

A large industrial facility, likely a natural gas processing plant, is shown under a clear blue sky with light clouds. In the foreground, a massive, horizontally oriented pipe wrapped in silver insulation dominates the view. The pipe has a yellow label that reads "100 Natural Gas". In the background, there are various pieces of industrial equipment, including towers, tanks, and a large building with a tall chimney stack. The ground is a flat, gravelly surface.

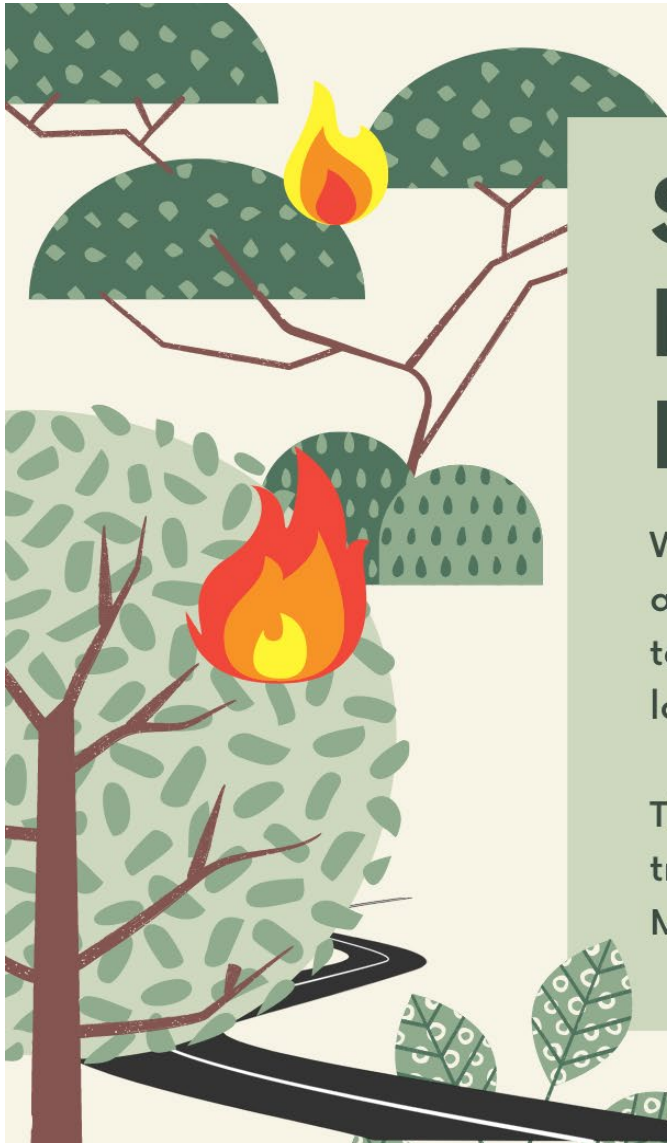
# NGTL System and Foothills Pipe Lines Ltd.

## Customer Operations Meeting - Review of July/Aug Outages & How 'Transfers to Storage' Works

August 20, 2021



# Safety Moment



## Safety Moment: Forest Fires

Wildfires have become more frequent and more severe. Warmer and drier temperature May - Sept lead to longer, more intense fire seasons.

This can directly impact highway travel especially through the Rocky Mountains in Alberta and BC

### Tips

- Plan your route before hand and constantly check road status' on local road safety websites.
- Follow orders of the local authority ex. "non-essential travel"
- Pack wisely and be prepared to encounter a fire

### To-dos

- Drive with your Headlights on
- Slow down and drive cautiously
- Keep calm and cooperate
- Roll up window and close vents

# Agenda

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- 1 Review of July & August outages
- 2 Utilization of FT-Transfers to Storage
- 3 NGTL learnings and customer feedback
- 4 Optional Educational Session - How 'FT-Transfers to Storage' works

# 1. Review of July & August Outages | Guiding Principles for System Operations

## System managed in accordance with NGTL guiding principles:

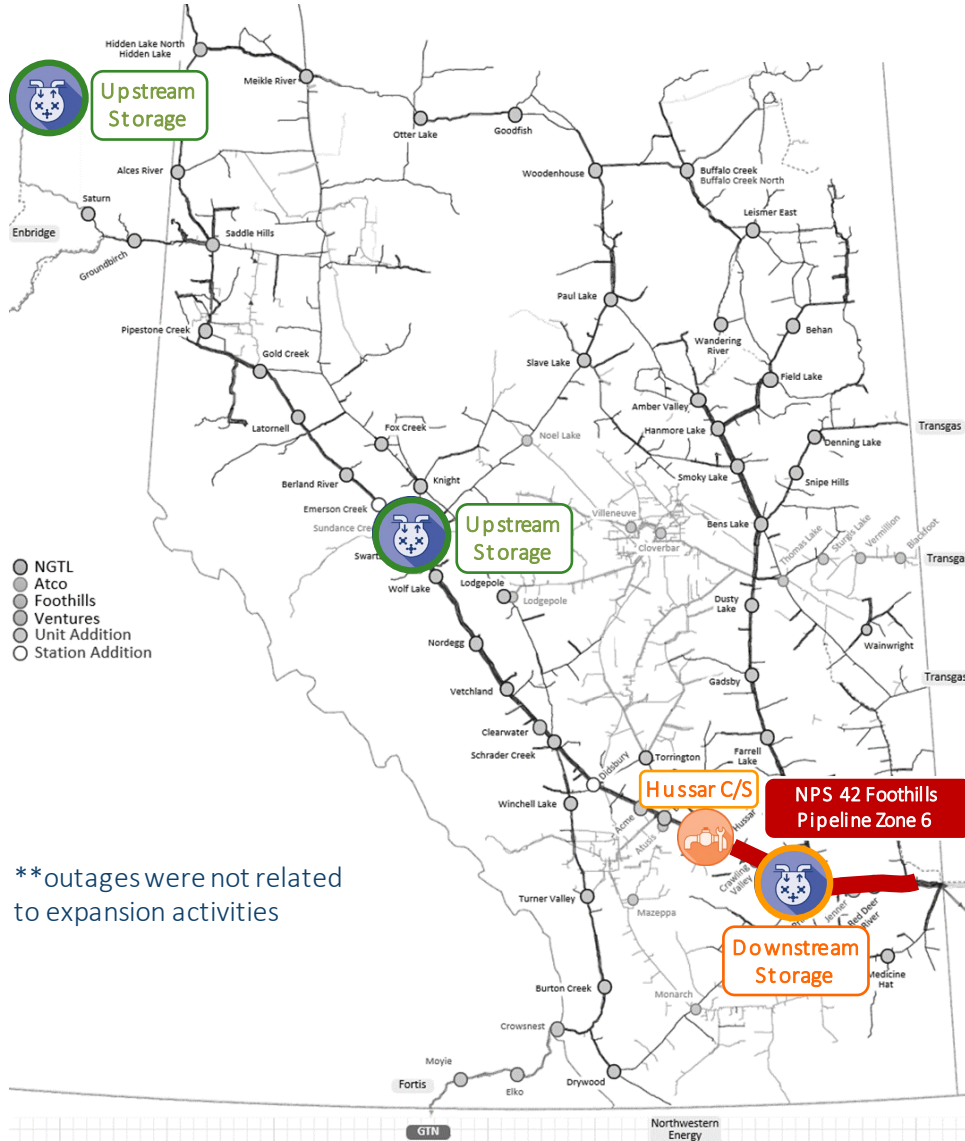
1. **Prioritize** availability of **firm service** – reduce IT availability first reducing flow to align with system capability
2. **Optimize throughput** – maximize system capability without incremental impact to FT availability



## Managing system constraints

- Outages are **necessary** to facilitate **safe execution of maintenance** program to ensure **safety and reliability** of the system
- When restrictions are required, NGTL **consistently applies** the guiding principles to manage system flow and align the flow with throughput capability at the constraint
- Each system constraint is **unique and assessed specifically** based on the location and facilities involved in the outage, system load factor, linepack, supply and demand distribution, and other applicable factors
- The same facility outage at **different times** may result in **different restrictions** (services, areas, magnitude or duration)

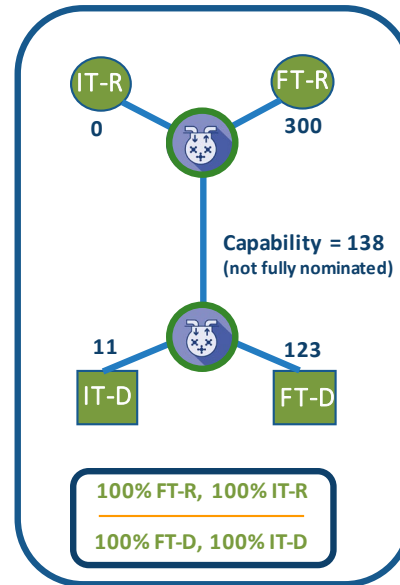
# 1. Review of July & August Outages | July 26 – August 2, 2021



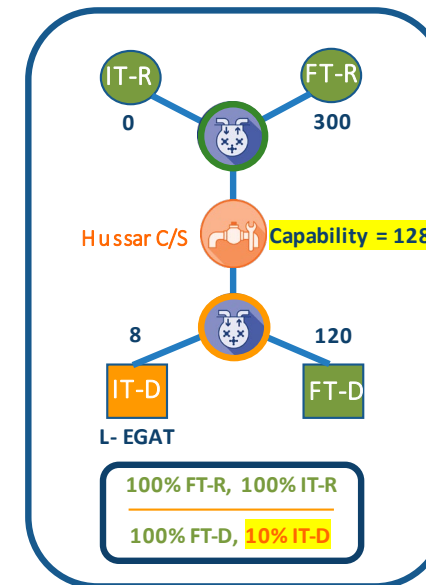
## NPS 42 Foothills Pipeline Zone 6 (July 26 – Aug 2)

- Inline inspection from Hussar C/S to Cavendish (bottleneck at Hussar C/S)
- July 22 – Communicated Lower EGAT IT-D Restriction for July 26
- July 27 – Capability updated from 128 10<sup>6</sup>m<sup>3</sup>/d to 127 10<sup>6</sup>m<sup>3</sup>/d

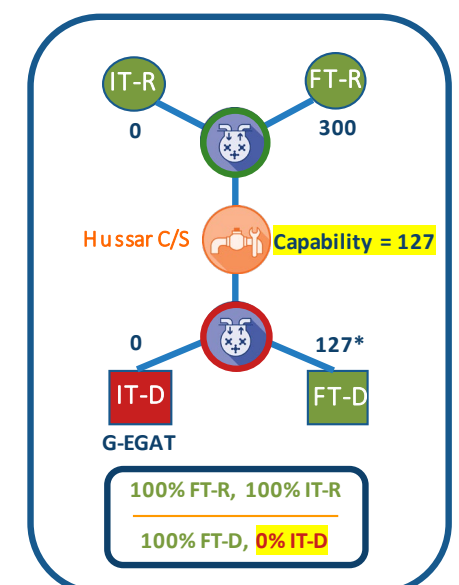
Before outage



July 26 - 27

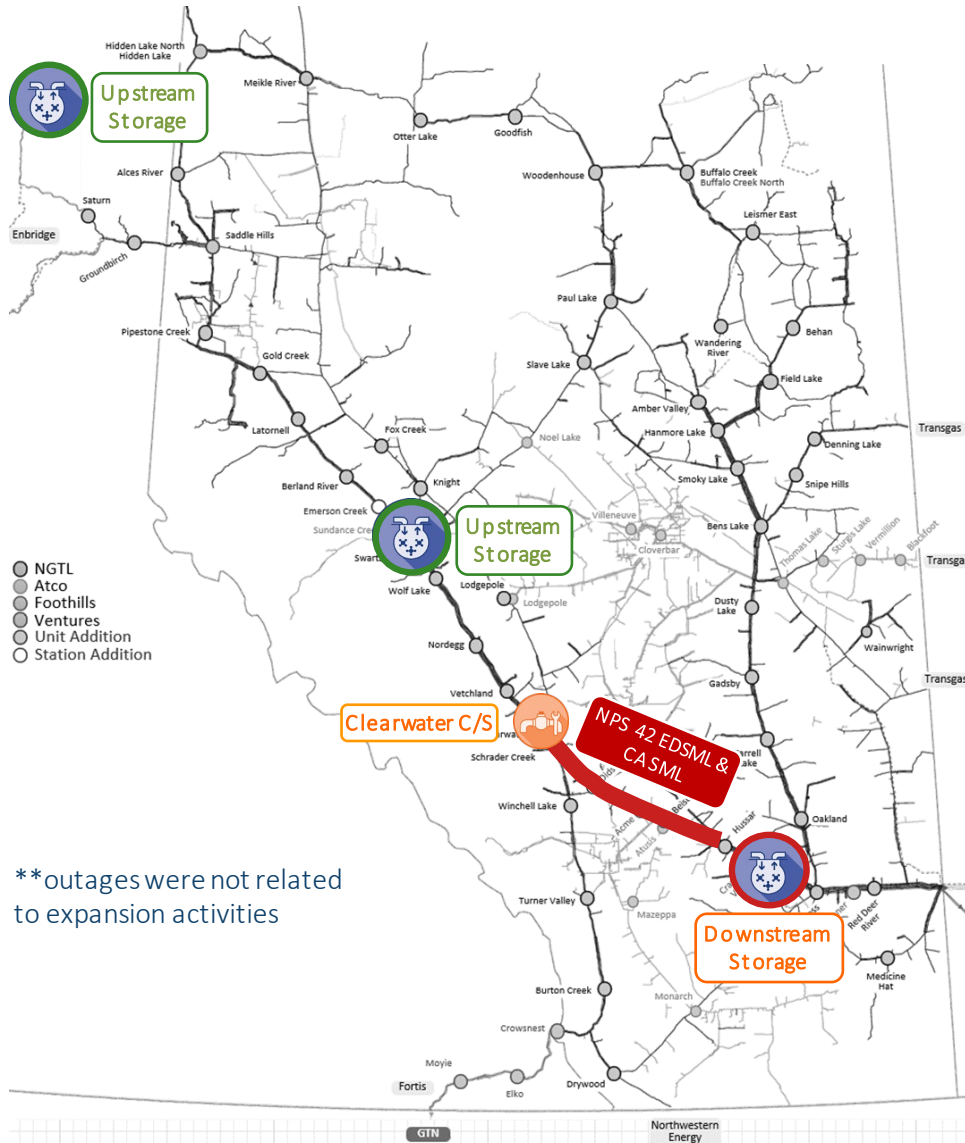


July 28 – Aug 2



\*100% FT-D Utilization Assumption

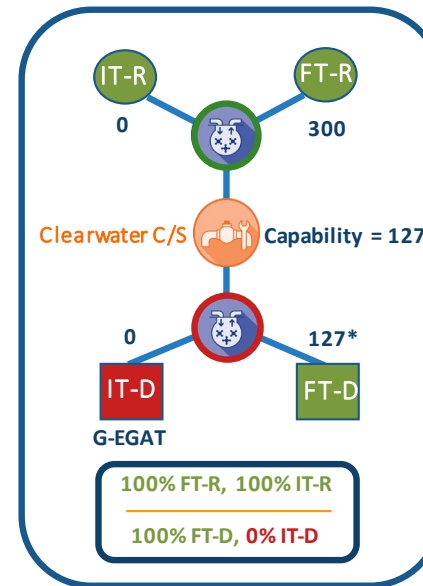
# 1. Review of July & August Outages | August 3 – 9, 2021



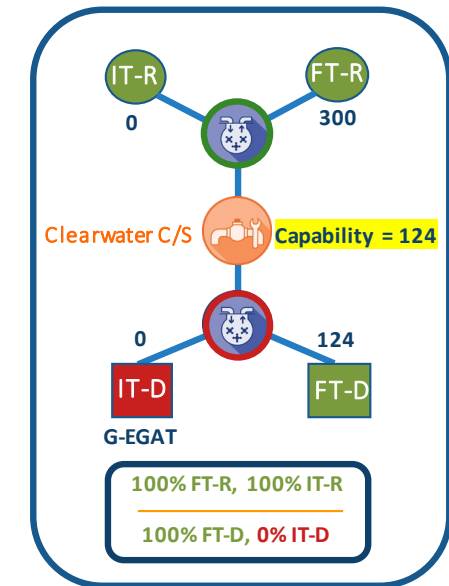
## NPS 42 Edson & Central Alberta Mainline Loop (Aug 3 – 16)

- Inline inspection - Clearwater C/S to Hussar C/S (bottleneck at Clearwater C/S)
- July 27 – Communicated Greater EGAT 0% IT-D remains in effect
- August 5 – Capability updated from 127  $10^6\text{m}^3/\text{d}$  to 124  $10^6\text{m}^3/\text{d}$

August 3 - 4

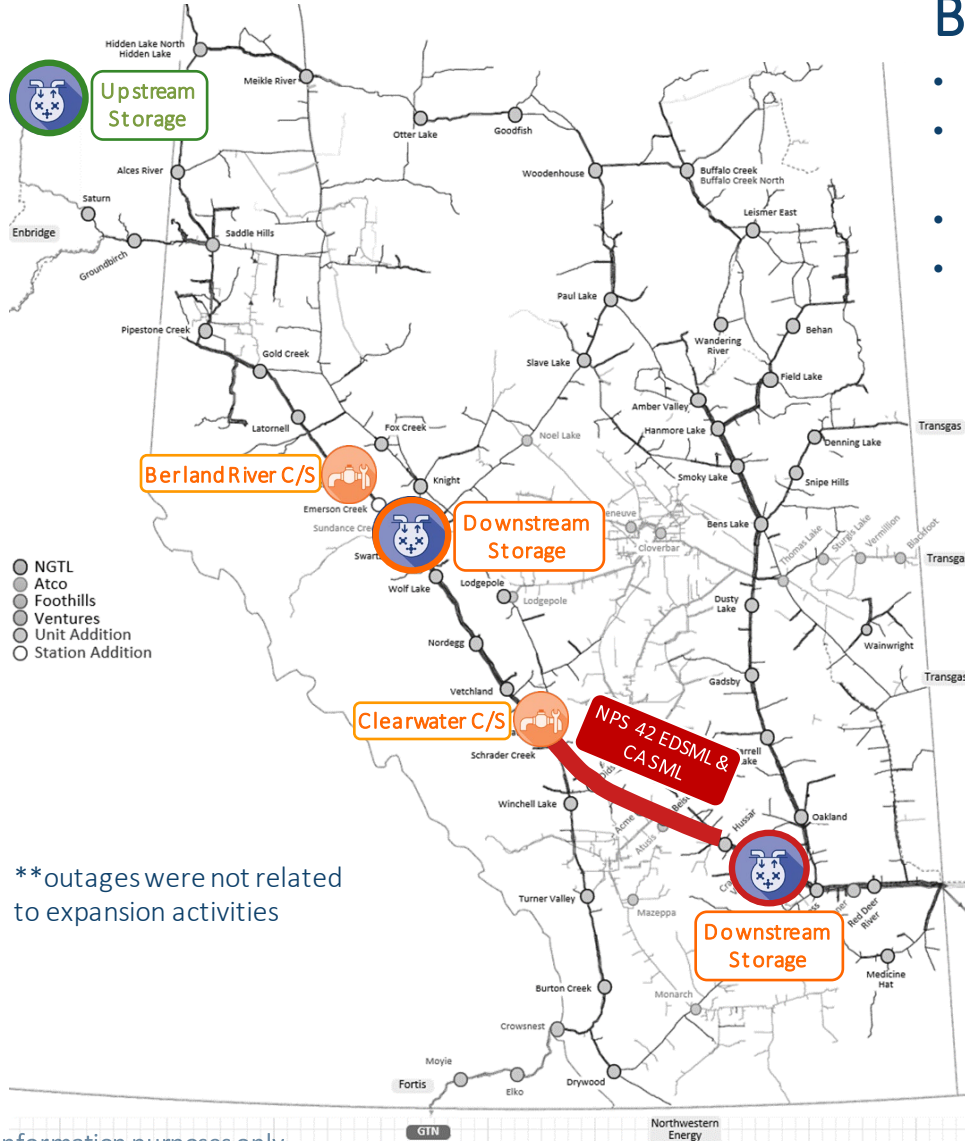


August 5 - 9



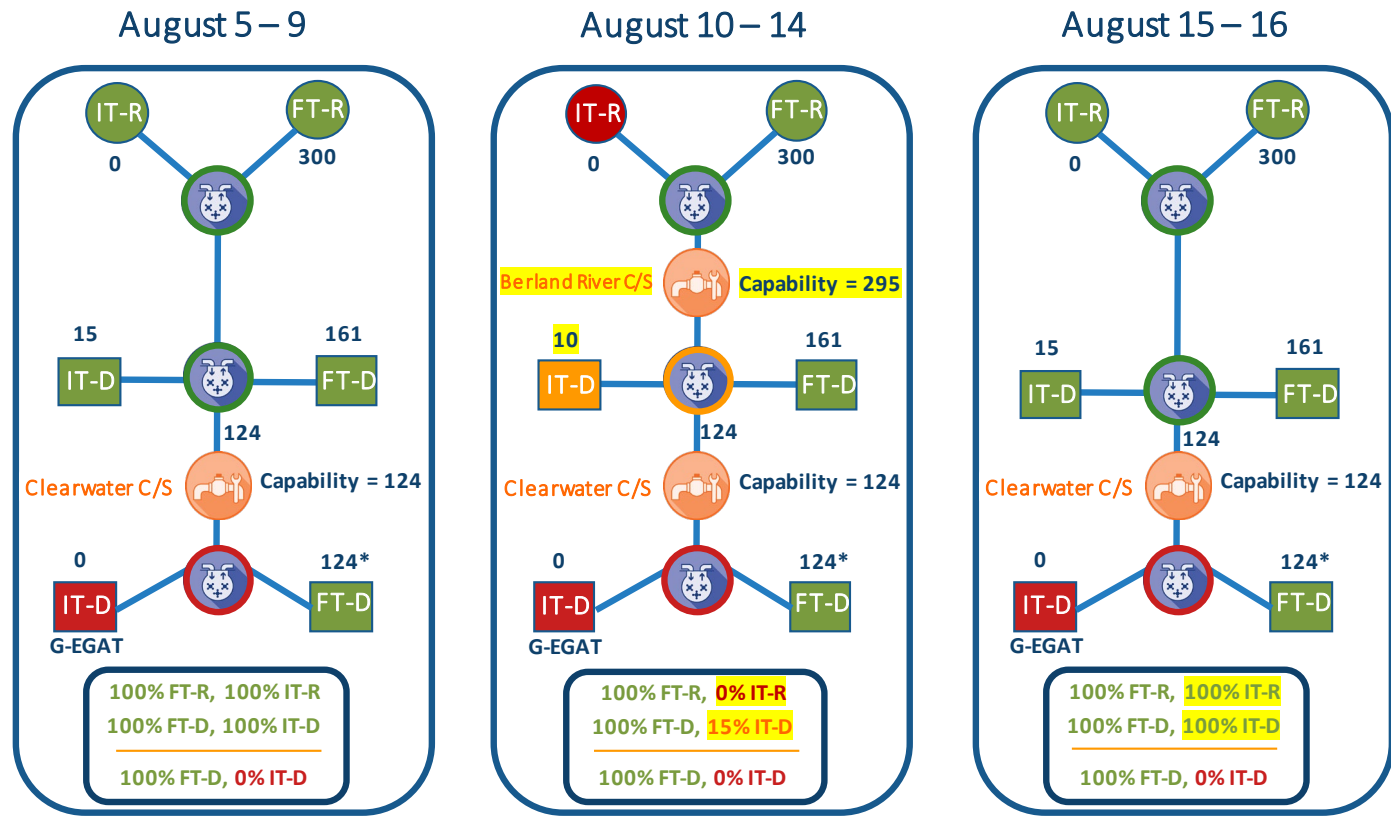
\*100% FT-D Utilization Assumption

# 1. Review of July & August Outages | August 10 – 16, 2021

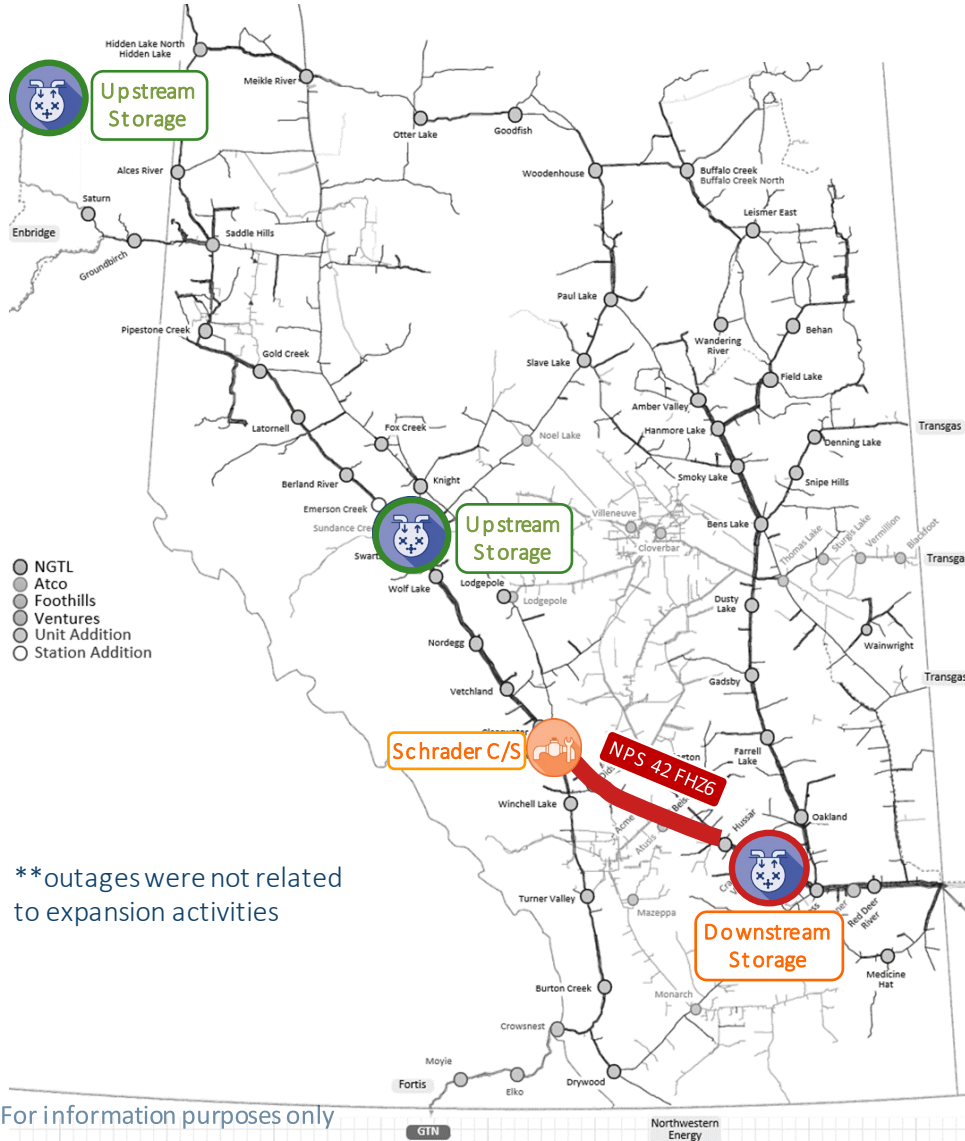


## Berland River Compressor Station Maintenance (Aug 10 – 14)

- Combined outages - NPS 42 Edson & Central Alberta Mainline Loop (Aug 3 – 16) & Berland River C/S (Aug 10 – 14)
  - August 6 – Advisory bulletin of risk to USJR IT-D Downstream of Berland C/S
    - Outage start date updated from August 9 to August 10
- August 9 – Communicated partial IT-D USJR downstream Berland & 0% IT-R upstream Berland
- August 14 – USJR IT-D downstream Berland & 0% IT-R upstream Berland restrictions lifted at 21:00 MST

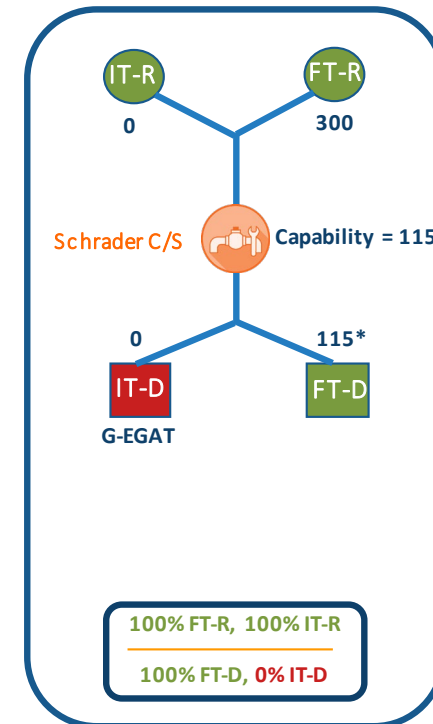


# 1. Review of July & August Outages | August 17 – 24, 2021



## NPS 42 Foothills Zone 6 Pipeline Maintenance (Aug 17 – 24)

- Inline inspection from Schrader C/S to Hussar C/S (bottleneck at Schrader C/S)
- July 27 – Communicated Greater EGAT 0% IT-D remains in effect

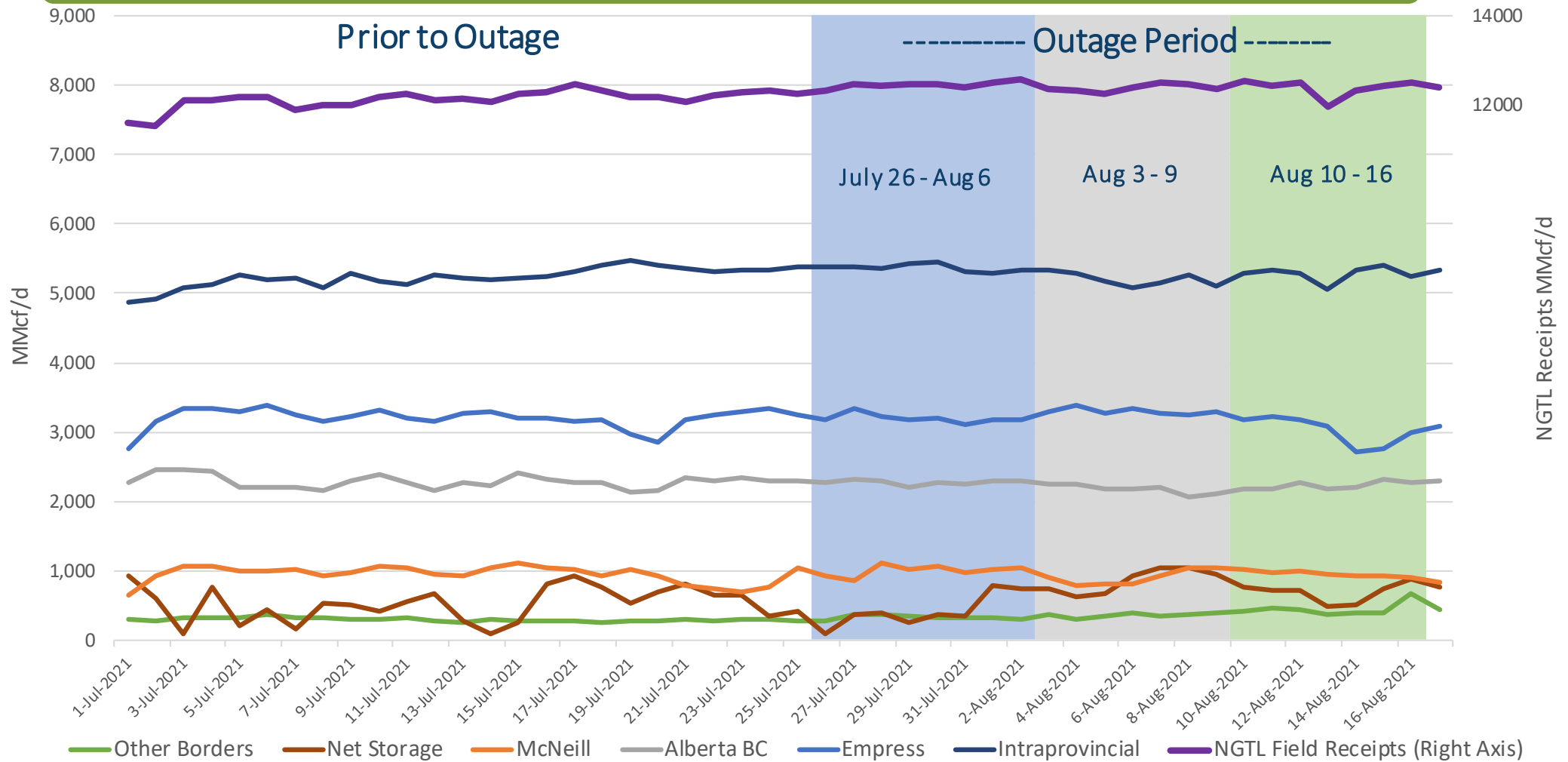


\*100% FT-D Utilization Assumption



# 1. Review of July & August Outages | NGTL Flows Before/During Outages

*NGTL flows before and during the outage remained relatively unchanged*



# 1. Review of July & August Outages | Summary

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Multiple outages resulted in changing geographic bottlenecks on the system

- Berland River Compressor Station outage resulted in **Broad Area Restriction**
- NPS 42 Edson & Central Alberta Mainline Loop, and both NPS 42 Foothills Zone 6 outages resulted in **Local Area Restrictions**
- Every outage is unique, and restrictions will be applied based on guiding principles



Service availability adjusted based on Guiding Principles to manage flows through bottlenecks

1. Prioritize Firm Service
2. Optimize throughput



Communicated outages and impacts via:

- Daily Operating Plan updates
- Customer Operations Meetings
- Advisory Bulletins
- NGTL System Dashboard
- Service Bulletins

## 2. Utilization of FT-Transfers to Storage, as of August 19, 2021

Since implementation of the Transfers to Storage pilot on April 1, 2021

### In the contracting system



- 93 requests submitted to contracting system
- 2 in May, 1 in June, 10 in July, **80** in August
- 92 approved, 1 denied
- Minimum request 100 GJ/d, maximum request 80 TJ/d, average 16 TJ/d

### 6 additional pre-evaluation inquiries



- (2) hydraulically positive, (3) hydraulically negative and (1) crossing restricted area boundary



Minimum duration 1 day,  
maximum duration 31 days,  
average 2.4 days



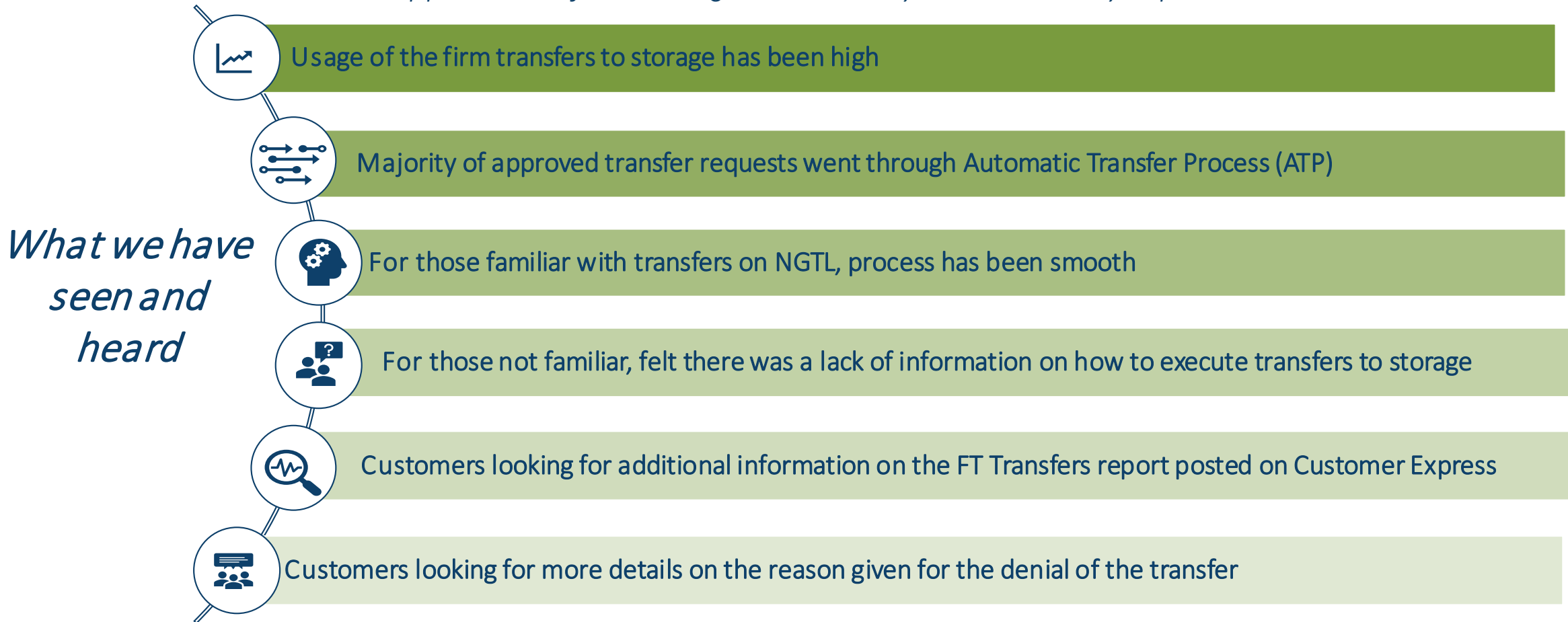
Total aggregate FT  
transferred to storage to  
date 2.6 PJ



11 requesting parties

### 3. Share NGTL learnings and feedback from customers

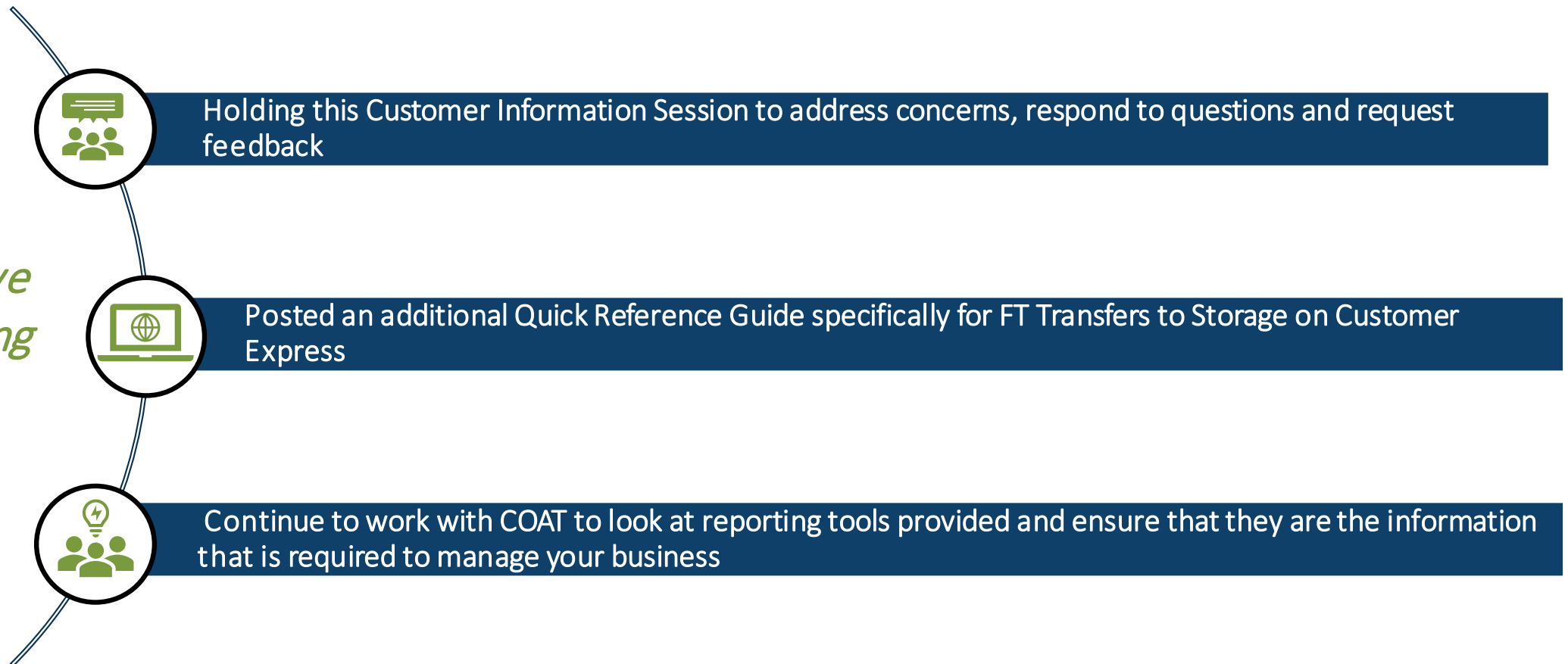
*Firm Transfers to Storage is a **Pilot program**; we anticipate growing pains like any other pilot, but we also see opportunities for learning and the ability to continuously improve.*



### 3. Share NGTL learnings and feedback from customers

*As committed during the Access to Storage Task Force, NGTL is open to suggestions during the review period of the Pilot and will report back to the TTFP on various aspects of the Pilot by May 2022*

*What are we  
doing moving  
forward*





**Optional Education Session:**  
How 'FT-Transfers to Storage' works

## 4. How 'FT-Transfers to Storage' works | Agenda

- 1 Definitions
- 2 Key Eligibility Criteria
- 3 Simplified Process
- 4 System Impact of Transfer Hydraulics and Examples
- 5 Requesting an 'FT-Transfer to Storage' in the Dovetail System

## 4. How 'FT-Transfers to Storage' works | Definitions

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- **FT-R Transfer** – from a receipt station to storage for withdrawal
- **FT-D Transfer** – from a delivery station to storage for injection (Excludes FT-D3)
- **Out & Back Transfer** – two transfers submitted and processed as a pair
  - The “out” transfer goes from location A to a storage location, and is hydraulically neutral or positive
  - The “back” transfer is a future dated transfer from a storage location to location A within a 40-day window
- **Automated Transfer Process (ATP)** – existing functionality that can be utilized to automatically approve transfers that meet the automation criteria
- **Effective Gas Day** – gas day on which FT-Transfer to Storage is effective



## 4. How 'FT-Transfers to Storage' works | Key Eligibility Criteria

### Transfers

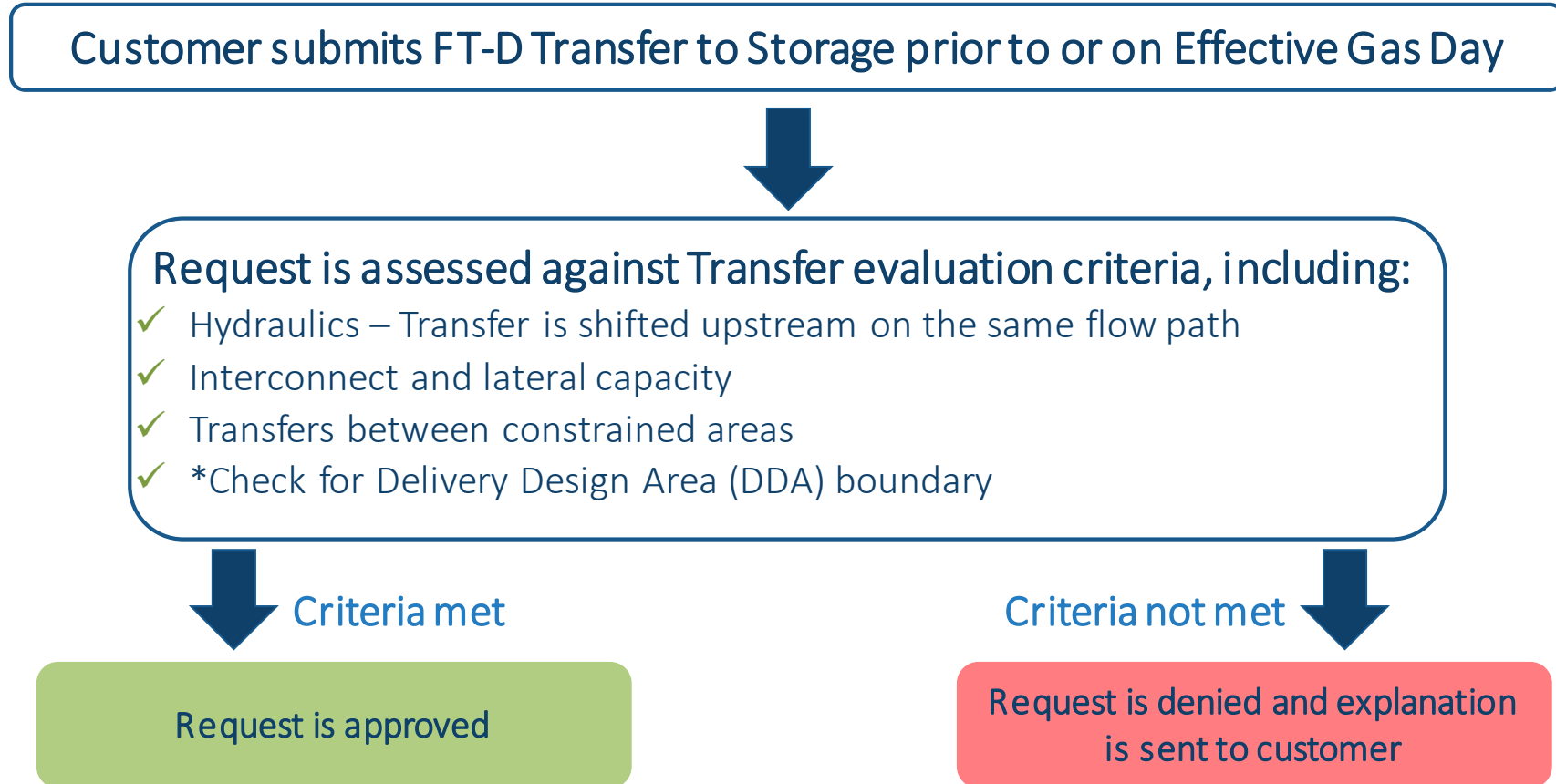
- Service must be in secondary term
- Requests may be submitted up to 39 days in advance of, and including, the requested Effective Gas Day
- Existing capacity must be sufficient to accommodate the request
- Transfers must be hydraulically neutral or positive for acceptance with some exceptions

### Additional Criteria for FT-Transfers to Storage

- Only available on an Out & Back basis, One-way transfers are not permitted
- Only applicable to FT-R, FT-D1 and FT-D2 service holders
- FT Transfers to Storage are only available at storage locations that qualify for IT-S service
- All transfers must be hydraulically neutral or positive for acceptance

For complete eligibility criteria, review '[NGTL FT-Transfers to Storage Procedure](#)' by clicking [HERE](#)

## 4. How 'FT-Transfers to Storage' works | Simplified Process

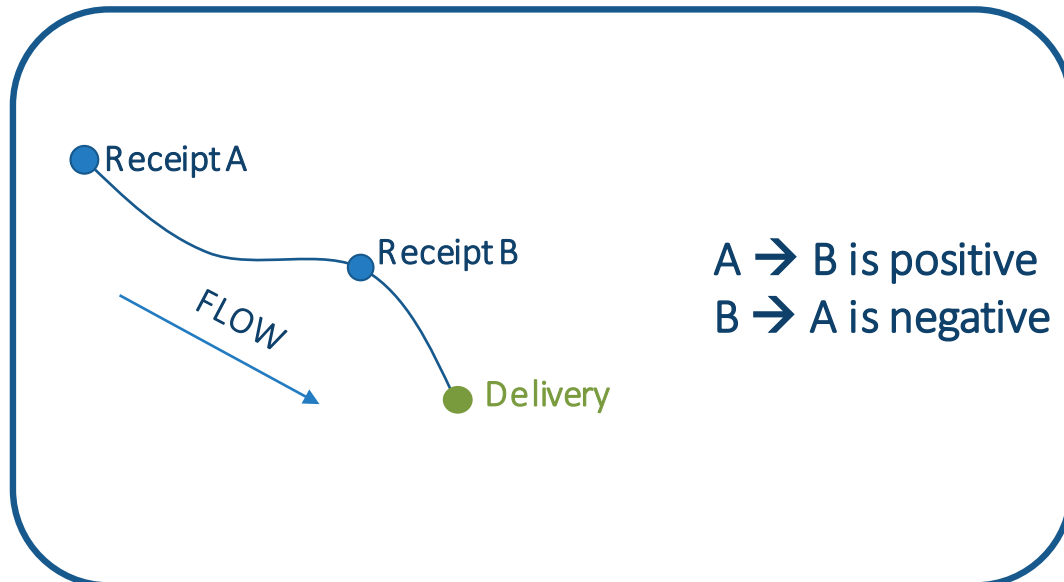


### Note:

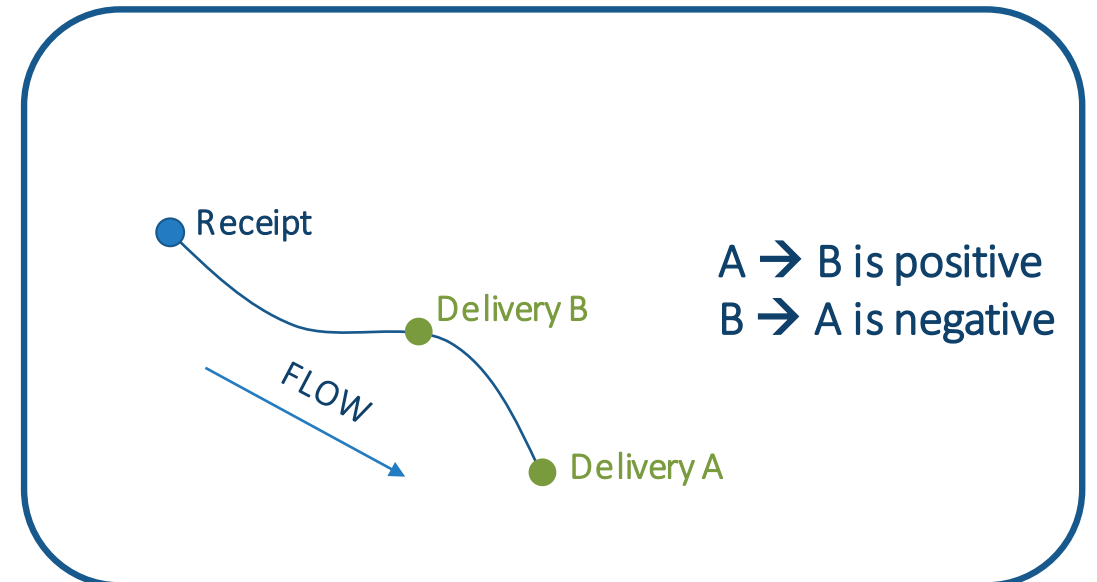
- A request that is approved will be allowed to return to its Home Location at any time, subject to Availability at Home Location
- Transferred to Storage contracts approved as per this process will have same priority of service as other firm services during planned/unplanned interruptions
- \*Customers requesting FT-Transfers to Storage that cross DDA boundaries will be warned that 6 years of term will be added to the contracts involved in the transfer

## 4. How 'FT-Transfers to Storage' works | System Impact of Transfer Hydraulics

### Receipt Transfer System Impact

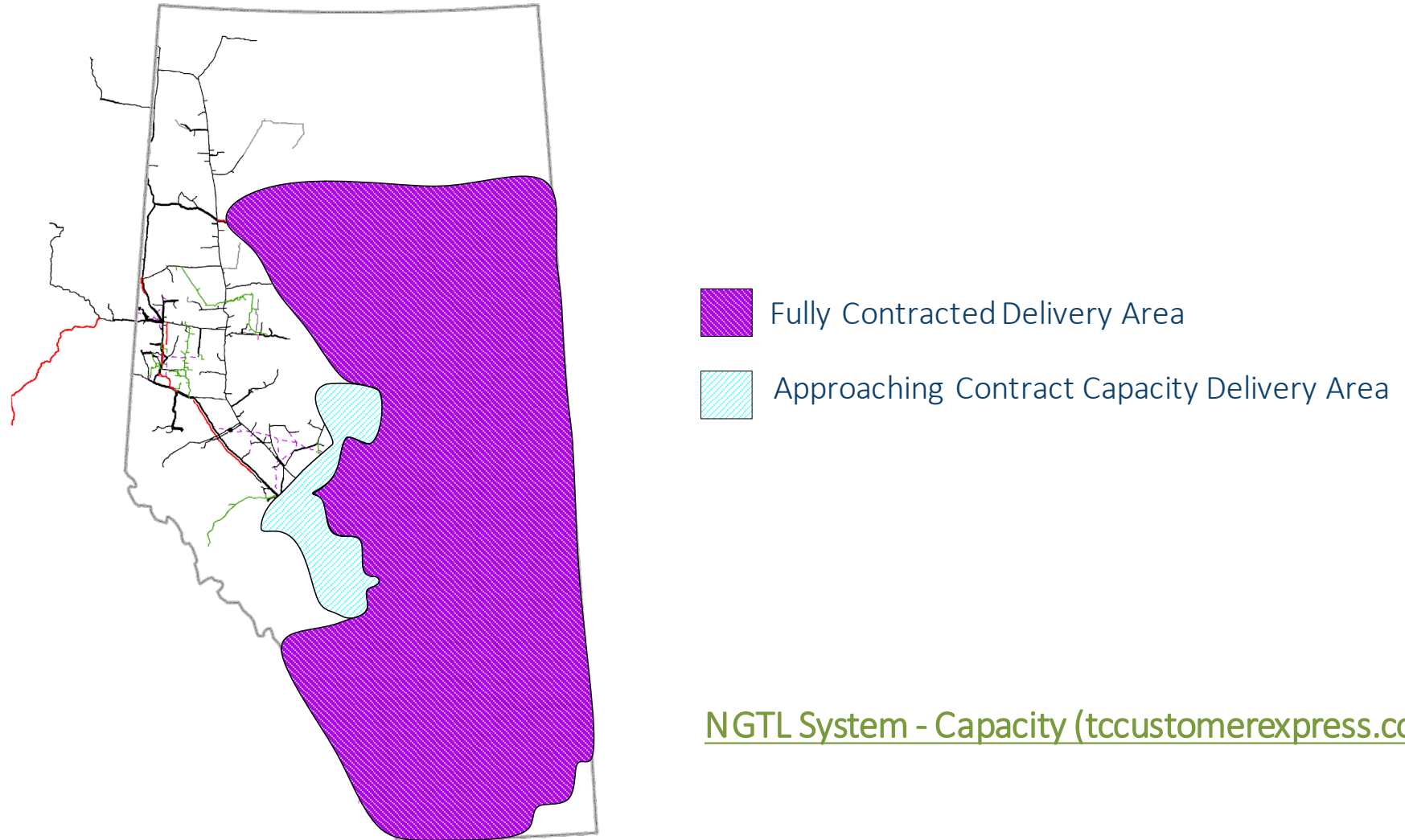


### Delivery Transfer System Impact



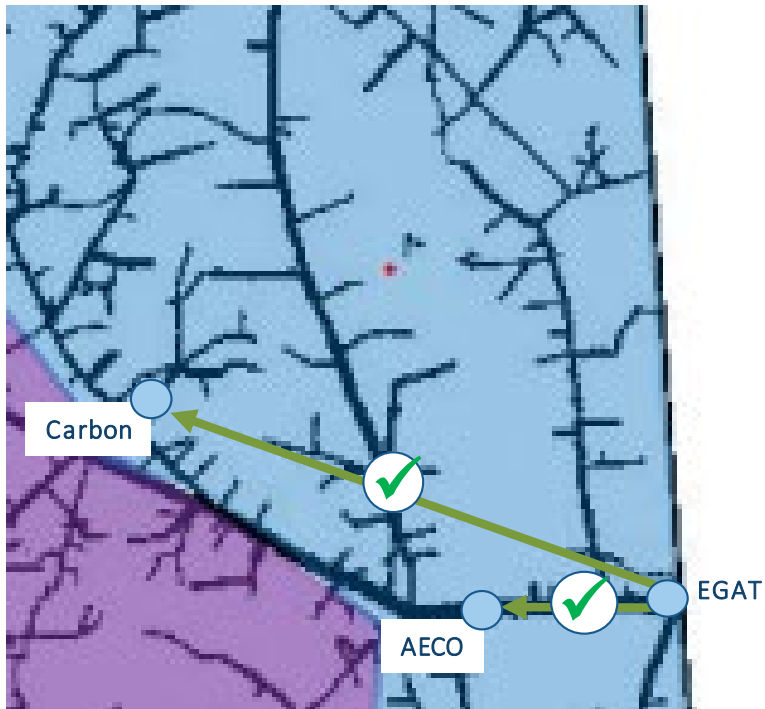
## 4. How 'FT-Transfers to Storage' works | Transfer Practices in Fully Contracted Areas

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## 4. How 'FT-Transfers to Storage' works | Delivery Examples

### SE Delivery Design Area



### Upstream Transfer to Storage in EGAT area

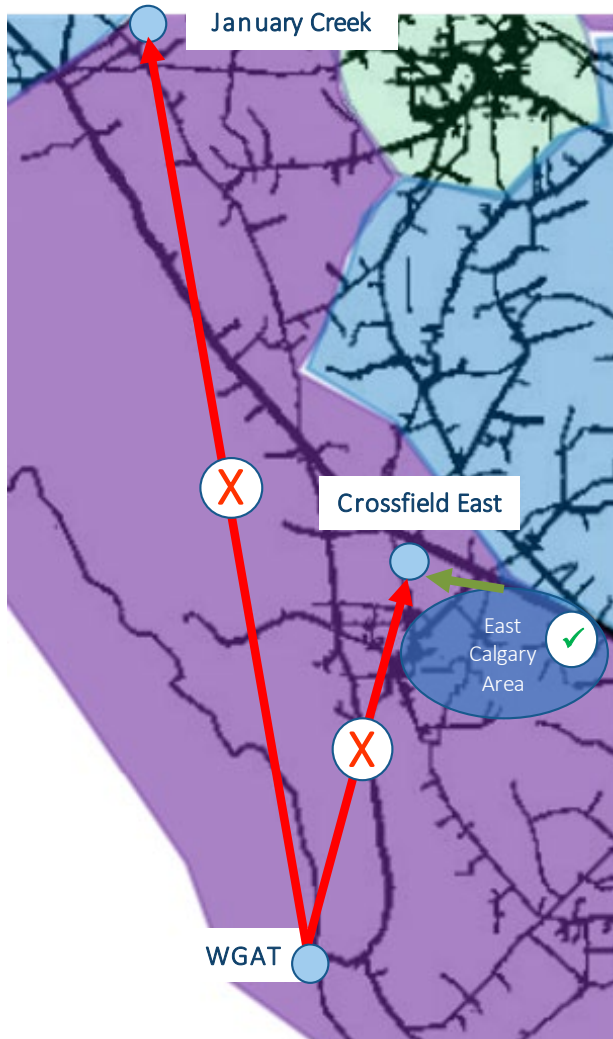
FT-D 100 units **upstream** to storage  
Within Design Delivery Area  
**Hydraulically positive**  
Sufficient meter capacity

Request is approved

*>95% of FT Transfer to Storage requests received to date*

# 4. How 'FT-Transfers to Storage' works | Delivery Examples

## SW Delivery Design Area



## Pre-evaluation request examples

### Upstream Transfer WGAT to January Creek

FT-D 100 units **upstream** to storage  
Within Design Delivery Area  
**Service transferred out of Fully Contracted Delivery Area is not permitted to return**  
(in fairness to customers awaiting availability within the area)  
Hydraulically positive  
Sufficient meter capacity  
Request is **not approved**

### Downstream Transfer WGAT to Crossfield East

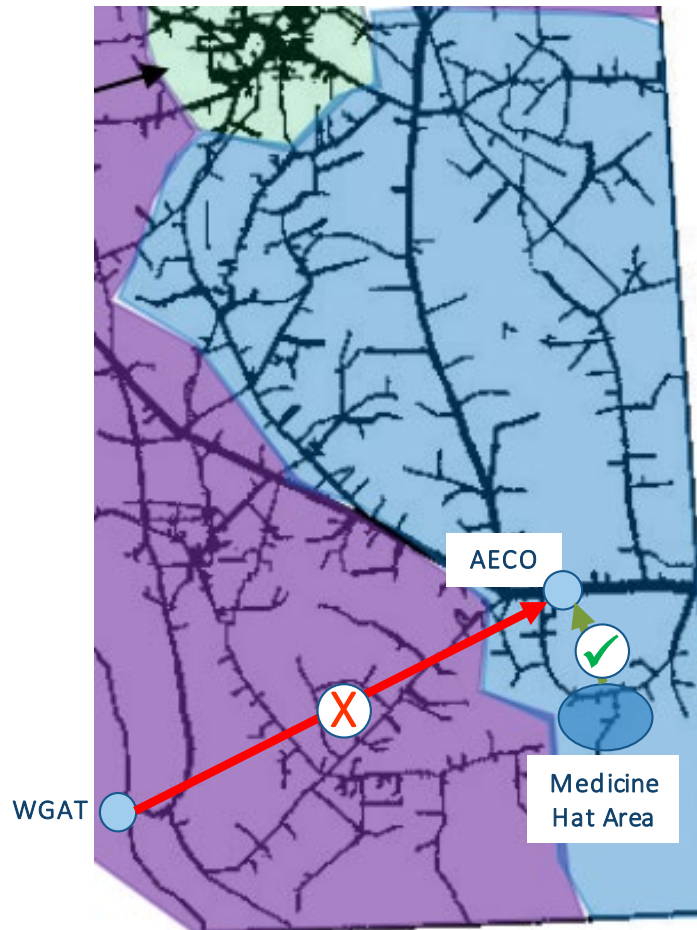
FT-D 100 units **downstream** to storage  
Within Design Delivery Area  
**Hydraulically negative**  
Sufficient meter capacity  
Request is **not approved**

### Upstream Transfer East Calgary Area to Crossfield East

FT-D 100 units **upstream** to storage  
Within Design Delivery Area  
**Hydraulically positive**  
Sufficient meter capacity  
Request is **approved**

# 4. How 'FT-Transfers to Storage' works | Delivery Examples

## SW & SE Delivery Design Areas



### Pre-evaluation request examples

#### Downstream Transfer WGAT to AECO

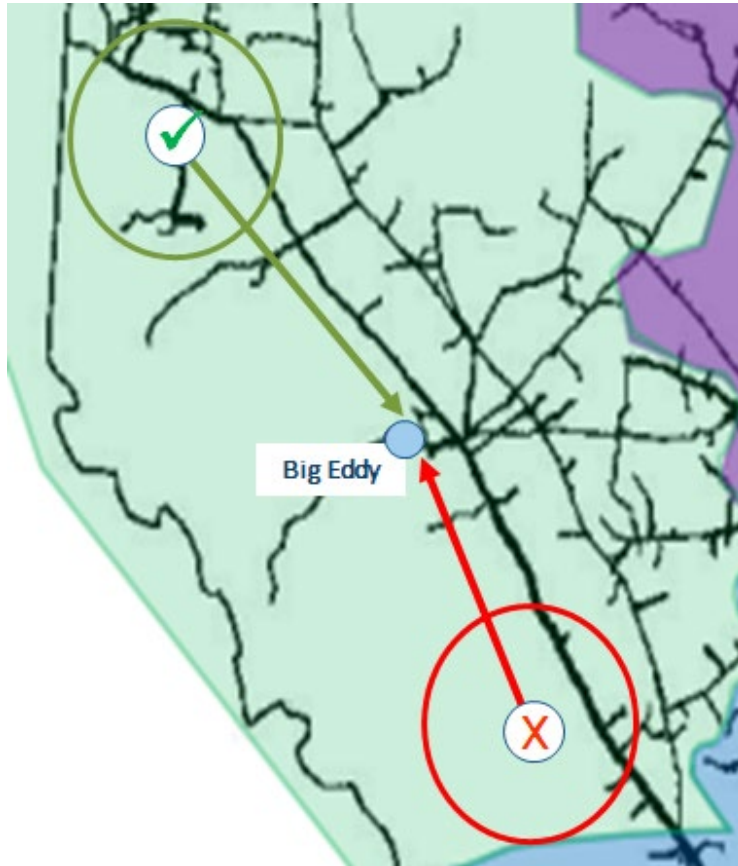
FT-D 100 units **downstream** to storage  
Not within Design Delivery Area  
**Hydraulically negative**  
Sufficient meter capacity  
Request is not approved

#### Neutral Transfer Medicine Hat Area to AECO

FT-D 100 units **upstream/neutral** to storage  
Within Design Delivery Area  
**Hydraulically neutral**  
Sufficient meter capacity  
Request is approved

## 4. How 'FT-Transfers to Storage' works | Receipt Examples

### Peace River Project Area



#### Downstream Transfer to Big Eddy

FT-R 100 units **downstream** to storage  
Within Project Area  
**Hydraulically positive**  
Sufficient meter capacity

Request is approved

#### Upstream Transfer to Big Eddy

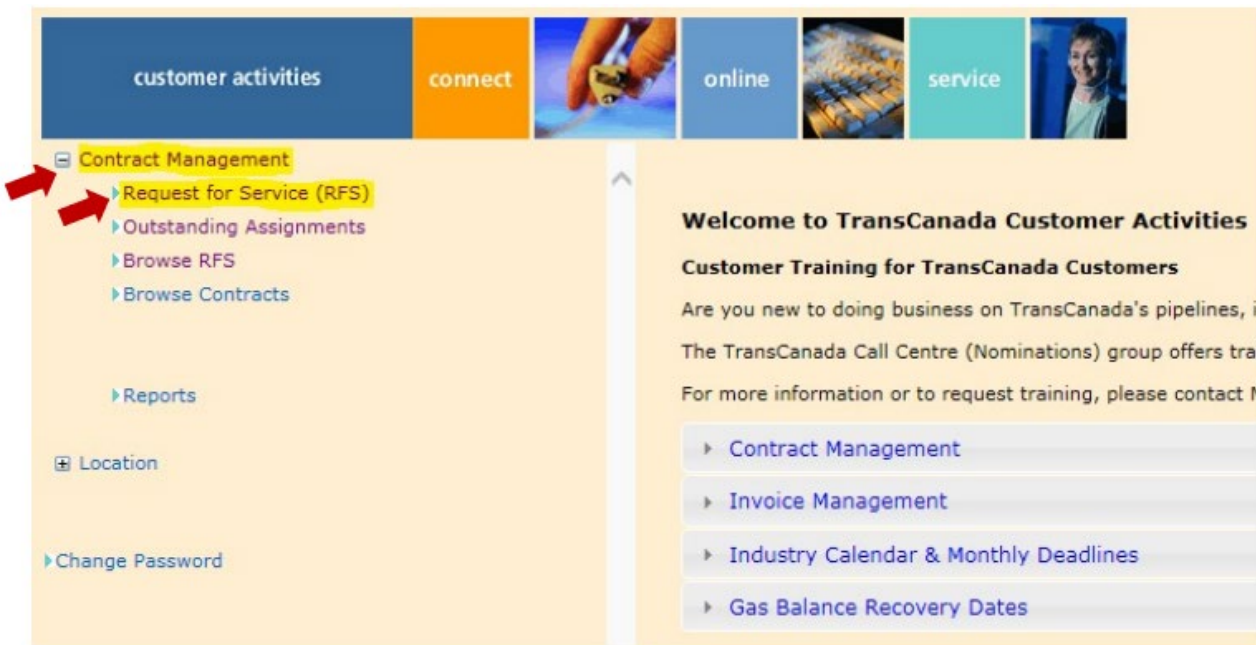
FT-R 100 units **upstream** to storage  
Within Project Area  
**Hydraulically negative**  
Sufficient meter capacity

Request is not approved



# 4. How 'FT-Transfers to Storage' works | Requesting an Out/Back Transfer to Storage

1 In Customer Activities, select Contract Management followed by "Request for Service"



2 Select relevant firm service type under Out/Back Transfer



# 4. How 'FT-Transfers to Storage' works | Requesting an Out/Back Transfer to Storage

## 3 Input transfer information and select 'Find Eligible Contracts'

*Email Address Option – all notifications for this request will be sent to this email in addition to primary contract contact.*

**Request for Service: Out/Back Firm Transportation Receipt Transfer**

SERVICE REQUESTER: TS01  
SERVICE PROVIDER: NOVA Gas Transmission Ltd.  
START DATE: 2017-Sep-01  
BACK START DATE: 2017-Oct-01  
FROM LOCATION: 1624 - CONKLIN (CONKL) 0001624  
TO LOCATION: 1634 - CONKLIN WEST (CONKW) 0001634  
TRANSFER QUANTITY: 0.1 e3m3/day  
EMAIL ADDRESS: ngtl\_contracting@transcanada.com  
SELECTED AMOUNT TYPE:  
 Full request on selected contract  Not to Exceed request on selected contract  
 Retain request on selected contract  Minimum Available

**\*Note: Should you fill in the email then all notifications for this request will be sent to this email address.**

**FIND ELIGIBLE CONTRACTS** CANCEL

## 4 Select contract(s) and quantity

**Request for Service: Out/Back Firm Transportation Receipt Transfer**

VALIDATE **SUBMIT** CANCEL

SERVICE REQUESTER: TS01  
SERVICE PROVIDER: NOVA Gas Transmission Ltd.  
START DATE: 2017-Sep-01  
BACK START DATE: 2017-Oct-01  
FROM LOCATION: CONKLIN  
TO LOCATION: CONKLIN WEST  
TRANSFER QUANTITY: 0.1 e3m3/day  
EMAIL ADDRESS: ngtl\_contracting@transcanada.com  
LETTER DATE:  
RECEIVED DATE/TIME: 2017-Aug-04 15:38:19  
SELECTED AMOUNT TYPE: Not to Exceed request on selected contract  
CONTRACT STATUS: Billable

**CONTRACTS ELIGIBLE FOR TRANSFER**

Select all	Contract #	Contract End Date	Transferred Quantity	Eligible Quantity	Billing Start Date	Billing End Date	Price Point
<input checked="" type="checkbox"/>	2017901539	2020-Jul-31	0.1	e3m3/day 100.0 e3m3/day	2017-Sep-01	2020-Jul-31	B
		<b>Total</b>	0.1				

## 4. How 'FT-Transfers to Storage' works | Requesting an Out/Back Transfer to Storage

- 5 Click 'Submit' to complete the request. A summary is displayed and request is sent to NGTL for evaluation

**Summary of Submitted Request: Firm Transportation Receipt Transfer**

**REQUEST INFORMATION**

AGREEMENT TYPE:	Firm Transportation Receipt	REQUEST TYPE:	Transfer
REQUEST NUMBER:	R2017520417	SERVICE PROVIDER:	NOVA Gas Transmission Ltd.
SERVICE REQUESTER:	Test 1 Customer	REQUEST START DATE:	2017-Sep-01
APPROVAL DATE:		REQUEST END DATE:	
STATUS:	In Progress	ACTUAL START DATE:	
RECEIVED DATE TIME:	2017-Aug-04 16:19:15		
REQUEST OWNER:	Eddie Johnson		
LETTER DATE:	2017-Aug-04		
CANCEL DATE TIME:			
CANCEL REASON:		IS ONLINE PRE-APPROVED:	Yes
CANCELLED DECISION SUMMARY NUMBER:		STARTED AS PREAPPROVED:	Yes
LOCATION(S):	1634:CONKLIN WEST	REQUEST SECONDARY START DATE:	
LOCATION MODIFICATION NOTES:		PROJECT RELATED:	No
IS QUEUED:	No	SELECTED CAVEATS:	No
TRANSFER FROM LOCATION:	1624:CONKLIN		

**REQUEST QUANTITIES**

Quantity Type	Quantity	Start Date	End Date	Location/Quantity Type
Demand	0.1 e3m3/day	2017-Sep-01	9999-Dec-31	Demand

**Note:** 'FT-Transfers to Storage' requests that want to use volumes from temporary assignments that are less than 40 days and will last the entire duration of the assignment, must be entered into the system by the NGTL Contracting team. If these criteria fit your transfer request, please contact [ngtl\\_contracting@tcenergy.com](mailto:ngtl_contracting@tcenergy.com)

## 4. How 'FT-Transfers to Storage' works | Additional Self-Serve Contracting Resources

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- In addition to transfers to storage customers have access to self serve capabilities for the following contracting transactions through our [NRG Dovetail Contracting system](#) and procedures to assist customers with these transactions can be found on our [NGTL Customer Activities page](#) in the 'Procedures' section
- Self serve capability available for:
  - One-Way Transfers
  - Out/Back Transfers
  - Temporary Assignments
  - Early Reversion of Temporary Assignments
  - Permanent Assignments
  - Consolidations
  - Renewals
  - Cancellations of In-Progress Requests

These transactions may be approved outside of regular business hours, provided that *further review or analysis of the transaction is not required.*

Transfer to storage instructions specifically can be found [here](#)

Please contact [ngtl\\_contracting@tcenergy.com](mailto:ngtl_contracting@tcenergy.com) if further assistance is required

# Contacts

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