TRANSPORTATION SERVICES
Operating requirements on FEI

Balancing Provisions

Charges

Supply Restriction

Capacity Curtailment

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Important notes regarding the Transportation Service offering

- In July 2018, Fortis received a Decision on the 2016 Rate Design application in Order G-135-18

https://www.ordersdecisions.bcuc.com/bcuc/decisions/en/item/316310/index.do

- The approved operational changes as well as existing operational requirements and charges for Transportation customers are described herein and apply to Rate Schedules 22, 22A, 22B, 23, 25 and 27
  - Approved operational changes were effective Nov 1, 2018, with the exception of changes applicable to Columbia customers which are effective Nov 1, 2019
  - Marketers representing transportation customers on Fortis' system are strongly encouraged to review the BCUC Order

Document note: All references to customers in the Lower Mainland *include* Vancouver Island customers as well (as they are pooled together at the Lower Mainland)

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Balancing on FortisBC

Transportation customers in the Lower Mainland and Interior must follow daily balancing provisions*

Shippers or Marketers are permitted to pool customers in one group at the Lower Mainland and one group in the Interior

Under normal weather conditions throughout the year, customers in the Lower Mainland and Interior are held to a 10% balancing tolerance** for under-deliveries/drafting

For over-deliveries/packing, Fortis requests that Shippers maintain a 2-3 day pack based on an average day burn

Customers located in the Columbia region currently follow monthly balancing provisions and are not subject to the 10% balancing tolerance. These customers will move to daily balancing provisions effective November 1, 2019

*Monthly balancing provisions were eliminated in the Lower Mainland and Interior on October 31, 2018 as per Rate Design Decision Order G-135-18
**10% tolerance introduced Nov 1, 2018 as part of Rate Design as well.

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Daily balancing explained…

As the term implies, transportation customers pooled in a daily balanced group must balance on a daily basis

What this means is, on a daily basis, the authorized physical supply from the interconnect plus gas used from inventory (via imbalance return) must be greater than the aggregate group or customer demand

If over-deliveries occur, FEI will hold the excess inventory on the system in the Shippers account for use at a later date

If under-deliveries occur, and the group's inventory is near zero, FEI may balance the shortfall with daily balancing gas

- Daily balancing gas is sold at the Sumas Gas Daily midpoint price

If under-deliveries exceed the 10% tolerance, balancing charges will apply

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Balancing Tolerance and Charges

- Under normal conditions throughout the year, customers in the Lower Mainland and Interior will be penalized when under-deliveries (drafting) exceed a 10% tolerance and/or 20% tolerance
- When under-deliveries fall within a 10%-20% tolerance range, a charge of $0.25 per GJ will apply
  - The $0.25 per GJ charge is applied year round
- When under-deliveries exceed the 20% tolerance, the following charges will apply:
  - $0.30 per GJ in the summer months of April to October
  - $1.10 per GJ in the winter months of November to March

Balancing Tolerance Charge Summary

Tolerance Range	Winter Charge ($/GJ)	Summer Charge ($/GJ)
Tier 1: 0-10%	no charge	no charge
Tier 2: 10-20%	$0.25	$0.25
Tier 3: 20%+	$1.10	$0.30

- To note, the above balancing charges are a charge per GJ applied to under-deliveries, it is not physical gas sold.

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Tolerance calculation and charges explained

Actual Supply	8,000	← gas the marketer brought on at the interconnect
+		
Imbalance Return Supply	2,000	← authorized imbalance return*
Total Supply	10,000	← total supply
Actual Demand	15,000	← gas the group/customer burned
(Under)/Over Deliveries	(5,000)	← this is the under-delivery that FEI must balance

10-20% Range

10% - 20% Tolerance Calculation

Total Supply x 110%	11,000	**1,000 GJ** difference in the 10-20% range
and		
Total Supply x 120%	12,000	

20% + Range

Over 20% Tolerance Calculation

Greater of

Total Supply x 120%	12,000	**3,000 GJ** difference in the 20%+ range
or		
Total Supply + 100GJ	10,100	
and		
Actual Demand	15,000	

Surcharges incurred:

10-20% range	1,000	← \$0.25/GJ annually
20%+ range	3,000	← \$1.10/GJ in winter and \$0.30/GJ in summer

*Supply from Imbalance Return is authorized if the group has a positive inventory.

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Tolerance calculation for smaller groups

Actual Supply	50	←	gas the marketer brought on at the interconnect
+			
Imbalance Return Supply	250	←	authorized imbalance return*
Total Supply	300	←	total supply
Actual Demand	497	←	gas the group/customer burned
(Under)/Over Deliveries	197	←	this is the under-delivery that FEI must balance

10-20% Range

10% - 20% Tolerance Calculation

	Total Supply x 110%	330
Greater of	**or**	
	Total Supply + 100GJ	400
	AND	
	Total Supply x 120%	360
Greater of	**or**	
	Total Supply + 100GJ	400

0 GJ difference in the 10-20% range

20% + Range

Over 20% Tolerance Calculation

	Total Supply x 120%	360
Greater of	**or**	
	Total Supply + 100GJ	400
	and	
	Actual Demand	497

97 GJ difference in the 20%+ range

Surcharges incurred:

10-20% range	0	←	$0.25/GJ annually
20%+ range	97	←	$1.10/GJ in winter and $0.30/GJ in summer

*Supply from Imbalance Return is factored into the calculation provided the group inventory is positive and the amount is GREATER than the authorized amount of Imbalance Return.
If Inventory is LESS than the authorized Imbalance Return, the LESSER OF rule applies.

Daily balancing gas charge

Actual Supply	8,000	←	gas the marketer brought on at the interconnect
+			
Imbalance Return Supply	2,000	←	authorized imbalance return
Total Supply	10,000	←	total supply
Actual Demand	15,000	←	gas the group/customer burned
(Under)/Over Deliveries	(5,000)	←	this is the under-delivery that FEI must balance

Under-Delivery

- When under-deliveries occur, the group can incur balancing charges if the 10% tolerance is exceeded *(as demonstrated on the previous two slides)* AND potentially <u>balancing gas charges</u> (ie, physical gas sold).
- In the above case where there is an under-delivery, the shortfall (5,000GJ) will be deducted from the Shippers/Groups inventory and balancing tolerance charges will apply (shown on slide 6).
- If the Shipper's inventory is near or at zero, daily balancing gas will be sold to balance the group (charged at the Sumas Gas Daily midpoint price)
- Inventory balances cannot go below zero at the Lower Mainland and Interior

Imbalance Return

- While in the above scenario 2,000GJ of Imbalance Return is authorized, the Shipper must have at least this amount in their inventory to draw from to add to their Total Supply.
- If the Shipper has <u>less</u> inventory compared to what is authorized, the lesser of rule applies.

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Backstopping gas charge

Difference?

Nominated Supply	10,000	Nominated/Requested supply in WINS
Authorized Supply	8,000	Authorized supply from the Interconnect (Enbridge)
	2,000	Backstopping

- Backstopping is <u>not</u> calculated based on customer/group demand
- It is calculated based on the Nominated vs Authorized supply at the interconnect
- When the authorized supply is LESS THAN the nominated supply, Backstopping charges apply
- Backstopping is sold at the Sumas Gas Daily Midpoint price
- Backstopping charges apply to all customers in the Lower Mainland, Interior and Columbia region

Inventory and Imbalance Return

Marketers/Shippers are responsible to manage their inventory on FortisBC's system within reasonable levels

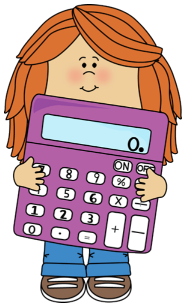
FEI requests Marketers/Shippers maintain a 2-3 day days of inventory (based on average daily demand of the group)

Imbalance return is used to draw gas from banked system inventory to use as a daily source of supply

Typically 40,000GJ of Imbalance return is made available at the Lower Mainland and Interior separately

Imbalance return can be reduced or eliminated by FortisBC as needed

Imbalance Return – new calculation explained…



- The Imbalance return allocation is **not** based on the nominated/requested amount
- Imbalance return is allocated based on the percentage of the Shipper/Marketers average customer demand relative to the total demand at the Lower Mainland and Interior receipt points
- Allocation of this service will be re-calculated 2 days prior to the beginning of each month based on the previous 30 days of average customer consumption
- The calculated amount will apply for the entire month
- Marketers can view their allocated amount in the SCH QTY field in the nomination screen
- When total amount available is amended, 40,000GJ to 20,000GJ for example, revised allocated amounts will be calculated based on the original percentage deduced at the beginning of the month
- Shippers/Marketers must place an imbalance return nomination to receive their allocated amount

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Imbalance Return – new calculation example…

Imbalance return is available in the Lower Mainland and Interior

Percentage allocation based on 30 day average customer demand and total demand

Lower Mainland/ Interior	Average 30 Day Demand	% Allocation	Allocated Amount
Marketer A	15,000	29%	11,538
Marketer B	7,500	14%	5,769
Marketer C	2,000	4%	1,538
Marketer D	1,500	3%	1,154
Marketer E	6,000	12%	4,615
Marketer F	8,000	15%	6,154
Marketer G	12,000	23%	9,231
Total Demand	52,000		40,000

Amounts allocated based on percentage and amount available

Total amount available at the location

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Colder Weather Conditions
Supply Restriction/Hold to Authorize

FEI issues notices advising of changes in weather, changes to imbalance return and cold weather forecasts

Typically when colder weather occurs, imbalance return is reduced or eliminated

Under sustained cold weather or design day temperatures, FEI may issue a supply restriction (also referred to a hold to authorized)

If a supply restriction is required, FEI provides as much advance warning as possible

Under a supply restriction, customers in the Lower Mainland and Interior must balance within a **5% tolerance**

Understanding a supply restriction/hold to authorized

When a supply restriction/hold to authorized is issued, customers are held to a 5% tolerance

- "Hold to Authorized" refers to the quantity of gas <u>authorized</u> by the inter-connecting pipeline (i.e. Enbridge)
- When a group of customers is *held to their authorized quantity of supply* it means they cannot use MORE than the authorized supply amount
- If you are *authorized* 100GJ for example, your customers are held to using or burning up to that amount

If the Shipper or Group takes gas in excess of the authorized quantity, meaning the group burned more than the available supply, unauthorized overrun charges or "UOR" will apply

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Unauthorized Over-run Charges

If a group incurs UOR, the first 5% of gas taken over the authorized quantity will be charged at the Sumas Gas Daily Price

Gas taken in excess of 5% of the authorized quantity will be charged the *greater of* CAD $20.00 per gigajoule or the Sumas Daily Price times 1.5

The marketer may elect to pay these charges or apply the charges to specific customer(s)

In the event the marketer fails to make an election or withdraws an election to pay these charges, FEI will recover the charges from the customer(s) directly

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UOR Charge calculation

Actual Supply	8,000	gas **authorized** at the interconnect
+		
Imbalance Return Supply	0	imbalance return **not authorized**
Total Authorized Supply	8,000	total supply
Actual Demand	15,000	gas the group/customer burned
(Under)/Over Deliveries	(7000)	this is the under-delivery that FEI must balance

Unauthorize Over-run Charge Calculation

UOR Under 5%

Total Authorized Supply x 5%

8000 x 5% =	400	1st 5% UOR

UOR Over 5%

Under-delivery - UOR Under 5%

7000 - 400 =	6,600	Over 5% UOR

Charges incurred:

UOR Under 5%	400	Charged at the Sumas Gas Daily Midpoint price
UOR Over 5%	6,600	*Greater of* $20 or 1.5 x Sumas Gas Daily Midpoint price

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Capacity Curtailment

A capacity curtailment can be imposed on days when FEI’s gas transmission system cannot meet demand, typically at a 25 Degree Day (-7^{o}C) at the Lower Mainland, or where there is a specific problem at an area on the system

Capacity curtailments typically apply to specific customers at a specific location on FEI’s system

When a curtailment is required, Gas Control contacts the individual customer(s) directly

Customers who can be curtailed are those under Rates 22, 27, and 7 in the Lower Mainland, and those under Rates 22A, 22, 27, and 7 in the Interior

The reduced capacity resulting from the Enbridge explosion in October 2018 is an example where FEI curtailed interruptible customers on the system in order to preserve system integrity and pressure

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Notice of Capacity Curtailment

Immediate or a few hours notice may be given at the discretion of Gas Control

Customers may be asked to reduce their consumption to a specified amount or to zero

FEI can physically shut off the meter if a capacity curtailment is ignored

Gas consumed above the specified amount will be charged out as unauthorized overrun gas

Demand surcharge penalties may also be incurred

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Final Notes

Notices issued by FEI

- Ensure your company contacts are up to date on FEI's distribution list

Industrial Billing

- For billing questions, contact: Industrial.billing@fortisbc.com

Or 855-873-8773

Transportation Rate Schedules

- Are located here

Signing up a new customer?

- Intent to Purchase forms are located in the Special interest section

Questions regarding the Transportation Service Option?

- Contact us at Transportationservices@fortisbc.com

Or 604-592-7799

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