



NGTL System and Foothills Pipelines Ltd.

CUSTOMER OPERATIONS MEETING

FOR INFORMATIONAL PURPOSES ONLY



NOVEMBER 7, 2024



Welcome and Thank You for Joining Us

Participating via WebEx:

- Please sign-in through WebEx application including your full name and company
- To reduce background noise and improve audio quality, all WebEx participants will be placed on mute when entering the meeting
- Please submit your questions via using the raise hand function and coming off mute or the chat function and we will answer at the best possible opportunity



AI Safety Moment | AI Phishing

- **Standard Phishing vs. AI Phishing**
 - **Standard:** mass, generic communication
 - **AI:** Tailored towards individual recipients
- AI-generated phishes reduces spelling errors and poor grammar, which are big indicators of standard phishing emails

Ask yourself: Was I expecting this email? Is there a suspicious link I'm being asked to click? Is the email address legitimate?



Forward Looking Information

- ❖ This presentation includes certain forward-looking information. Statements that are forward-looking are based on certain assumptions and on what we know and expect today and generally include words like ‘anticipate’, ‘expect’, ‘believe’, ‘may’, ‘will’, ‘should’, ‘estimate’ or other similar words.
- ❖ The information provided is for informational purposes only and is not to be relied upon for any other purpose whatsoever. The information is based upon certain assumptions that may or may not be accurate, and therefore is subject to various risks and uncertainties. TC Energy shall not be liable for damages sustained as a result of any use or reliance on such information.
- ❖ The outages listed in this presentation are not an exhaustive list. Outage date, duration, and impact may be subject to change. Refer to the Daily Operating Plan (DOP) for all planned outages with potential service impact.

No
impact to FT

Refers to outage periods where FT impact is not expected

Potential
impact to FT

Refers to outage periods where there is potential of FT impact

Partial
impact to FT

Refers to outage periods where FT impact is expected

Important Notes



Outage information in this presentation may not be accurate beyond November 7, 2024



For current outage and capability information, please refer to the most recent Daily Operating Plan ([DOP](#)), the [Dashboard](#) and [bulletins](#)



This meeting covers broad operational and project-related topics that impact operations on the NGTL and Foothills systems. For information on focused Commercial, Operational and Regulatory topics, please contact your [Marketing Representative](#)



Agenda

1. Review of October Operations
2. Review of remaining 2024 DOP Outages
3. 2025 Operational Outlook
4. Plant Turnaround Information

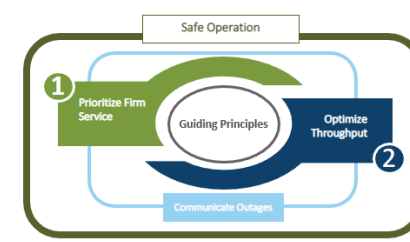


NOVEMBER 7, 2024

Review of October Operations



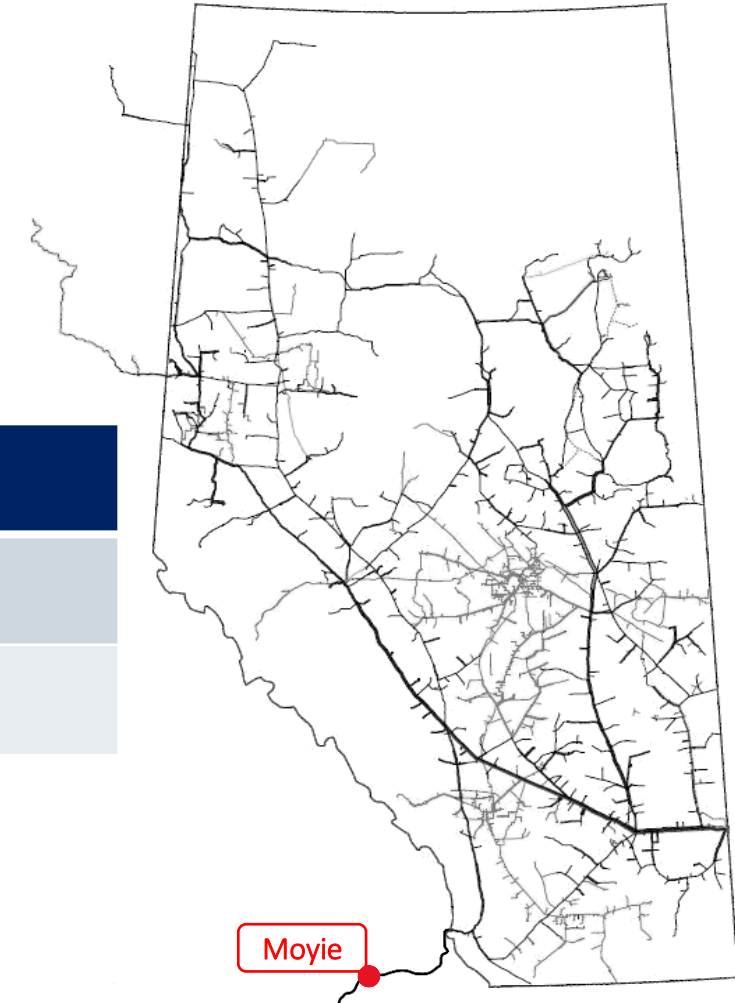
Moyie – Compressor Station Maintenance



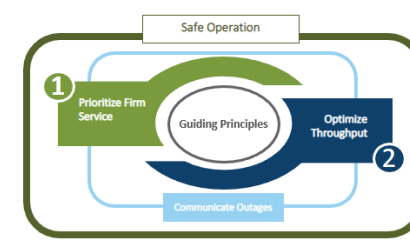
Background:

- **Planned:**
 - Moyie Compressor Station Maintenance: October 1 – 5
- **Capability communicated in DOP:**
 - FHBC: 62 10⁶m³/d
- **Service Allowable:**
 - FHBC: 0% IT, Partial FT

Bulletin Date	Effective Date	Service Allowable	Comments
Sept 26	Oct 1 (08:00 MST)	FHBC: 0% IT, Partial FT (62)	Bulletin issued for planned Moyie C/S outage
Oct 4	Oct 6 (08:00 MST)	FHBC: 100% IT, 100% FT	Outage on track and completed as scheduled

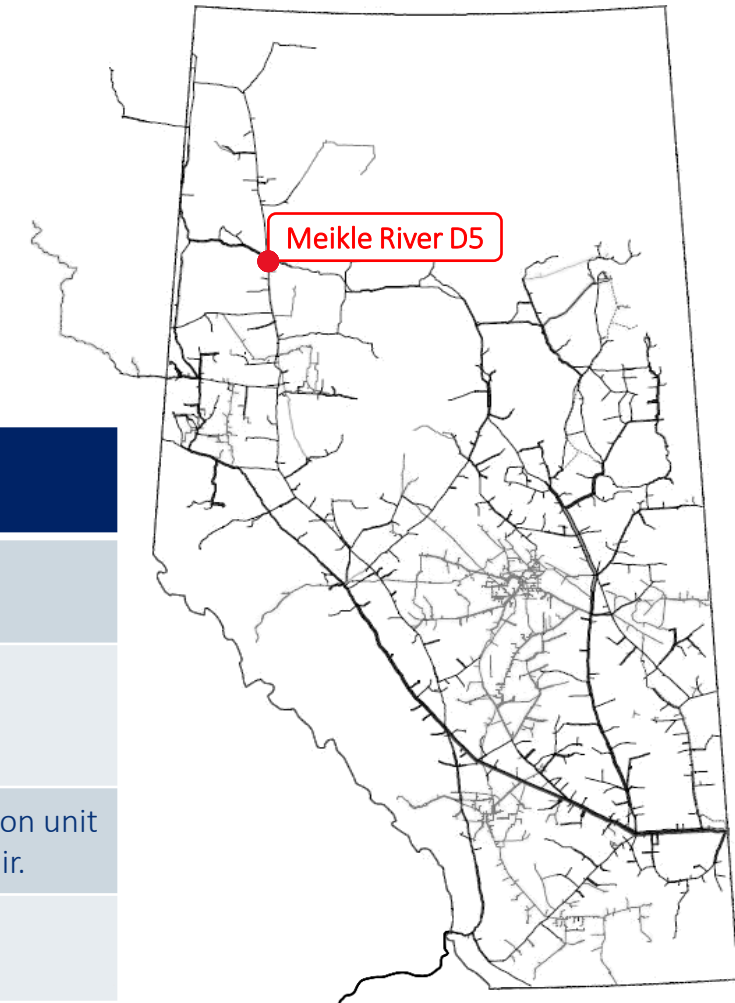


Meikle River D5 – Compressor Station Maintenance



Background:

- **Planned:**
 - Meikle River D5 Compressor Station Maintenance: October 14 – 16
 - Unplanned extension of the outage until October 29
- **Capability communicated in DOP:**
 - USJR: 359 10⁶m³/d
- **Service Allowable:**
 - USJR: 0% IT-R, 100% FT-R (Upstream of Latornell)



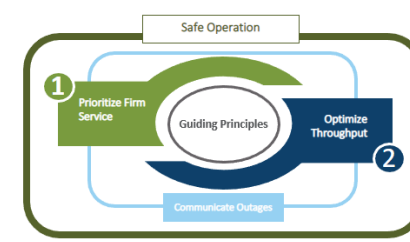
Bulletin Date	Effective Date	Service Allowable	Comments
	Oct 14	100% IT-R, 100% FT-R	Planned Meikle River D5 outage starts as scheduled
	Oct 15	100% IT-R, 100% FT-R	Planned Meikle River D5 outage ongoing; however, observed increase in USJR supply. Short term OBA assistance provided to safely operate the system.
Oct 16	Oct 17 (08:00)	0% IT-R, 100% FT-R (Upstream Latornell)	Planned Meikle River D5 inspection reveals damage on unit that requires unplanned extension of outage to repair.
Oct 28	Oct 29 (08:00 MST)	100% IT, 100% FT	Meikle River D5 outage on track to be completed



2024 Operational Outlook

(From DOP as of Wednesday, November 6)





2024 Operational Outlook

- Majority of impactful preventative maintenance outages for 2024 have been completed
- Three (3) potentially impactful outages remaining:

Upstream James River Receipt Area (USJR)

Outage Description	Start	End	USJR Outage Capability (10 ⁶ m ³ /d)	USJR Impact (10 ⁶ m ³ /d)	Area Outage Capability (10 ⁶ m ³ /d)	Outage Area Typical Flows (10 ⁶ m ³ /d)	Service Allowable Location/Area
Gold Creek B3 – Compressor Station Maintenance	4-Nov-24	8-Nov-24	370	7	275	250 - 265	Potential impact to FT-R USJR U/S Berland River
Latornell – Compressor Station Maintenance	18-Nov-24	20-Nov-24	370	7	275	250 - 265	Potential impact to FT-R USJR U/S Berland River
Latornell A2 – Compressor Station Maintenance	18-Nov-24	22-Nov-24	371	6	276	250 - 265	Potential impact to FT-R USJR U/S Berland River

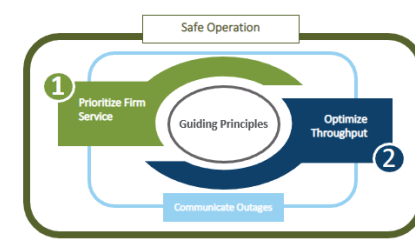
Winter preparedness discussions and activities are underway to maximize reliability of our facilities and minimize impacts for the upcoming winter season



2025 Operational Outlook

(From DOP as of Wednesday, November 6)





2025 Operational Outlook | Highlights

- The number of outages scheduled to be executed in 2025 is of similar magnitude to previous years
- Outages expected to have the most significant impact to system capability have been added to the DOP
 - The number of 'significant' outages communicated for 2025 is less than previous years due to expansion facilities that were placed into service over the past few years
 - Start and End Dates, Durations, Capability, Area of Impact may be revised as new information becomes available
- EGAT capability is not expected to be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area.
- Upstream FT-R restrictions to manage USJR outages could become more frequent due to:
 - Expected supply distribution
 - USJR bottleneck migrating north following in-service of recent year expansion facilities

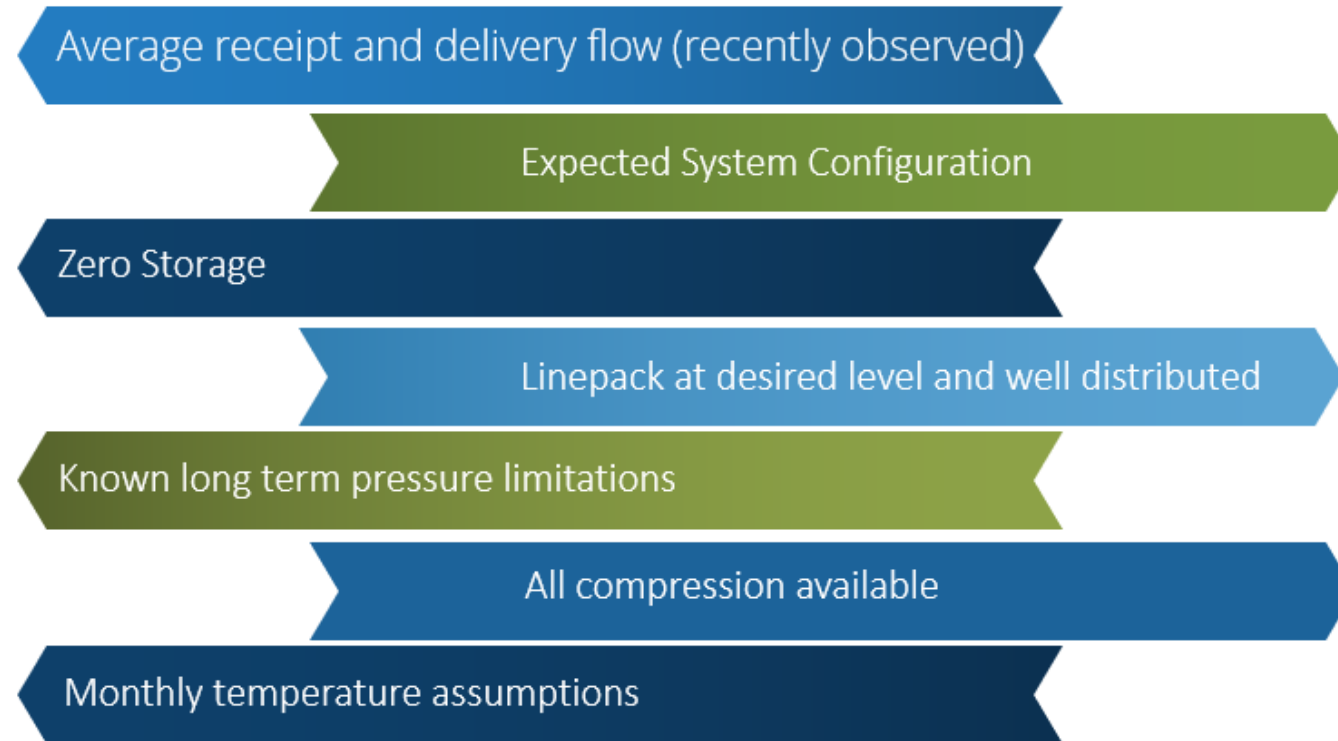
Outages and/or maintenance work is posted to the DOP if there is reasonable expectation that the event could or will result in a change to service authorization levels.

Optimization efforts are on-going and we will continue to focus on safety, optimizing system capacity and minimizing outage impacts.



Base Capability

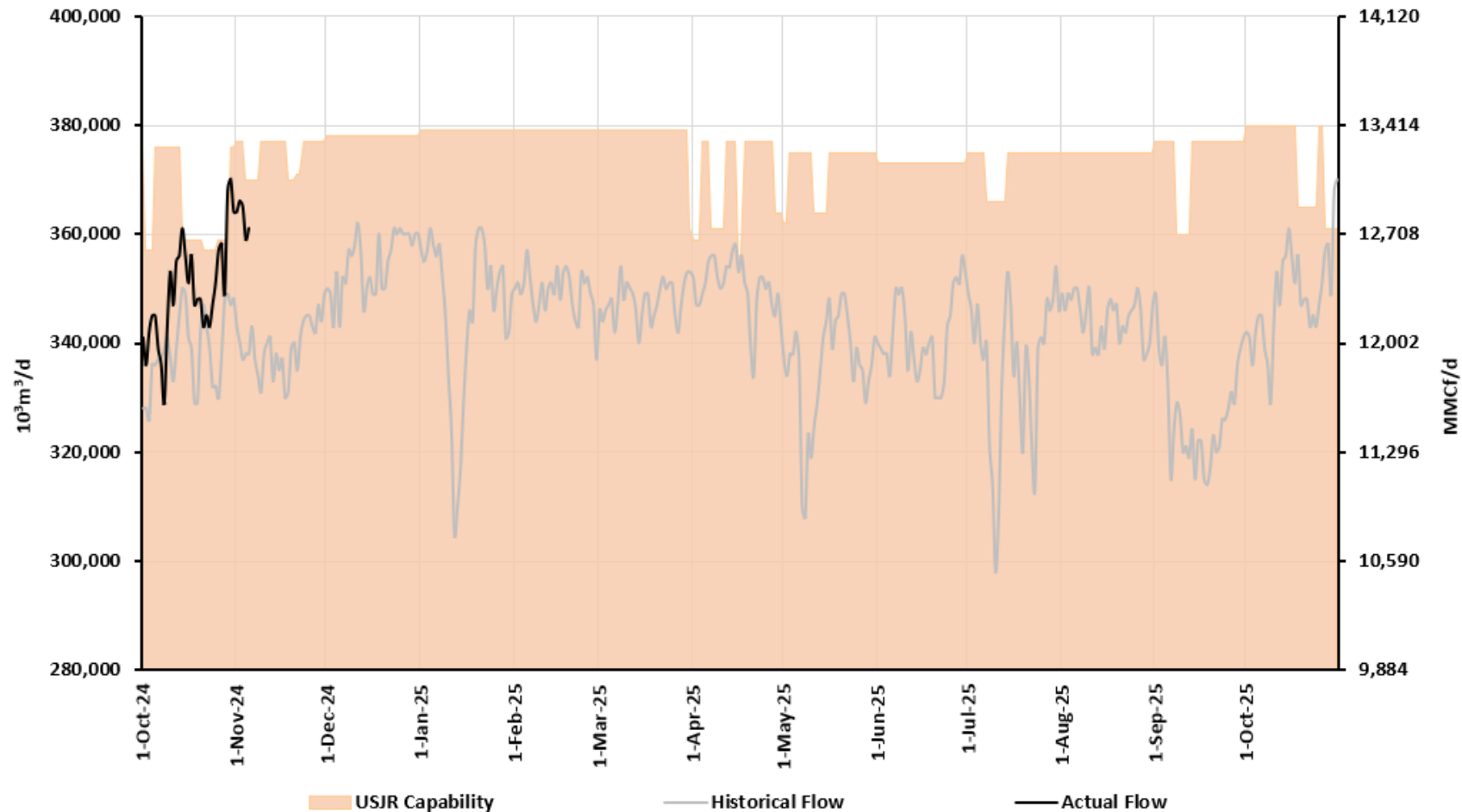
Base Operational Capability: Capability with no outages, and known and expected operational constraints



Base capabilities have been determined using the best information known at this time but could be subject to change based on incoming results of summer maintenance activities



Upstream James River



MMM-YY	USJR Base Capability $10^6 \text{m}^3/\text{d}$
Nov-24	377
Dec-24	378
Jan-25	379
Feb-25	379
Mar-25	379
Apr-25	377
May-25	375
Jun-25	373
Jul-25	375
Aug-25	375
Sep-25	377
Oct-25	380

Facility Assumptions:

- NPS 36 GPML pressure derates remain in place until June 30, 2025
- No major expansion facilities to be placed in-service in 2025

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

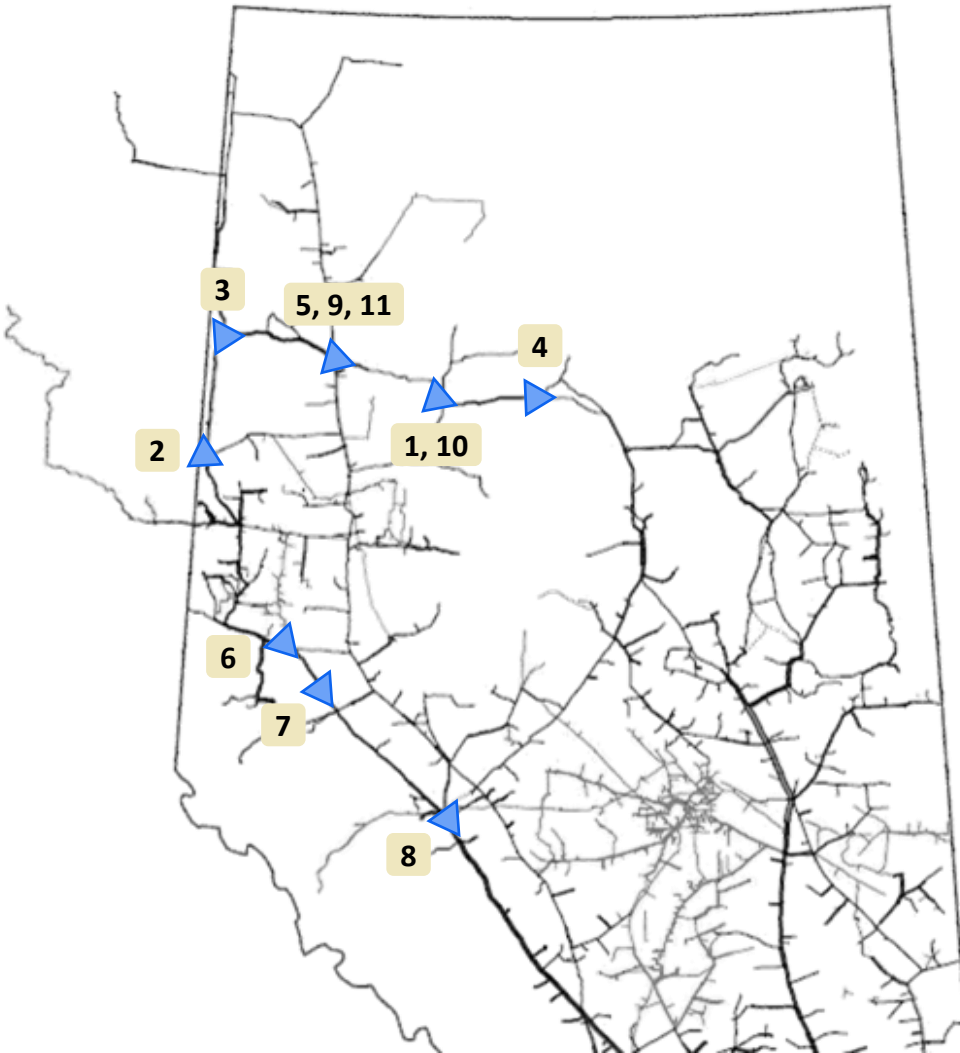


Upstream James River Receipt Area (USJR)

No
impact to FT

Potential
impact to FT

Partial
impact to FT



	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
1	Otter Lake C/S Compressor Station Maintenance	Mar 31	Apr 3	359	18	Upstream Latornell
2	Alces River B3 Compressor Station Maintenance	Apr 2	Apr 3	369	8	Upstream Latornell
3	Hidden Lake North C/S Compressor Station Maintenance	Apr 7	Apr 11	369	8	Upstream Latornell
4	Goodfish C/S Compressor Station Maintenance	Apr 7	Apr 11	361	16	Upstream Latornell
5	Meikle River D5 Compressor Station Maintenance	Apr 16	Apr 17	356	21	Upstream Latornell
6	Gold Creek C/S Compressor Station Maintenance	Apr 28	May 2	364	13	Upstream Emerson Creek
7	Latornell C/S Compressor Station Maintenance	May 11	May 15	364	11	Upstream Emerson Creek
8	Swartz Creek C/S Compressor Station Maintenance	July 7	July 13	366	9	Greater USJR
9	Meikle River C Compressor Station Maintenance	Sep 8	Sep 12	360	17	Upstream Latornell
10	Otter Lake C/S Compressor Station Maintenance	Oct 18	Oct 24	365	15	Upstream Latornell
11	Meikle River D5 Compressor Station Maintenance	Oct 27	Oct 31	361	19	Upstream Latornell

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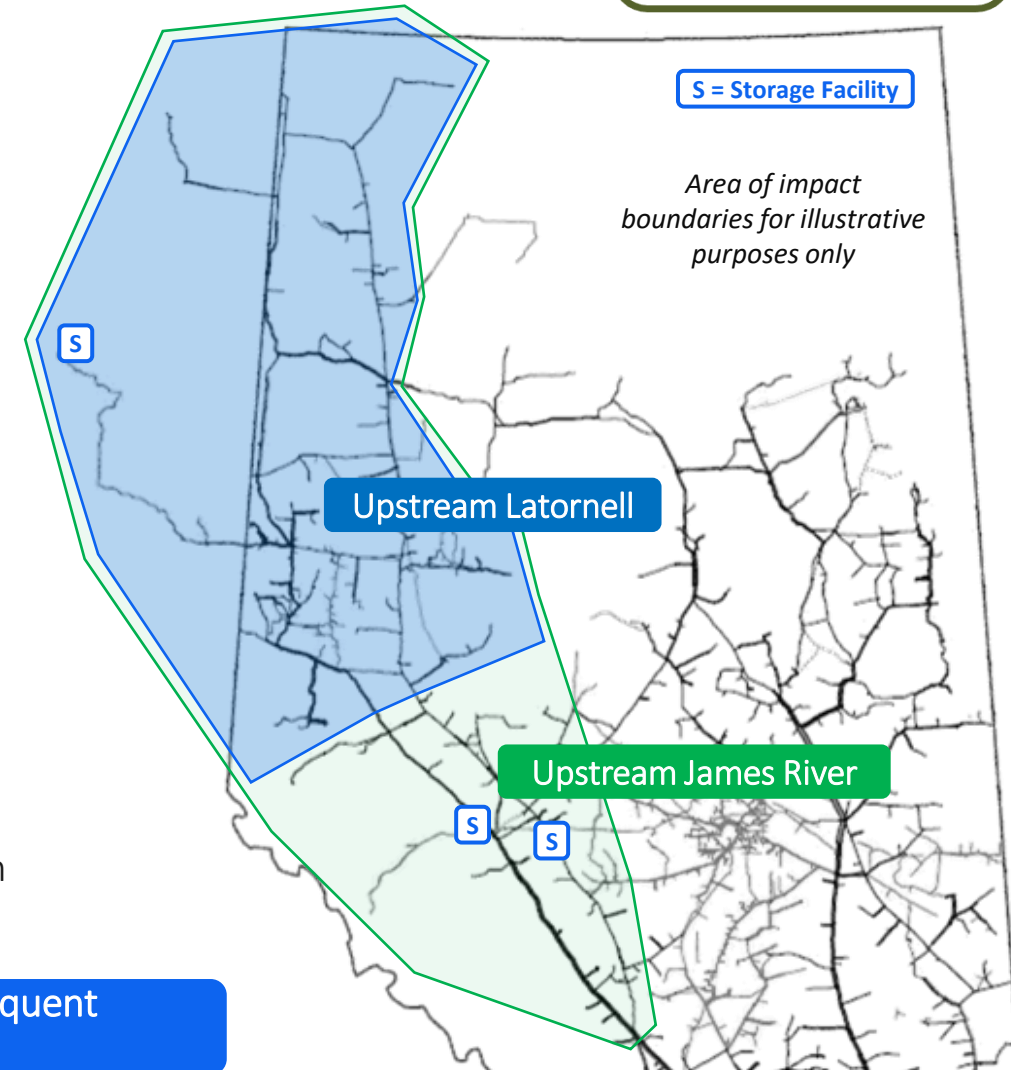
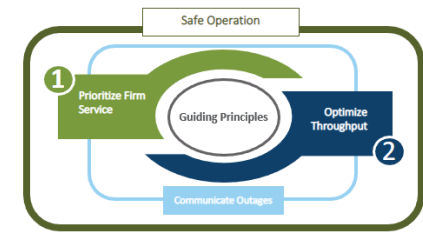


Upstream James River Capability

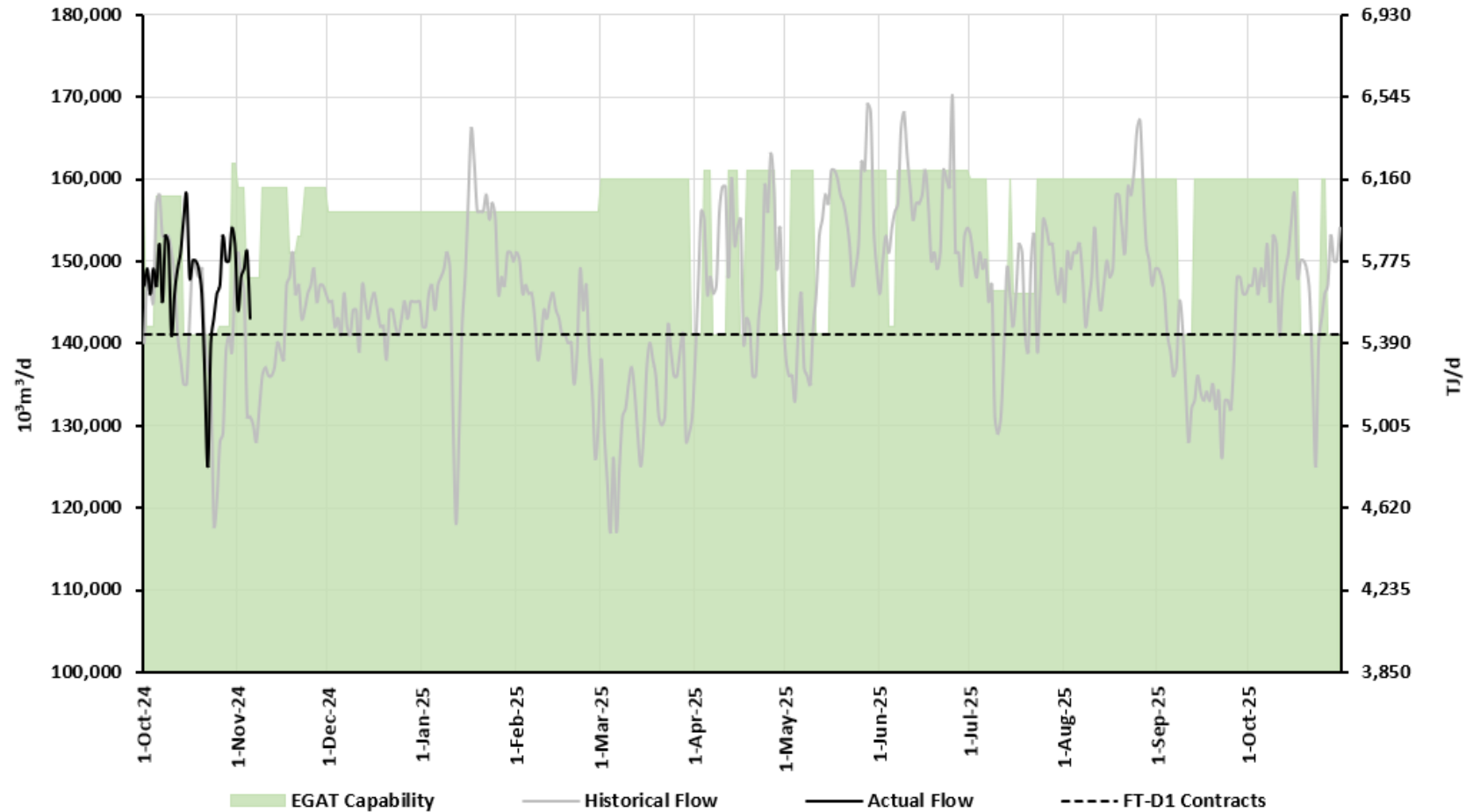
Most of the 'largest impacting outages' have an area of impact of Upstream Latornell (or in some cases, upstream of Emerson) opposed to full Upstream James River (USJR).....

- With significant debottlenecking completed on the GPML and EDSML corridors, the supply bottleneck is now further north (within the Latornell or Emerson Creek areas) for a large majority of outages
- In the event of an outage where supply upstream of the bottleneck is greater than capability:
 - 1) IT-R upstream of the bottleneck would be curtailed
 - 2) A broad area restriction would be assessed to determine if curtailment of any other IT service would allow us to safely manage the outage
 - If expected to be effective, a curtailment of all IT-D downstream of the bottleneck could be implemented
 - If not expected to be effective, a local FT-R restriction upstream of the bottleneck could be implemented

Local FT-R restrictions to manage USJR outages could become more frequent with the supply bottleneck further North



East Gate (EGAT)



MMM-YY	EGAT Base Capability $10^6 \text{m}^3/\text{d}$	EGAT Contracts $10^6 \text{m}^3/\text{d}$
Nov-24	159	141
Dec-24	156	141
Jan-25	156	141
Feb-25	156	141
Mar-25	160	141
Apr-25	161	141
May-25	161	141
Jun-25	161	141
Jul-25	160	141
Aug-25	160	141
Sep-25	160	141
Oct-25	160	141

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

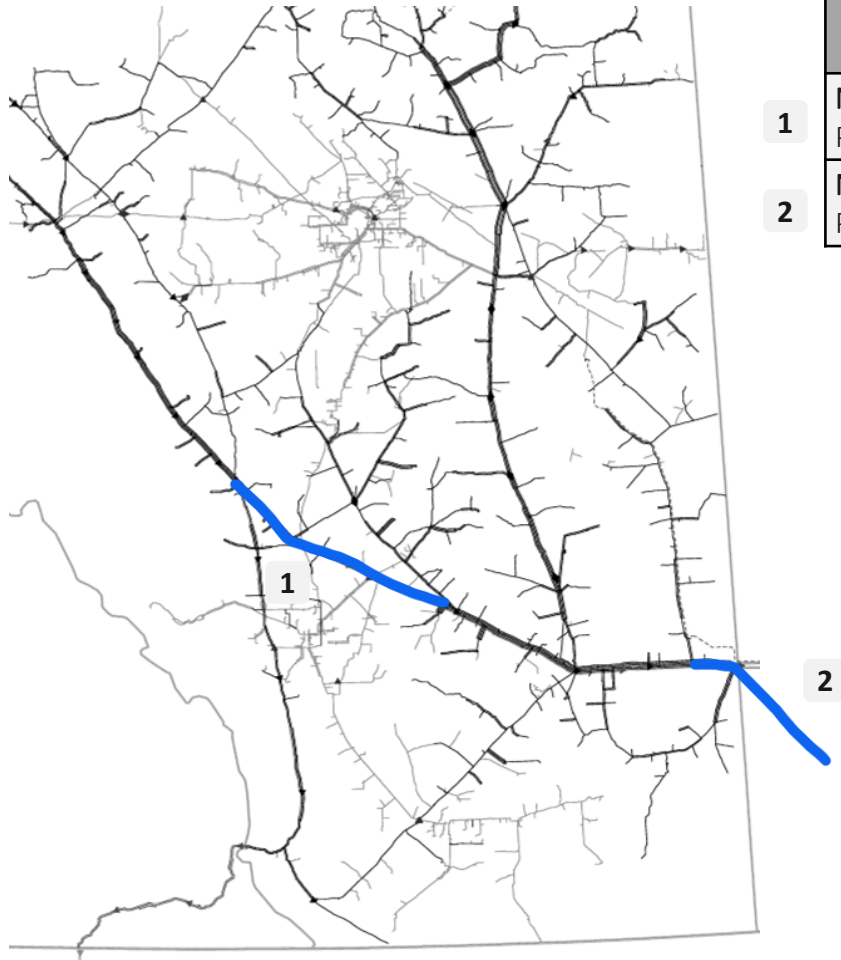


East Gate Area (EGAT)

No
impact to FT

Potential
impact to FT

Partial
impact to FT

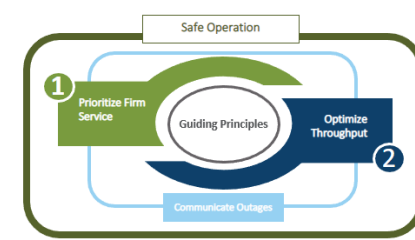


	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
1	NPS 42 Foothills Zone 6 Pipeline Maintenance	Jun 03	Jun 06	142	19	Lower EGAT
2	NPS 42 Foothills Zone 6 and Zone 9 Pipeline Maintenance	Jul 15	Jul 22	146	14	Lower EGAT

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



USJR/EGAT Capability

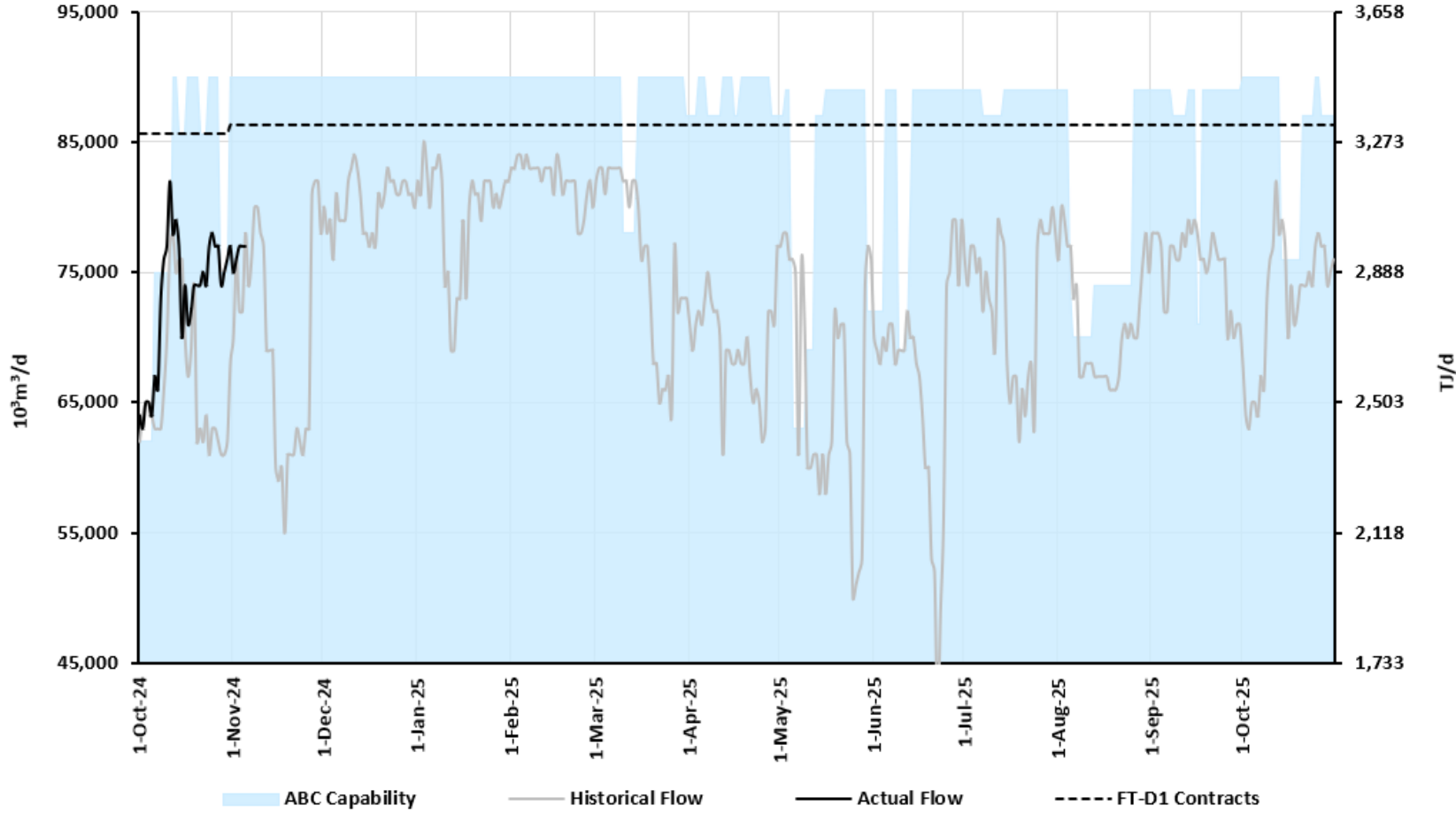


- We don't expect that the EGAT capability will be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area
- All reported USJR outages are currently also reported in the EGAT area table indicating that the effectiveness of a broad area IT-D restriction would be considered prior to implementing an upstream FT-R restriction
- Whether or not a broad area IT-D restriction will be adequate to manage flows through the bottleneck is highly dependent on system and contract utilization at the time
- Leading into the outage, if a broad area restriction is not expected to appropriately manage supply through the bottleneck:
 - An upstream FT-R restriction could be utilized
 - EGAT could remain unrestricted (the outage would be removed from the EGAT table and chart in DOP when a bulletin is published communicating authorization levels)
- We will continue to follow our guiding principles and established protocol of first curtailing all IT services prior to curtailing FT services

If system contract utilization is high, and upstream FT-R restrictions become more common, opportunity for EGAT IT-D could be greater than shown in the EGAT chart



West Gate (WGAT)



MMM-YY	WGAT Base Capability $10^6 \text{ m}^3/\text{d}$	WGAT Contracts $10^6 \text{ m}^3/\text{d}$
Nov-24	90	86
Dec-24	90	86
Jan-25	90	86
Feb-25	90	86
Mar-25	90	86
Apr-25	90	86
May-25	89	86
Jun-25	89	86
Jul-25	89	86
Aug-25	89	86
Sep-25	89	86
Oct-25	90	86

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

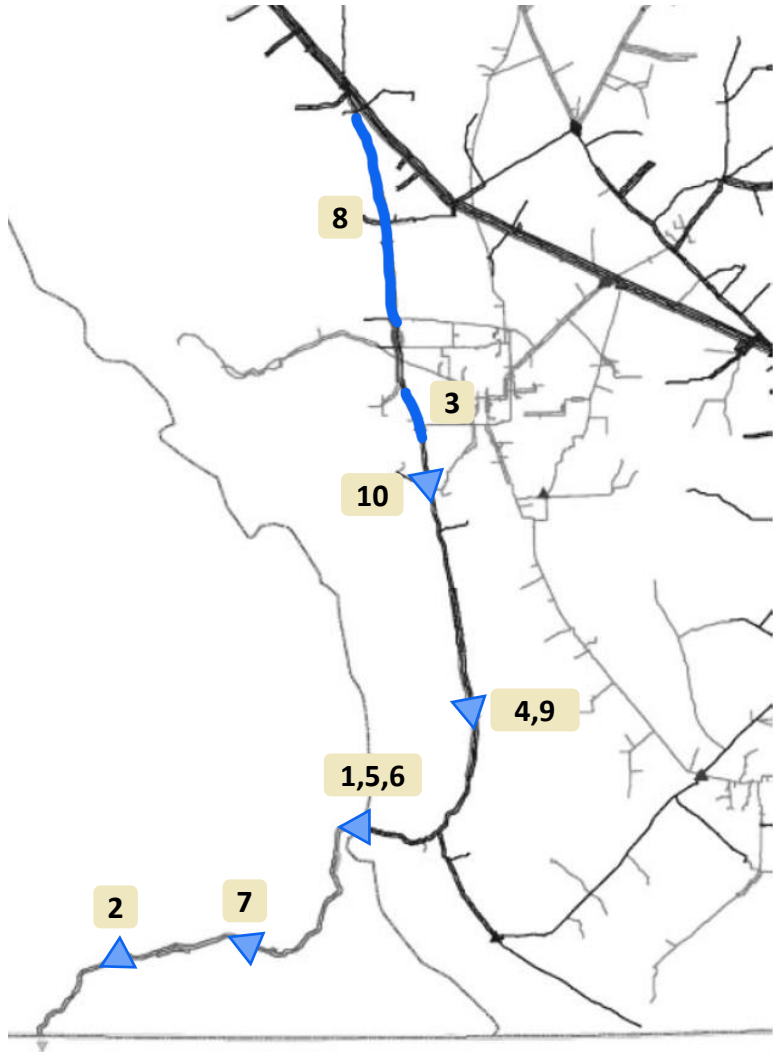


West Gate Area (WGAT)

No impact to FT

Potential impact to FT

Partial impact to FT



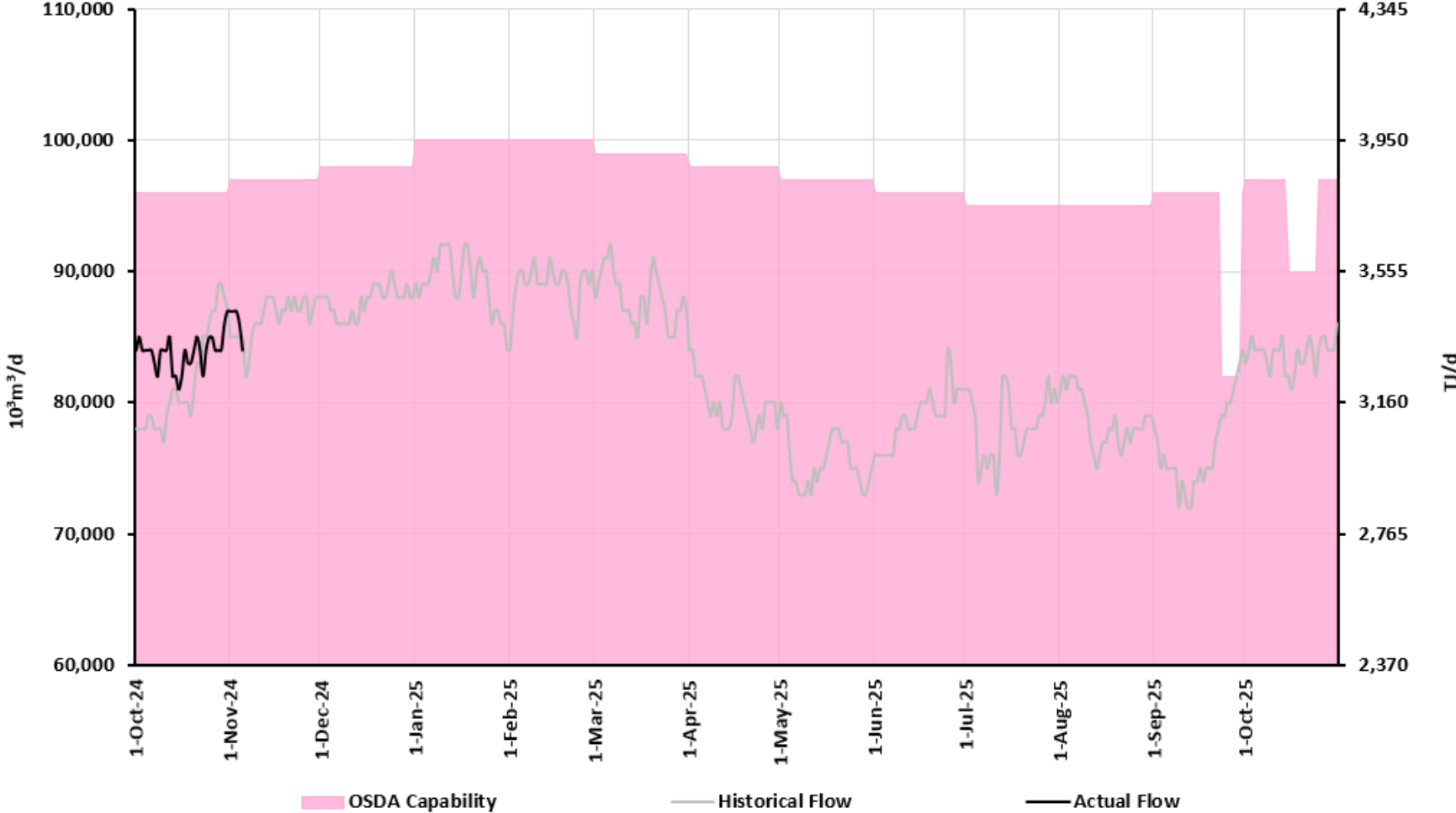
	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Impact (10 ⁶ m ³ /d)	Area
1	Crowsnest K C/S Compressor Station Maintenance	Mar 10	Mar 14	78	12	Foothills BC
2	Moyie C/S Compressor Station Maintenance	May 05	May 09	63	26	Foothills BC
3	NPS 42 WAS Mainline Loop Pipeline Modification	May 07	May 12	69	20	AB-BC & AB-MN Borders
4	Burton Creek C/S Compressor Station Maintenance	May 30	Jun 04	72	17	AB-BC & AB-MN Borders
5	Crowsnest C/S Compressor Station Maintenance	Jun 09	Jun 12	69	20	Foothills BC
6	Crowsnest B C/S Compressor Station Maintenance	Jun 09	Jun 13	79	10	Foothills BC
7	Elko C/S Compressor Station Maintenance	Aug 05	Aug 25	74	15	Foothills BC
8	NPS 42 WAS Mainline Loop Pipeline Maintenance	Aug 06	Aug 12	70	19	AB-BC & AB-MN Borders Segment 22 and Partial 21
9	Burton Creek A3 Compressor Station Maintenance	Sep 16	Sep 17	75	18	AB-BC & AB-MN Borders
10	Turner Valley A1 & A2 Compressor Station Maintenance	Oct 14	Oct 20	76	14	AB-BC & AB-MN Borders

Note: Dates may change as optimization and alignment opportunities are coordinated with downstream operators.

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.



Oil Sands Delivery Area (OSDA)



MMM-YY	OSDA Base Capability $10^6 \text{ m}^3/\text{d}$
Nov-24	97
Dec-24	98
Jan-25	100
Feb-25	100
Mar-25	99
Apr-25	98
May-25	97
Jun-25	96
Jul-25	95
Aug-25	95
Sep-25	96
Oct-25	97

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

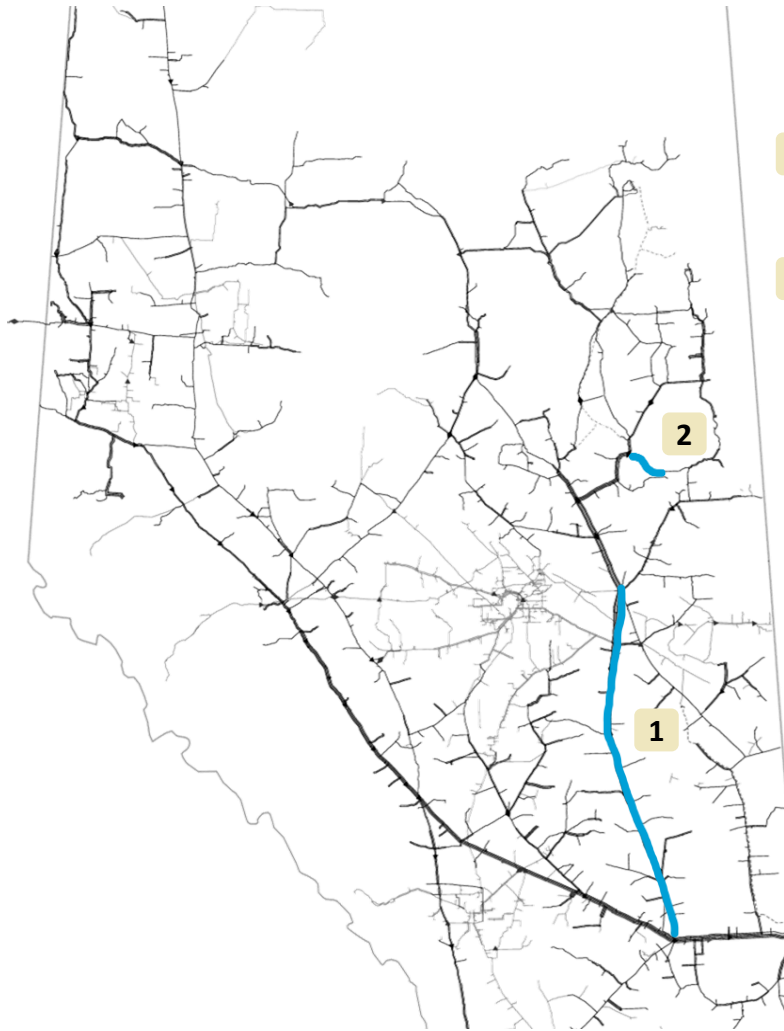


Oilsands Delivery Area (OSDA)

No
impact to FT

Potential
impact to FT

Partial
impact to FT



	Outage Description	Start Date	End Date	Capability (10 ⁶ m ³ /d)	Area
1	NPS 24/30 North Lateral Loop 2 Pipeline Maintenance	SEP 22	SEP 29	82	Segments 11, 14, 15, 16, and partial 28 Local Capability: 50 10 ⁶ m ³ /d Typical Flow: 62 10 ⁶ m ³ /d
2	NPS 12 Leming Lake Lateral Pipeline Modifications	OCT 15	OCT 24	90	Segments 14 and partial 11 Local Capability: 18 10 ⁶ m ³ /d Typical Flow: 22 10 ⁶ m ³ /d

Note: These outages have been included in the OSDA table for the purposes of the DOP, even though their area of impact is expected to be slightly different than the standard OSDA definition

May not be accurate beyond the November 7 NGTL/Foothills Customer Operations meeting on WebEx. Please refer to the DOP on TC Customer Express for current outage information.

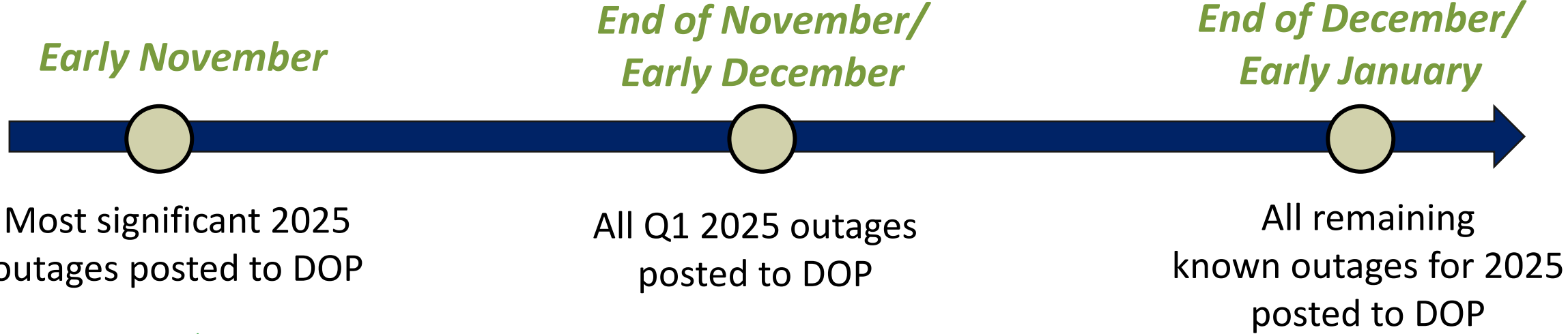


2025 Operational Outlook | Summary

- The number of outages scheduled to be executed in 2025 is of a similar magnitude to previous years
- The number of ‘significant’ outages communicated for 2025 is less than previous years as a result of expansion facilities that were placed into service over the past few years
- EGAT capability is not expected to be the limiting factor. The overall system bottleneck is still expected to be upstream in the USJR area. Therefore, all reported USJR outages continue to be reported in the EGAT area table indicating that, in alignment with our guiding principles, the effectiveness of a broad area IT-D restriction would be considered prior to implementing an upstream FT-R restriction
- Whether or not a reduction of downstream IT-D will be adequate to manage flows through the bottleneck for a broad area outage is highly dependent on system and contract utilization at the time
- Upstream FT-R restrictions to manage USJR outages could become more frequent due to:
 - Expected supply distribution
 - Recent system expansion that has resulted in a shift of the USJR bottleneck further north



2025 Outage Communication Schedule | Next Steps



Refer to the Daily Operating Plan (DOP) for the most current outage information



Reminder | Plant Turnaround Information

- Where possible, we will continue to make all efforts to align maintenance with customer maintenance activities to maximize coordination opportunities and minimize impacts
- Customers can use the Plant Turnaround Information Form or send us an email to provide us with their turnaround details.
- We accept plant turnaround information any time throughout the year.
- All customer specific information received will remain strictly confidential within the outage planning and coordination teams

Most common places to find the form:

- Customer Express
- Bottom of the Daily Operation Plan (DOP)

Where to send the form: ab_bc_ops_planning@tcenergy.com

Report your maintenance and turnaround schedules for the remainder of 2024 and beyond
Click [HERE](#) for the PTA form

PLANT TURNAROUND INFORMATION FORM



Date:

Email to: ab_bc_ops_planning@tcenergy.com

Your Contact Information:

Your Name:

Company Name:

Phone:

Secondary Phone (Optional):

Email:

Please select one of the following:

Information for new Plant Turnaround

Update to existing Plant Turnaround information

Plant Turnaround Information:

NGTL Meter Station Name:

NGTL Meter Station Number:

Start Date:

End Date:

Start Time:

End Time:

Type of Plant Turnaround:

Complete Turnaround (Zero Flow)

Partial Turnaround:

Expected Flow during turnaround: 10³m³/d

Typical Flow: 10³m³/d

Additional Comments:

Email this form to: ab_bc_ops_planning@tcenergy.com

Direct any questions to the Pipeline @ (403) 920-7473.

Plant Turnaround Information | Confidentiality

- Customer specific information is not shared publicly
 - Plant and customer name not shared
 - Location of plant not displayed on DOP map

NOV 05, 2024

CHANGED

Duration	Start	End	Impact
3 days <small>Previously: 4 days</small>	Nov 05, 2024 <small>Previously: Nov 04, 2024</small>	Nov 07, 2024	1,625 10 ³ m ³ /day

AFTER 30 DAYS

Duration	Start	End	Impact
11 days	Apr 21, 2025	May 01, 2025	2,900 10 ³ m ³ /day

NEW

Duration	Start	End	Impact
4 days	May 02, 2025	May 05, 2025	800 10 ³ m ³ /day

REMOVED / COMPLETED

REMOVED / COMPLETED

Duration	Start	End	Impact
3 days	May 02, 2025	May 04, 2025	800 10 ³ m ³ /day

Receipt

Plant Turnaround Activity

	1	Nov 05, 2024	
	0	Next 30 days	
	2	After 30 Days	

*Plant Turnaround not displayed on the map

[Download CSV](#)

Delivery

Plant Turnaround Activity

	0	Nov 05, 2024	
	0	Next 30 days	
	1	After 30 Days	

*Plant Turnaround not displayed on the map

[Download CSV](#)

Start	End	Type	Impact
5-Nov-24	7-Nov-24	Receipt	1625
21-Apr-25	1-May-25	Receipt	2900
2-May-25	5-May-25	Receipt	800
4-Apr-25	5-May-25	Delivery	1550

CONTACTS



MARKETING REPS

[Customer Express Contacts
\(tccustomerexpress.com\)](https://tccustomerexpress.com)

MINH BADAU

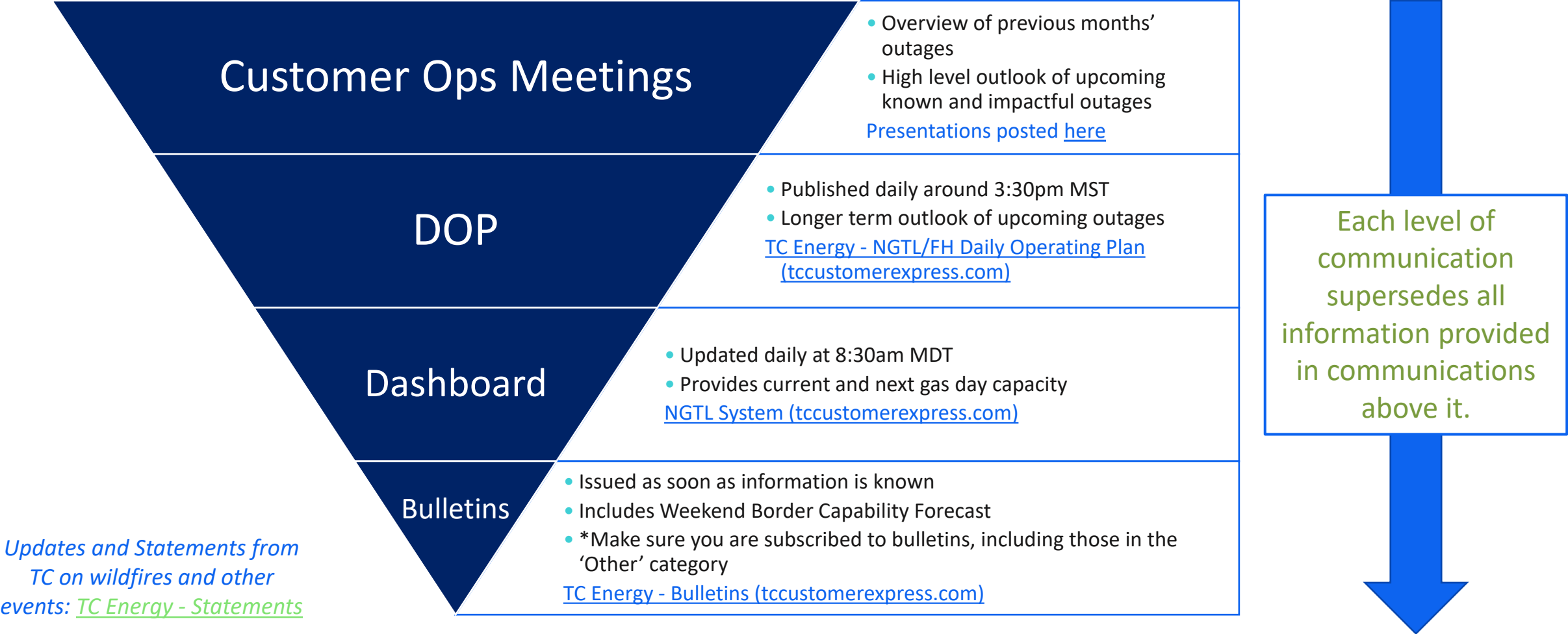
Chair, NGTL/FH Customer Ops

403.920.58045

minh_badau@tcenergy.com



Outage Communication Tools: Order



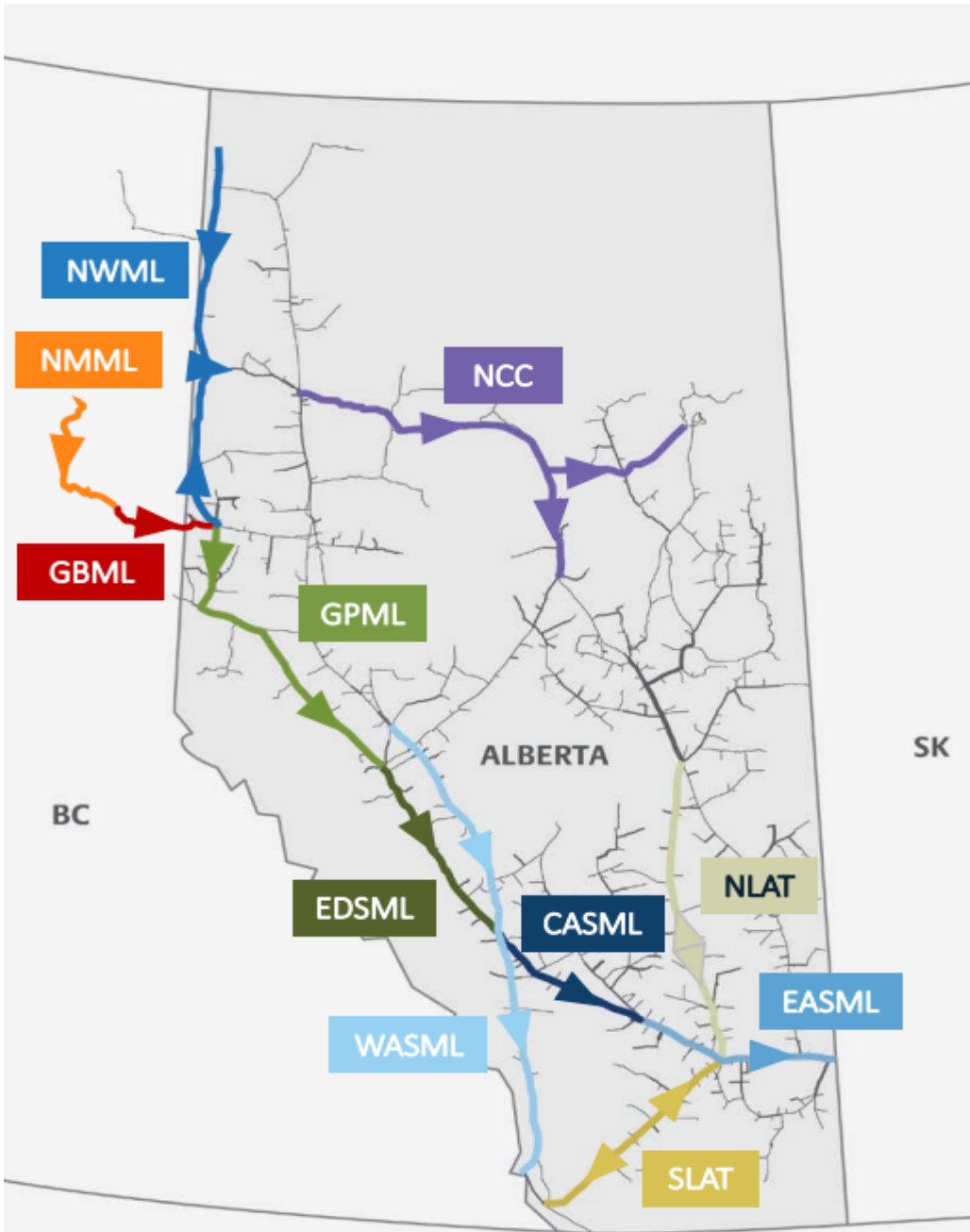
Glossary of Terms

- ❖ **DOP:** Daily Operating Plan [DOP](#)
- ❖ **NGTL:** Nova Gas Transmission Ltd.
- ❖ **FH:** Foothills Pipeline System (BC or SK)
- ❖ **ISD:** In-Service Date
- ❖ **ILI:** Inline Inspection
- ❖ **Transportation Services**
 - ❖ **IT-R:** Interruptible Transportation - Receipt
 - ❖ **IT-D:** Interruptible Transportation - Delivery
 - ❖ **FT-R:** Firm Transportation - Receipt
 - ❖ **FT-D:** Firm Transportation - Delivery

- ❖ **Operational Areas**
 - ❖ **USJR:** Upstream James River
 - ❖ **WGAT:** West Gate
 - ❖ **EGAT:** East Gate
 - ❖ **OSDA:** Oilsands Delivery Area
 - ❖ **NEDA:** North-East Delivery Area



Commonly Referenced Flow Paths



- North Montney Mainline (NMML)
- Groundbirch Mainline (GBML)
- Northwest Mainline (NWML)
- North Central Corridor (NCC)
- Grande Prairie Mainline (GPML)
- Edson Mainline (EDSML)
- Western Alberta System Mainline (WASML)
- Central Alberta System Mainline (CASML)
- Eastern Alberta System Mainline (EASML)
- South Lateral (SLAT)
- North Lateral (NLAT)

