



**NGTL System and Foothills Pipe Lines Ltd.**

**Customer Operations Meeting**

June 12, 2019



# Forward Looking Information

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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.

**Potential impact to FT**

Refers to outage periods where there is increased potential of FT impact. In some instances IT services may be authorized.

**Partial impact to FT**

Refers to outage periods where FT impact is expected

# Welcome and thank you for joining us

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## Safety:

- In case of alarm or emergency, please proceed immediately to the ground-level exit
- Nearest stairs to ground-level exit are outside this room and directly to the left
- Muster points are located on the plus-15 level of: 5<sup>th</sup> Ave Place, TC Energy Tower, Suncor Energy Centre, and Telus Centre

## 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
- Please submit your questions via the chat function and the moderator will ask your question

# Safety Moment

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## Fire Safety:

With summer approaching, we are spending more time outside camping or barbequing, therefore we are more prone to being exposed to open fires

- Wear proper PPE when working with an open flame
- Ensure that campfires are thoroughly extinguished before leaving the area
- Be aware of your surroundings and items that could trigger a fire



# Agenda

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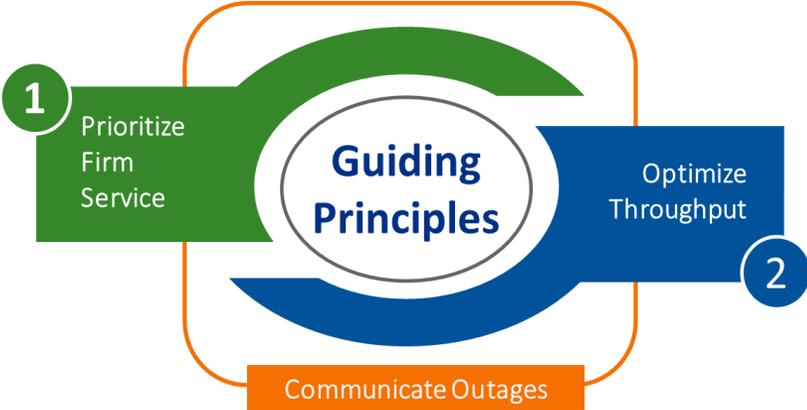
- 1 Performance Update
- 2 Summer Outage Outlook
- 3 Customer Operations Action Team

# Agenda

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- 1 Performance Update
- 2 Summer Outage Outlook
- 3 Customer Operations Action Team

# Summary of Service Availability by Area

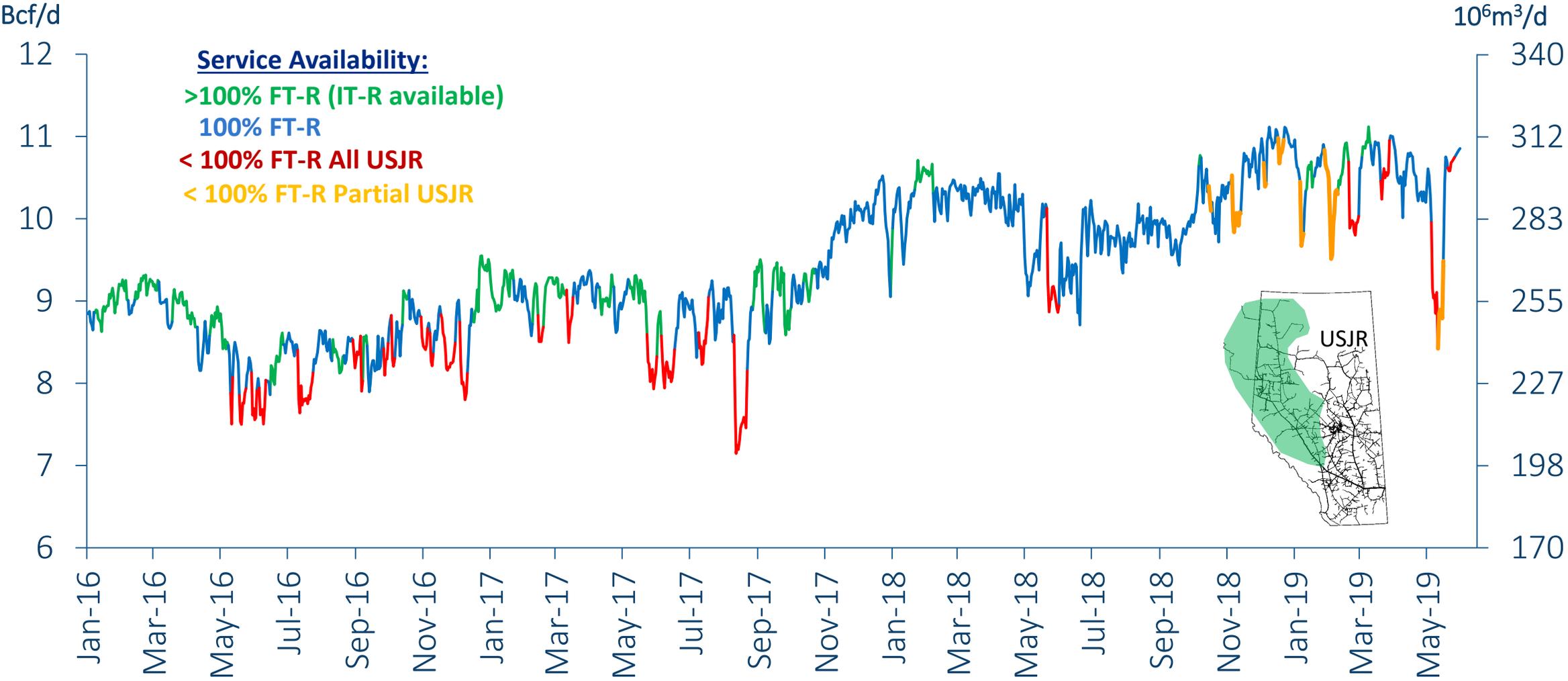


Area	Outage Days Affecting Firm Service			
	2017	2018	2019 Through May 31	
			Expansion	Maintenance/Other
WGAT & FHBC	30	33	0	10
Empress/McNeill	0	0	0	0
OSDA	8	17	0	0
USJR	55	28	21	26

NOTE: 2019 YTD figures not necessarily indicative of the remainder of 2019. Refer to DOP for remaining 2019 outlook



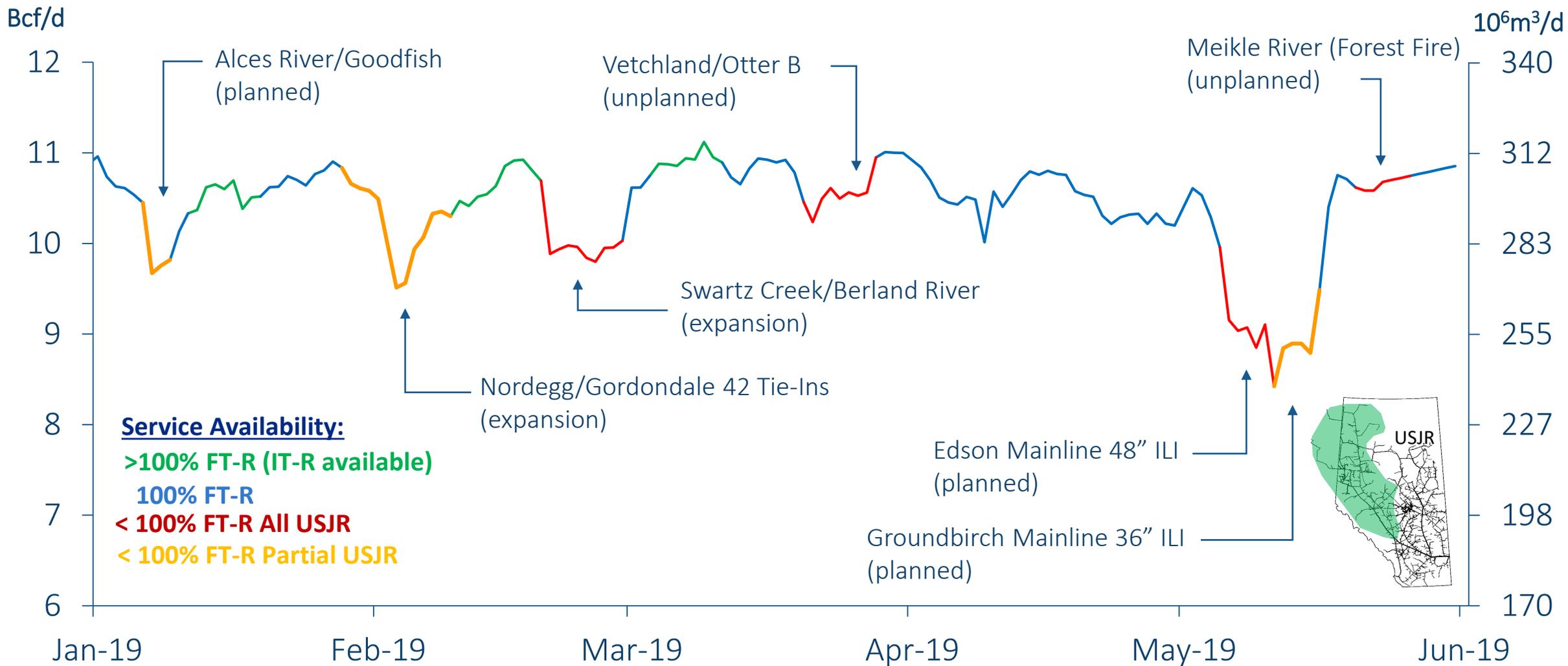
# Service Availability – Upstream James River (USJR)



\*Note: Partial USJR Data only Shown Post 2017



# 2019 YTD Service Availability – Upstream James River (USJR)



9 \*Note: 2019 YTD Information is not indicative of the remainder of 2019. Please refer to DOP for available forecasted outage information

\*\* 'All USJR' restrictions in most cases in 2019 exclude segment 1

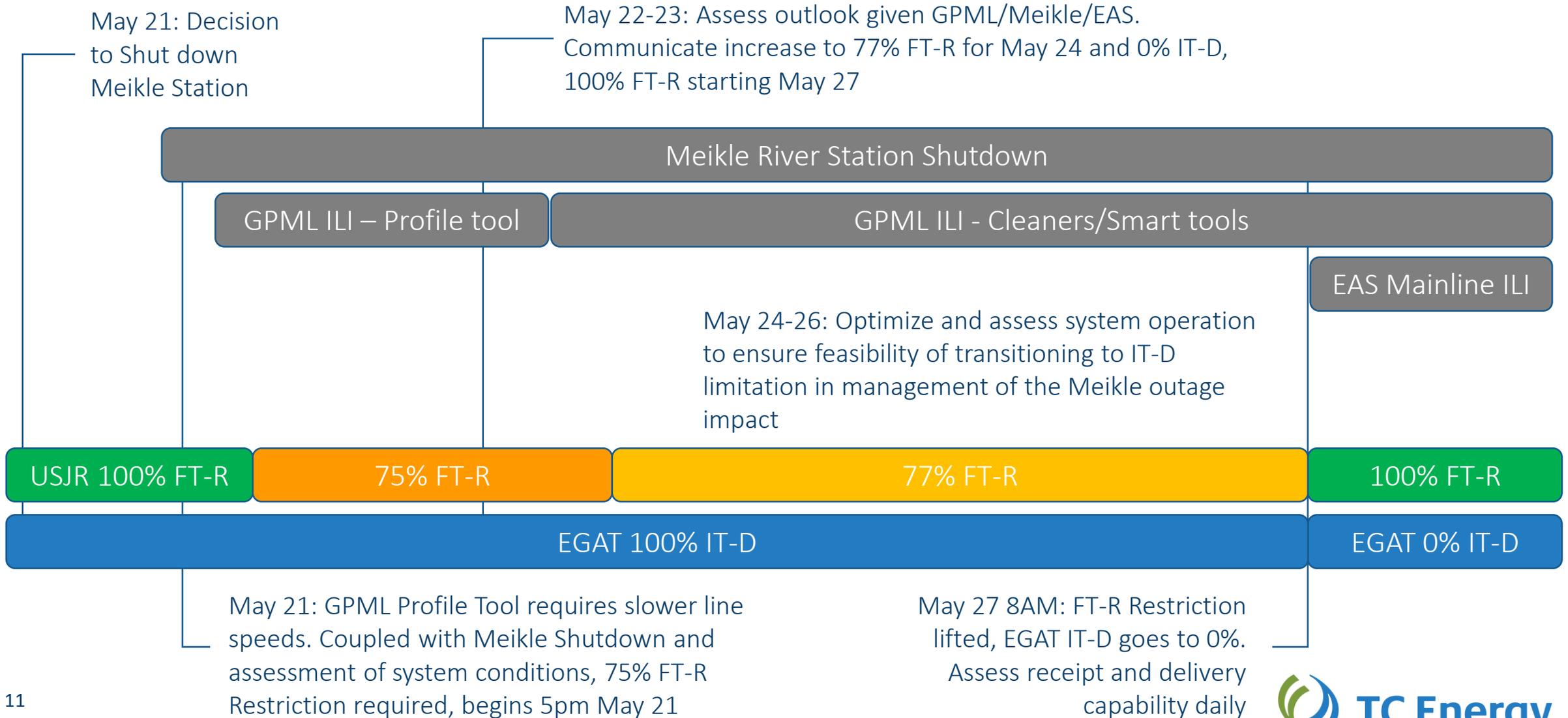


# Meikle River Area Forest Fire Timelines - Key Messages

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- FT-R Restriction was required upon Meikle River Station shutdown to manage loss of receipt capability. Allowable determined based on cumulative impact of planned GPML ILI and unplanned loss of Meikle Station
- IT-D restriction required on May 27 to facilitate planned Eastern Alberta System (EAS) Mainline ILI, regardless of upstream constraints
  - Managing receipt capability loss resulting from Meikle River shutdown with IT-D was possible through optimization of system and completion of impacting maintenance
  - Had the IT-D restriction not been adequate to manage the receipt capability loss (i.e. had there been other unplanned outages or unfavorable supply/demand distribution), an FT-R restriction may still have been required

# Meikle River Area Forest Fire Timelines





# USJR Summary - January 1 to May 31, 2019

- **Planned Events:**

- Goodfish & Alces River Maintenance (3 Days)
- Nordegg/Gordondale Lateral Loop Tie-Ins (12 Days)
- Swartz Creek Tie-Ins & Berland River Maintenance (9 Days)
- Edson Mainline ILI (5 Days)
- Groundbirch Mainline ILI (5 Days)

- **Unplanned Events:**

- Otter Lake B and Vetchland Station (7 Days)
- Meikle River Station (6 Days)

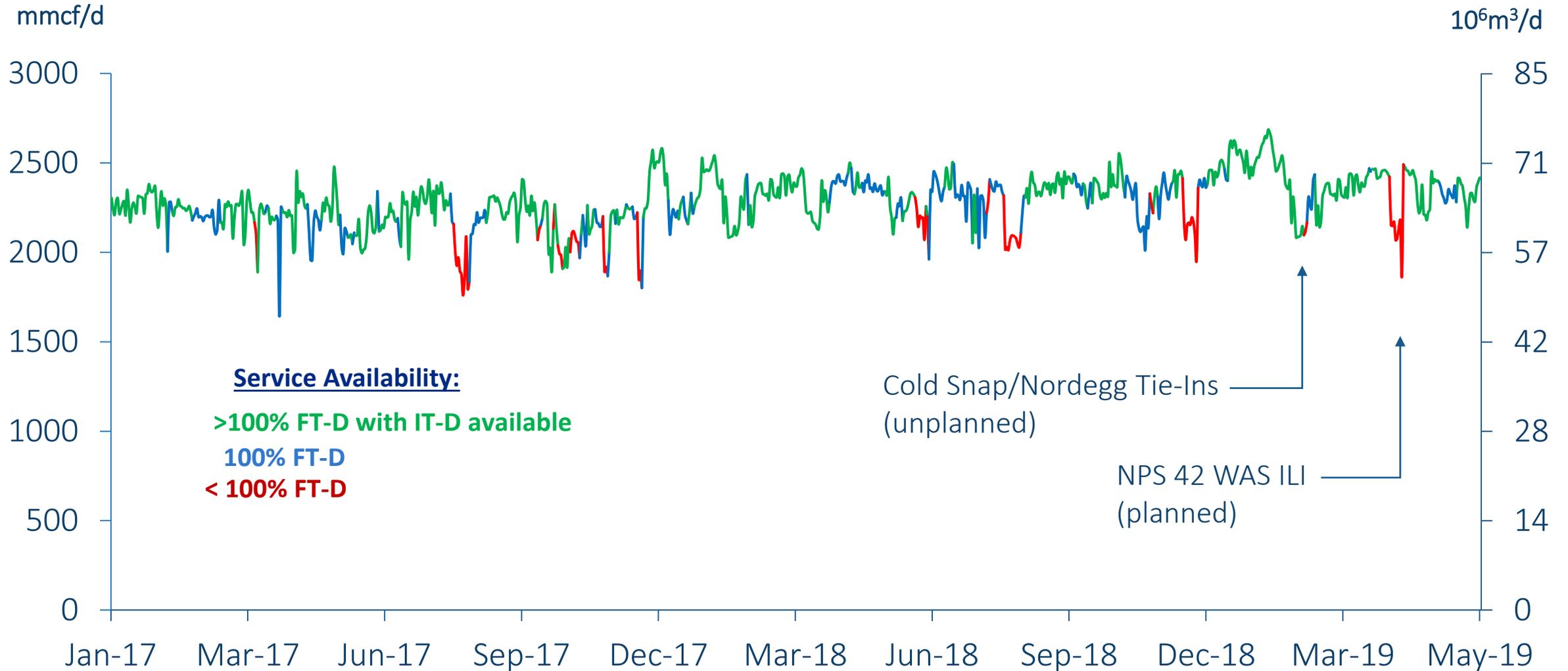
**Total Days (2019 through May 31): 47**

- **33 impacted a subset of USJR**
- **21 were required to facilitate expansion tie-ins**

**Total Days (2018): 28**

**Total Days (2017): 55**

# Service Availability – West Gate (WGAT) & Foothills BC (FHBC)





# WGAT Summary - January 1 to May 31, 2019

## WGAT Area:

- Planned Events:
  - WAS Mainline 42" ILI (8 Days)
- Unplanned Events:
  - Feb 8/9 Extreme Cold Weather during planned modifications at Nordegg Compressor Station (2 Days)
- Total Days: 10

## Foothills BC:

- Planned Events:
  - N/A
- Unplanned Events:
  - N/A
- Total Days: 0

**Total Days (2019 through May 31) for WGAT and FHBC: 10**

**Total Days (2018) for WGAT and FHBC: 33**

**Total Days (2017) for WGAT and FHBC: 30**



# Service Availability – Empress/McNeill





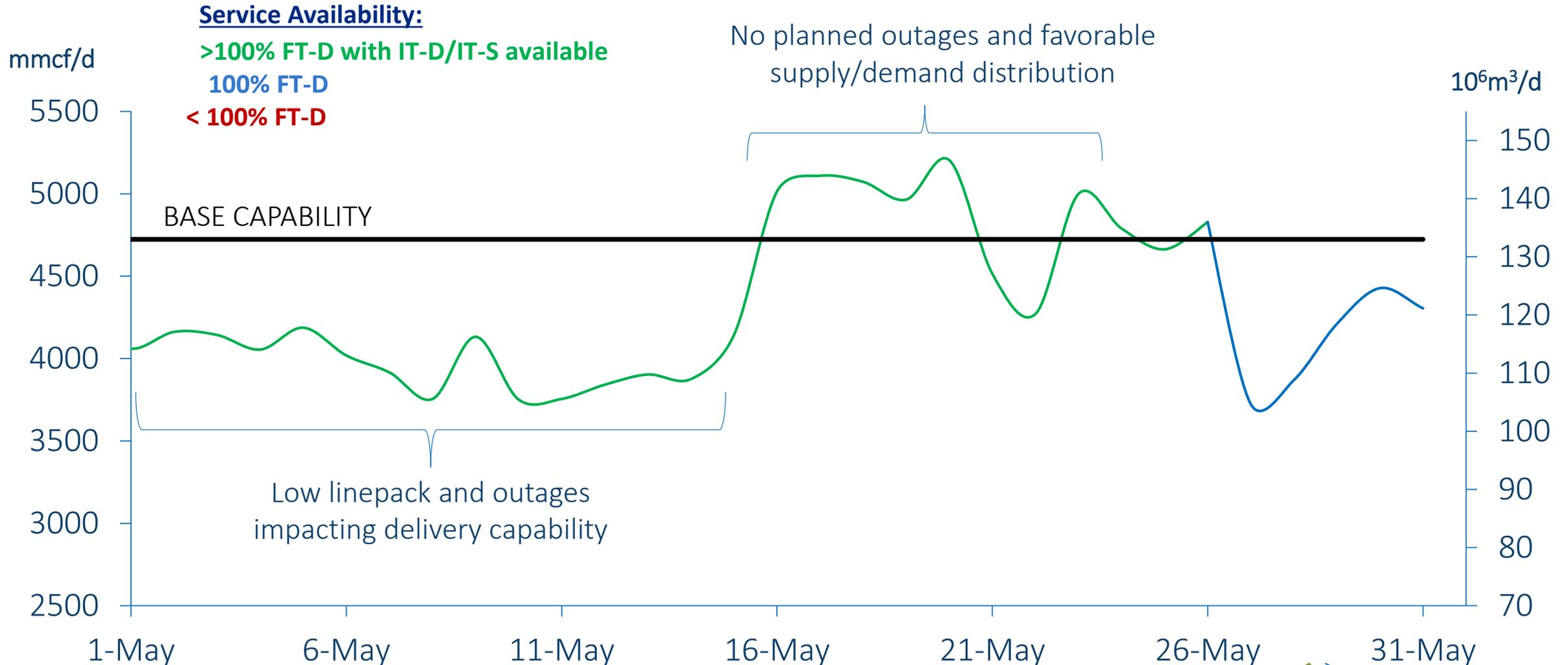
# Empress/McNeill Summary - January 1 to May 31, 2019

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- **Planned Events:**
  - None affecting FT-D
- **Unplanned Events:**
  - None affecting FT-D
- **Total Days: 0**

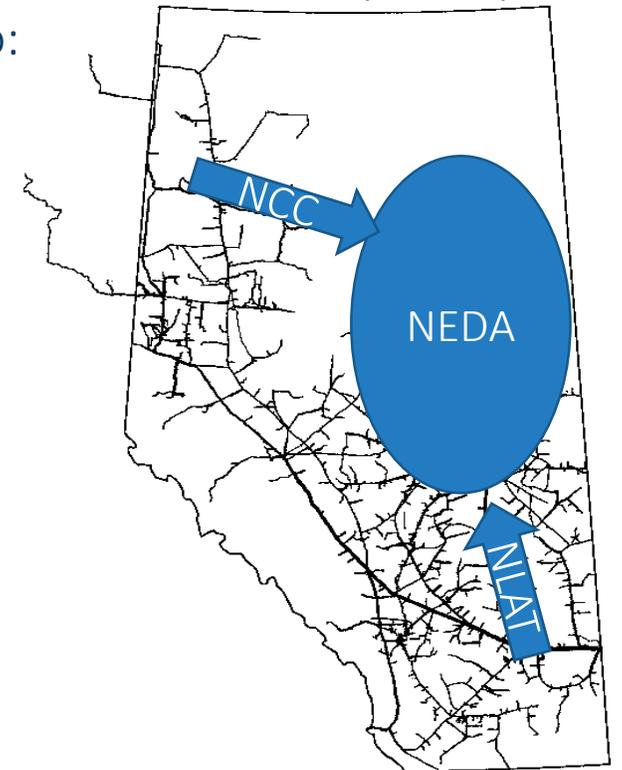


# Empress/McNeill Service Allowable - May 2019



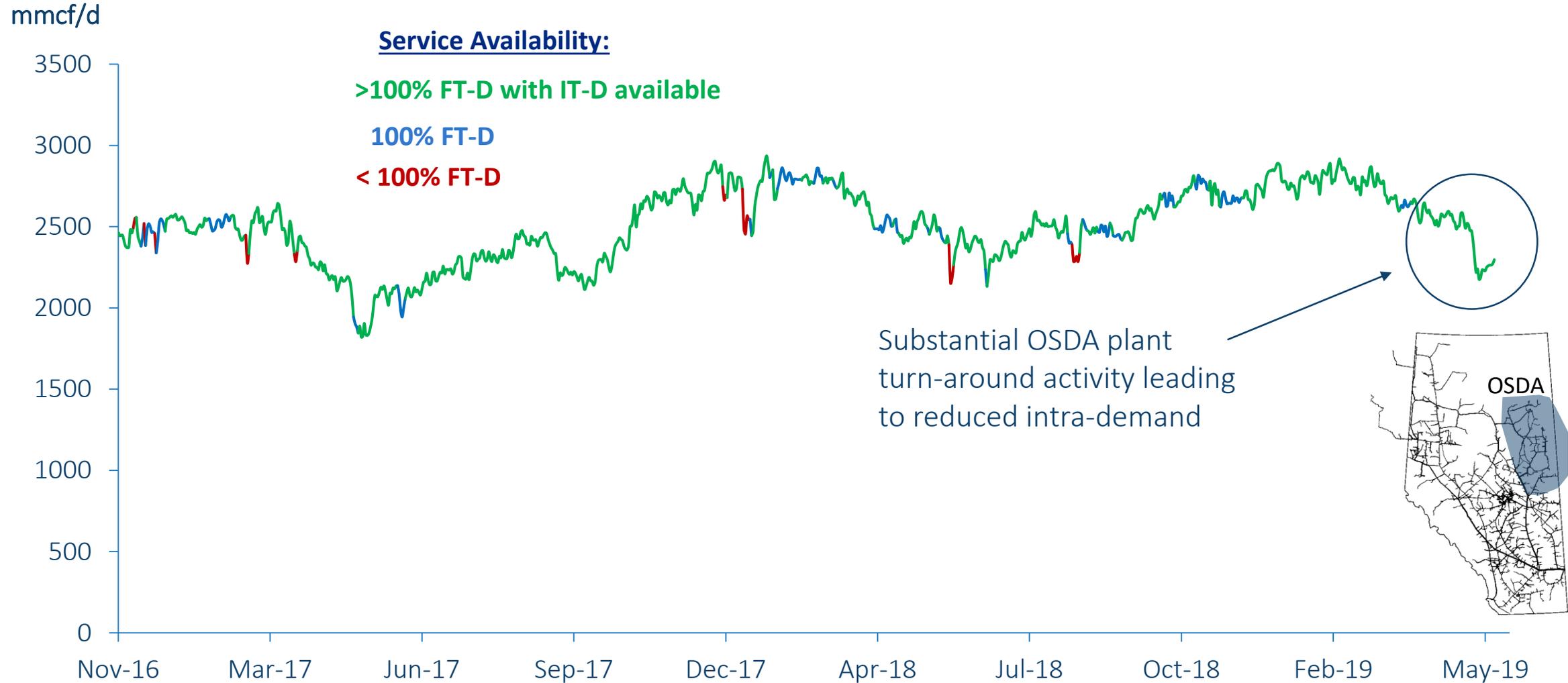
# Empress/McNeill Service Allowable - May 2019: Key Messages

- Daily service allowable at export locations is both above and below posted operational base capabilities depending on system conditions, facility availability etc.
- Operational Base Capability is determined for each month and reflects the best estimate of capability based on static assumptions for numerous inputs including but not limited to:
  - Storage = 0
  - Monthly ambient & soil temperatures
  - Facility Expansions, de-rates, limitations etc.
  - Supply/Demand Distribution
- Through May/19, a substantial reduction in intra demand due to delivery plant turn-arounds resulted in the ability to move volumes to East Gate well in excess of the posted operational base capability
  - Eg. less flow up the North Lateral (NLAT) to feed NEDA deliveries can flow to East Gate instead





# Service Availability – Oil Sands Delivery Area (OSDA)





## OSDA Summary - January 1 to May 31, 2019

- Restrictions shown affected NEDA area – data shown for OSDA which is a subset of the NEDA area
- Planned Events:
  - N/A
- Unplanned Events:
  - N/A

**Total Days (2019 through May 31): 0**

**Total Days (2018): 17**

**Total Days (2017): 8**

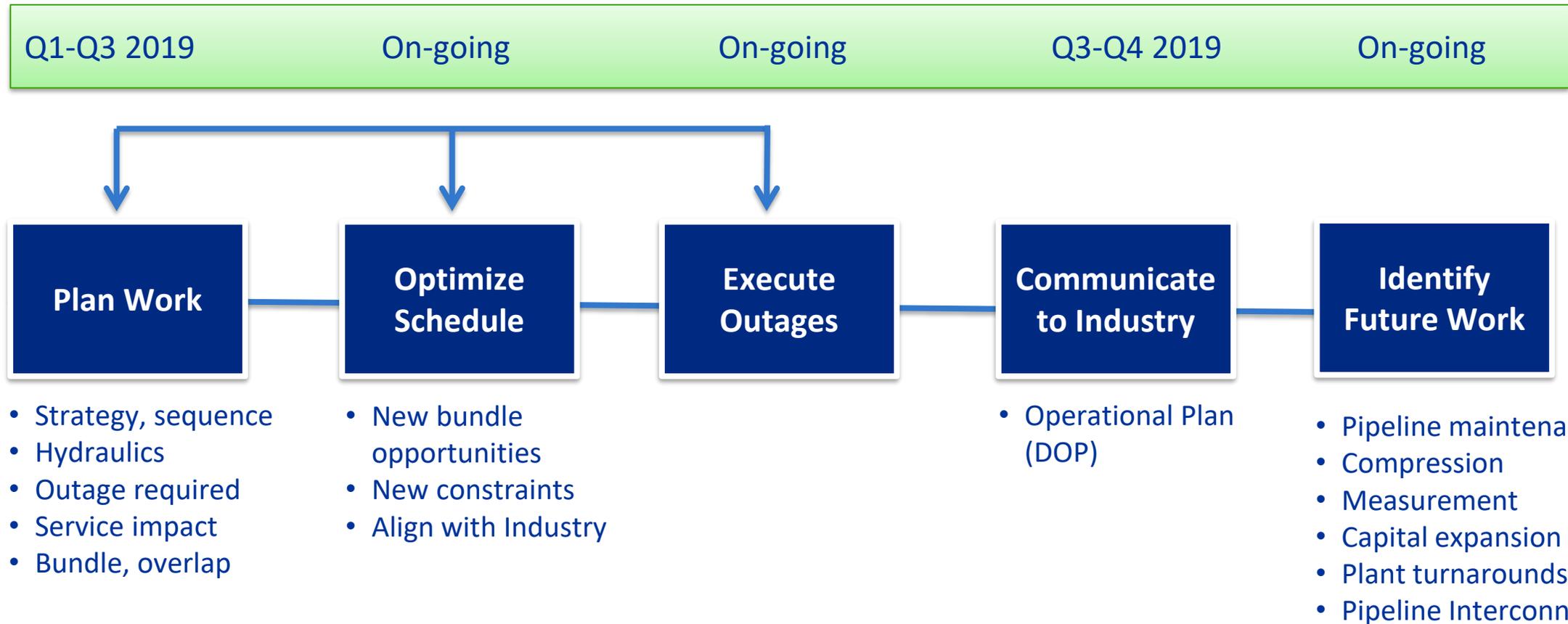
# Agenda

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- 1 Performance Update
- 2 Summer Outage Outlook
- 3 Customer Operations Action Team

# Outage Planning Process

## 2019 Program Timeline:



*Outage date, duration, and impact may be subject to change. Refer to DOP for all planned outages with potential service impact*

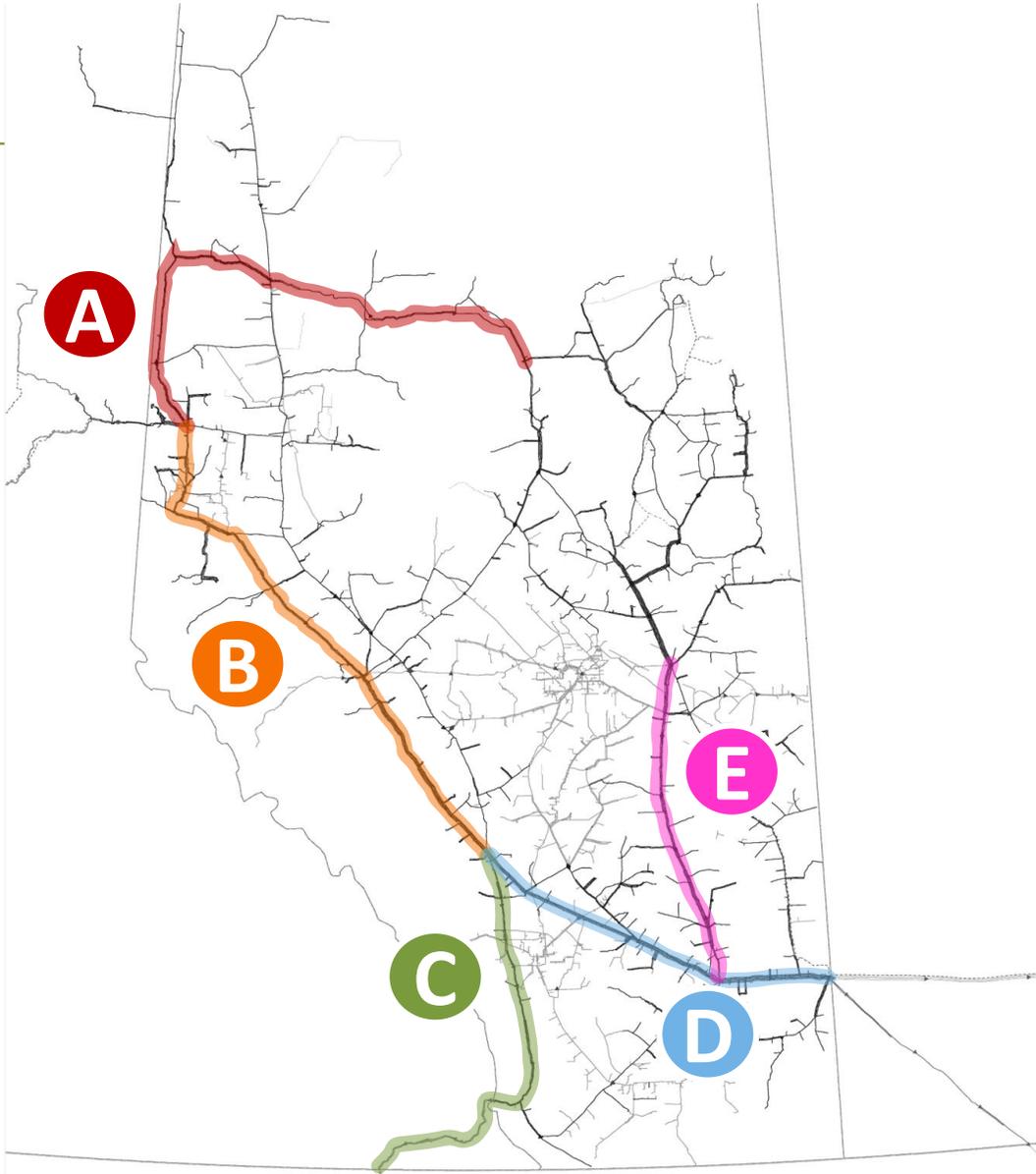
# Flow Path Relationships

## Potential for reduced service availability:

- A** Upstream FT-R and/or downstream IT-D/IT-S
- B** Upstream FT-R or downstream IT-D/IT-S
- C** WGAT/FHBC only (NGTL or FHBC)
- D** EGAT only (includes NEDA/OSDA)
- E** NEDA only (includes OSDA)

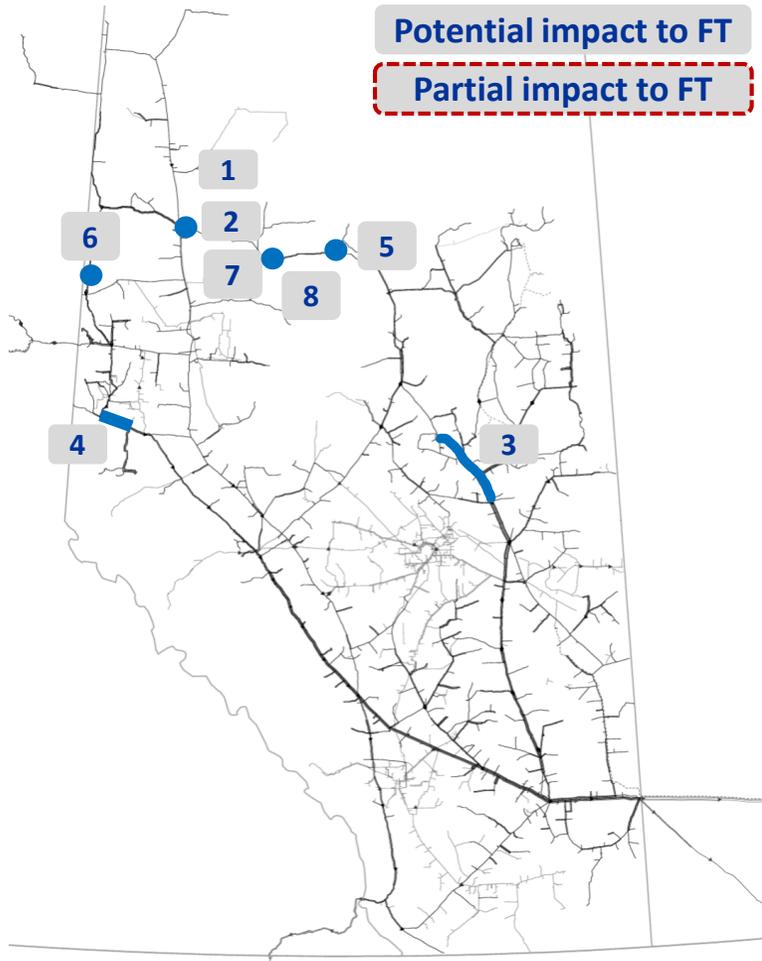
## Outage Communication:

- As soon as information available
- Initial and revised assessments, *DOP*
- Finalized and confirmed assessment, *NrG Highway*



23 \*Actual service authorizations will depend on several factors

# 2019 Upstream James River Receipt Area – Outage Highlights



Facility Outage	Planned Outage Timing	Service Allowable	Capacity/Allowable	
			10 <sup>3</sup> m <sup>3</sup> /d	TJ/d
1. Meikle River B2 & C4 <i>Compressor Station Modifications</i>	July 9 – 24, 2019 <b>Deferred 2019</b>	Potential impact to FT-R	308,000	11,796
2. Meikle River D5 <i>Compressor Station Modifications</i>	Aug 7 – 22, 2019 <b>Deferred 2019</b>	Potential impact to FT-R	304,000	11,643
3. NPS 30 & 42 Paul Lake and Flat Lake Lateral Loop 3 & 4 <i>Pipeline Maintenance</i>	Sep 9 – 14, 2019 <b>Deferred</b>	Potential impact to FT-R	305,000	11,682
4. NPS 30 Grande Prairie Mainline Loop <i>Pipeline Maintenance</i>	July 3-12, 2019	Potential impact to FT-R	304,000	11,643
5. Goodfish <i>Compressor Station Maintenance</i>	July 15 – 19, 2019	Potential impact to FT-R	304,000	11,873
6. Alces River <i>Compressor Station Maintenance</i>	September 7 – 13, 2019	Potential impact to FT-R	305,000	11,682
7. Meikle River C <i>Compressor Station Maintenance</i>	Sep 9 – 15, 2019	Potential impact to FT-R	308,000	11,796
8. Otter Lake <i>Compressor Station Maintenance</i>	September 7 – 15, 2019	Potential impact to FT-R	307,000	11,758

*Outage date, duration, and impact may be subject to change. Refer to DOP for all planned outages with potential service impact.*

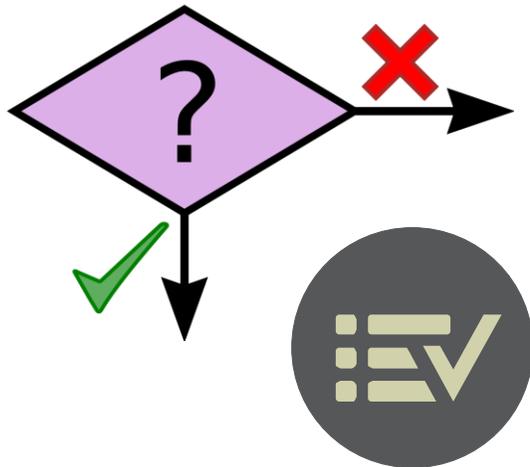
# Outage Communication Interpretation – USJR Receipt Area



Partial Impact to FT-R: Highly confident FT limitation is required

*Lower likelihood of limiting IT downstream of the system constraint(s)*

- Potential for downstream IT limitation remains if outage affects both receipt and delivery capability
- Confirmation of allowable and area via NrG Notice



Potential Impact to FT-R along with No Impact to FT-D anticipated: FT limitation not expected

*Higher likelihood of limiting IT downstream of the system constraint(s)*

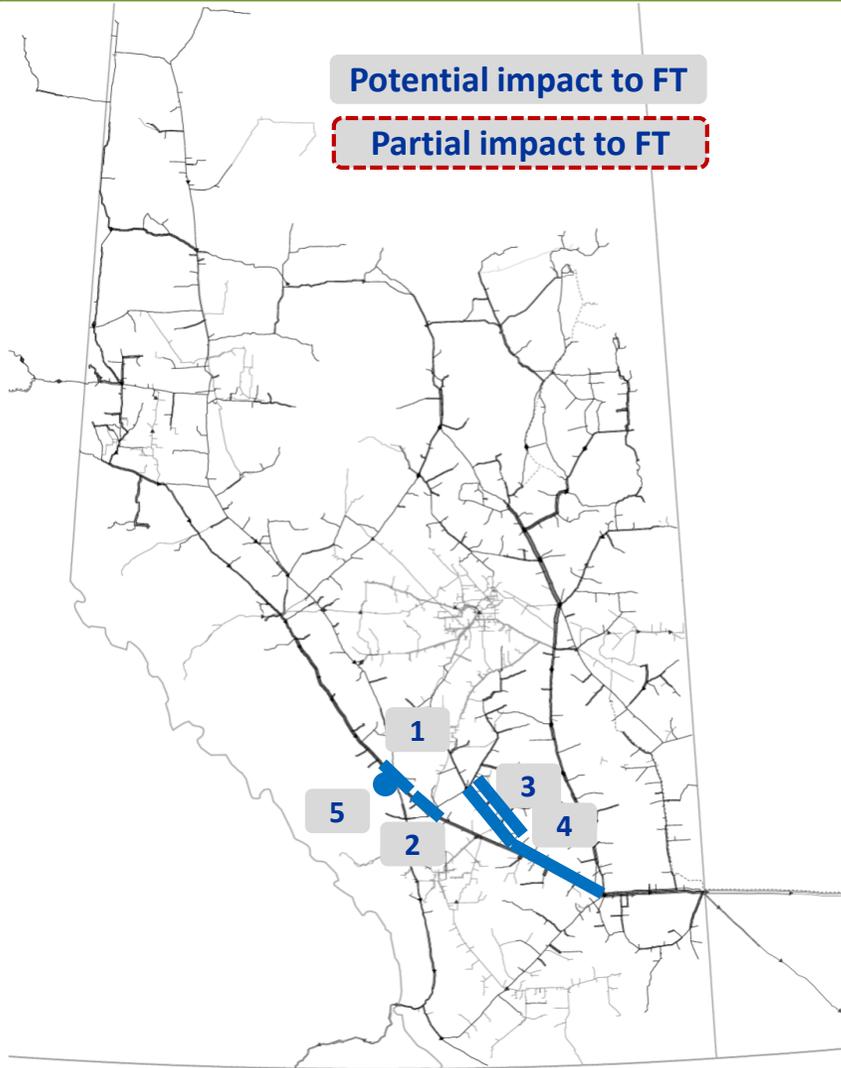
- Potential remains to avoid upstream FT impact with downstream IT limitation
- Downstream entries removed from DOP close to outage execution if
  - a) there is no downstream IT utilization, or
  - b) FT-R limitation is unavoidable

# 2019 USJR Outages impacting WGAT & EGAT Delivery Area Summary

Facility Outage	Planned Outage Timing	Service Allowable		Capacity/Allowable				Flow Path
		USJR	WGAT/EGAT	Western Gate Delivery CDQ: 2,644 TJ/d		Eastern Gate Delivery Apr 2019 CDQ: 4,278 TJ/d		
				10 <sup>3</sup> m <sup>3</sup> /d	TJ/d	10 <sup>3</sup> m <sup>3</sup> /d	TJ/d	
NPS 30 Grande Prairie Mainline Loop Pipeline Maintenance	July 3-12, 2019	Potential impact to FT-R	No impact to FT-D anticipated	69,000	2,644	122,000	4,673	
Goodfish Compressor Station Maintenance	July 15 - 19, 2019	Potential impact to FT-R	No impact to FT-D anticipated	69,000	2,644	122,000	4,673	
Alces River Compressor Station Maintenance	September 7 – 13, 2019	Potential impact to FT-R	No impact to FT-D anticipated	69,000	2,644	117,000	4,481	
Otter Lake Compressor Station Maintenance	September 7 – 15, 2019	Potential impact to FT-R	No impact to FT-D anticipated	69,000	2,644	119,000	4,558	
Meikle River C Compressor Station Modifications	Sep 9 – 15, 2019	Potential impact to FT-R	No impact to FT-D anticipated	69,000	2,644	123,000	4,711	

*Outage date, duration, and impact may be subject to change. Refer to DOP for all planned outages with potential service impact.*

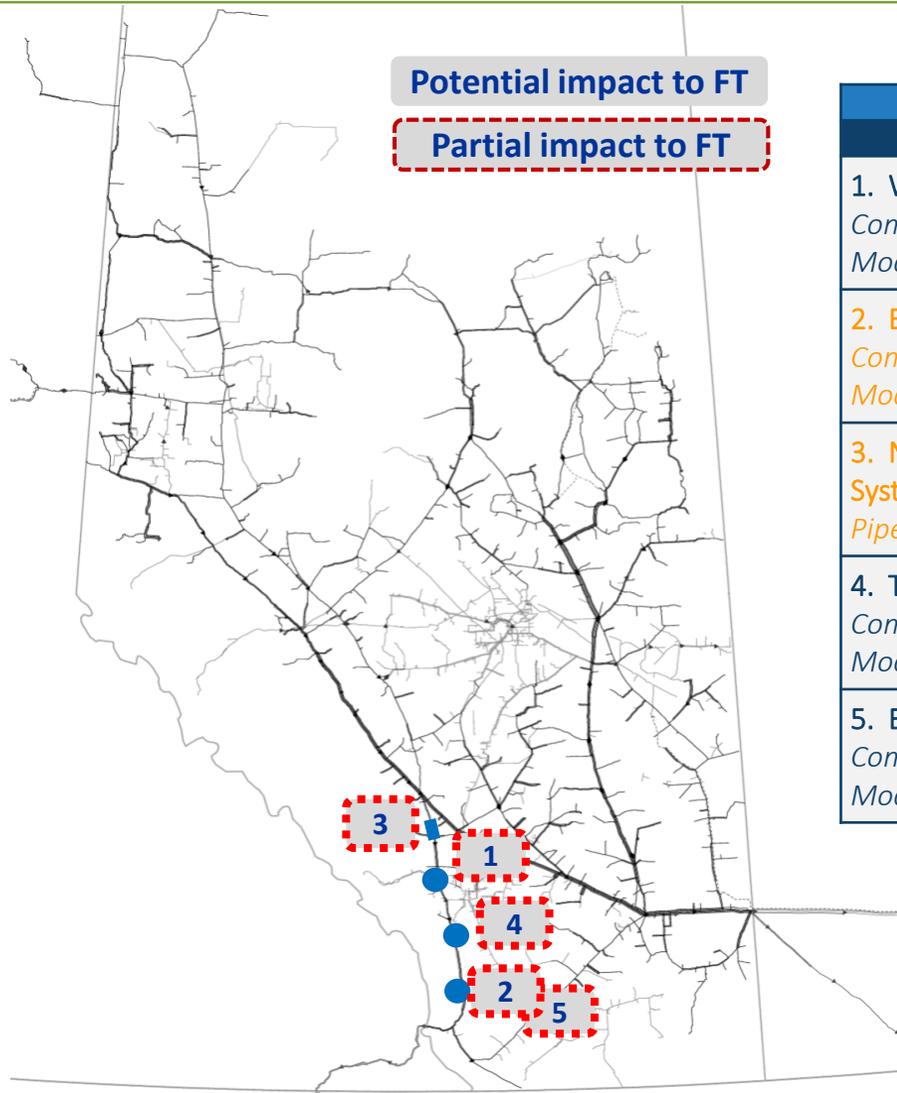
# 2019 Eastern Gate Delivery Area Summary (Outages directly impacting EGAT)



Facility Outage	Planned Outage Timing	Service Allowable	Capacity/Allowable	
			10 <sup>3</sup> m <sup>3</sup> /d	TJ/d
1. NPS 30 Edson Mainline Pipeline Maintenance	June 18 - 25, 2019	No impact to FT-D anticipated	120,000/ 122,000	4,596/ 4,673
2. NPS 42 CAS Mainline Loop Pipeline Maintenance	August 7 – September 28, 2019	No impact to FT-D anticipated	129,000	4,941
3. NPS 30 Plains Mainline Loop Pipeline Maintenance	August 12 – 21, 2019	No impact to FT-D anticipated	120,000	4,596
4. NPS 30 Plains Mainline / NPS 30 EAS Mainline Pipeline Maintenance	August 23 – September 1, 2019	No impact to FT-D anticipated	120,000	4,596
5. Schrader Creek Compressor Station Maintenance	November 18 - 28, 2019	No impact to FT-D anticipated	114,000	4,366

*Outage date, duration, and impact may be subject to change. Refer to DOP for all planned outages with potential service impact.*

# 2019 Western Gate Delivery Area – Outage Highlights

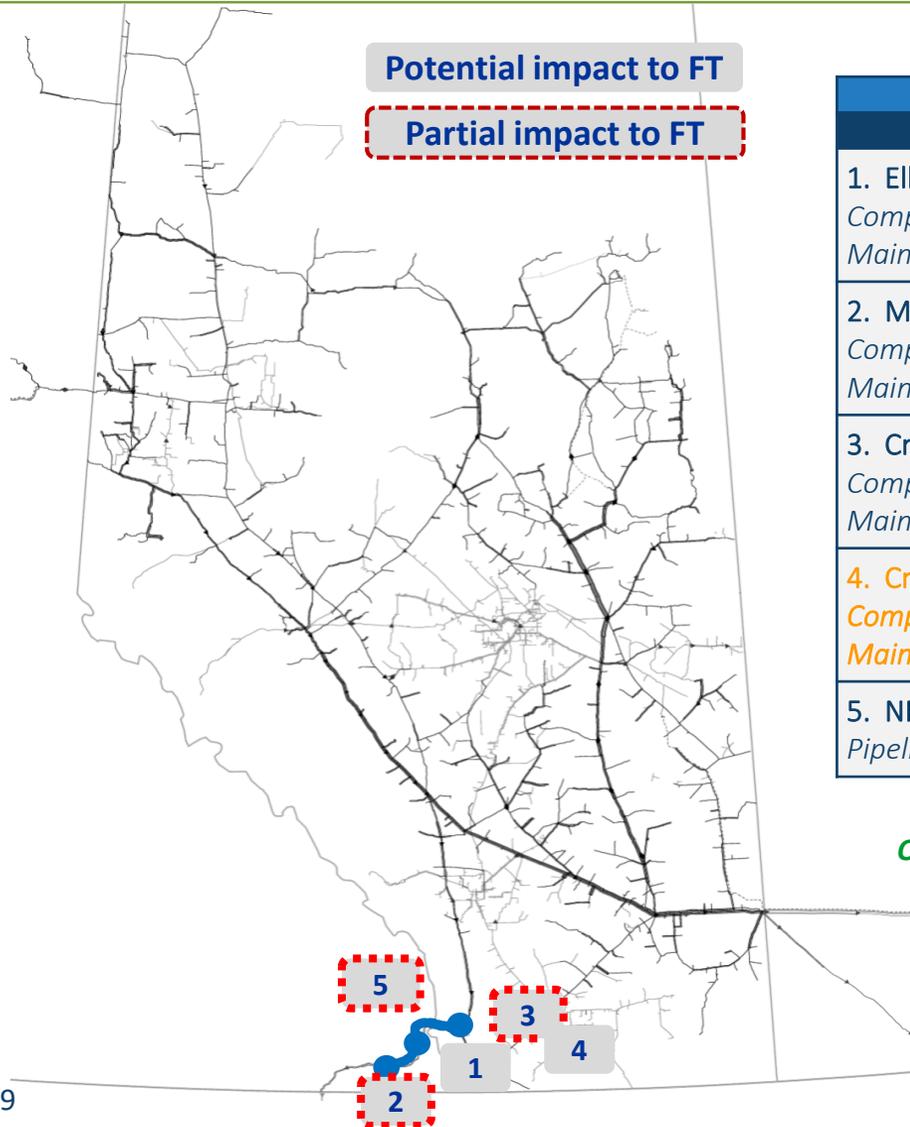


Facility Outage	Planned Outage Timing	Service Allowable	Capacity/Allowable	
			10 <sup>3</sup> m <sup>3</sup> /d	TJ/d
1. Winchell Lake <i>Compressor Station Modifications</i>	July 8 – 21, 2019	Partial impact to FT-D	62,000	2,375
2. Burton Creek <i>Compressor Station Modifications</i>	July 2 – 6	Partial impact to FT-D	63,000	2,413
3. NPS 36 Western Alberta <i>System Pipeline Maintenance</i>	July 8-11	Partial impact to FT-D	60,000	2,298
4. Turner Valley <i>Compressor Station Modifications</i>	Sept 6 - 15, 2019	Partial impact to FT-D	61,000	2,337
5. Burton Creek <i>Compressor Station Modifications</i>	Nov 18 – 27, 2019 <i>Deferred 2020</i>	Partial impact to FT-D	66,000	2,528

*Outage date, duration, and impact may be subject to change. Refer to DOP for all planned outages with potential service impact.*

Note: Revisions and new information shown in orange text

# 2019 Foothills BC Receipt Area – Outage Highlights



Facility Outage	Planned Outage Timing	Service Allowable	Capacity/Allowable	
			10 <sup>3</sup> m <sup>3</sup> /d	TJ/d
1. Elko <i>Compressor Station Maintenance</i>	July 8 – 11, 2019	Potential impact to FT-R	62,000	2,375
2. Moyie <i>Compressor Station Maintenance</i>	July 12 – 15, 2019	Partial impact to FT-R	59,000	2,260
3. Crowsnest A <i>Compressor Station Maintenance</i>	July 16 – 19, 2019	Partial impact to FT-R	57,000	2,184
4. Crowsnest B <i>Compressor Station Maintenance</i>	Aug 12– 15, 2019	No Impact to FT-R Anticipated	69,000	2,643
5. NPS 36 BC Mainline <i>Pipeline Maintenance</i>	Sept 17 - 27, 2019	Partial impact to FT-R	59,000	2,260

*Outage date, duration, and impact may be subject to change. Refer to DOP for all planned outages with potential service impact.*

Note: Revisions and new information shown in orange text

# Agenda

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- 1 Performance Update
- 2 Summer Outage Outlook
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# Improving Our Service for Customers

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What we've heard from customers:

- TC Energy needs to understand your business better
- NGTL system is complex
- Communications are unclear

In response, we want to do better and to do so we need your help to co-create a better experience that will deliver:

- A forum for better understanding business challenges
- Identifying and assessing priority
- Crafting solutions, managing change

# Introducing the Customer Operations Action Team

A collaborative forum to understand current state and improvement opportunities for TC Energy's operational communication tools

## WHAT IT IS

- Operational communication focus
- Open, respectful, collaborative
- Build two-way understanding
- “Ops-to-Ops” – front line focused
- Drive immediate, impactful change

- Tariffs
- Commercial, policy or regulatory issues

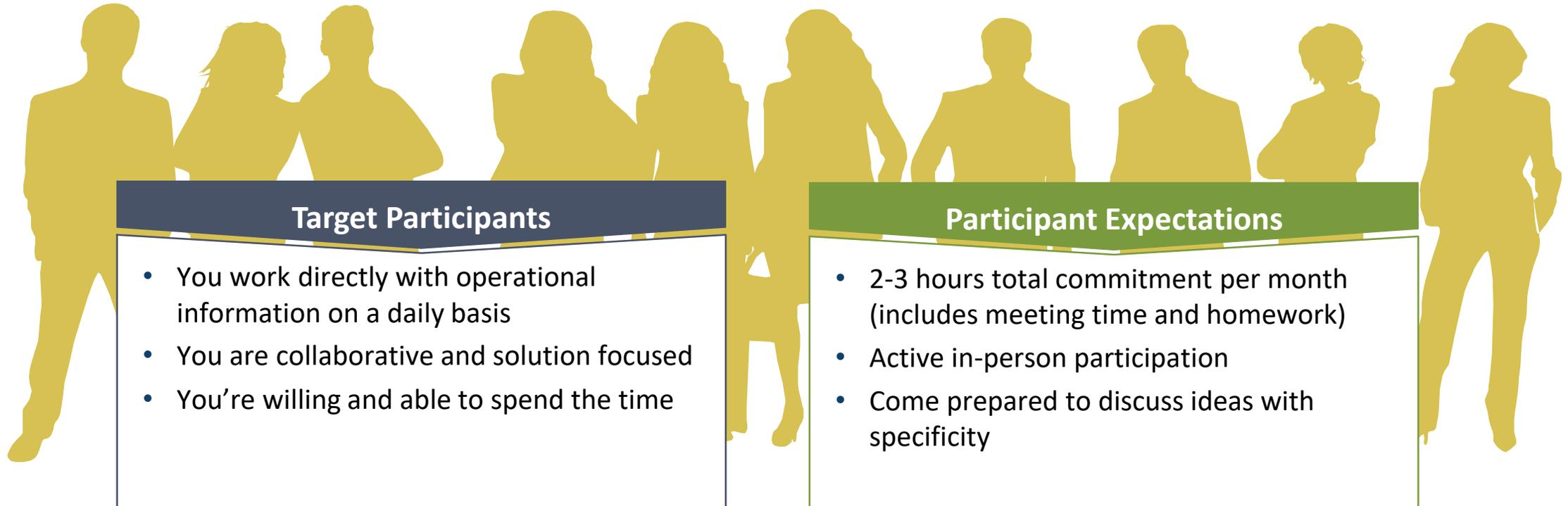
## WHAT IT ISN'T

We Will Deliver:

- More effective communication of operational information
- Improved customer service for our NGTL and Foothills customers

# We Need Your Help

- Collective understanding/agreement on current gaps in communication of operational information
- Determination of priority
- Collaborative solutioning



**Target Participants**

- You work directly with operational information on a daily basis
- You are collaborative and solution focused
- You're willing and able to spend the time

**Participant Expectations**

- 2-3 hours total commitment per month (includes meeting time and homework)
- Active in-person participation
- Come prepared to discuss ideas with specificity

# How Will It Work?

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## Structure:

- Four initial suggested topics (based on customer feedback). Opportunity to suggest others
- Open participation
- Focus on ensuring productive dialogue and solutions: Interest will determine working session structure

## Process:

- Monthly meeting, with options for additional meetings as required
- In-room participation
- One representative from each company (no substitutions)
- All decisions/solutions will be communicated to customers prior to implementation

# Proposed Process

## Customer Operations Meeting: June 2019

- Introduce concept
- Prioritize topics



### Follow-up Survey

- Detailed feedback on existing topics
- Identification of additional topics
- Participation request

### Outcome:

- Prioritized list of topics
- List of Participants

## Work Stream Process

1

### Identify & Prioritize

- Develop problem statement
- What does success look like?
- Review/Discuss gathered data (details on specific issues / solutions)

- Outcome:**
- Measure of Success
  - Proposed Solutions

2

### Solution

- Review meeting outcomes
- Review viability of actions

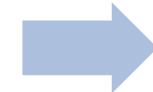
- Outcome:**
- Viability of solutions
  - Timing of implementation

3

### Manage Change & Execute

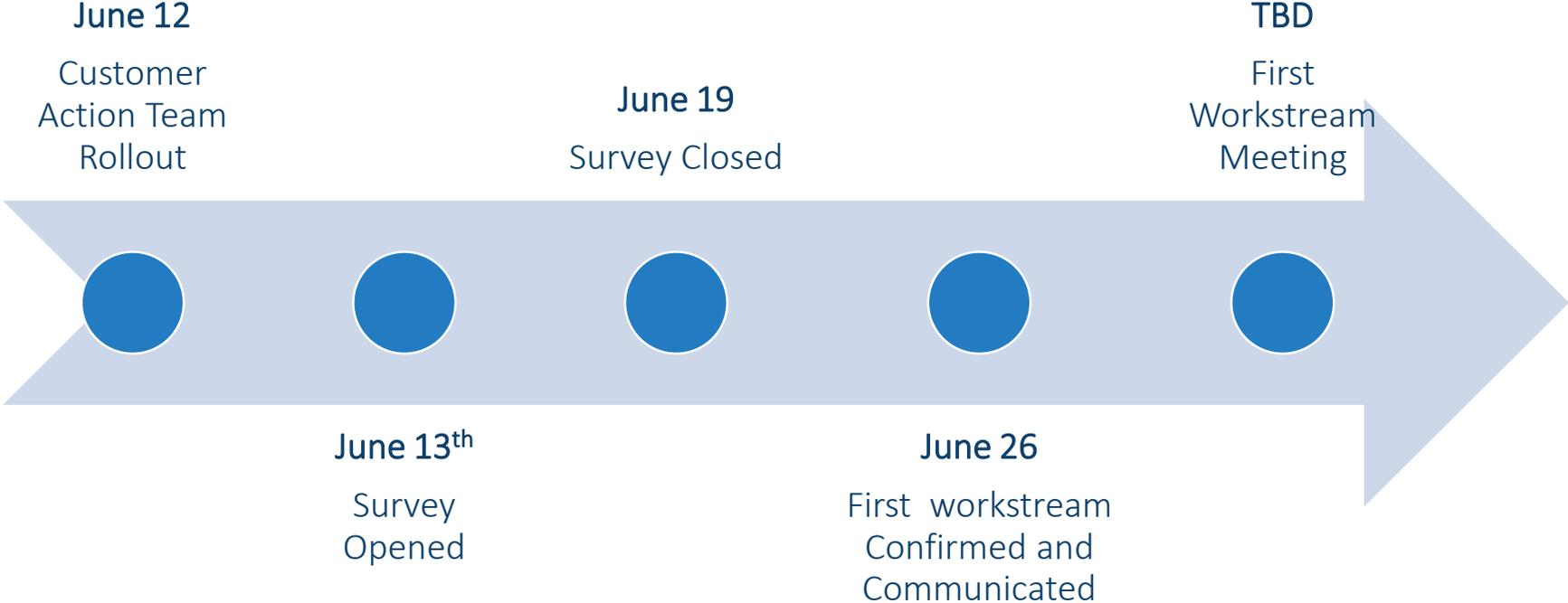
- TC Energy to develop execution plan
- Communicate Change
- Execute

- Outcome:**
- Execution



# Timeline

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# Content

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To help us determine the focus of the first Customer Operations Action Team, we have some questions for you...

Join at: [Slido.com](https://www.slido.com) – NGTL/FH Customer Ops Meeting  
Password: #June2019

# Next Steps

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## Fill out the survey:

- Specific Feedback
- Additional topics
- Interest in participation

Any questions or comments?

Ian Chisholm

Manager, Operations Planning

[ian\\_chisholm@transcanada.com](mailto:ian_chisholm@transcanada.com)

403-920-6252

**Questions?**



# NGTL and Foothills Contact Information

Inquiries	Availability	Team	Functions	Contact Information
General Assistance	7am-10 pm MT, 7 day/week	TC Energy Call Centre	Customer service for nominations, allocations, and measurement	403-920-PIPE (7473) or toll-free at 1-877-920-PIPE (7473); and <a href="mailto:nominations@transcanada.com">nominations@transcanada.com</a>
Contracts and Billing	Business hours	Contracts	Support for contracts	<b>NGTL:</b> <a href="mailto:ngtl_contracting@transcanada.com">ngtl_contracting@transcanada.com</a>
		Billing	Support for billing	<b>FH:</b> <a href="mailto:ab_ft_openseason@transcanada.com">ab_ft_openseason@transcanada.com</a>  <a href="mailto:ngtl_billing@transcanada.com">ngtl_billing@transcanada.com</a>
Operations planning and outage coordination	Business hours	Operations Planning	New facility integration, operating plan strategies, outage planning and coordination, linepack management, connected pipeline agreements, event/emergency management	<a href="http://www.transcanada.com/customerexpress/2880.html">http://www.transcanada.com/customerexpress/2880.html</a>

# NGTL and Foothills Contact Information

Inquiries	Availability	Team	Functions	Contact Information
Sales and service	Business hours	Market Representatives	Service inquiries and new service requests	<b>NGTL:</b> <a href="http://www.tccustomerexpress.com/875.html">http://www.tccustomerexpress.com/875.html</a> <b>FH:</b> Ashley Stowkowy: 920-5828
Multi-stakeholder interests	Business hours	Commercial Collaboration	Multi-stakeholder initiatives, customer meetings, and the Tolls, Tariff, Facilities and Procedures (TTFP) committee	<a href="http://www.tccustomerexpress.com/872.html">http://www.tccustomerexpress.com/872.html</a>
All other contacts		TC Energy Natural Gas Pipelines		<a href="http://www.tccustomerexpress.com/852.html">http://www.tccustomerexpress.com/852.html</a>