

Takeaways from the November 5th, NGTL/FH Customer Ops meeting

1. Can NGTL provide base capability for the remainder of 2021?

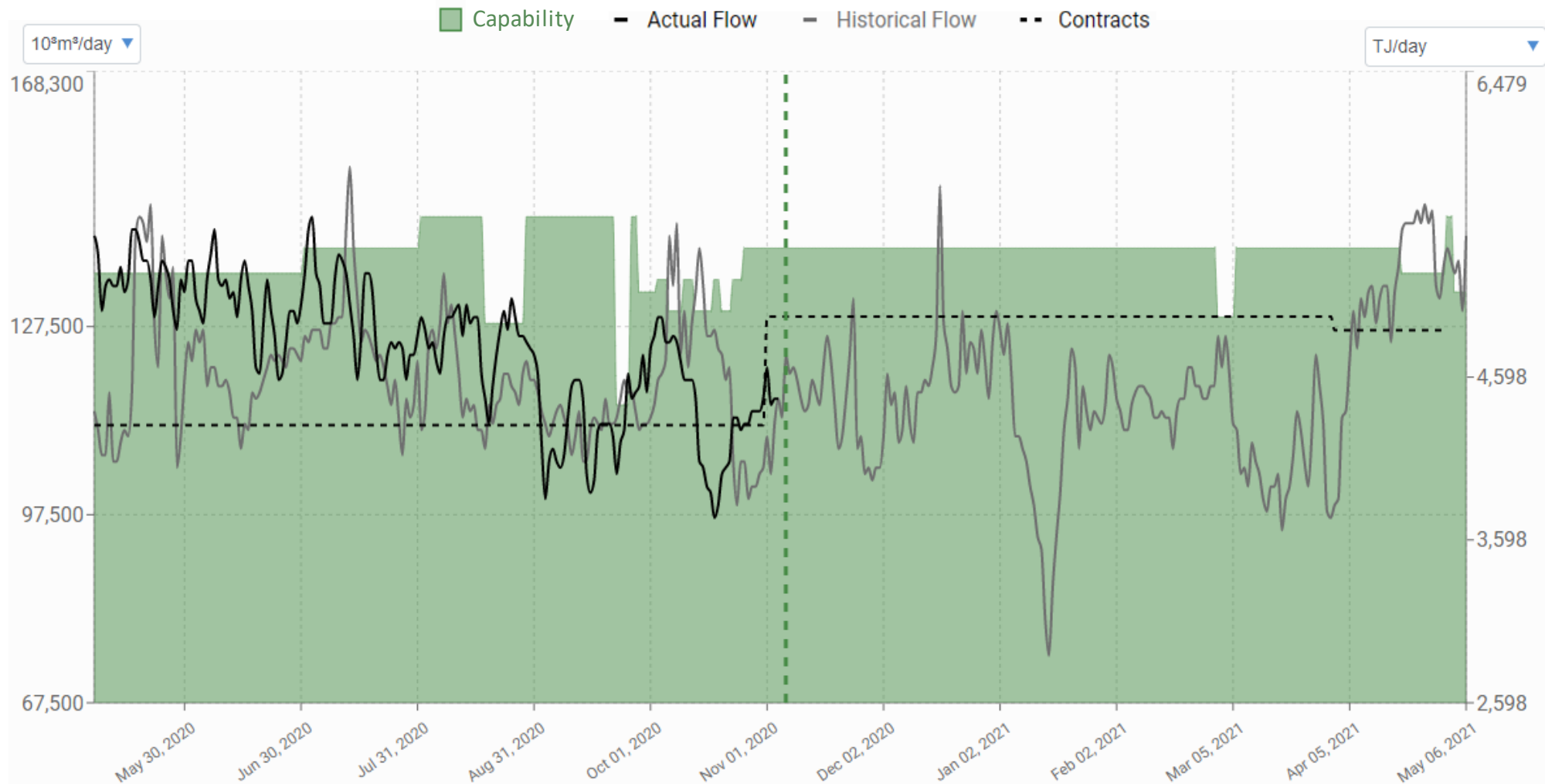
Response: NGTL provides base capability for a rolling forward period of 6 months on my.tccustomerexpress.com. When providing the following year's maintenance program, base capability outlook is extended to include up to October of the following year. Base capability information can be referenced in this presentation and by visiting my.tccustomerexpress.com.

2. A customer noted that on Slide 26, the EGAT capability dipped below the contract level in early March 2021. What is the rationale for this?

Response: As noted during the meeting, this is an error and has now been revised in the DOP (Daily Operating Plan) to depict the capability appropriately. A revised screenshot with the corrected information has been provided on slide 2.

Corrected: Operational Capability Outlook – Empress/McNeill Border (EGAT)

East Gate





NGTL System and Foothills Pipe Lines Ltd.

Customer Operations Meeting

November 5, 2020



For informational purposes only

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
- Please submit your questions via the chat function and we will answer them at the best possible opportunity

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

- For current outage information, please refer to the most recent Daily Operating Plan (DOP) on TC Customer Express
- This meeting will only cover operational topics related to the NGTL and Foothills systems. For information on Commercial and Regulatory topics, please contact your Marketing Representative

Our Focus During COVID-19

- Protect our teams, partners and communities
- Ensure no interruption to our customers
- Secure supply of critical equipment and services with our partners

Notice something is off?

Please reach out: [Marketing Reps](#) or 403.920.PIPE

Safety Moment

Charging your Mental Health battery



It's normal for us to occasionally experience feelings of stress, anxiety, confusion, and sadness. It's important to acknowledge these feelings, but also accept there is only so much we can control.

Think of your mental health and resiliency like a battery. When fully charged, we can take on daily routines, challenges, stressors and have the ability to bounce back when faced with adversity.

Take a minute to reflect on what you can do to keep your battery charged.

Resiliency Chargers



- Proper nutrition and physical exercise
- Practicing meditation, mindfulness, or gratitude
- Taking time for yourself to do something you enjoy!
- Getting outside (safely)
- Using vacation days!

Resiliency Drainers



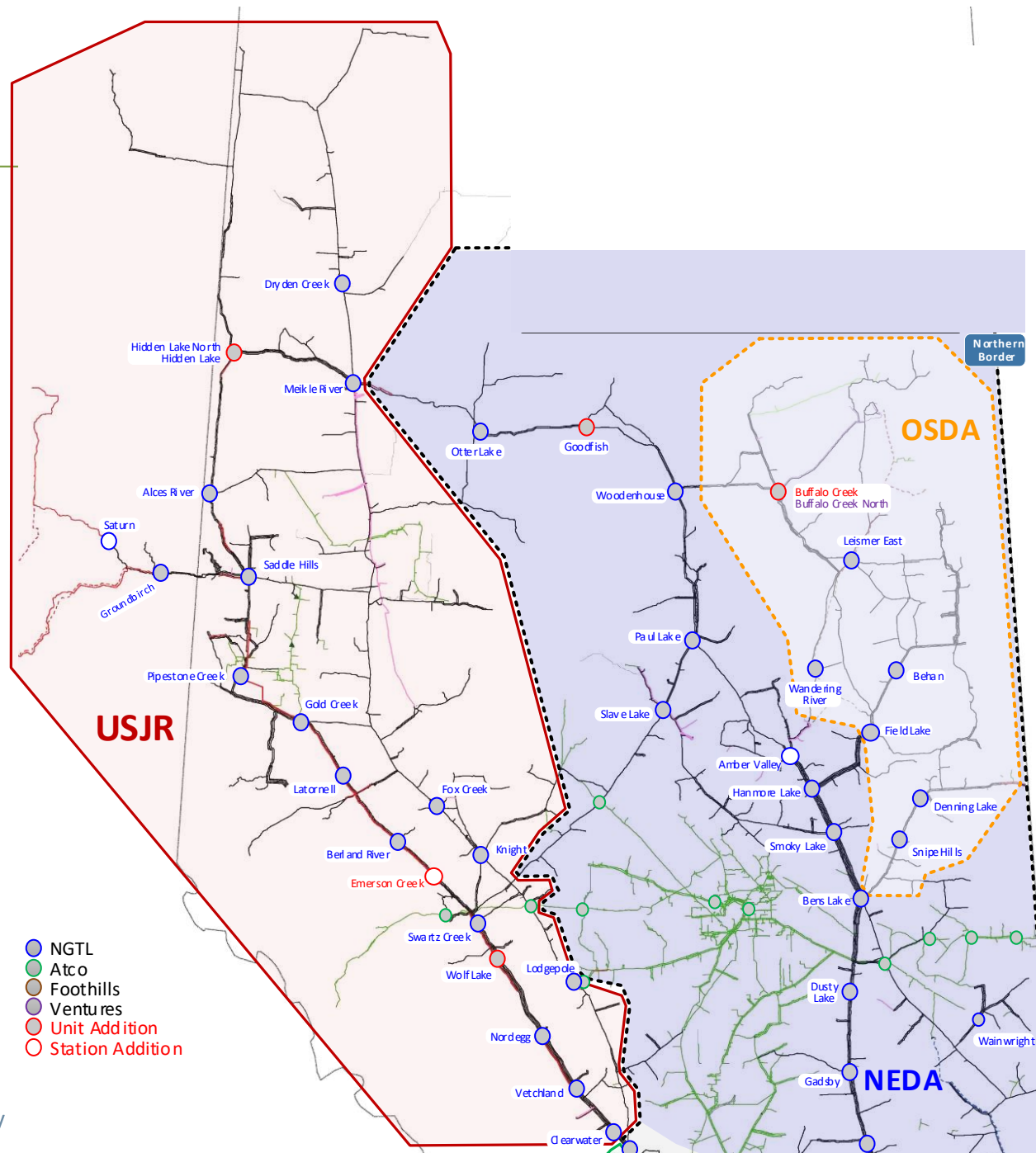
- Surrounding yourself with negative people or news/social media
- Focusing on things you cannot control
- Falling out of routine
- Significant life changes

Agenda

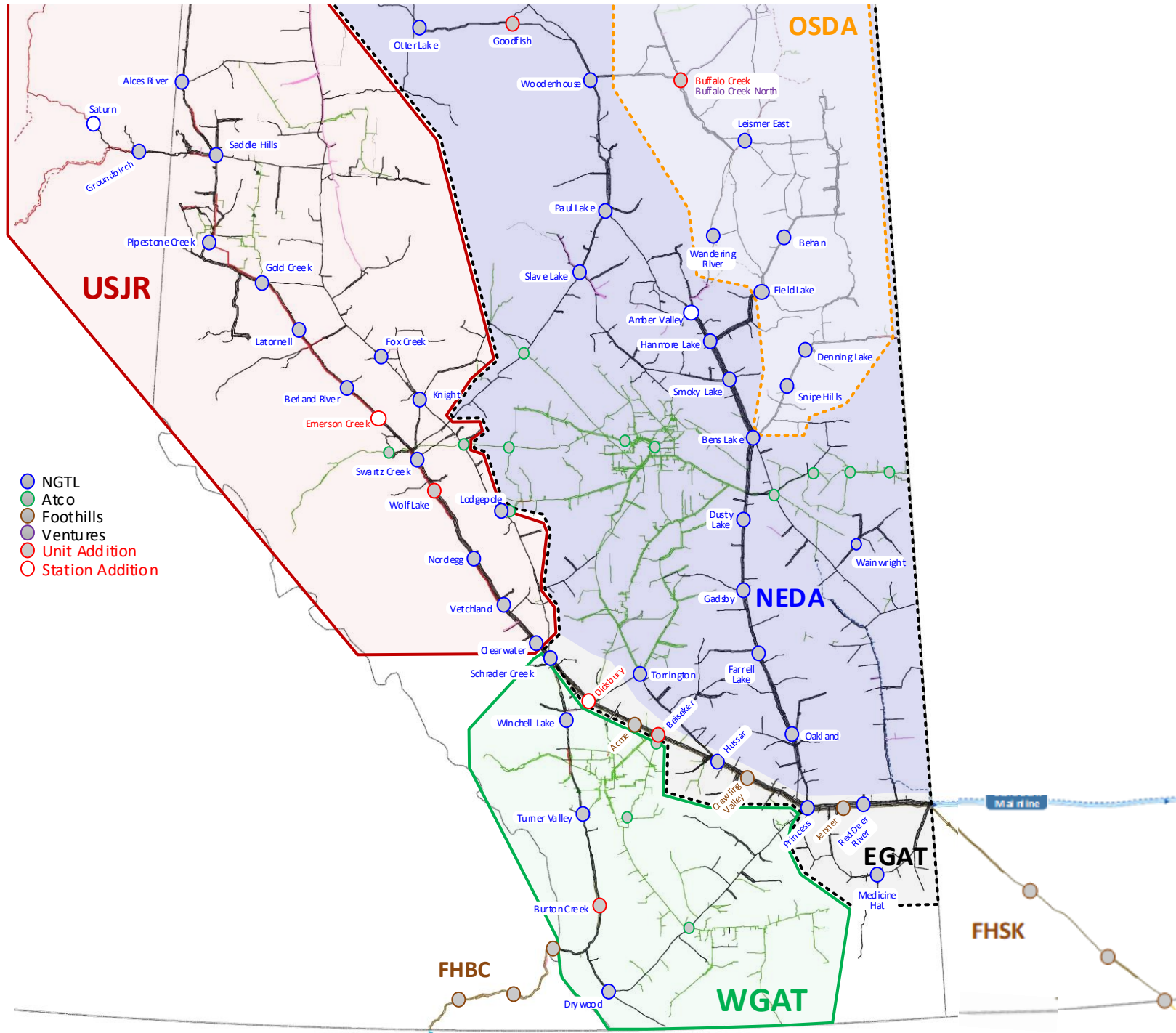
- 1 Review of 2020 Maintenance Program
- 2 2021 Operational Outlook
- 3 Lookback at Customer Experience Improvements



Reference Maps and Flow Paths



- NGTL
- Atco
- Foothills
- Ventures
- Unit Addition
- Station Addition



- NGTL
- Atco
- Foothills
- Ventures
- Unit Addition
- Station Addition

Commonly Referenced Flow Paths

NWML

NCC

GPML

EDSML

CAS

WAS

NLAT

EAS

SLAT

- Northwest Mainline (NWML)
- Grande Prairie Mainline (GPML)
- Edson Mainline (EDSML)
- Western Alberta System Mainline (WAS)
- Central Alberta System Mainline (CAS)
- Eastern Alberta System Mainline (EAS)
- South Lateral (SLAT)
- North Lateral (NLAT)
- North Central Corridor (NCC)

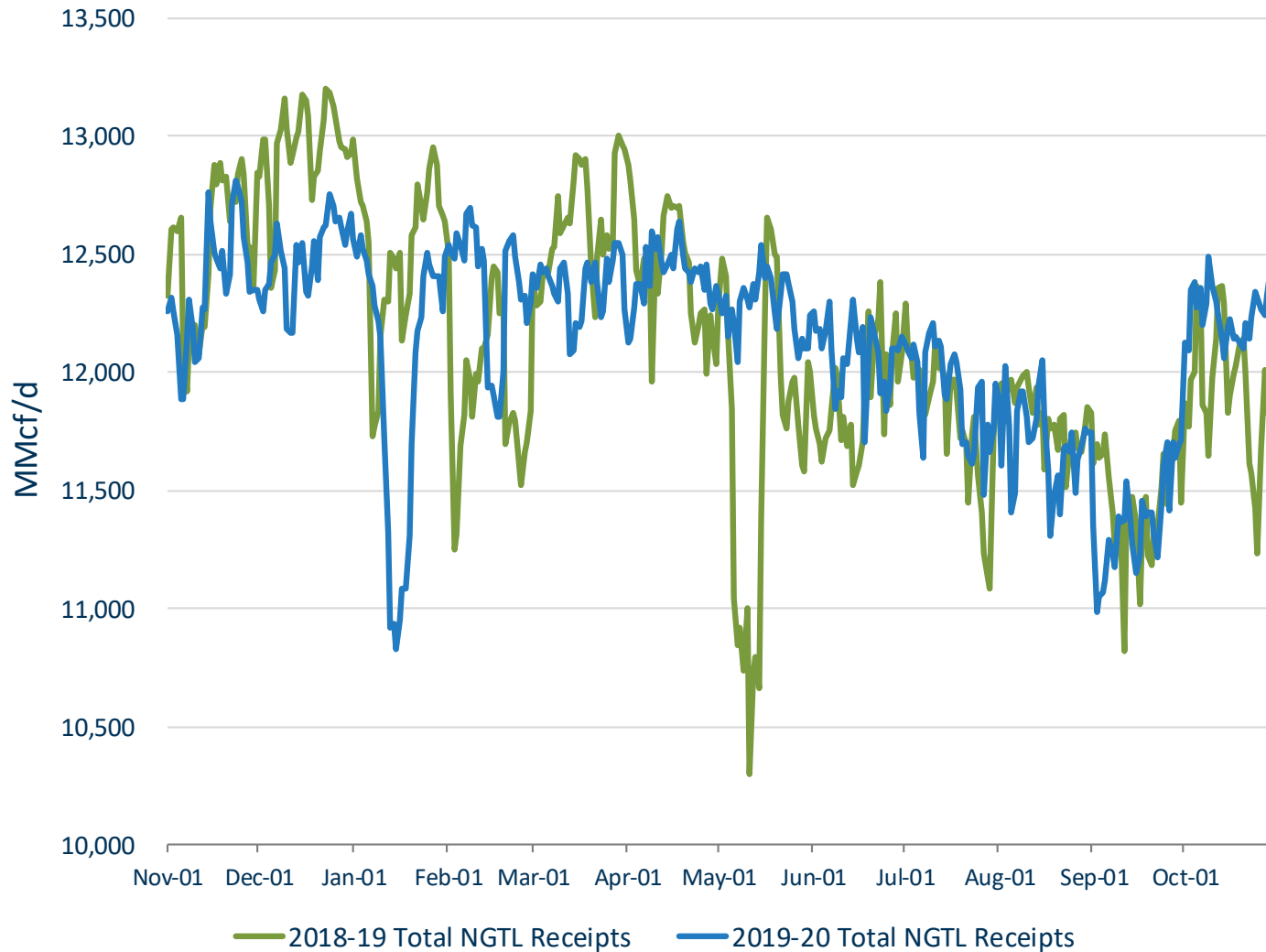
Click [HERE](#) to access this information on Customer Express



Review of 2020 Maintenance Program

System Throughput | Gas Year Comparison

Total NGTL Receipts



Total throughput similar in 2019 and 2020

- Full gas year average total receipts = 12.1 Bcf/d
- Summer average total receipts = 150 MMcf/d higher

Reduced delivery to some markets:

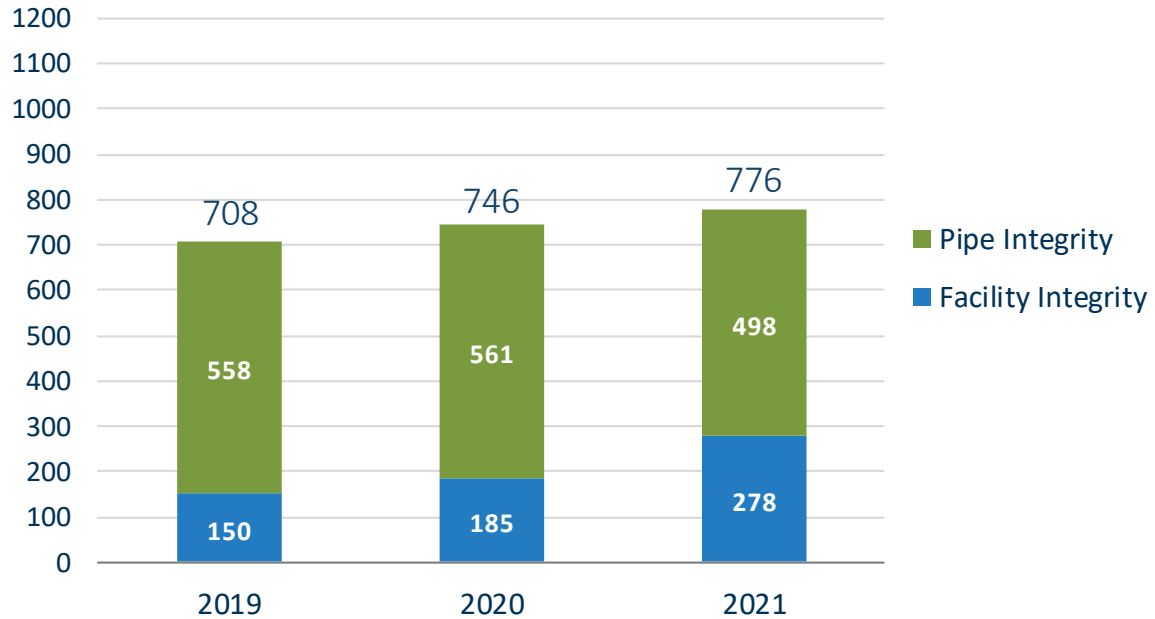
- East Gate average summer export = 450 MMcf/d lower
- Oil Sands average summer delivery = 100 MMcf/d lower
- AB-B.C. Border average summer delivery = 30 MMcf/d lower

Significant increase in storage injections

- Average summer storage injection = 800 MMcf/d higher

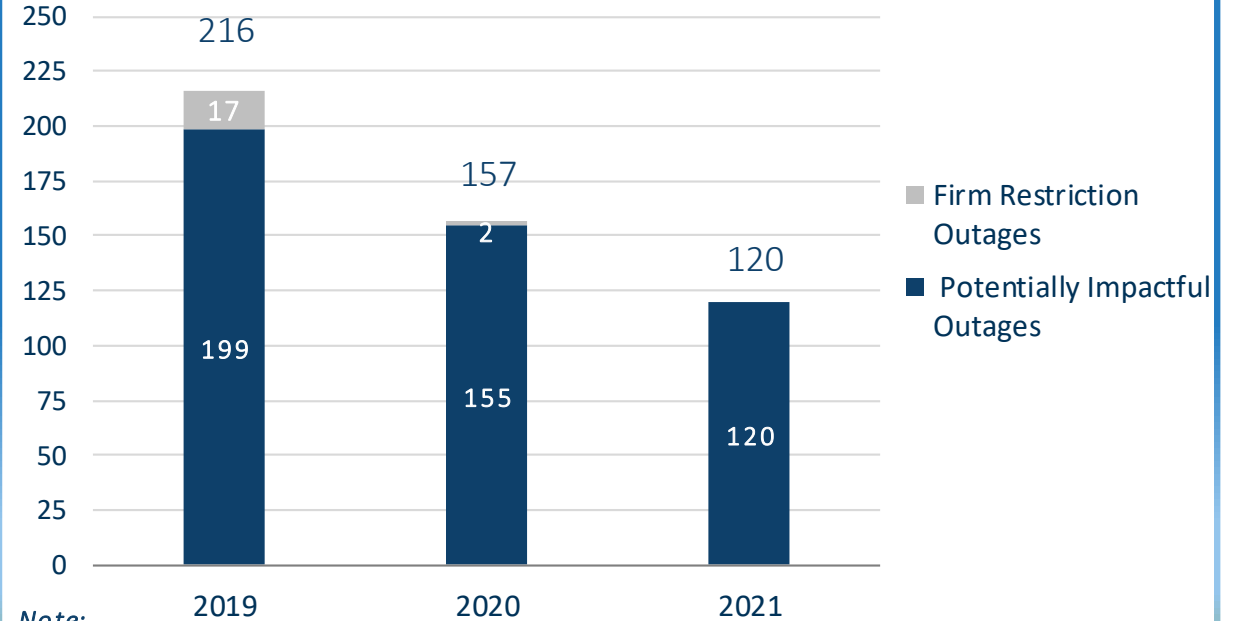
Maintenance and Outages | 2019, 2020, and 2021

Impactful Work Units



Note:
 - 2019 and 2020 data includes unplanned maintenance
 - 2020 and 2021 data includes forecasted work units

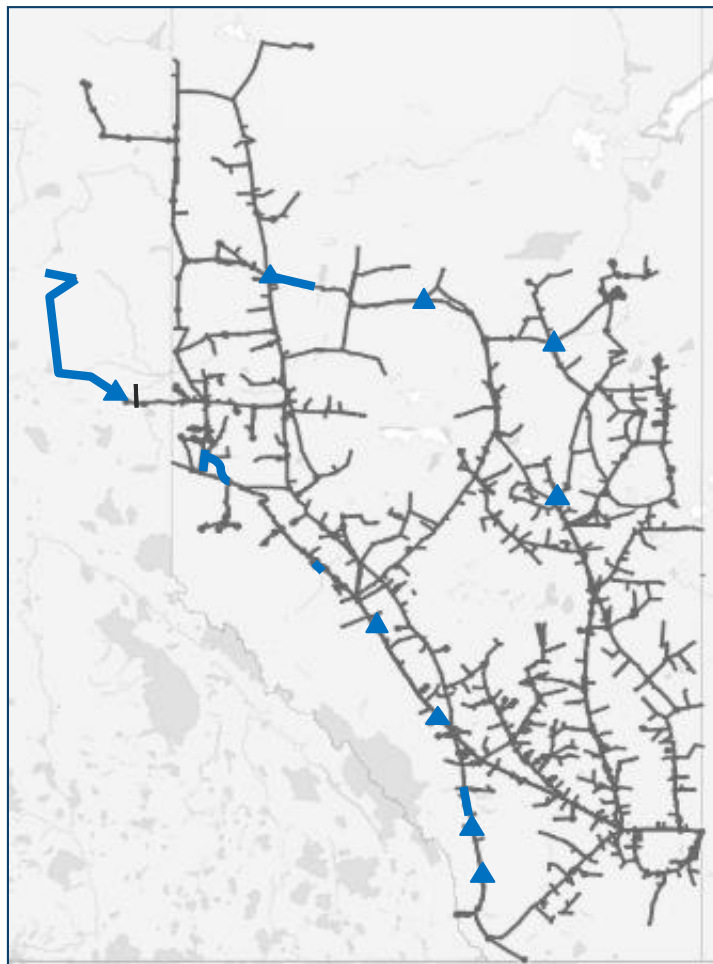
DOP Outages



Note:
 - No TSP Applicable outages in 2020
 - Estimated DOP published outages (not including Local Area/Location Outages)

Facility additions have resulted in increased system flexibility leading to lower DOP Outages

2020 System Expansion



LEGEND:

-  Facility
-  Compressor
-  Pipe

System expansion with significant capacity additions have substantially improved system flexibility and availability in 2020



7 capacity expansion projects (16 expansion facilities)



8 compressor units (210 MW incremental compression)



331 km of new pipe



1 Bcf/d of capacity addition

Restriction Days | 2019 and 2020

NGTL System operated very well in 2020 largely due to benefits from system expansion and capacity additions



2020*	Area	FT Restricted	IT Restricted	Unrestricted
	USJR	6**	90	209
	EGAT	-	-	305
	WGAT	-	49	256
	NEDA	4	5	296

10 FT restriction days (1%)
 144 IT restriction days (12%)
 1,066 Unrestricted days (87%)

*Up to and including October 31. 305 days reported in 2020 versus 365 in 2019
 **USJR FT restriction days in 2020 occurred in February, and were not TSP eligible



2019	Area	FT Restricted	IT Restricted	Unrestricted
	USJR	83*	282	-
	EGAT	-	171	194
	WGAT	45	277	43
	NEDA	-	63	302

128 FT restriction days (9%)
 793 IT restriction days (54%)
 539 Unrestricted days (37%)

*30 FT-R restriction days based on TSP outages that began in October 2019

Summary

- Total throughput in 2020 similar to 2019 (approx. 12.1 Bcf/d)
 - Lower summer deliveries in some markets with significant increase in storage injections
- Maintenance activities executed in 2020 projected to be 5% higher than 2019
- Additional facilities in-service in 2020 have added to system flexibility
- Less service restriction days in 2020 compared to 2019
 - No TSP applicable FT-R restriction days in 2020



2021 Operational Outlook

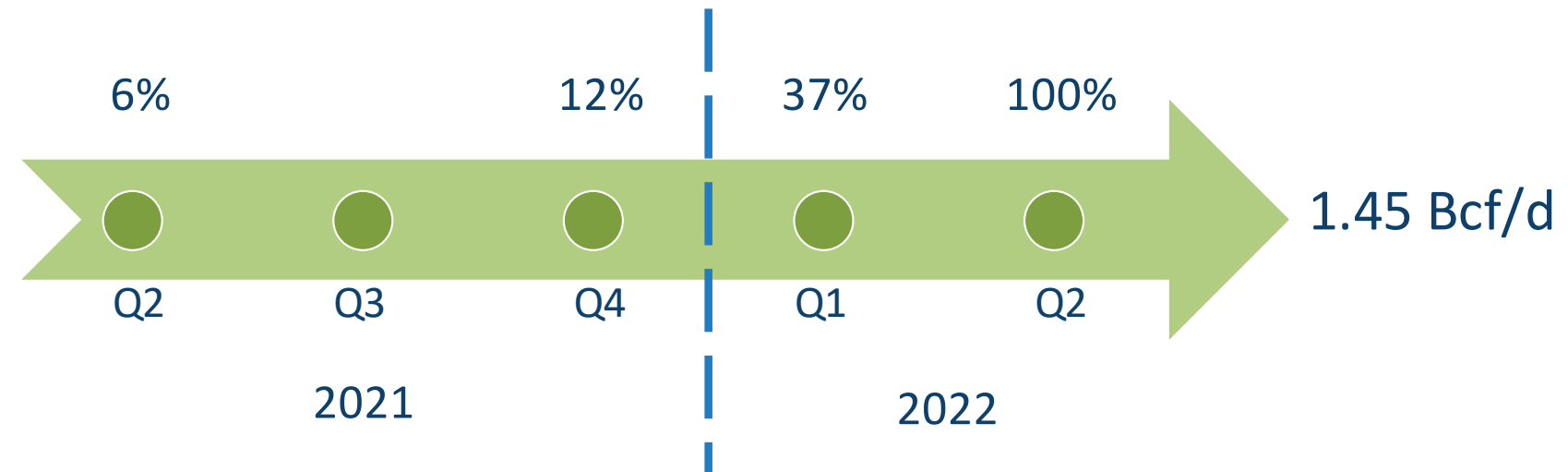
Proposed 2021 Expansion Facilities



LEGEND:

- Proposed Facility
- ▲ Proposed Compressor
- ▬ Proposed Pipe

'2021 NGTL System Expansion Project' % of capacity available:

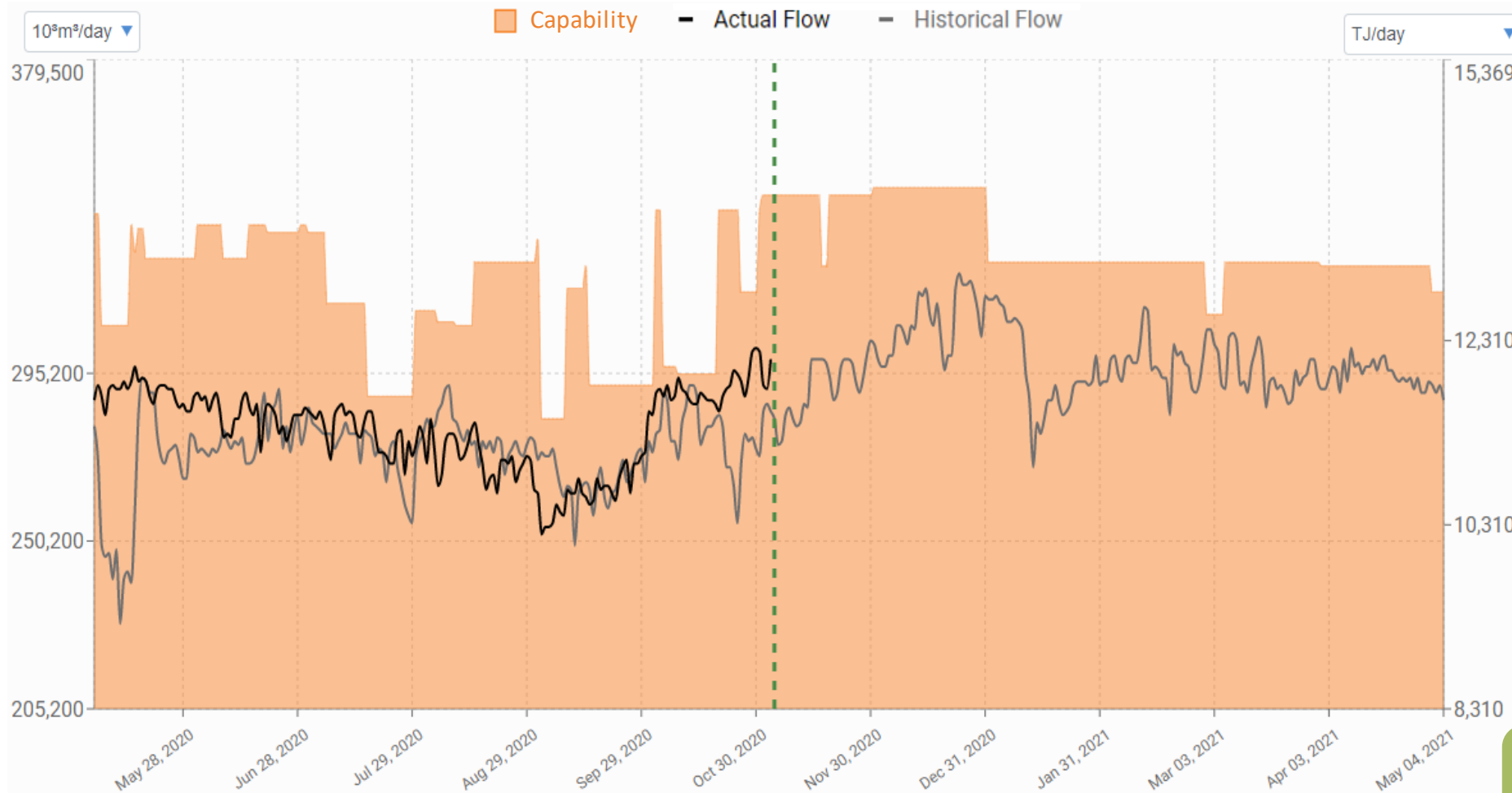


Basis for 2021 Operational Outlook

- Includes outages with the most significant impact to throughput capability
- The remaining outages that are known and impactful will be communicated by mid-December
- Capability information, start and end dates, and area of impact may be revised as new information becomes available. Updates will be published in the Daily Operating Plan (DOP)

Operational Capability Outlook – Upstream James River (USJR)

Upstream James River



mm-yy	USJR 10 ⁶ m ³ /d
Apr-20	351
May-20	341
Jun-20	335
Jul-20	324
Aug-20	325
Sep-20	331
Oct-20	339
Nov-20	343
Dec-20	345
Jan-21	325
Feb-21	325
Mar-21	325
Apr-21	324
May-21	317
Jun-21	317
Jul-21	317
Aug-21	317
Sep-21	318
Oct-21	325

Base capability outlook extended beyond that which is currently in DOP Base capability table.

Outage Highlights – Upstream James River (USJR)

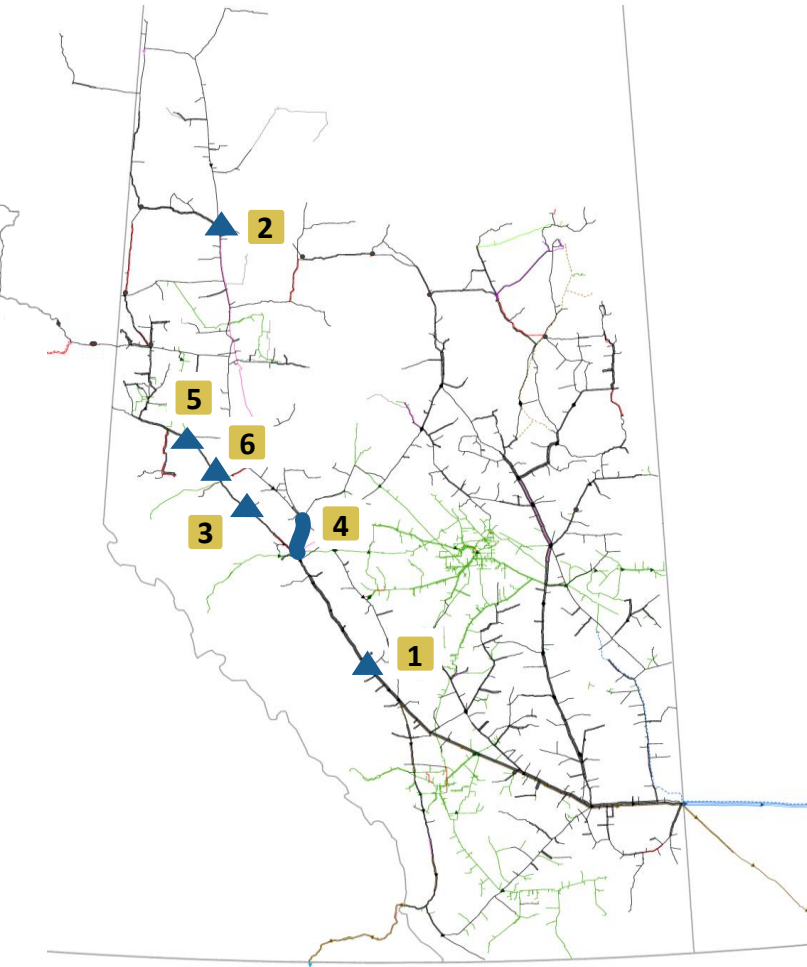
No impact to FT



Potential impact to FT

Partial impact to FT

Facility Outage	Start Date	Duration	Capability	Impact	Typical Flow	Area Outage Capability	Area
			10 ⁶ m ³ /d	10 ⁶ m ³ /d	10 ⁶ m ³ /d	10 ⁶ m ³ /d	
1. Vetchland C/S* Compressor Station Modifications	Mar-01	5 days	311	14	260 - 310	N/A	Upstream James River
2. Meikle River D5 C/S Compressor Station Maintenance	Jul-05	5 days	303	14	260 – 310	N/A	Upstream James River
3. Berland River C/S Compressor Station Maintenance	Aug-09	3 days	301	16	260 - 310	N/A	Upstream James River
4. NPS 36 Edson Mainline Ext. Pipeline Maintenance	Aug-14	7 days	306	11	260 – 310	N/A	Upstream James River
5. Gold Creek C/S Compressor Station Modifications	Sep-07	28 days	301	17	145 – 180	175	Upstream Latornell C/S
6. Latornell C/S Compressor Station Maintenance	Oct-12	5 days	311	14	260 – 310	N/A	Upstream James River

*Related to expansion facilities

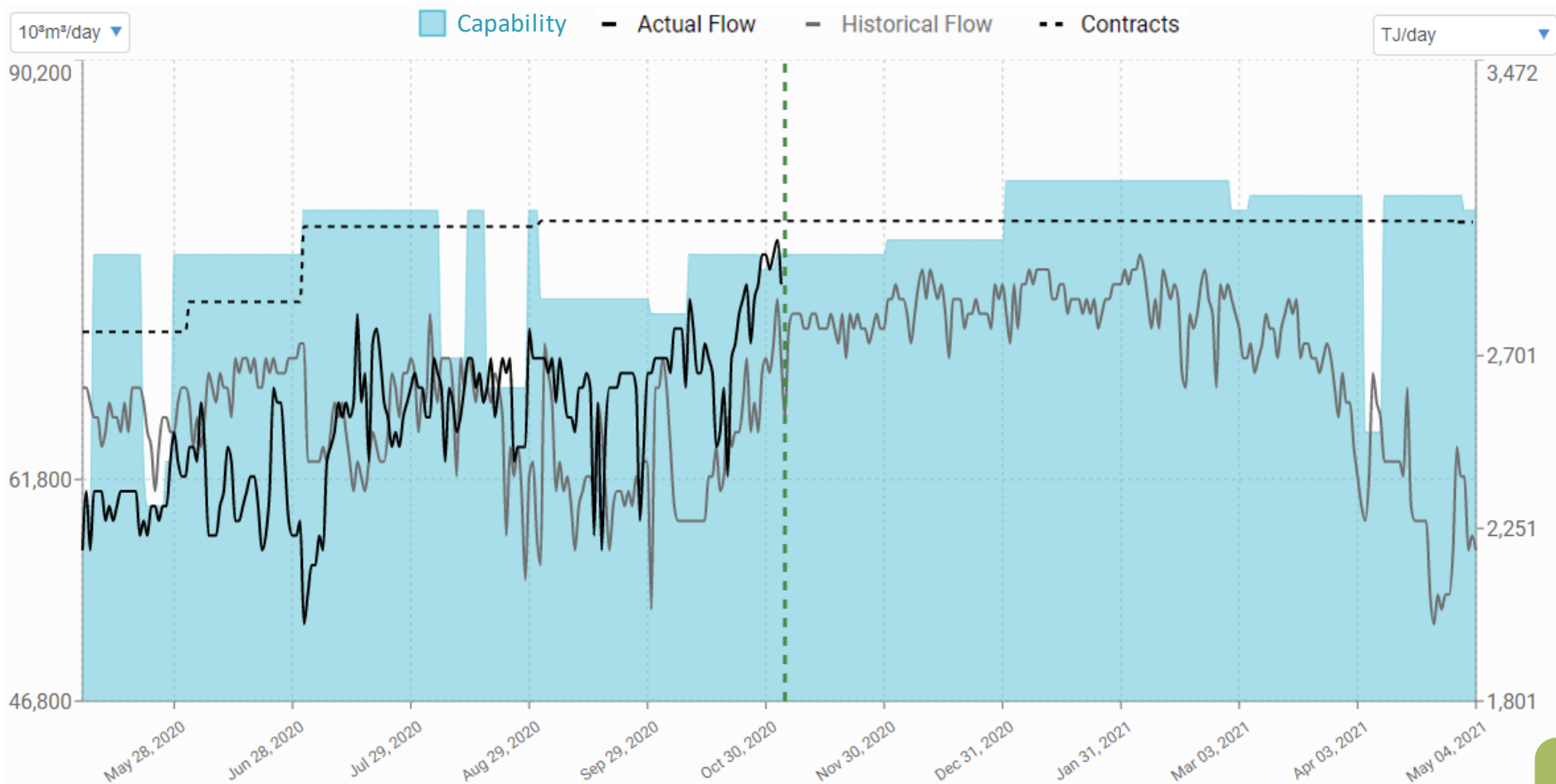


LEGEND
 Compressor
 Pipeline

For informational purposes only

Operational Capability Outlook – Alberta-British Columbia Border (ABC)

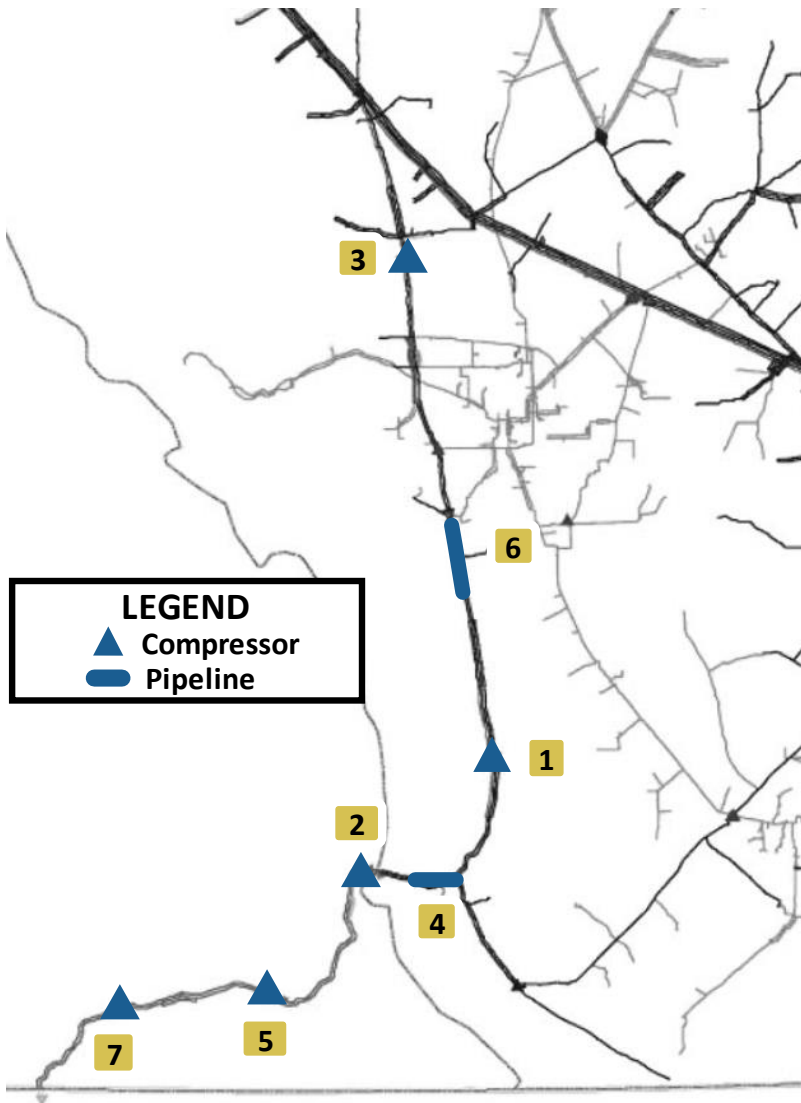
Alberta-B.C. Border



mm-yy	ABC 10 ⁶ m ³ /d
Apr-20	78
May-20	77
Jun-20	77
Jul-20	80
Aug-20	80
Sep-20	81
Oct-20	78
Nov-20	78
Dec-20	78
Jan-21	82
Feb-21	82
Mar-21	81
Apr-21	81
May-21	80
Jun-21	80
Jul-21	80
Aug-21	80
Sep-21	80
Oct-21	80

Base capability outlook extended beyond that which is currently in DOP Base capability table.

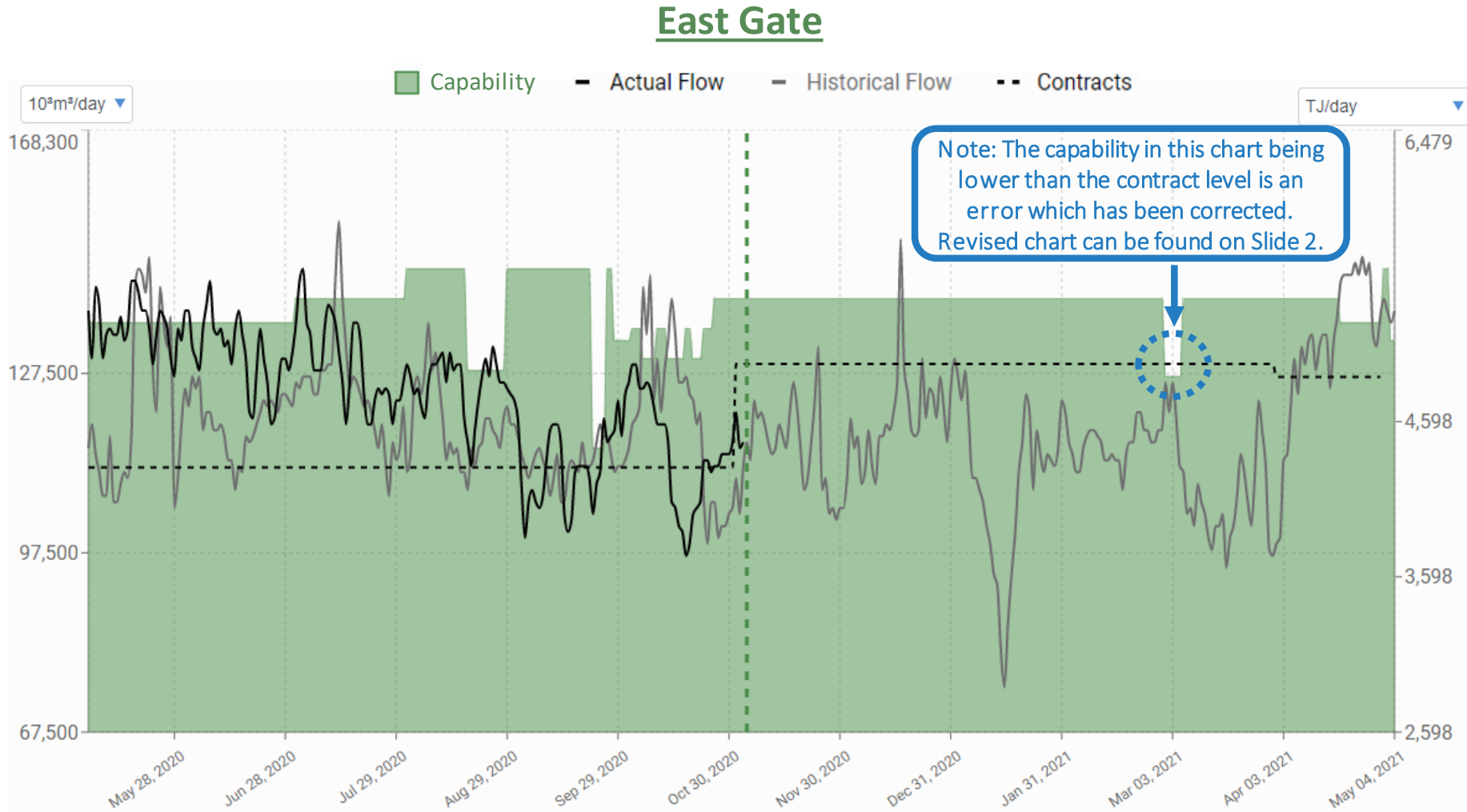
Outage Highlights – Alberta-British Columbia Border (ABC)



Facility Outage	Start Date	Duration	No impact to FT			Potential impact to FT		Partial impact to FT
			Base 10 ⁶ m ³ /d	Outage Capability 10 ⁶ m ³ /d	Impact TJ/d	Impact 10 ⁶ m ³ /d	Area	
1. Burton Creek C/S Compressor Station Maintenance	Apr-05	5 days	81	65	2,503	16	Alberta BC & Alberta Montana Borders	
2. Crowsnest AC/S Compressor Station Maintenance	May-25	4 days	80	64	2,464	16	Foothills BC	
3. Winchell Lake C/S Compressor Station Maintenance	Jun-07	5 days	80	65	2,503	15	Greater WGAT (22 & partial 21)	
4. NPS 42 WAS Mainline Loop Pipeline Maintenance	Jul-20	10 days	80	69	2,657	11	Alberta BC Border	
5. Elko C/S Compressor Station Maintenance	Sep-07	2 days	80	66	2,541	14	Foothills BC	
6. NPS 36 WAS Mainline Pipeline Maintenance	Sep-21	6 days	80	68	2,618	12	Alberta BC & Alberta Montana Borders	
7. Moyie C/S Compressor Station Maintenance	Oct-04	5 days	80	66	2,541	14	Foothills BC	

Note: We work to align planned maintenance schedules with downstream operators in order to minimize customer impact

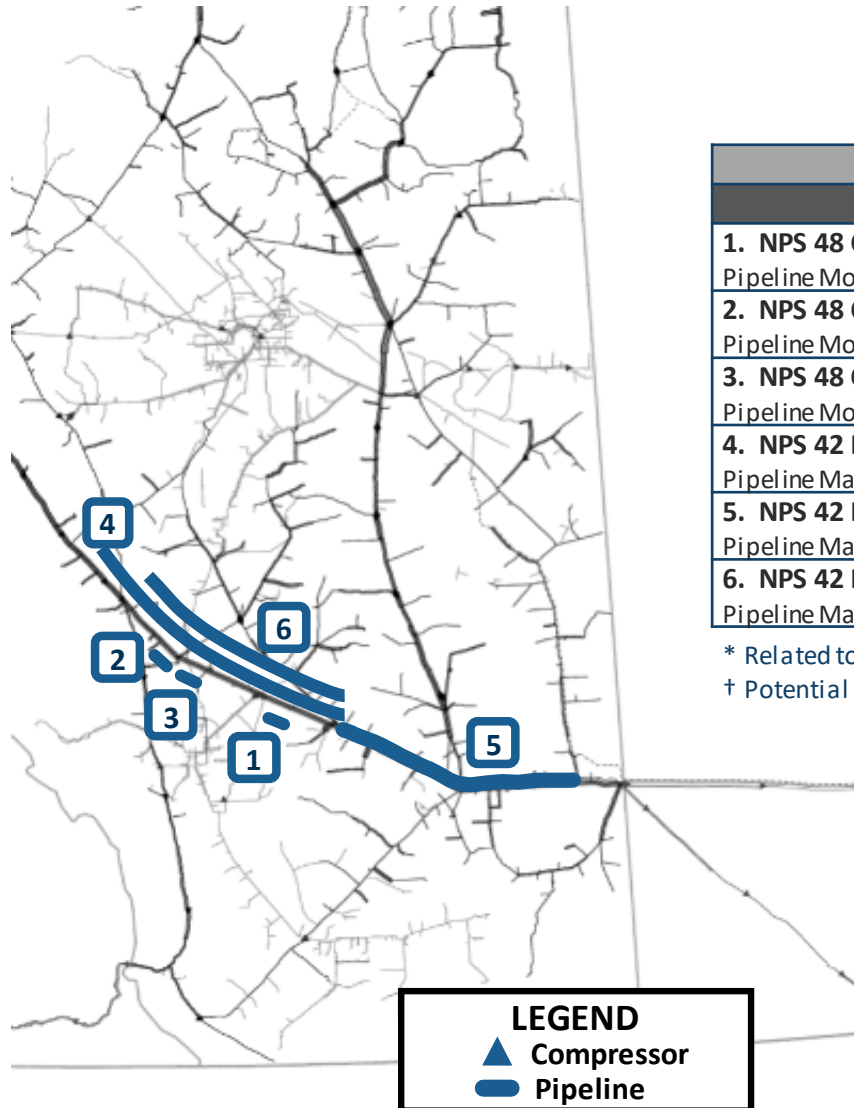
Operational Capability Outlook – Empress/McNeill Border (EGAT)



mm-yy	EGAT 10 ⁶ m ³ /d
Apr-20	136
May-20	136
Jun-20	136
Jul-20	140
Aug-20	145
Sep-20	145
Oct-20	140
Nov-20	140
Dec-20	140
Jan-21	140
Feb-21	140
Mar-21	140
Apr-21	140
May-21	145
Jun-21	145
Jul-21	145
Aug-21	145
Sep-21	140
Oct-21	140

Base capability outlook extended beyond that which is currently in DOP Base capability table.

Outage Highlights – Empress/McNeill Border (EGAT)



No impact to FT

Potential impact to FT

Partial impact to FT

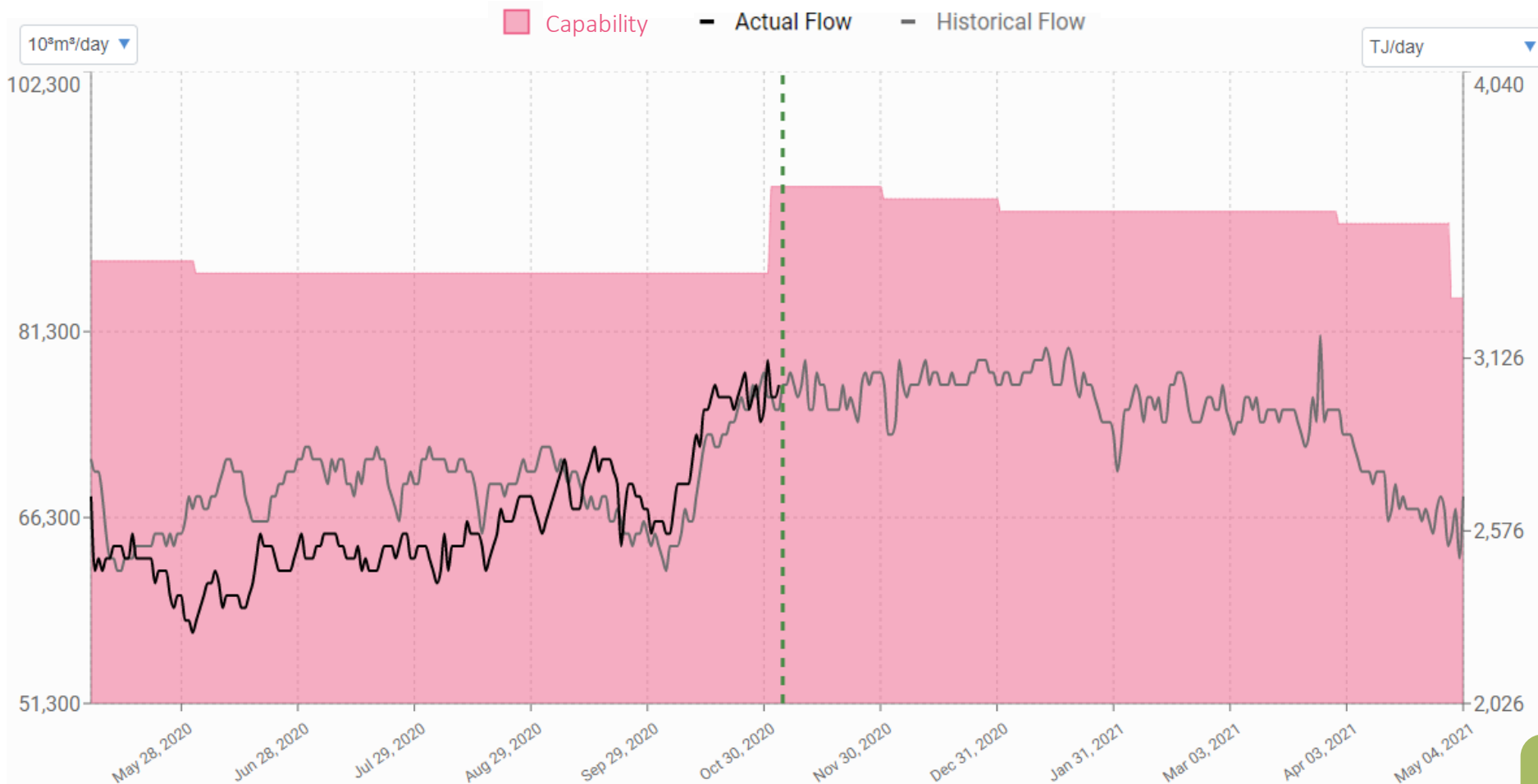
Facility Outage	Start Date	Duration	Outage Capability			Impact 10 ⁶ m ³ /d	Area
			Base 10 ⁶ m ³ /d	10 ⁶ m ³ /d	TJ/d		
1. NPS 48 Central Alberta System M/L Lp 2* Pipeline Modifications	Apr-19	12 days	140	136	5,304	4	Greater EGAT
2. NPS 48 Central Alberta System M/L Lp 2* Pipeline Modifications	May-03	9 days	145	133	5,187	12	Greater EGAT
3. NPS 48 Central Alberta System M/L Lp 2* Pipeline Modifications	May-13	9 days	145	137	5,343	8	Greater EGAT
4. NPS 42 Edson & CAS ML Loop† Pipeline Maintenance	Jun-21	13 days	145	126	4,914	19	Greater EGAT
5. NPS 42 Foothills Pipeline Zone 6 Pipeline Maintenance	Jul-19	8 days	145	129	5,031	16	Greater EGAT
6. NPS 42 Foothills Pipeline Zone 6† Pipeline Maintenance	Aug-17	8 days	145	118	4,602	27	Greater EGAT

* Related to expansion facilities

† Potential to impact Tranche 3 EGAT contracts

Base Capability Outlook – Oil Sands Delivery Area (OSDA)

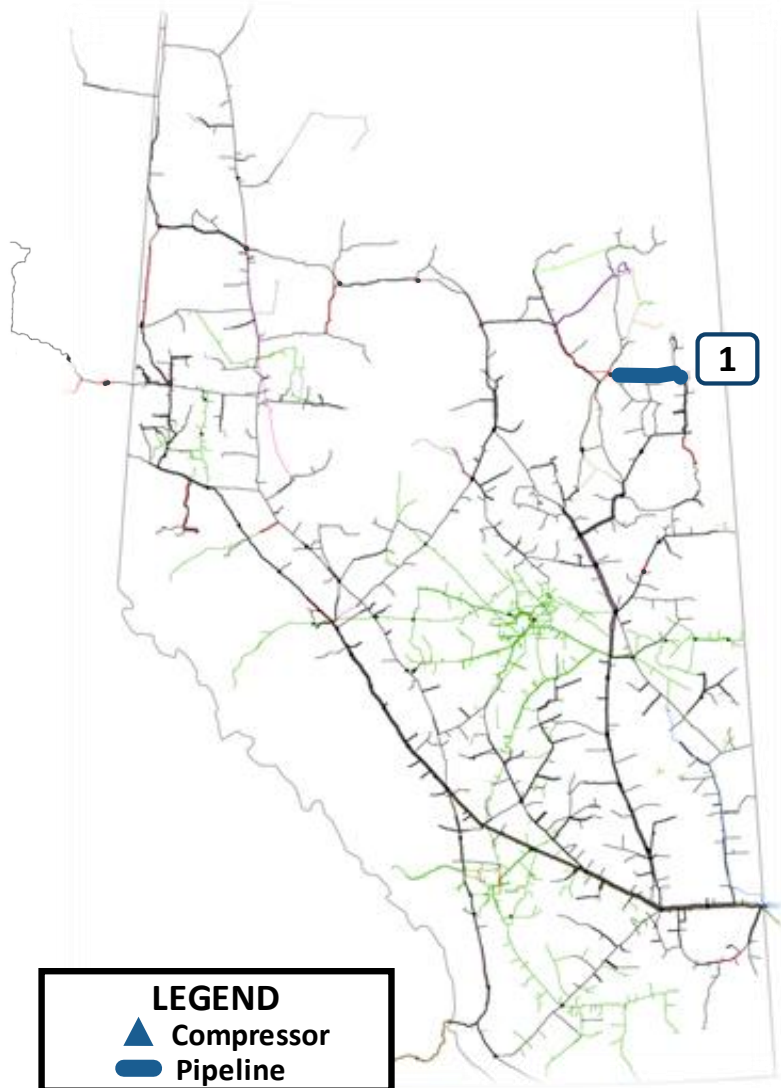
Oil Sands Delivery Area



mm-yy	OSDA $10^6 \text{m}^3/\text{d}$
Apr-20	88
May-20	87
Jun-20	86
Jul-20	86
Aug-20	86
Sep-20	86
Oct-20	86
Nov-20	93
Dec-20	92
Jan-21	91
Feb-21	91
Mar-21	91
Apr-21	90
May-21	84
Jun-21	83
Jul-21	83
Aug-21	84
Sep-21	84
Oct-21	87

Base capability outlook extended beyond that which is currently in DOP base capability table.

Outage Highlights – Oil Sands (OSDA) and North East (NEDA) Delivery Areas



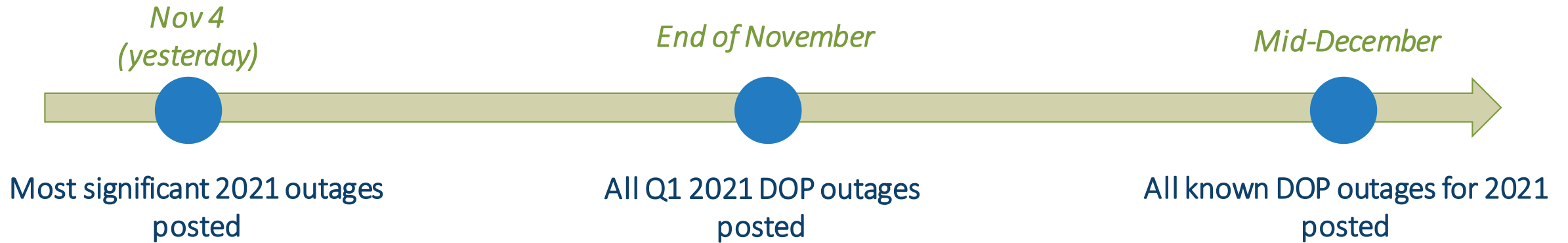
No impact to FT

Potential impact to FT

Partial impact to FT

Facility Outage	Start Date	Duration	Typical Flow	Outage Capability	Area
			10 ⁶ m ³ /d	10 ⁶ m ³ /d	
1. NPS 30 Leismer Crossover & NPS 24 Kettle Lp Pipeline Maintenance	Feb-06	4 days	95-105	110	North East Delivery Area (NEDA)

Communication Schedule | 2021 Outages

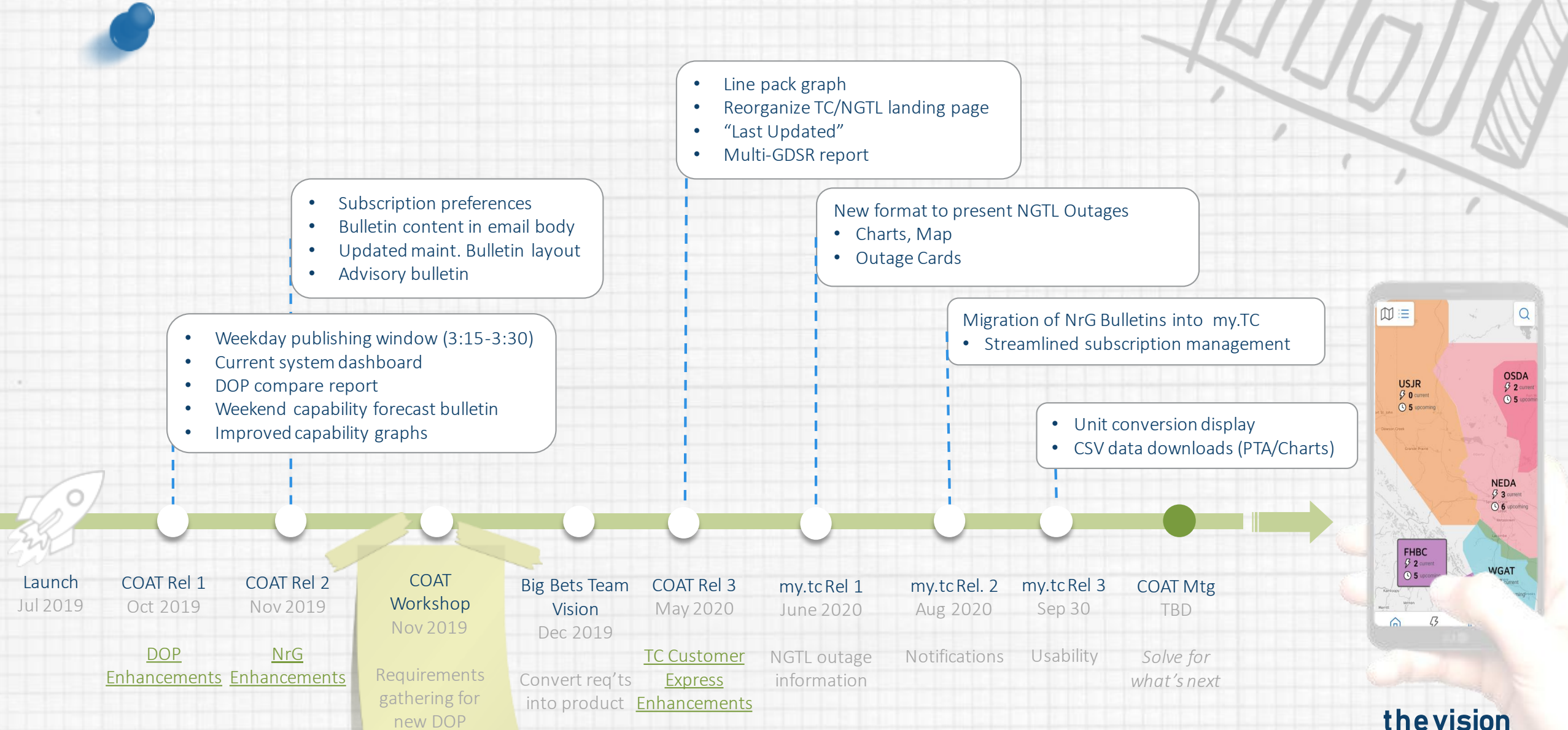


Refer to the Daily Operating Plan (DOP) for the most current outage information



Lookback at Customer Experience Improvements

cx enhancements | lookback



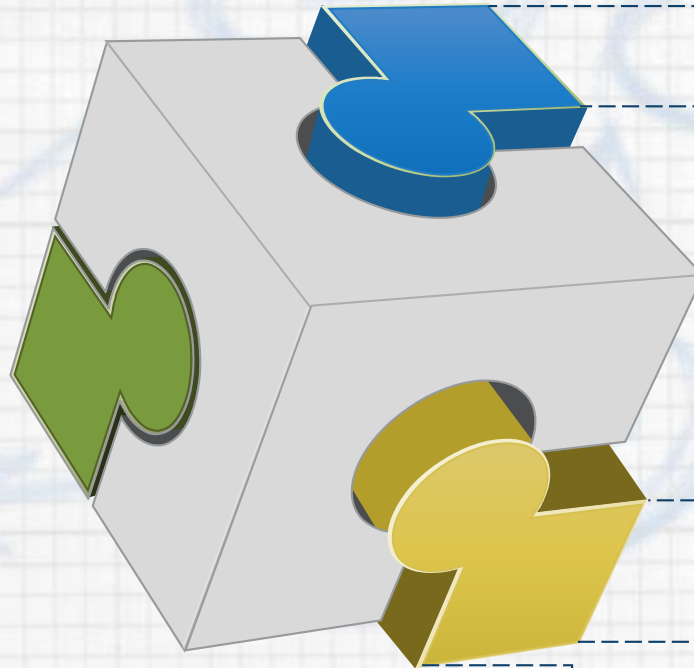
the vision

co-creation is key

don't let great be the enemy of good

power of a small, committed group

make better decisions, faster



13
enhancements

550+
lines of feedback

my.TC
retirement of DOP, NrG

340+
customer hours in workshops

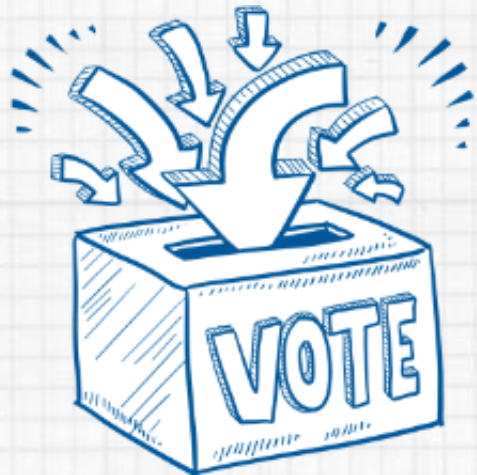
1
global pandemic

up next...



customer survey results

interested in joining COAT? [sign up HERE](#)



COAT to select date for next meeting

feedback? [contact us](#)

Contact information

Kevin D'Souza

Chair, NGTL/Foothills Customer Operations meetings

403-920-7915

kevin_dsouza@tcenergy.com

Nadim Kassam

Modernization, Customer Experience

403-920-5011

nadim_kassam@tcenergy.com

Matt Ramsay

Supervisor, Operations Planning - West

403-920-6814

matthew_ramsay@tcenergy.com

Cullen Dancy

Operations Planning

587-933-0785

cullen_dancy@tcenergy.com