements, should not be increased.

²⁶ Average daily demand over the 2020/21 winter was approximately 95 TJ in the Lower Mainland region (includes demand from the Island Cogen and JV). Available IR is 20 TJ, which represents 20% of daily demand. Average daily demand over the 2020/21 winter was approximately 90 TJ in the Interior. Available IR is 40 TJ which represents nearly 45% to daily demand. Average daily demand over the 2020/21 winter was approximately 25 TJ in the Columbia region (including East Kootenay). Available IR is 10 TJ which represents 40% of the daily demand.

7.1. Please provide the size of the requested increase by shipper agents.

Response:

Shipper agents have not specified the size of the requested increase. Those who have made this request have asked for "more imbalance return" but did not specify a quantity.

7.2. Would FEI consider reducing the size of the available IR over time in order to wean shipper agents away from this service? Please explain why or why not.

Response:

FEI may consider reducing the size of available imbalance return in response to a drop in customer demand, but not for the purposes of weaning shipper agents away from this service. FEI reduced the size of available imbalance return for the Lower Mainland from 40,000 GJ per

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1 day to 20,000 GJ per day effective November 1, 2019, due to the drop in transportation customer
2 demand as a result of a large number of customers returning to bundled sales service.

3 As discussed in the responses to CEC IR1 5.1 and 5.2, the imbalance return service facilitates
4 access to gas supplies left on the system and can help shipper agents manage unpredictable
5 load swings and prevent physical supply shortfalls. As long as the Transportation Service Model
6 remains active, FEI expects to continue to provide this service and may adjust the volumes
7 available based on customer demand as necessary. Further, as imbalance return is an
8 interruptible service, FEI will continue to review the total allocation of quantities available in
9 response to changes in operating conditions.

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1 **8. Reference: Exhibit B-1, page 24**

2 **2. REQUEST 2: MECHANISM TO ALLOW GREATER IMBALANCE RETURN VOLUMES TO SPECIFIC SHIPPER AGENTS BY REQUEST**

FEI believes allowing greater volumes of imbalance return to specific shipper agents by request would present challenges from a fairness and equitable perspective. The current allocation in which shipper agents receive a portion of the volume available based on their percentage of historical demand at a given location is fair and reasonable. The current allocation methodology for the imbalance return service was implemented in November of 2018 after FEI held a workshop with shipper agents (in September 2018) to discuss changes. At that time, shipper agents agreed that the revised allocation methodology based on historical demand was reasonable. Amending the allocation methodology to accommodate this request would require modifications to the WINS system with resulting time and costs for development of such a change. FEI believes no changes are required because the current allocation methodology remains fair and equitable to all shipper agents given it is based on the historical volume requirements of each shipper agent and was derived through a collaborative process with shipper agents.

3 **3. REQUEST 3: REALLOCATION OF AVAILABLE VOLUMES TO OTHER INTERESTED SHIPPER AGENTS**

Currently, if a shipper agent does not use their full imbalance return allocation, the unused volume is not reallocated to another shipper agent. Imbalance return is allocated fairly based on a shipper agent's percentage of demand, as discussed in Section 5.2, and each shipper agent has the option to choose whether, when and how much of their allocation to use. A reallocation of available volumes under the imbalance return service could cause shipper agents to increasingly rely on this interruptible imbalance return service as a source of supply for balancing purposes, which is not a desired outcome. In addition, developing the tools to manage such reallocations would require a substantial system change to the WINS system. Consequently, FEI believes the current allocation methodology is working well and the costs associated with system changes for WINS to enable the reallocation of volumes is not warranted or necessary at this time.

4 8.1. Please elaborate on the changes that would be required to the WINS system, and
5 the expected costs that would accrue with such changes.

7 **Response:**

8 Please refer to the response to BCUC IR1 3.1.

12 8.2. Please discuss why it would cause shipper agents to rely more heavily on the IR
13 system if they were essentially swapping amongst themselves.

15 **Response:**

16 Please refer to the responses to BCUC IR1 2.2 and 4.2.

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1 **9. Reference: Exhibit B-1, page 26**

2 **5. REQUEST 5: MODIFY THE ALLOCATION METHODOLOGY TO ACCOUNT FOR VOLATILITY AND/OR**
3 **LOAD FACTOR**

As discussed in Section 5.2, the current allocation methodology for calculating imbalance return is based on actual historical daily demand. If a shipper agent's historical daily customer demand is high or low, these characteristics are currently captured in the allocation of imbalance return²⁷.

With respect to amending the methodology to account for volatility (defined as load factor), FEI believes that shipper agents are in the best position to understand their customers' demand patterns and characteristics and should manage load swings through their own business practices, such as by securing additional supply or other resources. FEI believes that shipper agents operating within the Transportation Service Model should account for all aspects of their customers' load profile and demand characteristics, including demand swings and volatility. Amending the allocation methodology for imbalance return to account for volatility would require an investment of resources and costs and may result in a less equitable allocation of imbalance return among shipper agents. FEI believes the current allocation methodology is fair and reasonable and that the onus is on shipper agents to account for load volatility factors for their customers.

2
3 9.1. Please elaborate on the modifications that shipper agents would like to account for
4 volatility and/or load factor.

5
6 **Response:**

7 Generally, shipper agents did not elaborate on the specific modifications they proposed to account
8 for volatility and/or load factor. One shipper agent indicated that shippers with flat loads are not
9 as reliant on imbalance return and so should receive less imbalance return, whereas those with
10 customers that are more volatile should receive a higher allocation of imbalance return as they
11 rely more heavily on this service to manage demand swings. A revised methodology to
12 incorporate volatility and/or load factor was not presented by any shipper agents. FEI does not
13 support an allocation based on volatility as the current methodology is more reasonable, and
14 shipper agents should account for peaks in their customer volatility as part of their own forecasting
15 models.

16
17
18
19 9.2. Please confirm that shipper agents typically have long-term contracts with their
20 customers and are likely aware of whether or not their customers can be expected
21 to have profiles with more or less volatility.

22
23 **Response:**

24 FEI cannot confirm whether or not shipper agents typically have long-term or short-term contracts
25 with their customers. FEI would expect that shipper agents have sufficient contact and
26 communications with their Transportation Service customers to understand their customers'

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business operations, needs, and consumption patterns. This type of ongoing communications between shipper agents and their customers would facilitate shipper agent's ability to determine and forecast the supply requirements of their customers and how they can best meet those needs.

9.3. Please explain why shipper agents have difficulty accounting for demand swings and volatility.

Response:

Shipper agents may have difficulty accounting for demand swings and customer volatility if they have not invested time, effort, and money to put in place load forecasting and planning methodologies, processes, systems and resources to help them forecast and manage their customer load profiles.

FEI manages demand and load swings for its own core customers based on investments it has made into load forecasting and planning methodologies, contracting for firm resources such as commodity, and storage and transportation resources that allow it to react on intra-day gas cycles. In addition, FEI produces a 5-day load forecast three times a day that enable it to take pre-emptive action as required.

In terms of processes, FEI expects that shipper agents who are able to account for their customer group's demand swings and volatility more closely monitor the demand of their volatile customers in a similar frequency and manner as FEI. In addition, FEI expects shipper agents to have ongoing (likely daily) communication with their more volatile customers to anticipate and respond to upsets and unpredictable shifts in demand.

Shipper agents may also have difficulty accounting for their customers demand swings and volatility if their business practices do not include contracting for regional storage resources on behalf of their customers and holding all the firm transportation service required to meet their customer group's changing load profiles. If shipper agents have not borne the costs to secure these assets, this would create challenges in responding to customer demand swings and volatility.

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1 **10. Reference: Exhibit B-1, page 26 and page 27**

6. **REQUEST 6: MAKE IMBALANCE RETURN AVAILABLE DURING HOLD TO AUTHORIZED (HTA) AND/OR SUPPLY RESTRICTION PERIODS**

Historically, the interruptible imbalance return service is available for over 95 percent of the year. The times when imbalance return service is restricted or interrupted occurs due to major weather events or supply disruptions and constraints (e.g. the Enbridge Incident), FEI carefully considers limiting operational services such as imbalance return and or issuing HTA restrictions. Feedback from some shipper agents suggests they were concerned that the factors FEI takes into consideration when issuing a restriction or HTA have changed. FEI confirms that the factors FEI takes into consideration when determining whether a supply restriction is required have remained the same since the inception of the Transportation Service Model. As discussed throughout the individual shipper agent conference calls, HTA situations are variable and dependent upon a number of supply and capacity conditions including, but not limited to:

- Upstream / downstream planned or unplanned pipeline supply curtailments and capacity constraints;
- Downstream planned or unplanned regional storage facility outages;
- Actual or forecasted extreme cold weather conditions by region;
- Duration of actual or forecasted extreme cold weather conditions by region;
- Health and inventory level of regional storage facilities; and
- The time of year (i.e., winter) can be a factor and extenuating circumstance for any of the above.

When FEI deems it necessary to issue a restriction such as HTA, shipper agents are held to a tighter balancing tolerance of 5 percent as opposed to the 10 percent under normal circumstances. By holding shipper agents and their transportation service customers to a 5 percent tolerance, shipper agents are required to bring on sufficient supply to meet their demand, and to balance independently or incur balancing charges. When HTA restrictions are in place, the imbalance return service is not available. This is the case because FEI requires operational flexibility to manage the daily balancing of the system given the circumstances that prompted the need for the restriction. During a restricted period, the transportation service charges become applicable to encourage shipper agents to match supply to meet their customers' demand. If FEI were to allow drafting at critical times, such as sustained cold weather or pipeline interruptions, FEI would need to acquire, and core customers would be paying for, additional incremental midstream resources to compensate for the imbalance. In the past, under supply and capacity constrained circumstances in which FEI issued a HTA for longer than normal periods (such as the Enbridge Incident and the reduced WEI capacity due the flooding in November 2021) FEI has, when operationally feasible,²⁸ provided some relief to shipper agents by allowing access to the imbalance return service. While historically it has not been common practice to release imbalance return during a restricted period, FEI will continue to closely monitor the system during restricted periods on a case-by-case basis to determine if, when, and to what degree it may be able release imbalance return in consideration of the circumstances at the time.

- 10.1. Please confirm or otherwise explain that making IR available to shipping agents during a restricted period could potentially result in increased disruptions to core customers.

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1 **Response:**

2 FEI confirms that making imbalance return available to shipper agents during a restricted period
3 could potentially result in increased disruptions to core customers.

4

5

6

7 10.2. Please identify which factors, if any, have changed for determining whether a
8 supply restriction is required (as per shipper agent views), and please explain how
9 it changed (if at all).

10 10.2.1. Please explain the reasons for the changes.

11

12 **Response:**

13 The factors FEI considers when determining whether a supply restriction is required have not
14 changed with the implementation of the New Rules. Please refer to the response to BCUC IR1
15 13.2 for a list of the primary factors considered.

16

11. **Reference: Exhibit B-1, page 29, page 30 and page 37**

1. REQUEST 7: RETURN TO THE 20% TOLERANCE.

Based on the minimal level of balancing charges incurred for being outside the threshold as shown in Table 5-4 and 5-5, it is clear that shipper agents have demonstrated they are able to operate under the tighter balancing tolerance. Shipper agents have not presented any information or evidence to the contrary. Rather, the data presented in Figures 5-1 and 5-2 demonstrate that

shipper agents have performed with diligence in managing supply to meet demand under the New Rules while incurring minimal balancing charges. Additionally, in Section 3 of the Atrium Economics Report, an update Atrium's review of industry balancing rules and services continues to show that a tighter balancing threshold of 5 percent is most common in the industry.

Table 5-4: Transportation Service Balancing Charges Volume 2012 to March 31, 2022 (GJ)³⁶

Charges	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Backstopping	104,213.0	260,112.0	134,613.0	288,418.0	78,842.0	64,770.0	19,971.0	3,227.0	3,340.0		
Monthly Balancing Gas	452,603.4	403,726.0	258,704.3	164,824.7	125,922.9	191,272.9	72,642.2	2,992.4			
Daily Balancing Gas	61,001.6	133,962.0	90,072.7	60,502.2	60,894.2	41,163.1	37,355.0	327,221.9	77,303.6	43,694.7	1,795.4
Balancing Service	87,457.5	110,989.4	85,304.5	31,274.9	76,409.8	23,450.7	47,465.6	469,373.4	207,256.9	253,544.2	55,883.1
Balancing Service 10% - 20%							10,098.4	256,547.7	119,306.4	94,953.6	33,796.2
Replacement Gas							12.1				
Unauthorized Overrun - Under 5%	2,802.8	800.4	19,591.5		5,790.9	6,738.7	17,145.2	9,756.6	5,334.7	871.2	
Unauthorized Overrun - Over 5%	3,063.8	968.4	20,629.0	12.6	499.9	4,407.0	2,916.4	555.2	409.2	986.2	
Grand Total	711,142.10	910,358.20	608,915.00	545,032.40	348,359.70	331,802.40	207,605.90	1,069,674.16	412,950.88	394,049.90	91,474.70

Table 5-5: Transportation Service Balancing Charges 2012 to March 31, 2022 (CAD\$)

Charges	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Backstopping	\$ 264,415.30	\$ 1,329,350.73	\$ 568,999.59	\$ 827,168.84	\$ 201,743.97	\$ 200,050.35	\$ 60,602.36	\$ 16,709.95	\$ 13,059.64		
Monthly Balancing Gas	\$ 1,064,684.11	\$ 1,531,926.09	\$ 1,111,413.95	\$ 473,199.56	\$ 407,534.48	\$ 609,658.99	\$ 187,158.58	\$ 8,323.21			
Daily Balancing Gas	\$ 140,387.14	\$ 465,469.74	\$ 372,525.25	\$ 165,960.23	\$ 136,109.28	\$ 133,474.86	\$ 121,691.71	\$ 1,648,343.19	\$ 241,061.13	\$ 256,874.00	\$ 8,452.74
Balancing Service	\$ 49,211.03	\$ 73,772.02	\$ 76,963.19	\$ 18,428.39	\$ 76,740.06	\$ 23,665.29	\$ 37,901.68	\$ 370,049.77	\$ 121,822.27	\$ 121,372.98	\$ 61,471.41
Balancing Service 10% - 20%							\$ 2,524.64	\$ 64,081.21	\$ 29,826.44	\$ 23,730.29	\$ 8,449.12
Replacement Gas							\$ 32.51				
Unauthorized Overrun - Under 5%	\$ 8,464.58	\$ 6,892.09	\$ 166,639.45		\$ 31,509.69	\$ 25,973.17	\$ 226,118.76	\$ 260,365.46	\$ 18,754.13	\$ 5,993.34	
Unauthorized Overrun - Over 5%	\$ 61,276.00	\$ 19,368.00	\$ 419,268.33	\$ 252.00	\$ 9,998.00	\$ 88,140.00	\$ 59,812.79	\$ 17,572.88	\$ 8,184.00	\$ 19,762.02	
Grand Total	\$ 1,588,438.16	\$ 3,426,778.67	\$ 2,715,809.76	\$ 1,485,009.02	\$ 863,635.48	\$ 1,080,962.66	\$ 695,843.03	\$ 2,385,345.67	\$ 432,707.61	\$ 427,732.63	\$ 78,878.27

The incremental charge of \$0.25 cents for balancing within the 10 percent to 20 percent range introduced by the New Rules in November 1, 2018 is highlighted in orange in Tables 5-4 and 5-5. The data shows that, with the exception of the number of months impacted from October 2018 to 2019 due to the Enbridge Incident,³⁷ the total volume of charges incurred including the incremental charge for balancing within the 10 percent to 20 percent range is not significantly higher than previous years, and is lower than the charges incurred in 2012 to 2014. During the months impacted by the Enbridge Incident, numerous system restrictions were put in place, which resulted in higher than normal charges. During this time, many shipper agents over delivered to the FEI system in order to avoid additional transportation service charges, in particular, the Unauthorized Overrun over 5 percent charge.³⁸ Consequently, shipper agents were drafting between the 10 percent to 20 percent tolerance, as well as the 20 percent+ tolerance and incurring additional charges within these ranges in order to access their banked supply. Still, even under the unprecedented circumstances in 2019 and in a more typical year such as 2020, Table 5-5 above shows the total revenues collected from the charge for "balancing service 10 percent to 20 percent" range implemented in the New Rules was relatively low.

³⁷ The Enbridge Incident occurred on October 9, 2018, causing severe supply constraint circumstances on the FEI System in the 2018/19 winter.

³⁸ Unauthorized Overrun over 5% charge is charged at the greater of 1.5 times the Sumas Daily price or \$20 CAD per GJ.

11.1. Please confirm that Tables 5-4 and 5-5 are for FEI as a whole and not for a particular region.

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1 **Response:**

2 Confirmed.

3

4

5

6 11.2. Please explain the impact on FEI's system of having the shipper agents over-
7 deliver to FEI during the Enbridge incident.

8

9 **Response:**

10 During the Enbridge Incident, over-supply by shipper agents created an imbalance at the
11 interconnect locations and a positive balance in FEI's OBAs. Over-supply by shipper agents does
12 not directly impact FEI's system as the imbalances are held at the interconnect location within the
13 OBAs. Overall, FEI balanced the net OBA position at the Westcoast T-South interconnects
14 throughout the recovery and restoration work timeframe on the T-South system.

15

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12. **Reference: Exhibit B-1, page 37**

In order to help put the volume of charges into perspective, FEI compared the volume of charges relative to total transportation customer demand or system throughput. In the year 2020, the total volume of charges was approximately 412,000 GJ, which is 0.6 percent of the system throughput of 67 PJ. In 2021, the total volume of charges was slightly less at approximately 395,000 GJ, which is 0.54 percent of the system throughput of 73 PJ. FEI submits that the low volume of charges as compared to total system demand reflects that shipper agents are well able to manage the supply and demand of their customers under the New Rules. Further, it is clear that shipper agents have taken steps to manage their business more proactively. For these reasons, shipper agents are largely avoiding significant balancing charges and other transportation service charges.

12.1. Please provide the volume of charges and the system throughput during the Enbridge incident.

Response:

Due to the Enbridge Incident, T-South was operating at constrained capacity until December 1, 2019, when firm capacity returned to 100 percent. During the 14-month period from October 2018 to November 2019, the total volume of charges was 1.1 PJ, which was 1 percent of the total Transportation Service Model demand of 96 PJ over the same period, as shown in the Table 1 below.

Table 1: Enbridge Incident Impact on T-South - Total Volume of Charges October 2018 to November 2019

in GJs	FEI Transport Throughput	Volume of Charges	%
Oct-18	5,949,216	12,226	0%
Nov-18	6,076,063	13,255	0%
Dec-18	7,602,548	30,294	0%
Jan-19	8,120,678	31,224	0%
Feb-19	8,079,727	225,429	3%
Mar-19	8,661,433	208,142	2%
Apr-19	7,825,426	150,793	2%
May-19	6,127,467	37,421	1%
Jun-19	5,125,512	9,380	0%
Jul-19	6,860,094	7,866	0%
Aug-19	6,409,316	129,604	2%
Sep-19	5,818,154	70,695	1%
Oct-19	7,106,531	106,464	1%
Nov-19	6,496,803	70,022	1%
14-Month Total	96,258,969	1,102,816	1%

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1 **13. Reference: Exhibit B-1, page 41**

1. **REQUEST 14: AUTOMATE THE PROCESS AND/OR A BULLETIN BOARD FORMAT.**

Automating the practice of inter-customer group balancing through a new formal process or bulletin board format would involve costs and system changes. FEI's position is that while inter-customer group balancing may be of benefit in certain circumstances, the formalization of FEI's business practice through automation or some form of bulletin board may distort the Transportation Service Model in such a way that it may dis-incent shipper agents from delivering the appropriate supply requirements to their customers. Consistent with its reply submission in the BCGMC Complaint, FEI continues to believe that it:

- a) would be of little benefit to the majority of Shipper Agents who do forecast accurately and do not incur significant balancing charges and potentially act as a disincentive for some Shipper Agents to nominate accurately; and
- b) may be detrimental to the interests of FEI's sales customers.⁴⁰

FEI notes that shipper agents did not present any proposals during the stakeholder sessions nor provide more clarity on this request. As indicated above, automation of this process may distort the Transportation Service Model. Further, there would be costs and resources required to

2

- 3 13.1. Would it be reasonable for shipper agents to organize their own bulletin board or
4 other means of managing inter-group balancing independently of FEI? Please
5 explain why or why not.

6

7 **Response:**

8 To FEI's knowledge, shipper agents currently communicate with each other and buy and sell gas
9 between themselves to manage their daily operations as necessary during normal and HTA
10 periods. As such, FEI believes it would be reasonable for shipper agents to continue this process
11 and organize their own bulletin board or other means independently of FEI.

12

1 **14. Reference: Exhibit B-1, Appendix A page 5 and page 6**

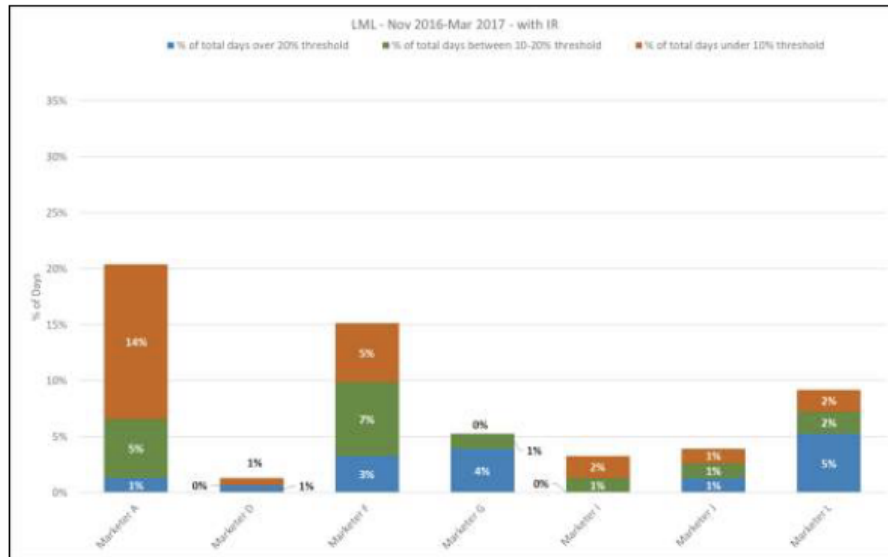
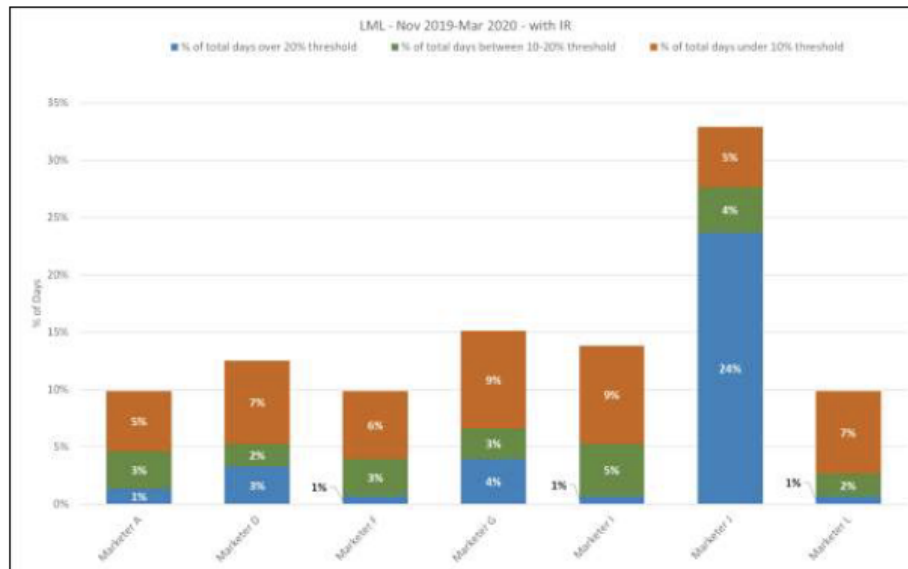


Figure 2 - Percentage of days within supply thresholds for the LML service area Nov 2019 - Mar 2020



This comparison is a good indication of overall Marketer performance and ability to match daily supply to daily demand. It also indicates relative performance for each Marketer between the before and after time periods, and between imbalance thresholds. For example, Marketers F and L have reduced their days above the 20% threshold, while Marketers A, F, and L also reduced their days within the new incremental threshold of 10 – 20%, as shown in Figure 2. The increased size of the bars in the 0 – 10% range relative to the other threshold ranges in Figure 2 are also indicative of the incentive to further manage imbalances provided by the new balancing fee for exceeding the 10% threshold.

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1 14.1. Did Atrium or FEI determine why Marketer J experienced a significant increase in
2 the % of days over the 20% threshold, and, if so, please provide the reason for the
3 increase.
4

5 **Response:**

6 No. Neither Atrium Economics nor FEI were able to definitively determine why Marketer J
7 experienced a significant increase in the percentage of days over the 20 percent threshold.
8 However, Atrium Economics speculated that Marketer J's performance "appears to indicate that
9 this shipper was intentionally drafting more heavily based on its own operational strategy."⁶

10

⁶ Exhibit B-1, Appendix A, Atrium Economics Report, page 6,

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1 **15. Reference: Exhibit B-1, Appendix A, page 18**

2 **3.1.4 Use of premium or discounted gas price-based balancing tiers**

3 Levels of imbalance charges typically increase based on the size of the imbalance incurred.

4 Among LDCs that structured their imbalance fees in this manner, three of them had two tiers of
5 imbalance fees, and four had two to five tiers of fees.

6
7 15.1. Please provide a discussion on whether or not the tier system is considered to be
8 a superior means of managing imbalances, and, if so, what characteristics of a tier
9 system seem to be optimal.

10 **Response:**

11 FEI considers a tiered system to be optimal for managing imbalances. Atrium Economics analysis
12 and conclusions also support a tiered system for FEI's Transportation Service Model.

13 Since implementation of the New Rules which introduced a 10 percent imbalance threshold, FEI
14 has maintained a three-tiered system of imbalance fees corresponding to the imbalance
15 thresholds of 5, 10 and 20 percent. An optimal means of managing imbalances is dependent upon
16 the specific circumstances of the particular utility distribution system, the structure and extent of
17 its transportation services, and the influence or limitations dictated by the balancing provisions of
18 the upstream pipeline systems from which the utility is served. These are among the factors that
19 a utility may consider in determining whether and to what extent a tiered system for controlling
20 transportation balancing behavior is appropriate. FEI's history of transportation imbalance data
21 and the subsequent analysis Atrium Economics performed,⁷ supports FEI's objective in having
22 added the 10 percent threshold under the New Rules. That objective was to further incent overall
23 shipper agent performance in matching daily supply deliveries to daily demand at a level that is
24 acceptable to FEI in managing the daily operation of its distribution system. Atrium Economics
25 concluded that FEI's balancing rules reflect the regional attributes of its interconnected upstream
26 pipelines and gas market environment and found that, based on their analysis and metrics have
27 shown, the revised balancing rules (New Rules) are reasonable and working as originally
28 intended.⁸

29 15.2. In what ways, if any, could FEI make use of this information to further improve its
30 shipper agent balancing?
31

⁷ Exhibit B-1, Atrium Economics Report, Appendix A, pages 5 and 6.

⁸ Exhibit B-1, Atrium Economics Report, Appendix A, page 25.

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1 **Response:**

2 FEI's three-tiers of balancing charges on its system are performing well to incent the appropriate
3 shipper agent balancing behaviour. FEI currently monitors and uses information from balancing
4 charges to evaluate performance of shipper agents and works directly with shipper agents to
5 when performance improvement is needed. Continued monitoring of balancing charges and on-
6 going shipper agent performance will help inform FEI whether changes in future may be beneficial
7 to further improve shipper agent balancing.

8

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1 **16. Reference: Exhibit B-1, Appendix A, page 25**

2 **5 Concluding Remarks**

Historically, FEI had some of the more generous transportation balancing tariff rules in the natural gas LDC industry, while providing appropriate performance incentives for Marketers. Members of Atrium’s review team assisted FEI with revisions to its Transportation Service Model (“the Model”), as part of the 2016 Rate Design Application. These revisions were not a wholesale overhaul of the Model, but rather intended to progress toward industry standards while protecting the integrity of the long-standing Model. As stated earlier, Transportation balancing provisions vary widely across LDCs and are not standardized in a “one size fits all” form, allowing LDCs to develop balancing rules that reflect their unique load profiles and geographic location on interstate or interprovincial pipeline systems. FEI’s balancing rules reflect the regional attributes of its interconnected upstream pipelines and gas market environment. Atrium finds the revised balancing rules of FEI to be reasonable and working as originally intended, as the metrics in our analyses have shown.

3 16.1. The CEC has reviewed Atrium’s report and notes that it is generally supportive of
4 FEI’s balancing rules. Does, or did, Atrium have any additional recommendations
5 for FEI that might improve their rules or practices for shipper agents without having
6 costs or otherwise jeopardizing the core customers?

7 **Response:**

8 Atrium Economics did not provide additional recommendations to FEI regarding the
9 Transportation Service Model, although the scope of their review was specifically to address the
10 BCUC directives.

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1 **17. Reference: Exhibit B-1, Appendix B, PDF page 88 and PDF page 93**

- Impact of new balancing rules on the use of core resources including both changes to variable costs of balancing the system to accommodate transportation service and changes to fixed costs arising from a need to contract midstream resources differently;
- Effectiveness of imbalance return as a tool for Shippers/Shipper Agents to manage excess inventory including discussion of any modifications made to the allocation methodology in response to changes in demand for imbalance return after the balancing rule changes are implemented;
- Whether there should be further tightening of tolerances for under-supply;
- Whether it is necessary to implement tolerances and associated charges for over-supply; and
- Whether the balancing charges appropriately recover the costs of providing balancing to transportation service customers and provide sufficient incentive to transportation service customers to balance their supply and demand.

2

BCUC Directive	Feedback Summary	Requests
Whether it is necessary to implement tolerances and associated charges for over-supply;	<ul style="list-style-type: none"> • Nearly all Marketers oppose an over-supply tolerance and associated charges, especially those with customers having volatile demand. • One Marketer is open to limits during normal operational circumstances, but not during HTA periods. • If specific Marketers are over-delivering, exercise the tariff to withhold inventory. 	9. FEI to withhold inventory/pack for specific marketers that are over-delivering as opposed to restricting the service for all.

3

4 17.1. The CEC notes that there is a concern for reducing under-supply and a request to
5 eliminate charge for over-supply. Please explain the impacts to the system of
6 under-supply and over-supply and if one is inherently harder on FEI's ability to
7 balance its system.

8 **Response:**

9 FEI notes that there are currently no charges for over-supply.

11 As discussed in the response to BCUC IR1 1.3, FEI holds OBAs at interconnect locations on the
12 West T-South and TC Energy FoothillsBC systems. As the OBA holder, FEI is responsible to
13 balance the total supply against the total demand at each interconnect location. Over-supply or
14 under-supply by shipper agents affects the total supply balance on FEI's system. While
15 imbalances are accounted for by the OBA, the degree of those imbalances (pack or draft), and
16 the actions FEI may be required to take to address the imbalances, will depend on the
17 circumstances at the time. When a supply imbalance does occur, FEI may be required to exercise
18 resources as contracted for in the ACP to either increase the supply to the interconnect location
19 to address a draft position or reduce the supply to the interconnect location to address a pack
20 position. These movements of physical gas may incur transportation or storage variable costs
21 and/or market transaction costs. There are several factors that influence the degree of difficulty
22 in responding to over- and under-supply system balancing, such as the time of year, summer
23 versus winter, FEI's inventory balances at upstream/downstream storage facilities, maintenance-
24 based capacity restrictions and constraints on the Westcoast system and/or the TC Energy

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1 FoothillsBC system and FEI's OBA imbalances. The individual and combination of factors at play
2 at any given time ultimately determines if under- or over-supply is harder on FEI's ability to
3 balance its system.

4
5
6 17.2. Why do marketers believe that an over-supply charge is not appropriate? Please
7 explain FEI's understanding of the issue.
8

9 **Response:**

10 FEI's understanding of why shipper agents would not want an over-supply charge is because it
11 can be challenging for them if they have customers in their group with more volatile or larger
12 swings in demand. As a result, if shipper agents are able to deliver more supply rather than less,
13 they can account for volatility with the objective of avoiding incurring balancing charges. Given
14 FEI has tools in the Transportation Service tariffs, as discussed in the responses to BCUC IR1 7
15 series of questions, to manage over-supply, related charges are not required at this time.

16