



Northern Border Customer Meeting

Carefree, Arizona • April 11, 2019



Forward-looking information

This presentation includes certain forward-looking information, including future oriented financial information or financial outlook, which is intended to help current and potential investors understand management's assessment of our future plans and financial outlook, and our future prospects overall. 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.

Forward-looking statements do not guarantee future performance. Actual events and results could be significantly different because of assumptions, risks or uncertainties related to our business or events that happen after the date of this presentation. Our forward-looking information in this presentation includes statements related to: future dividend growth and the future growth of our core businesses.

Our forward-looking information is based on certain key assumptions and is subject to risks and uncertainties, including but not limited to: our ability to successfully implement our strategic priorities and whether they will yield the expected benefits, the operating performance of our pipeline and energy assets, amount of capacity sold and rates achieved in our pipeline businesses, the availability and price of energy commodities, the amount of capacity payments and revenues from our energy business, regulatory decisions and outcomes, including those related to recent FERC policy changes, outcomes of legal proceedings, including arbitration and insurance claims, performance and credit risk of our counterparties, changes in market commodity prices, changes in the regulatory environment, changes in the political environment, changes in environmental and other laws and regulations, competitive factors in the pipeline and energy sectors, construction and completion of capital

projects, costs for labour, equipment and materials, access to capital markets, including the economic benefit of asset drop downs to TC PipeLines, LP, interest, tax and foreign exchange rates, including the impact of U.S. Tax Reform, weather, cyber security, technological developments, economic conditions in North America as well as globally. You can read more about these risks and others in our April 26, 2018 Quarterly Report to Shareholders and 2017 Annual Report filed with Canadian securities regulators and the SEC and available at www.transcanada.com.

As actual results could vary significantly from the forward-looking information, you should not put undue reliance on forward-looking information and should not use future-oriented information or financial outlooks for anything other than their intended purpose. We do not update our forward-looking statements due to new information or future events, unless we are required to by law.

This presentation contains reference to certain financial measures (non-GAAP measures) that do not have any standardized meaning as prescribed by U.S. generally accepted accounting principles (GAAP) and therefore may not be comparable to similar measures presented by other entities. These non-GAAP measures may include Comparable Earnings, Comparable Earnings per Common Share, Comparable Earnings Before Interest, Taxes, Depreciation and Amortization (Comparable EBITDA), Funds Generated from Operations, Comparable Funds Generated from Operations, Comparable Distributable Cash Flow (DCF) and Comparable DCF per Common Share. Reconciliations to the most closely related GAAP measures are included in this presentation and in our April 26, 2018 Quarterly Report to Shareholders filed with Canadian securities regulators and the SEC and available at www.transcanada.com.



Agenda

Welcome and Safety Moment

Bill Fonda

TransCanada and Organizational Update

Jas Bertovic

Market Fundamentals

Lonnie Lozano

Business Development

Eric Miller

Operations Update

Loren Charbonneau

Regulatory Review

John Roscher

NGTL & Foothills Pipelines Update

Ashley Stowkowy

Break

Guest Speaker

Dennis Gartman

Closing and Adjourn

Bill Fonda



Welcome / Safety Moment

Bill Fonda

Safety Moment – Inclement Weather

Floods, fires, out-of-place weather – the U.S. recently has experienced all types of unusual events. To keep you and your family safe during inclement weather:

- **Have a Plan**
 - For different weather scenarios
 - Practice the plan – each family member should know their role
 - Have a muster point
- **Have appropriate supplies**
 - Have enough for your family for at least one week without electricity
 - Be prepared to purify water and have a gallon a day per person (more in heat)
 - Have a “go-bag” ready with items for the most common weather in your area
- **Monitor**
 - If extreme weather is predicted, monitor throughout the danger period
 - Also monitor your family members and know where they are
 - If it’s expected to be severe, stick together – don’t separate
- **Follow Instructions**
 - Listen to officials and do what is asked – don’t jeopardize first responders
 - If conditions differ from their scenario, don’t follow blindly. Protect yourself
- **Help yourself and neighbors**
 - Do what you can but don’t become a dead first responder
 - Use common sense



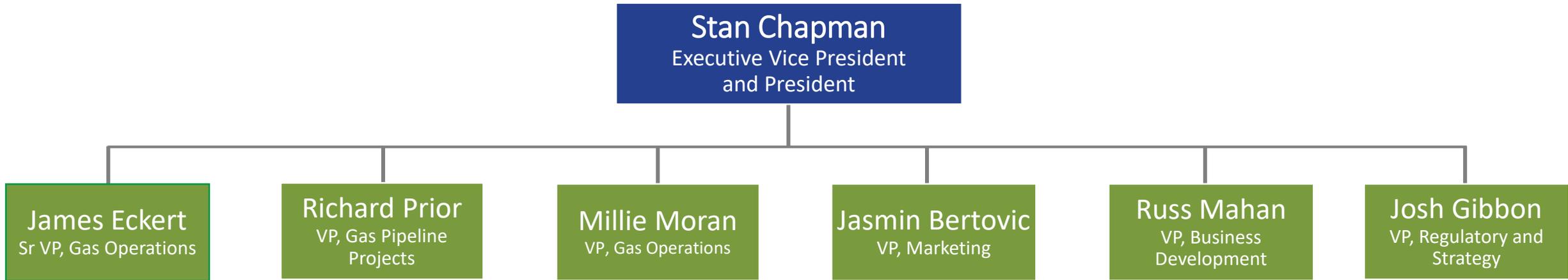
Mississippi River flood, Nebraska
Photo courtesy of NASA



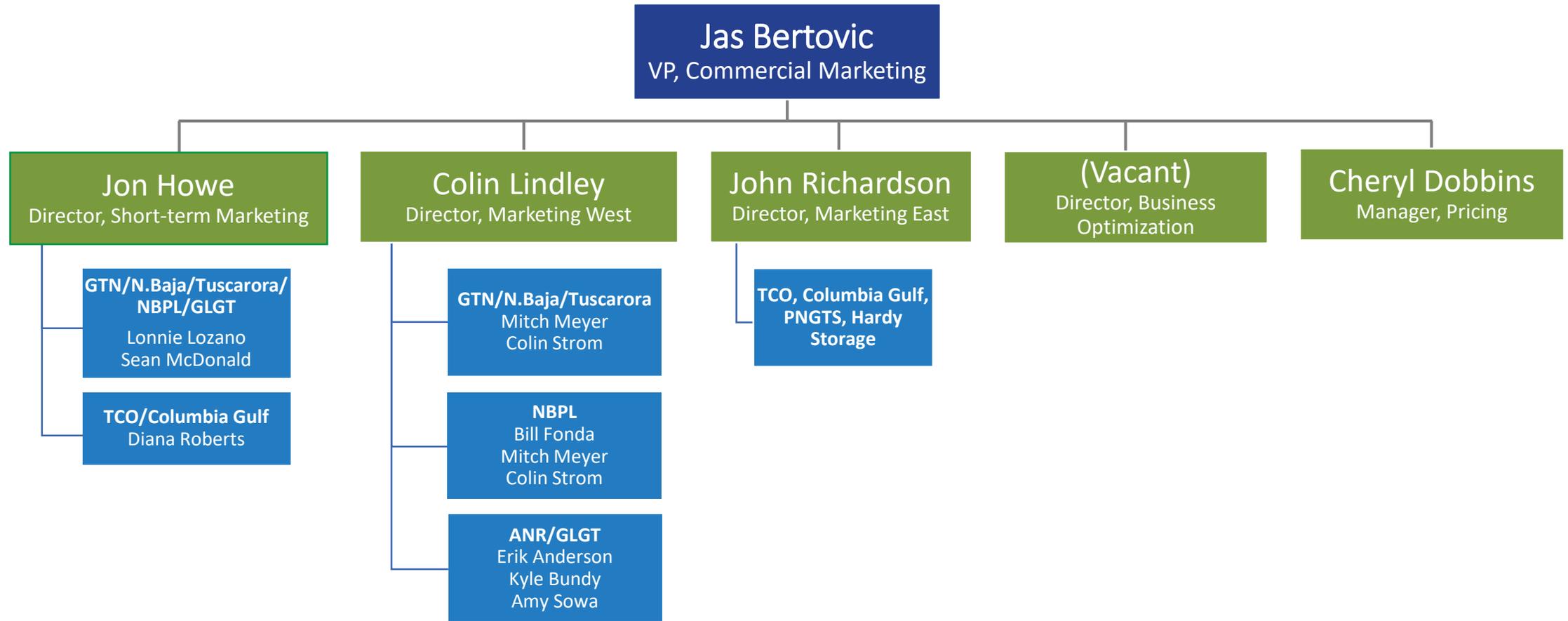
TransCanada Update

Jas Bertovic

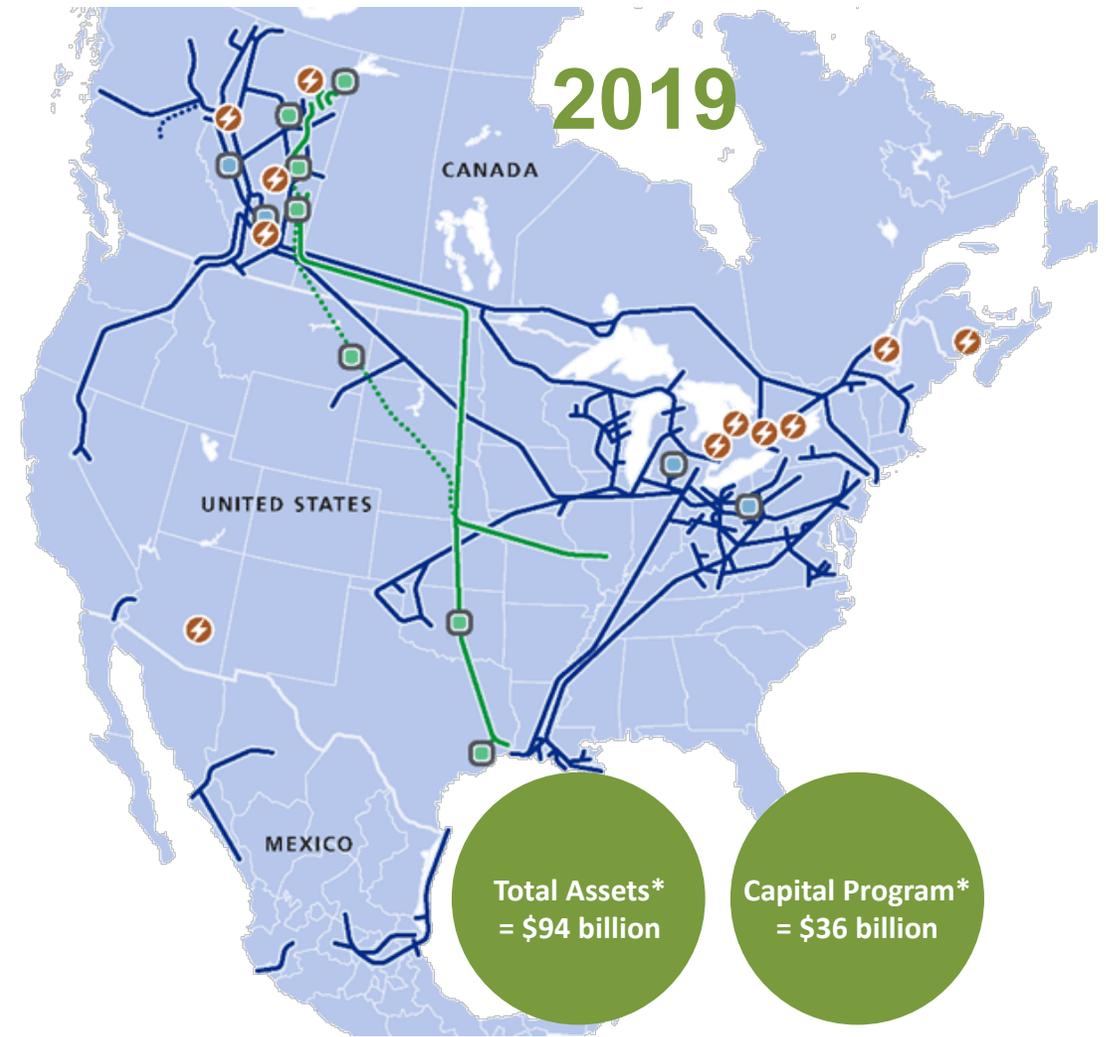
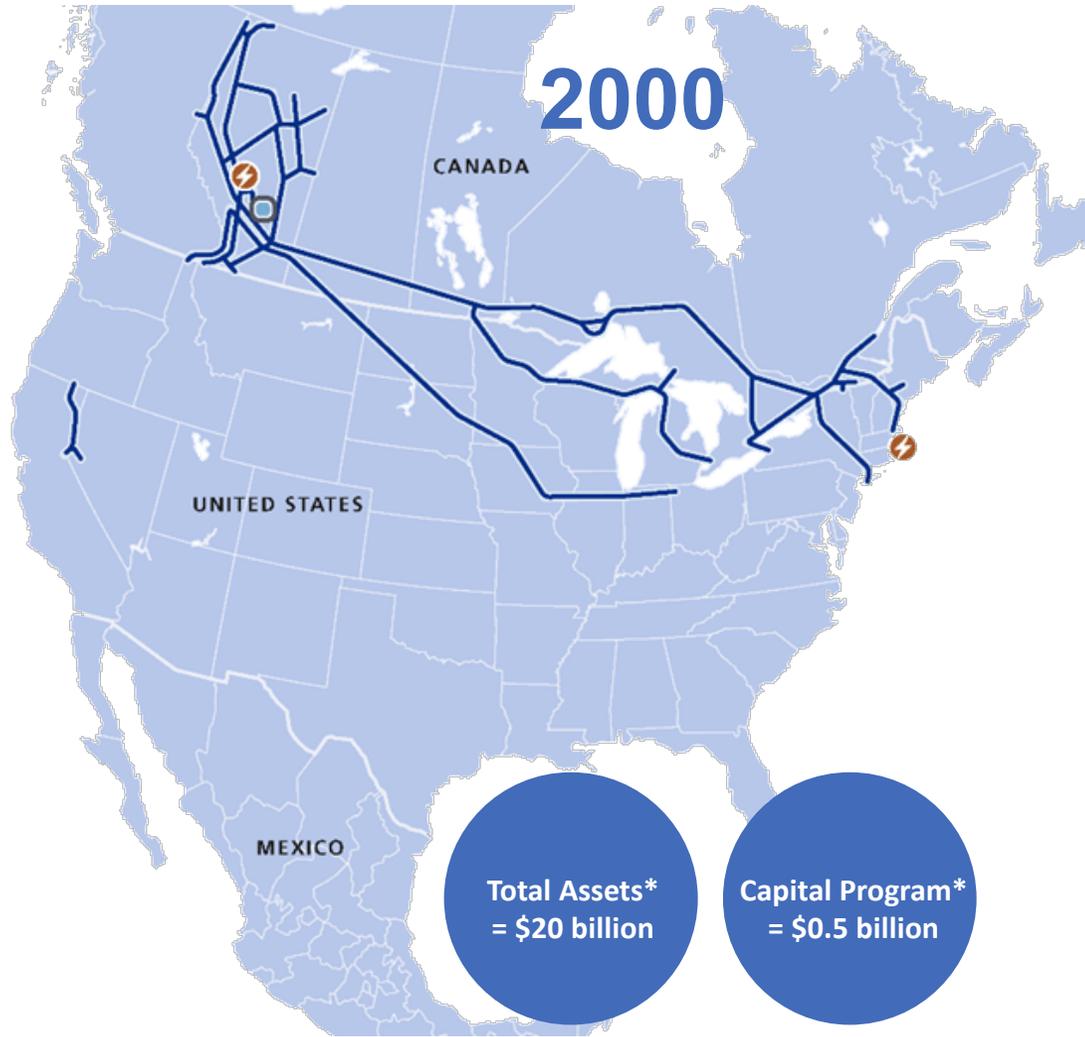
Organization Update – U.S. Natural Gas Pipelines Leadership



Organization Update – Commercial Marketing Organization

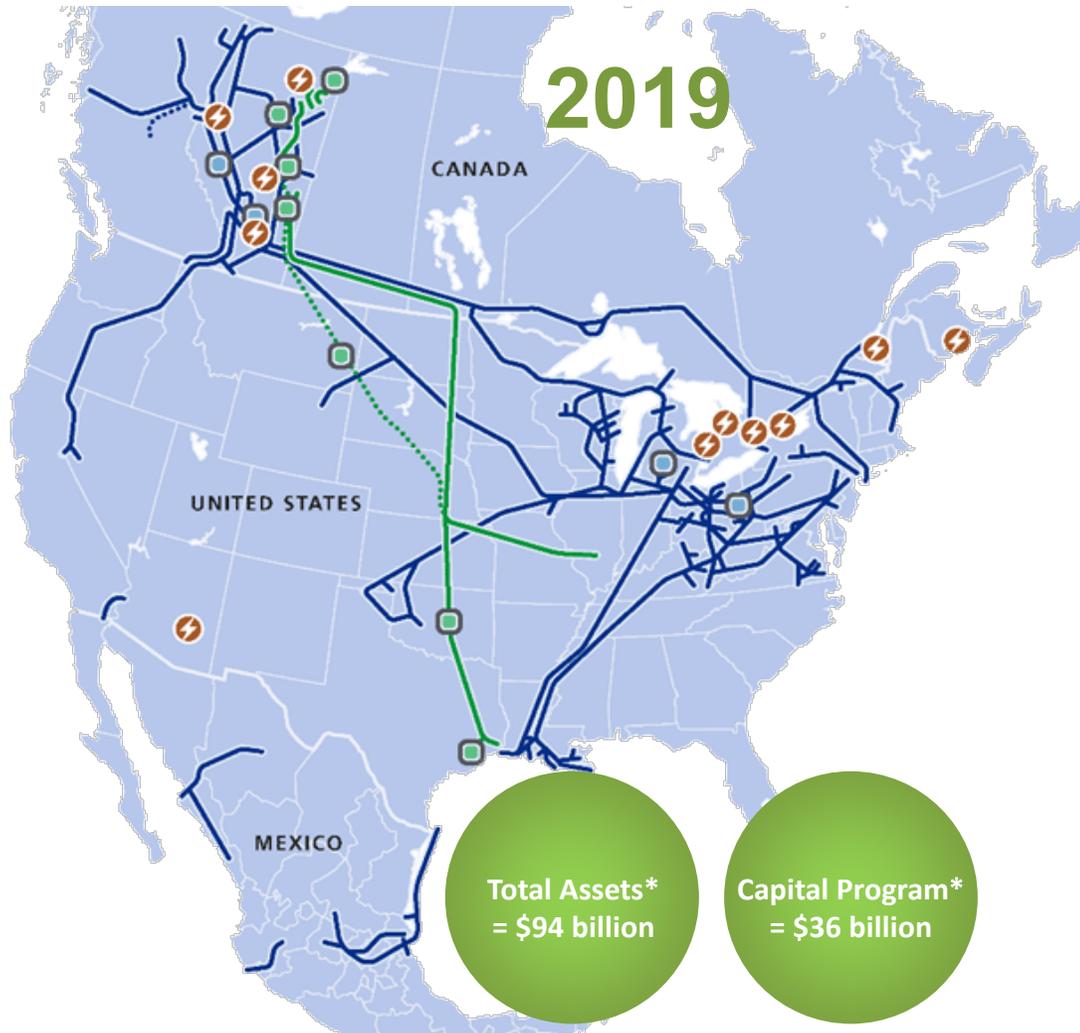


TransCanada TransFormation



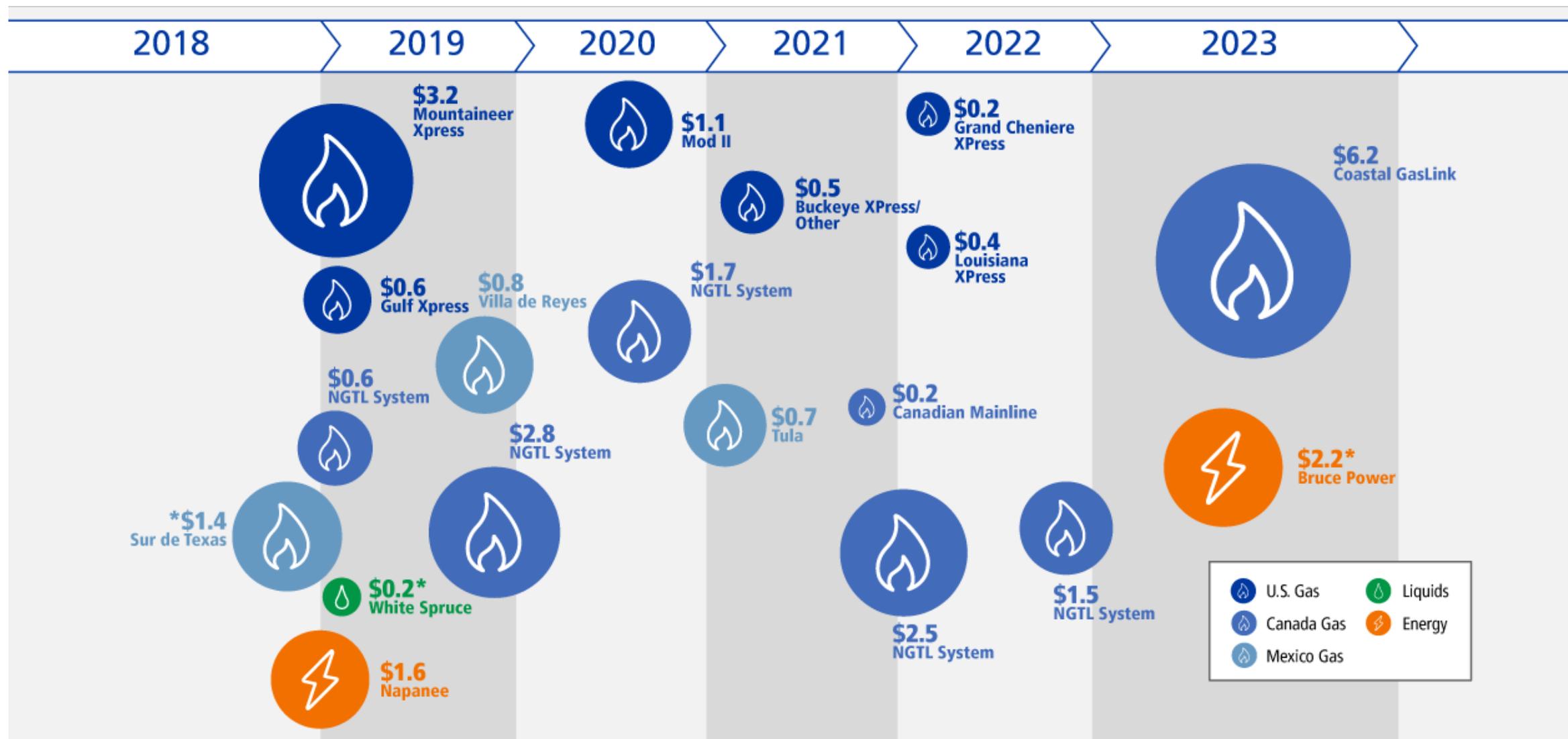
*CAD\$

TransCanada Today



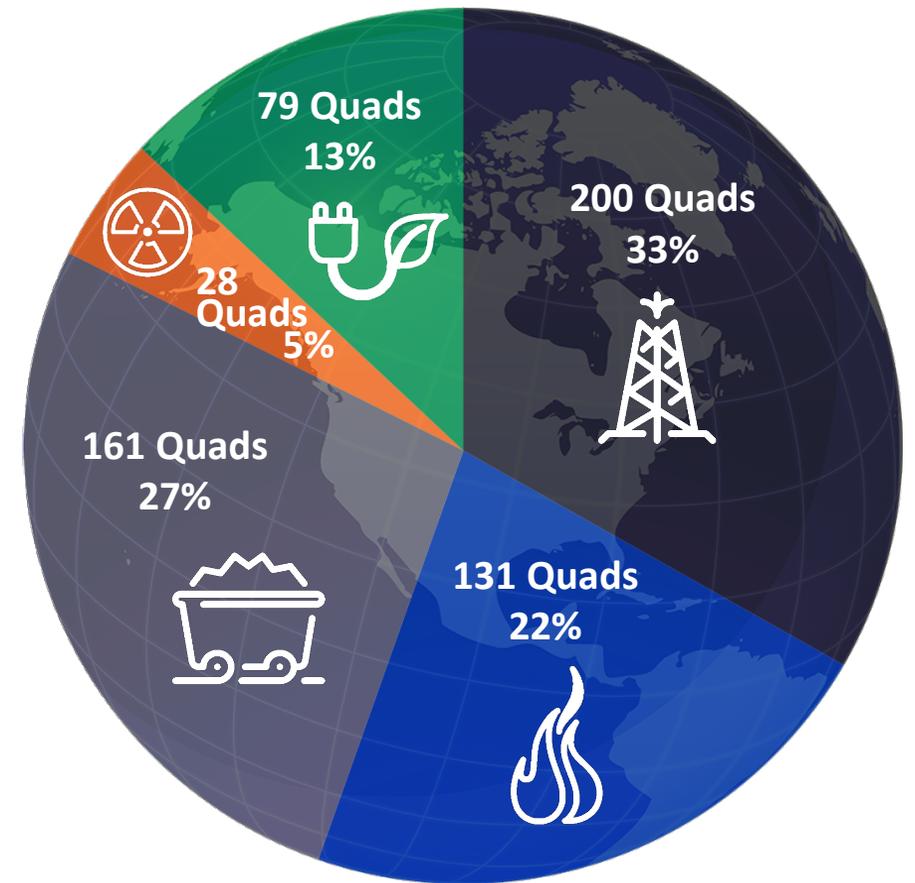
- **One of North America's Largest Natural Gas Pipeline Networks**
 - 57,100 miles of pipeline
 - 653 Bcf of storage capacity
 - ~25% of continental demand
- **Premier Liquids Pipeline System**
 - 3,000 miles of pipeline
 - 590,000 bbl/d Keystone System transports
- **One of the Largest Private Sector Power Generators in Canada**
 - ~20% of Western Canadian exports
 - 11 power plants, 6,600 MW
 - Primarily long-term contracted assets
- **Enterprise Value ~\$100 billion***

Near-term Capital Growth



World Energy Demand Growing

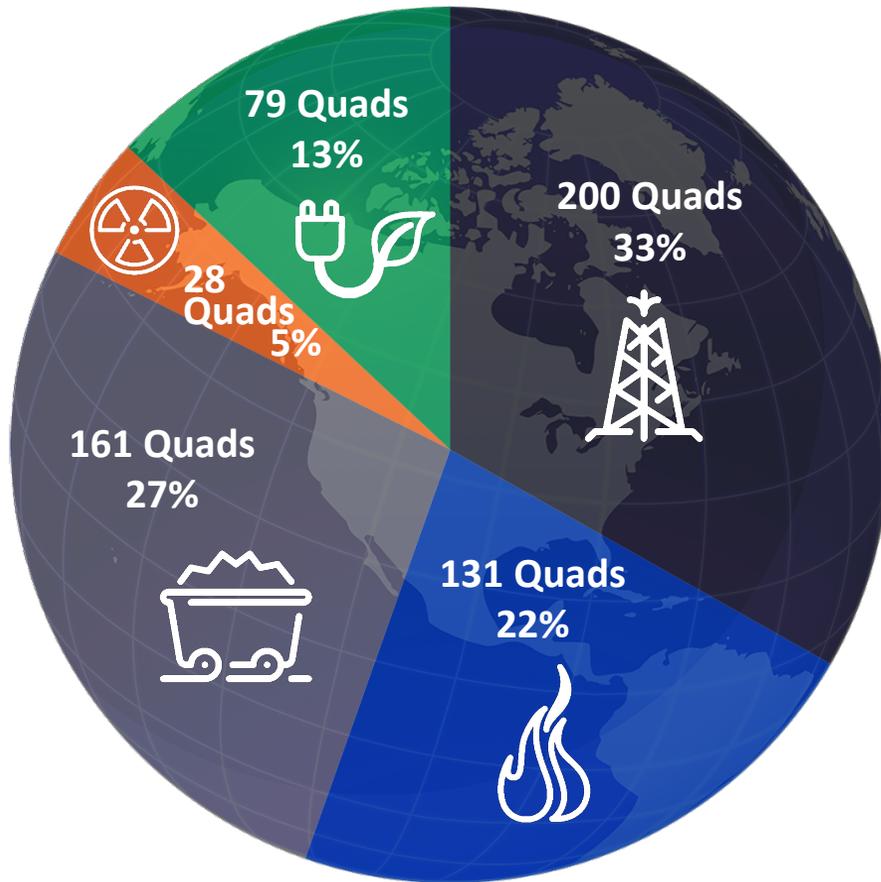
2018 by Source
599 Quadrillion BTUs



Source: EIA Energy Outlook 2018

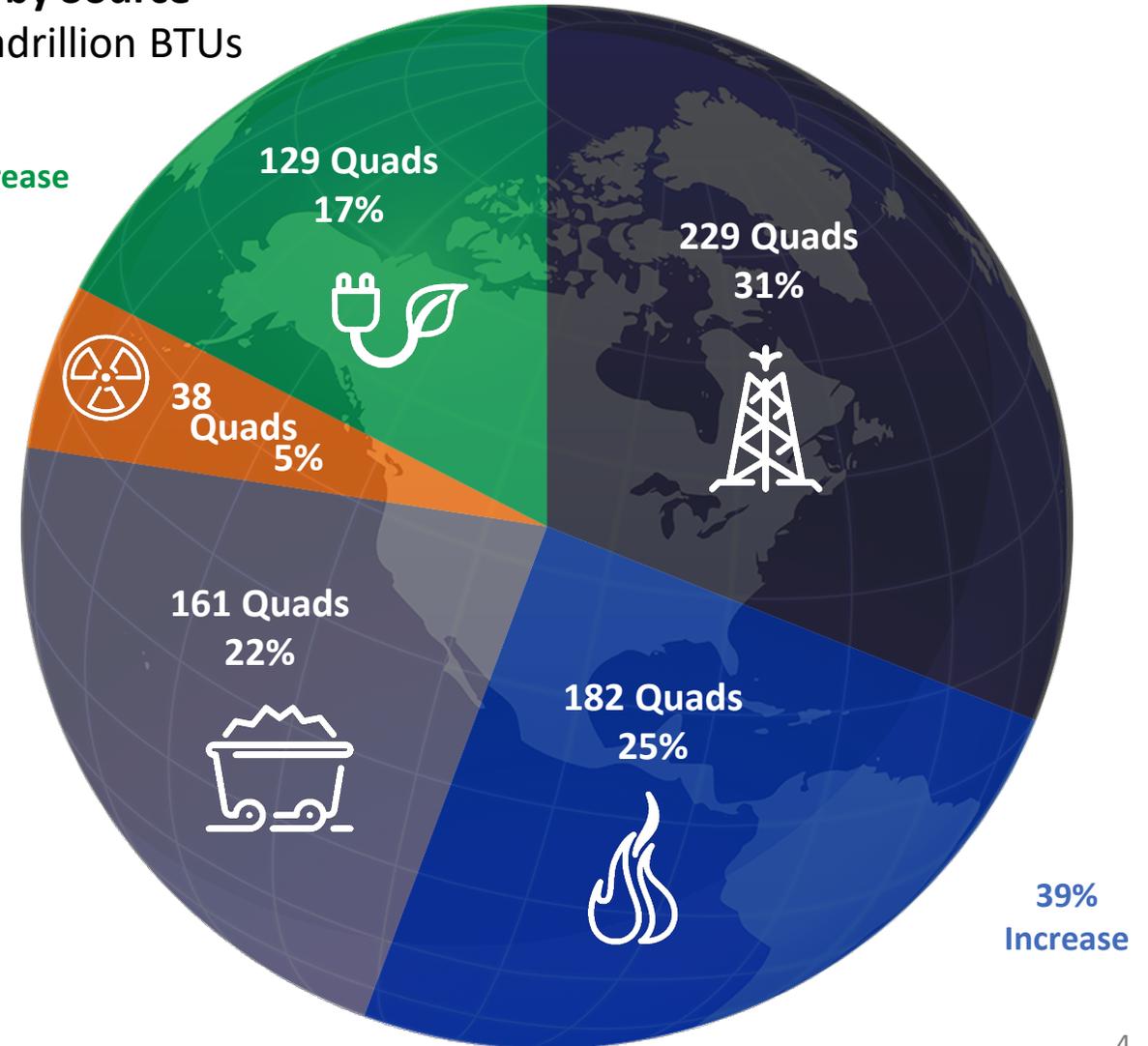
World Energy Demand Growing

2018 by Source
599 Quadrillion BTUs



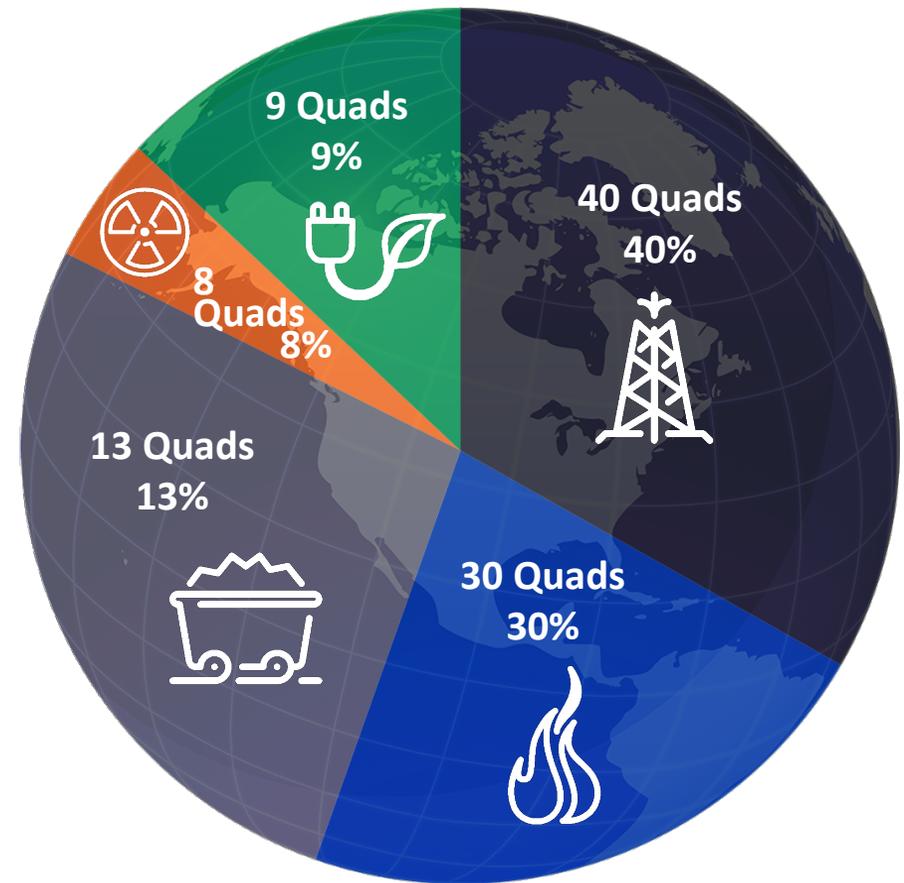
2040 by Source
739 Quadrillion BTUs

63% Increase



U.S. Gas Demand Grows at Reduced Rate

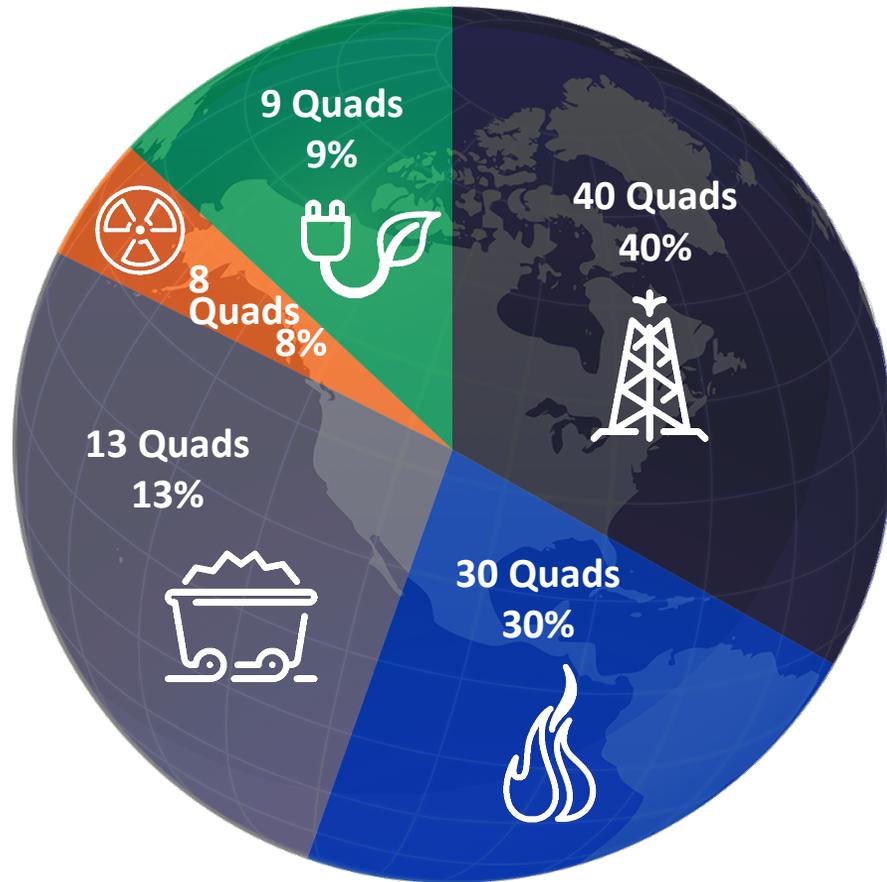
2018 by Source
100 Quadrillion BTUs



Source: EIA Energy Outlook 2018

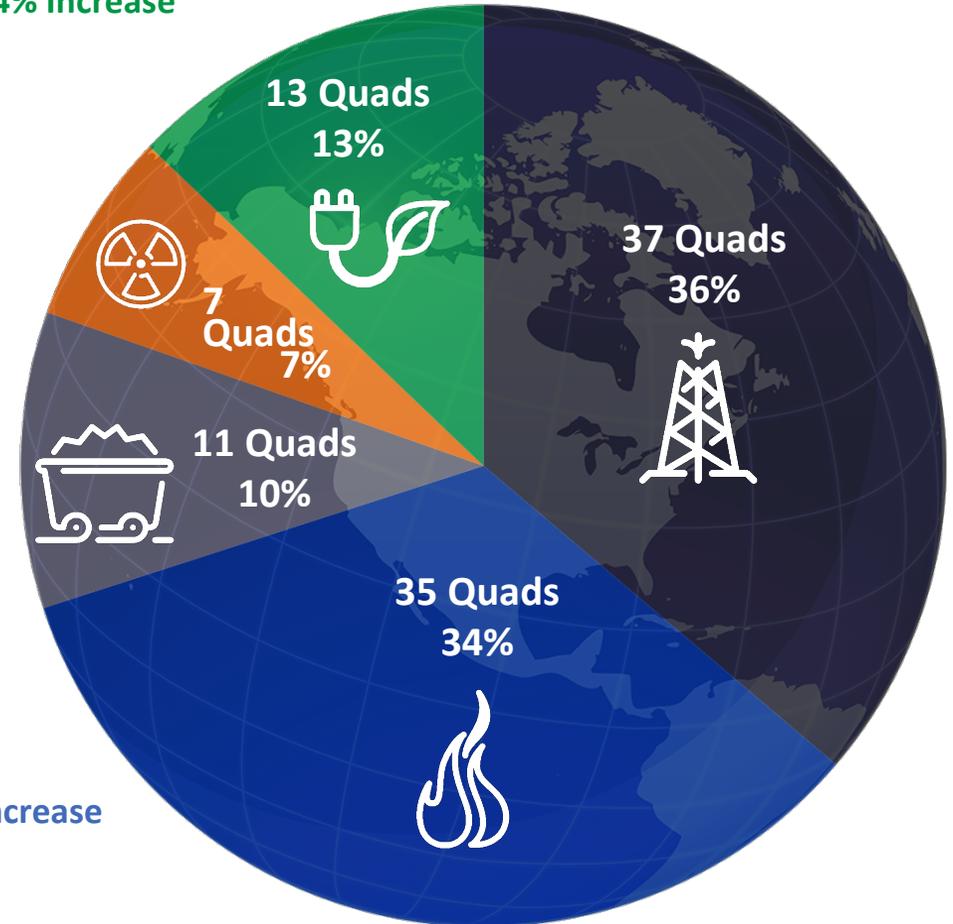
U.S. Gas Demand Grows at Reduced Rate

2018 by Source
100 Quadrillion BTUs



2040 by Source
103 Quadrillion BTUs

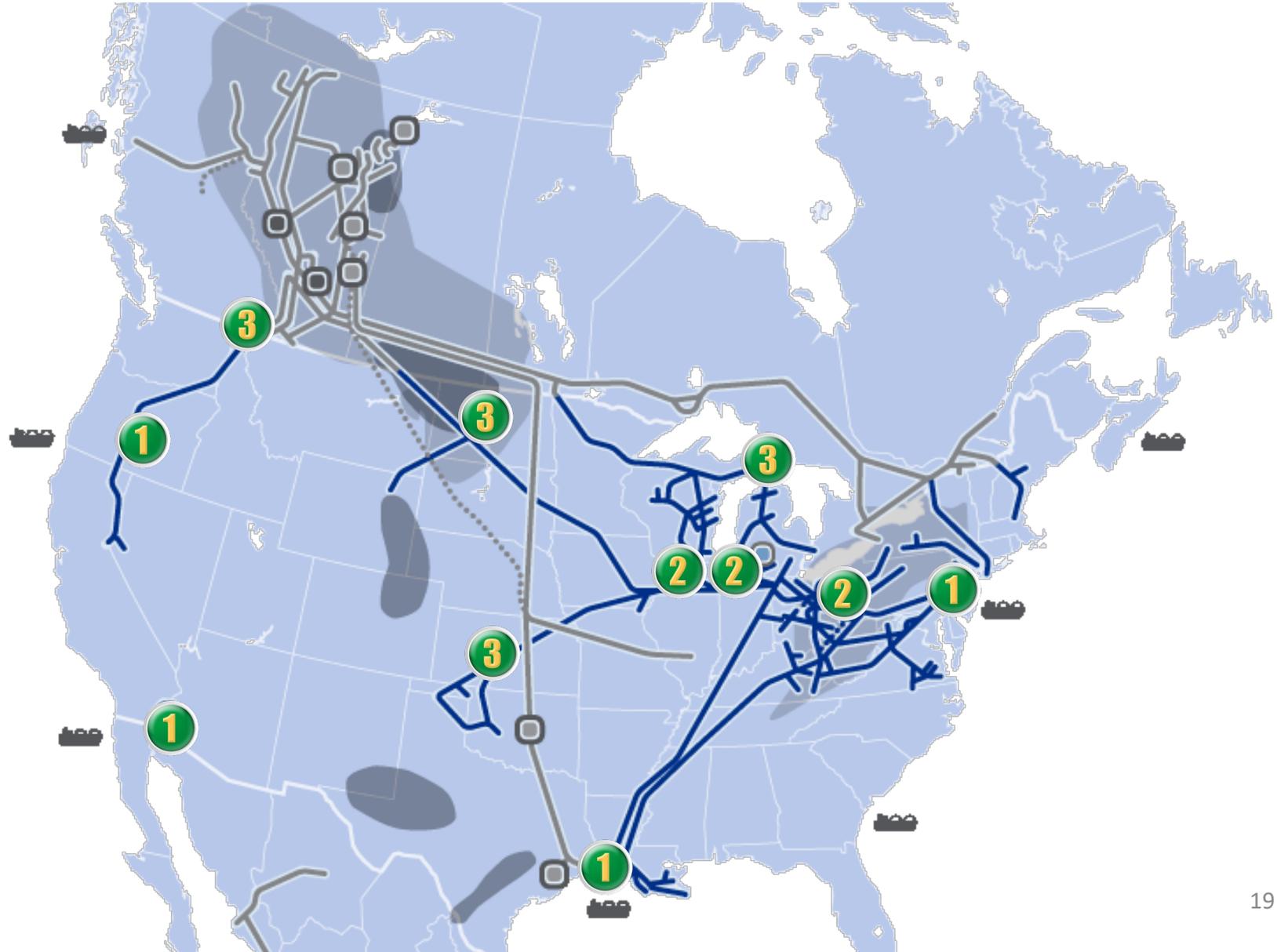
44% Increase



17% Increase

TransCanada Ready

- 1 LNG
- 2 Localized Organic Demand
- 3 Supply Push

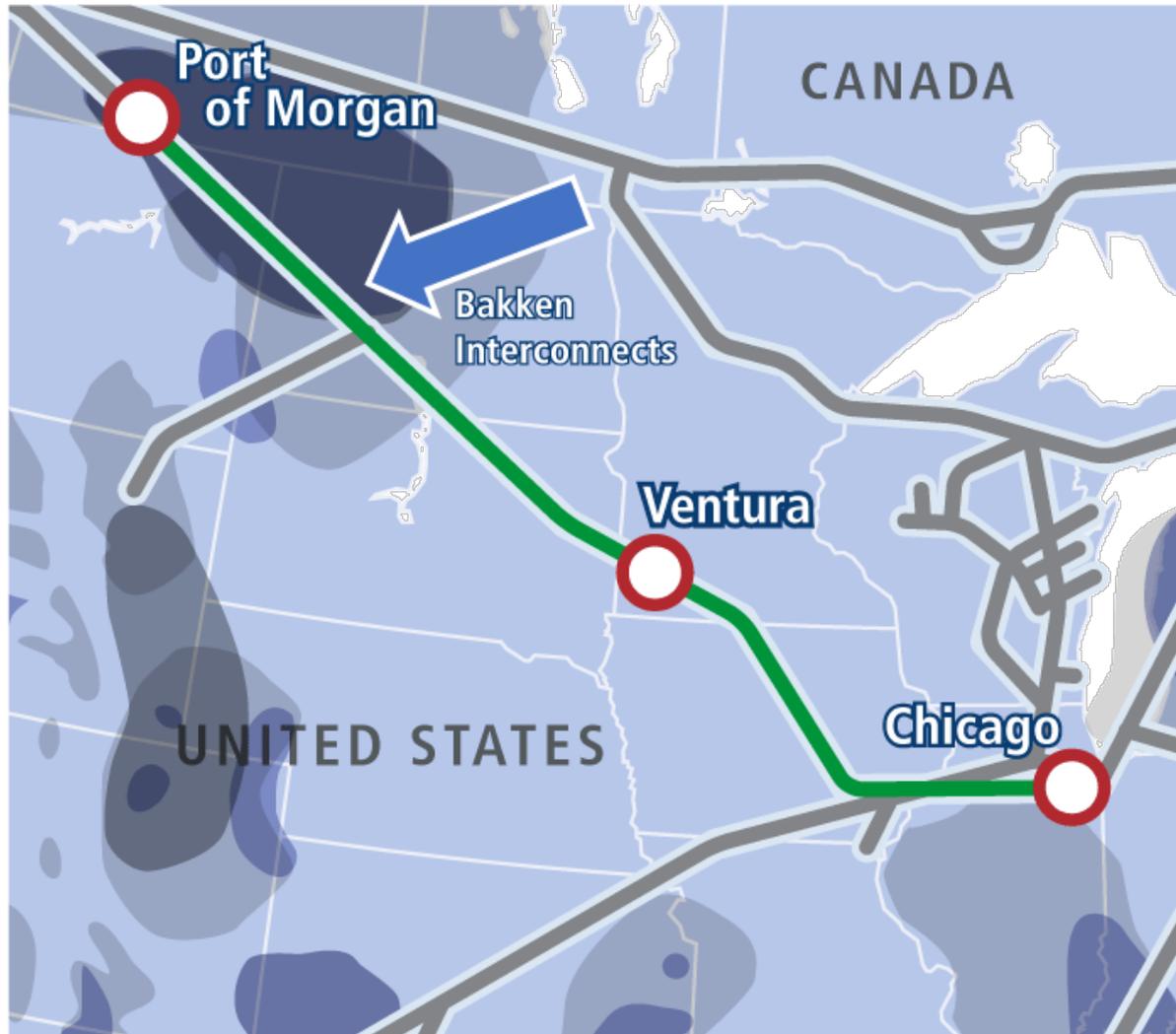




Market Fundamentals

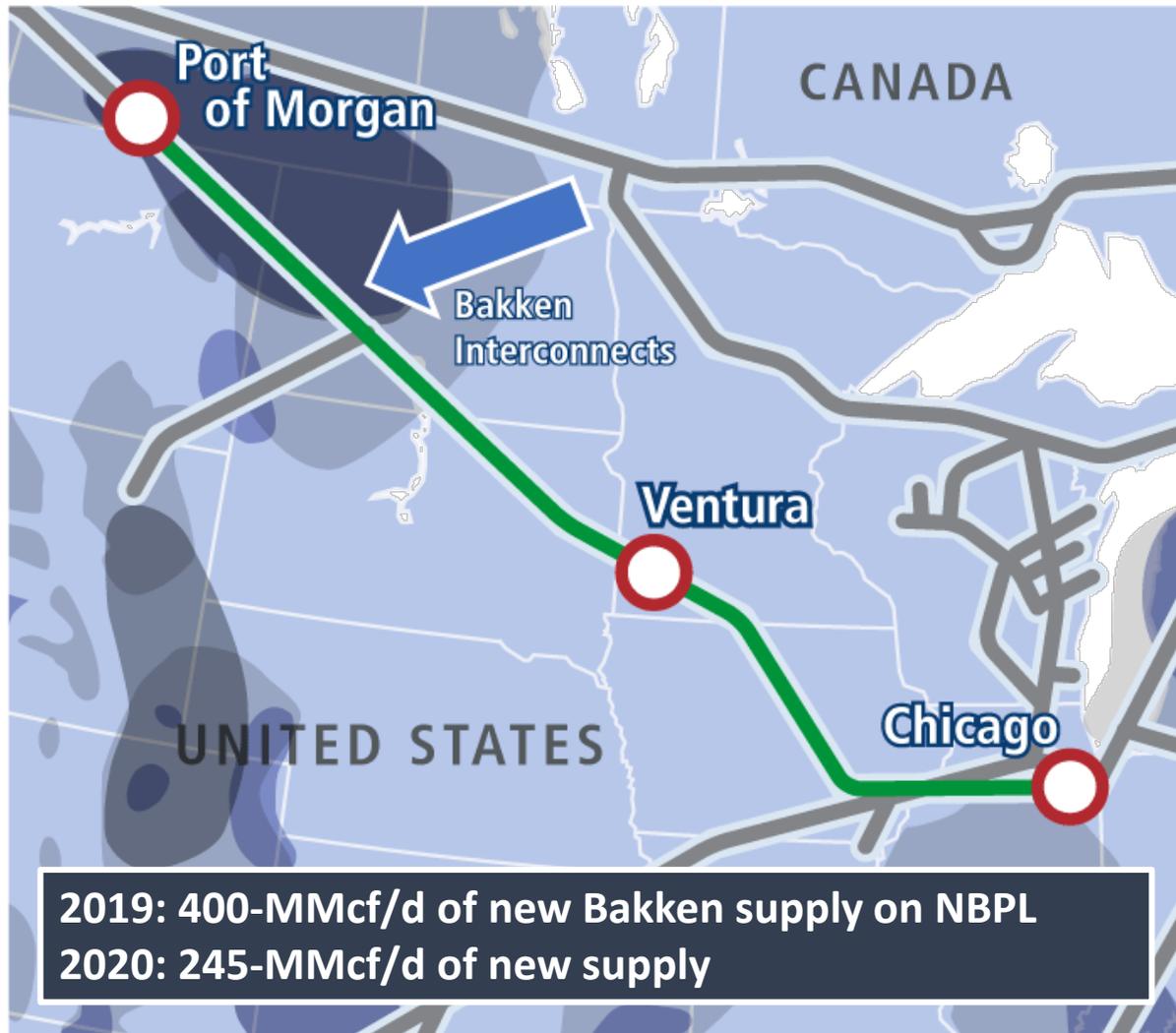
Lonnie Lozano

Northern Border



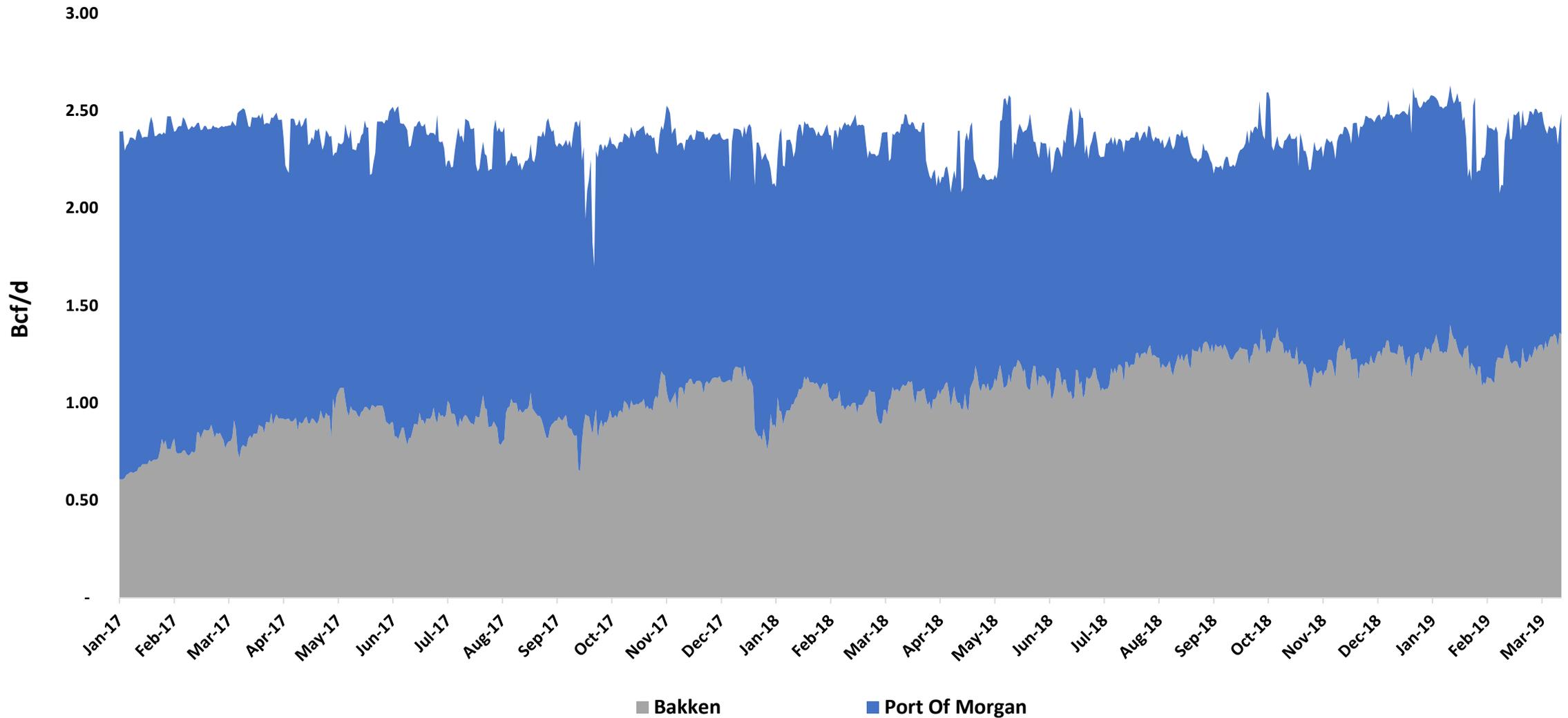
- Major natural gas transportation system that links the Midwestern U.S. with reserves in the Western Canadian Sedimentary Basin and Bakken Shale Formation
- Approximately 1,250 miles in length
- Design capacity of approximately 2,400 million cubic feet per day (MMcf/d)
- Largest interconnects with Northern Natural, Chicago area LDC's and Interstate Pipelines

Interconnect Update

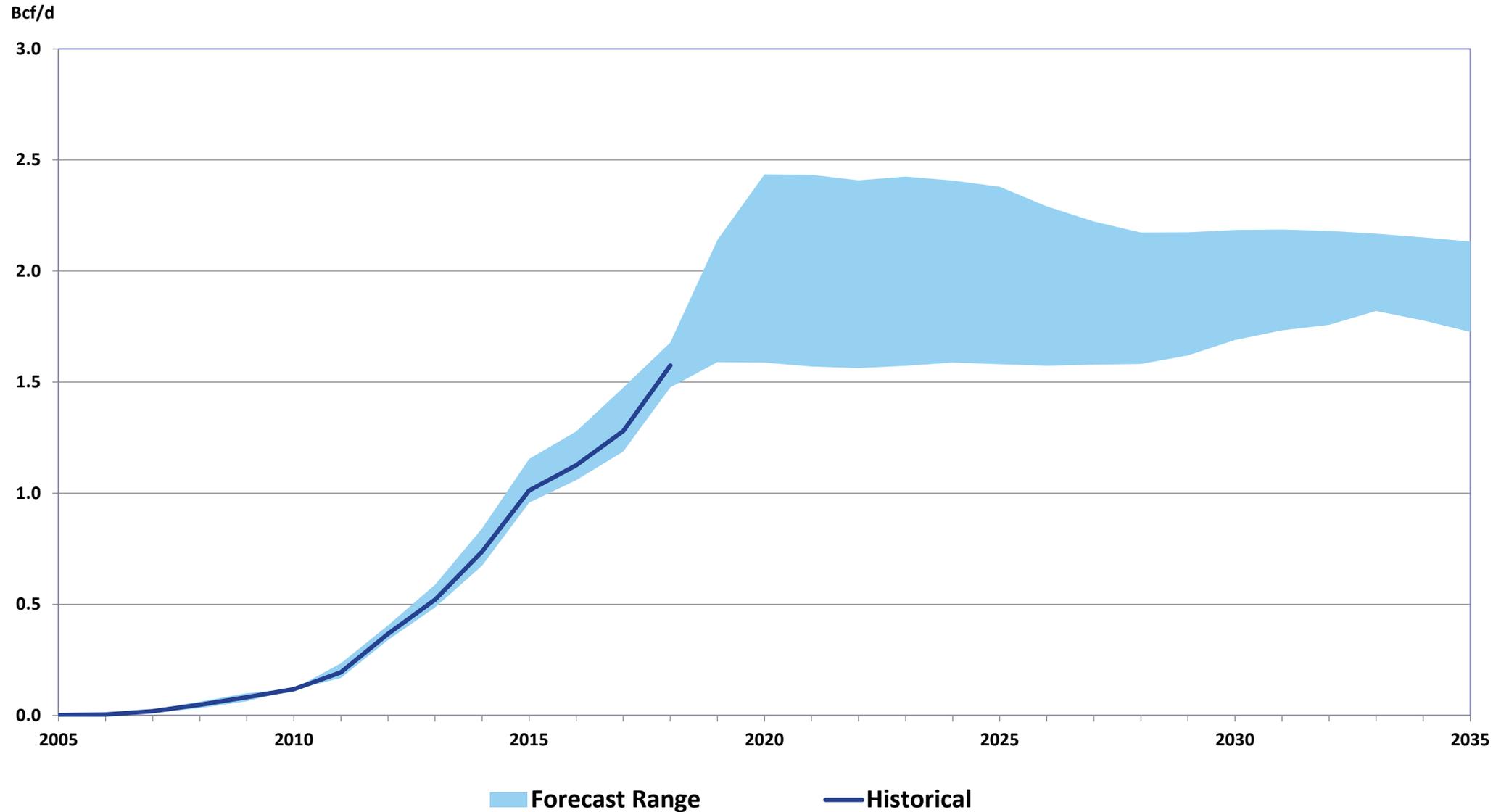


Northern Border (mmfc)			
Bakken Interconnects	'18 Mar Rec.	'19 Mar Rec.	Meter Capacity
Stateline	145	153	200
Squaw Creek	68	86	90
Charbonneau	83	126	151
Rawson	186	186	282
Hay Butte	3	7	50
Spring Creek	424	523	600
Watford City	46	58	71
Little Missouri	70	91	95
Alexander	23	20	90
Roosevelt	30	43	50
Killdeer	75	88	98
Glen Ullin	11	18	130
Total Bakken	1,164	1,398	1,907

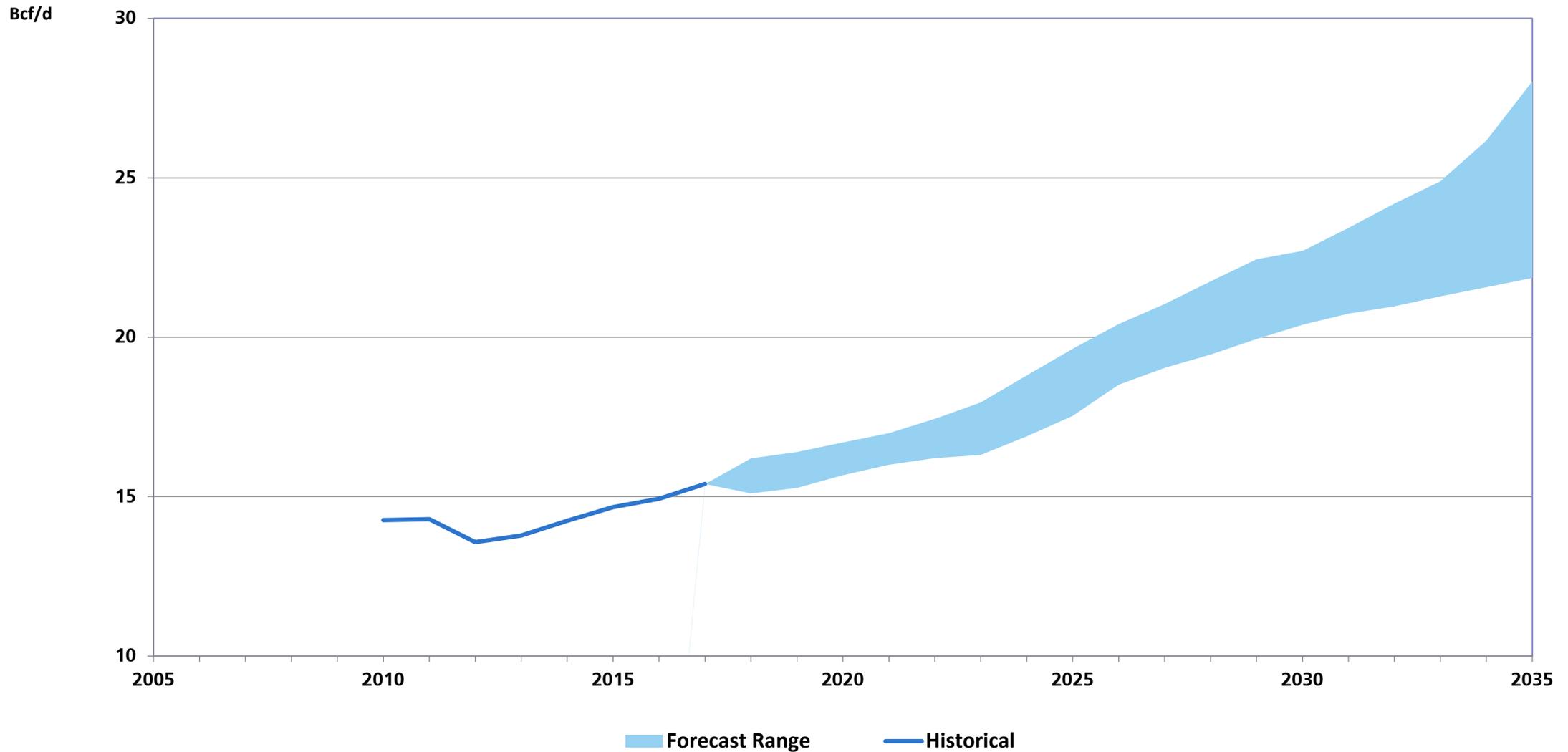
NBPL Supply Mix – Bakken vs. PoM Receipts



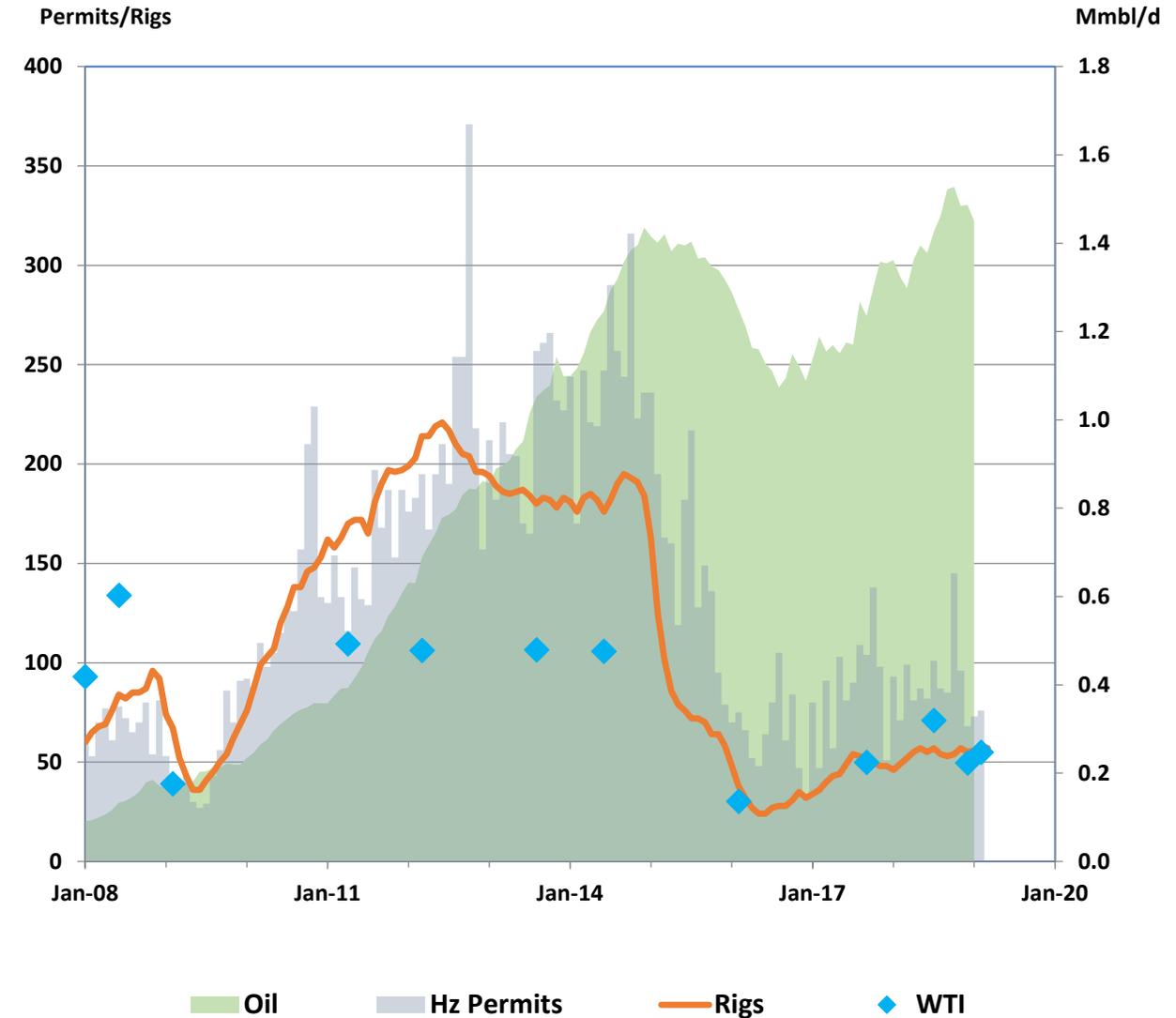
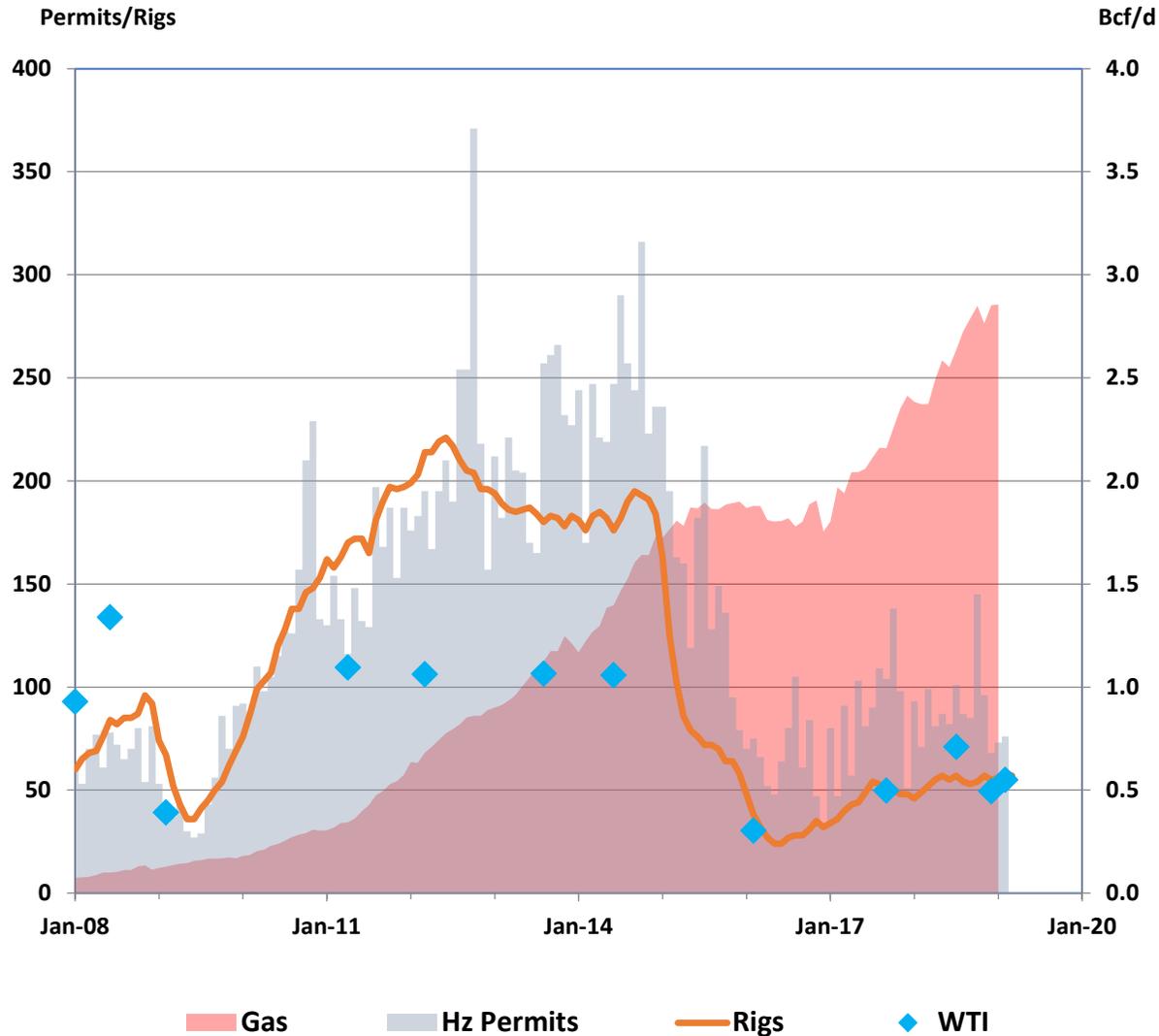
Bakken Forecast (Dry Gas)



WCSB Forecast (Dry Gas)

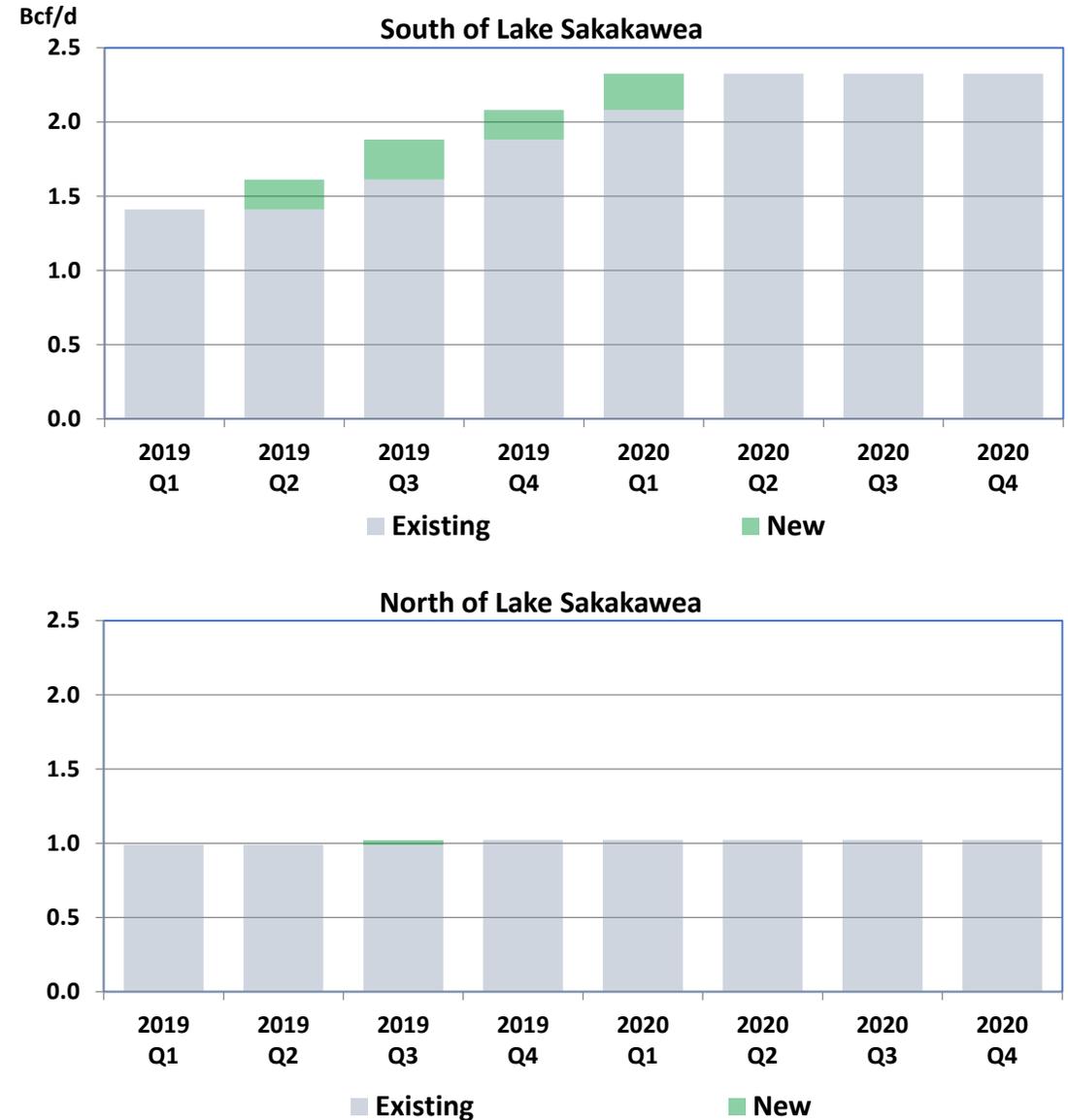
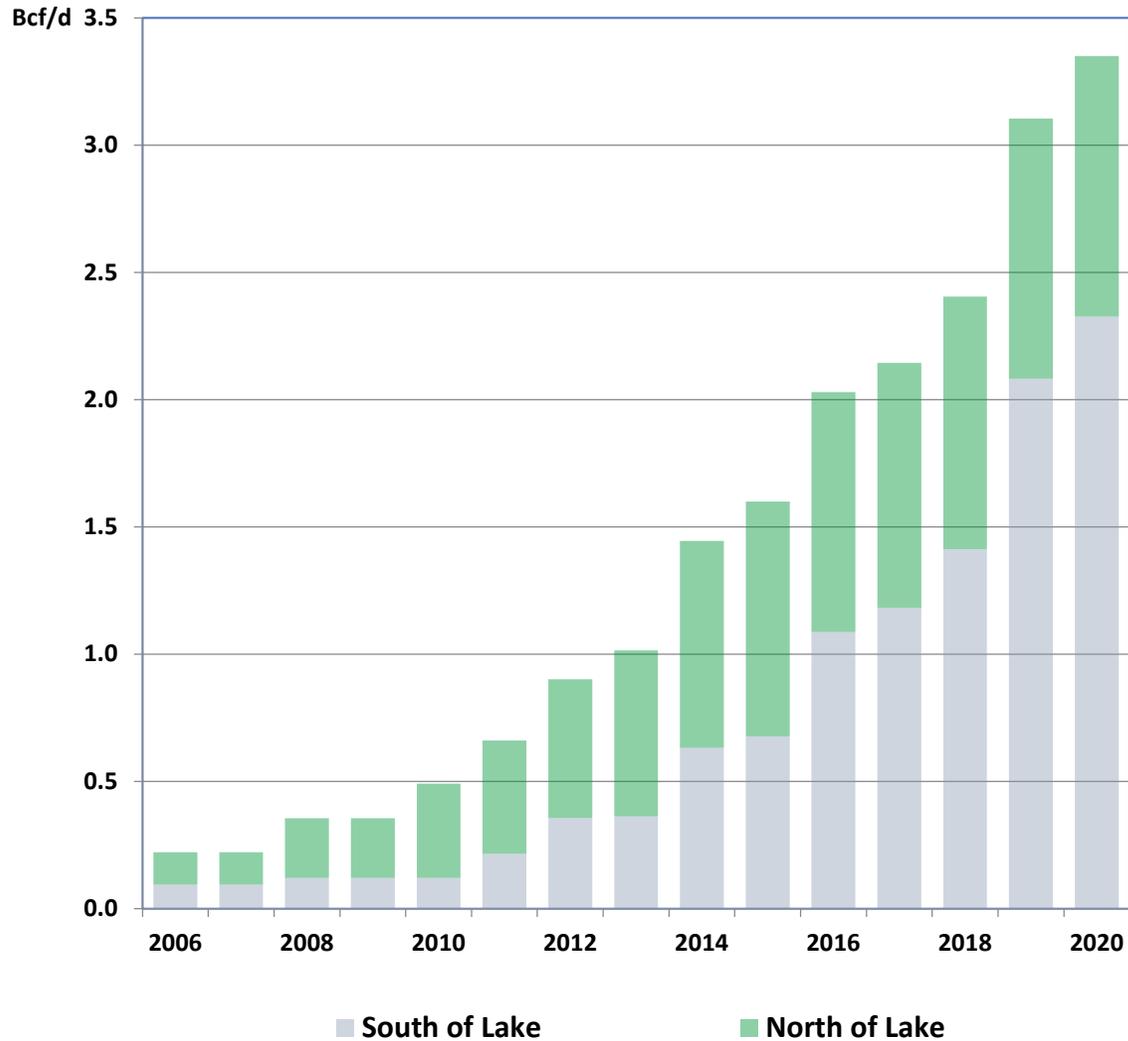


Bakken Activity and Production



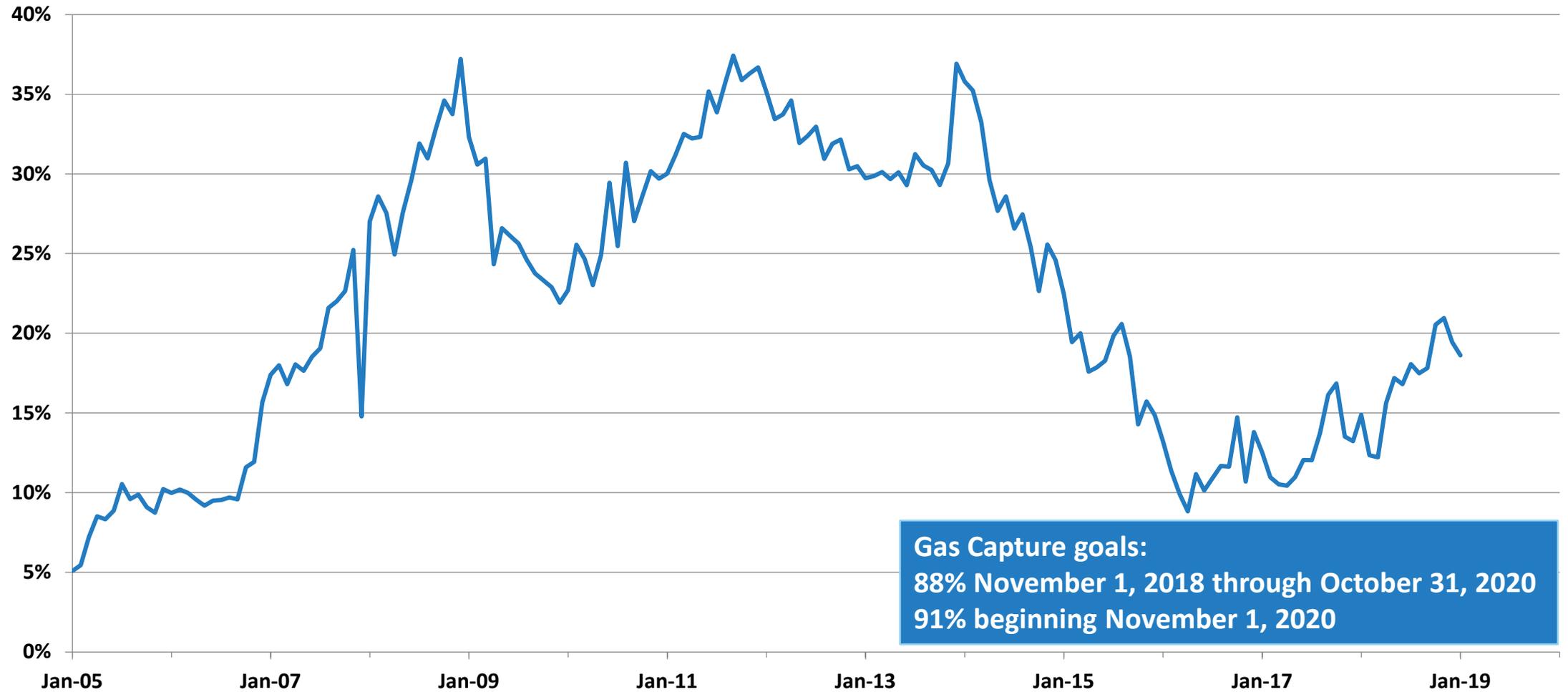
Source: DI Desktop, EIA and Baker Hughes (production is 8/8th's wellhead)

North Dakota Bakken Processing Capacity

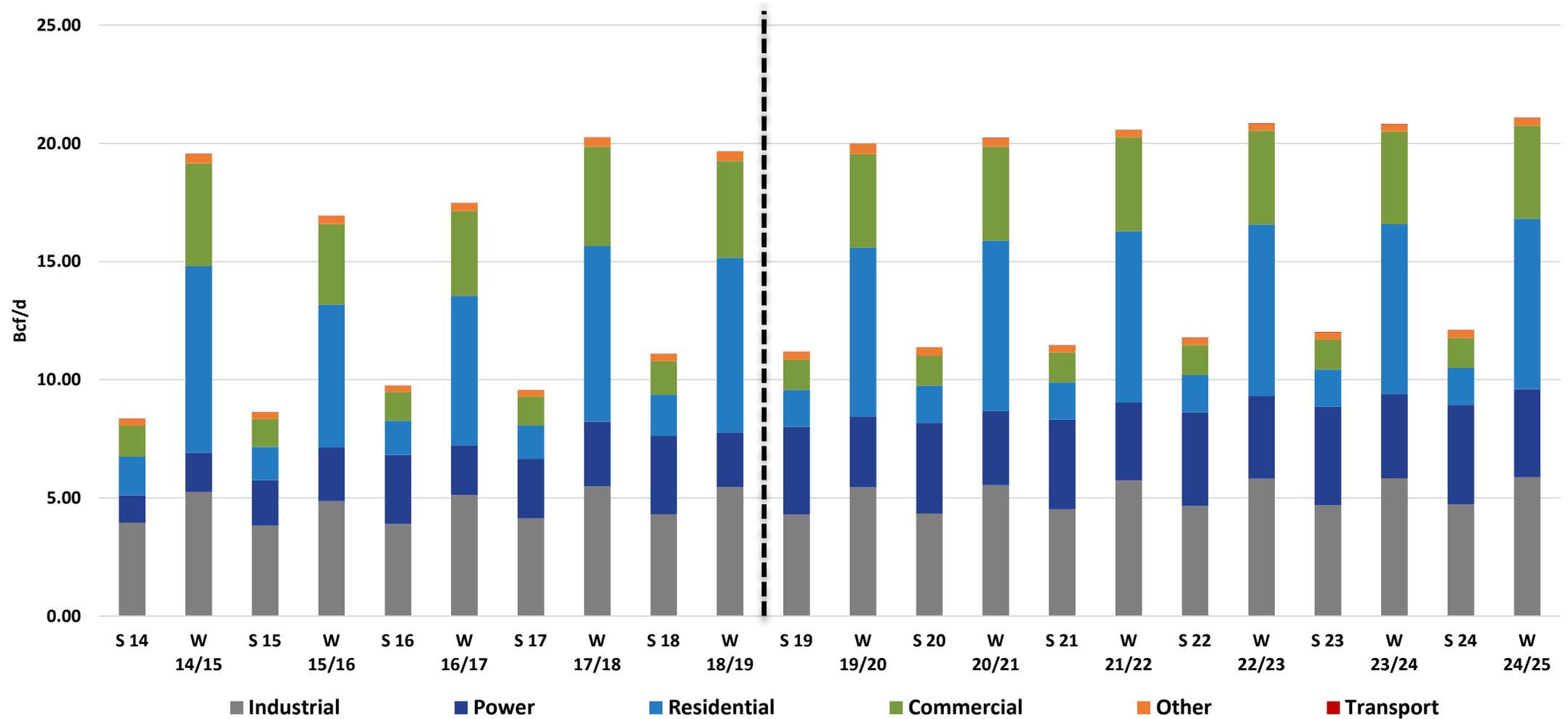


Source: North Dakota Pipeline Authority and various industry websites

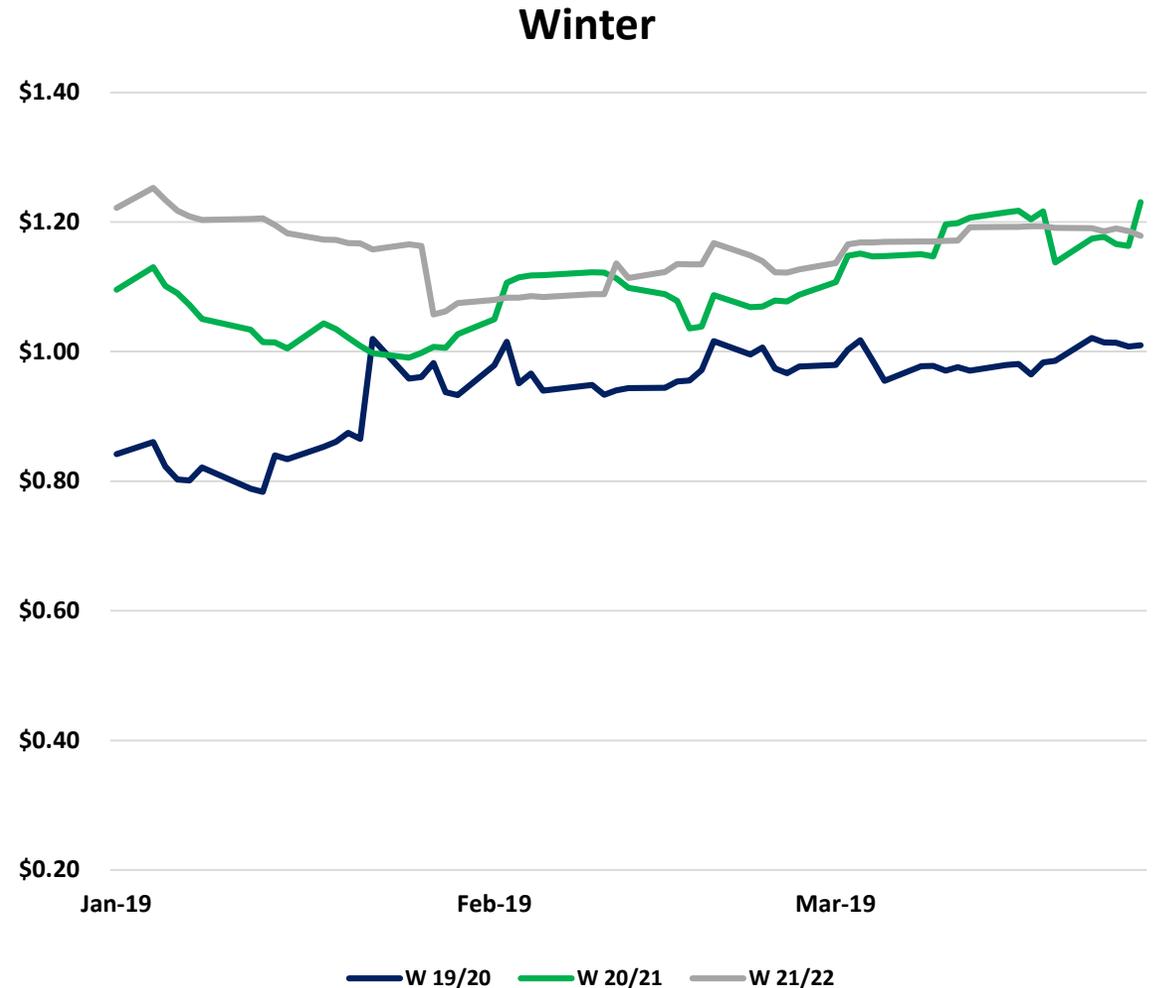
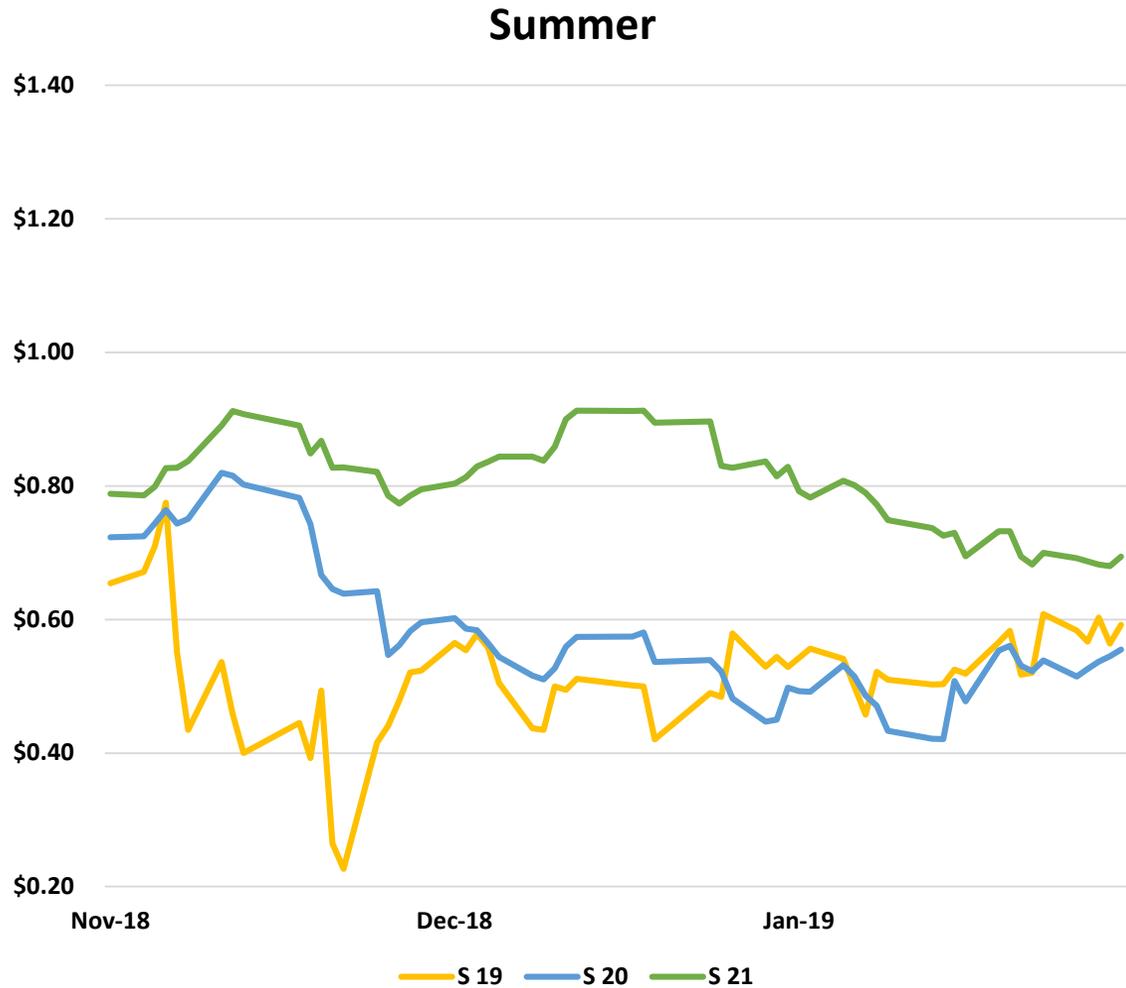
North Dakota Flaring



Midwest Demand



Port of Morgan to Chicago (S) / Ventura (W)





Commercial Opportunities

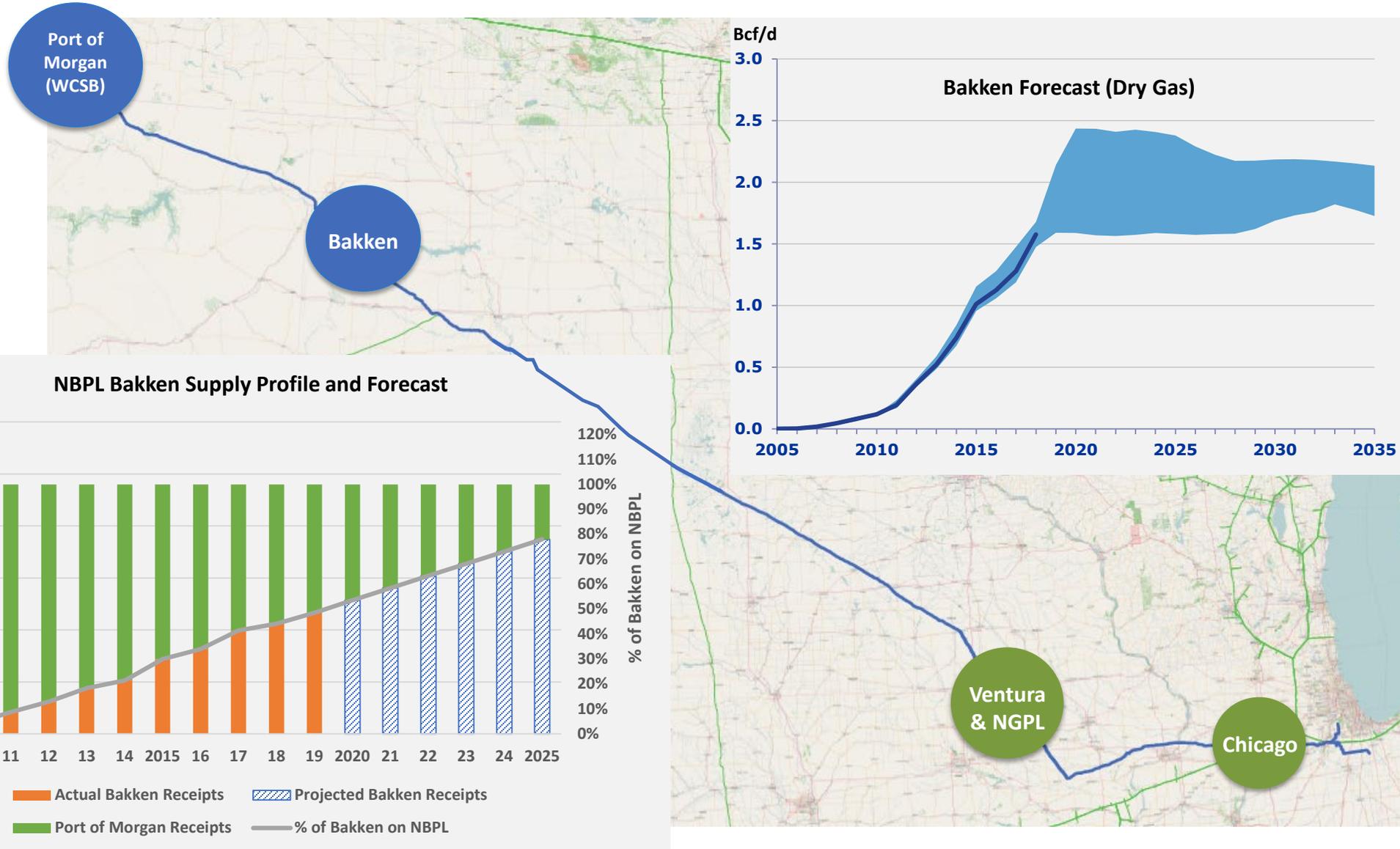
- Available Capacity:
 - 2019 Maintenance Capacity
 - Capacity Subject to ROFR
- Supply Stack and Incremental Bakken Receipt Capacity
- Bakken Supply Reliability winter 2018-19 vs. 2017-18
- ATPL and PaL Opportunities
- Power Plant Services
- Increase in Monthly/BALMO Capacity Sales
- Daily Ambient Capacity Auction



Business Development

Eric Miller

Northern Border Producer/Market Profile



Northern Border Expansions

Stateline/Watford City to Ventura

Up to 580 Mdth/d of incremental firm capacity from a Stateline point of receipt in Williams Co., ND to the Ventura existing point of delivery into NNGL in Hancock Co., Iowa

- Phase I In-Service Date: Q3 2021
- Phase II In-Service Date: Q4 2023

Stateline/Watford City to Cheyenne Hub

Up to 430 Mdth/d of incremental firm capacity from a Stateline point of receipt in Williams Co., ND to the Cheyenne Hub

- Phase I In-Service Date: Q3 2021
- Phase II In-Service Date: Q4 2022



Northern Border Expansions – Next Steps

- Determine which expansion path is most supportive from anchor shipper(s)
- Continue to refine and optimize each expansion path design and cost
- For either expansion path, execute Non-Binding Term Sheets – Q2 2019
- Execute Precedent Agreements – Q2/Q3 2019



Northern Border Expansions

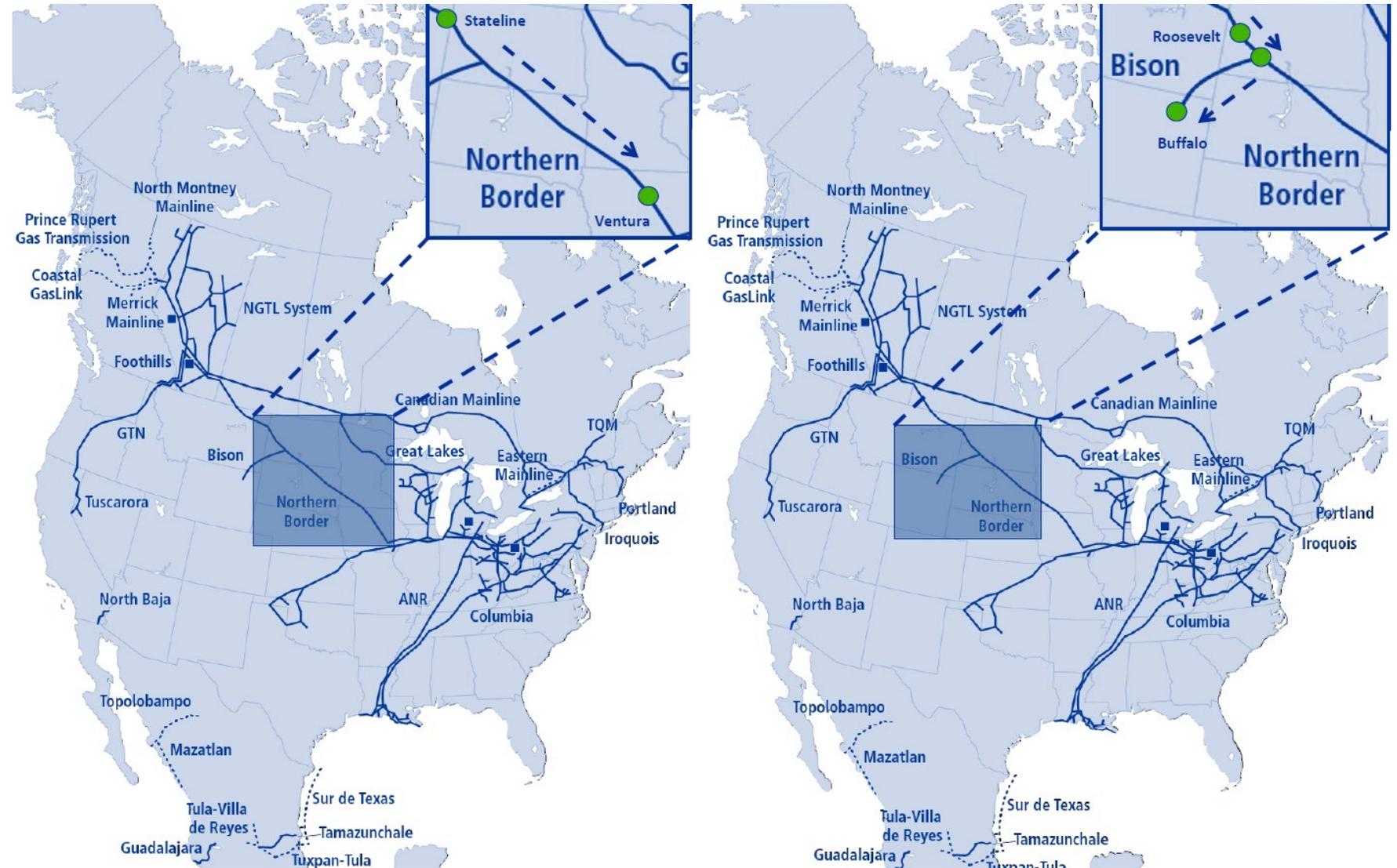
Contact Information

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eric_miller@transcanada.com

Tel: 832.320.6070

Cell: 281.799.7257





Operations Update

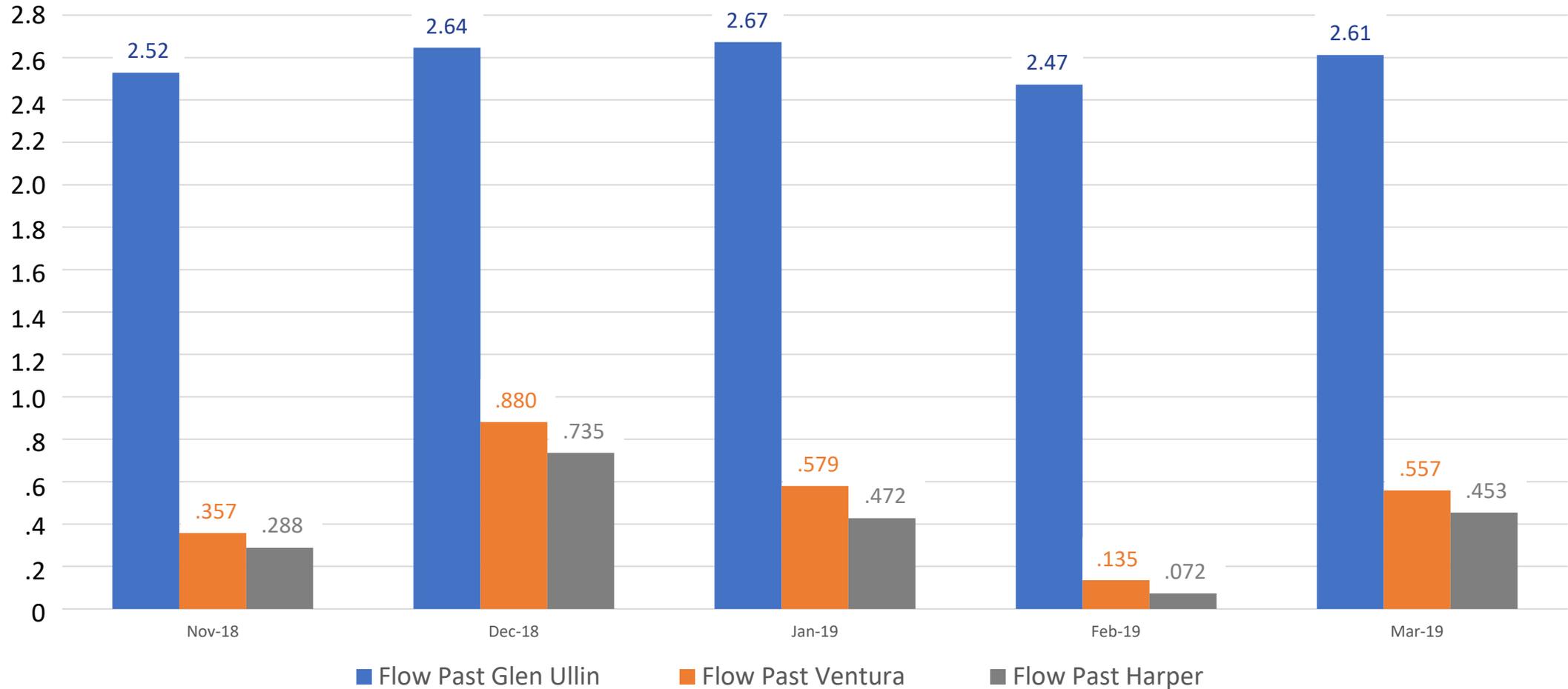
Loren Charbonneau

Significant Items – 2018/19 Winter Season

- Northern Border success
 - Record deliveries
 - No capacity impacts
- Chicago 2017/18 winter weather was 2% warmer than normal, compared to 4% colder than normal for winter 2018-19
- Minneapolis 2017/18 winter weather was 2% colder than normal, compared to 7% warmer than normal for winter 2018-19
- Northern Border's transmission peak day
 - January 30, 2019
 - System deliveries of 3.2 Bcf
- Pipeline capacity was a 98% load factor through Glen Ullin during the winter season

Northern Border Winter Average Day System Flows

Flow in MMbtu
per calendar month

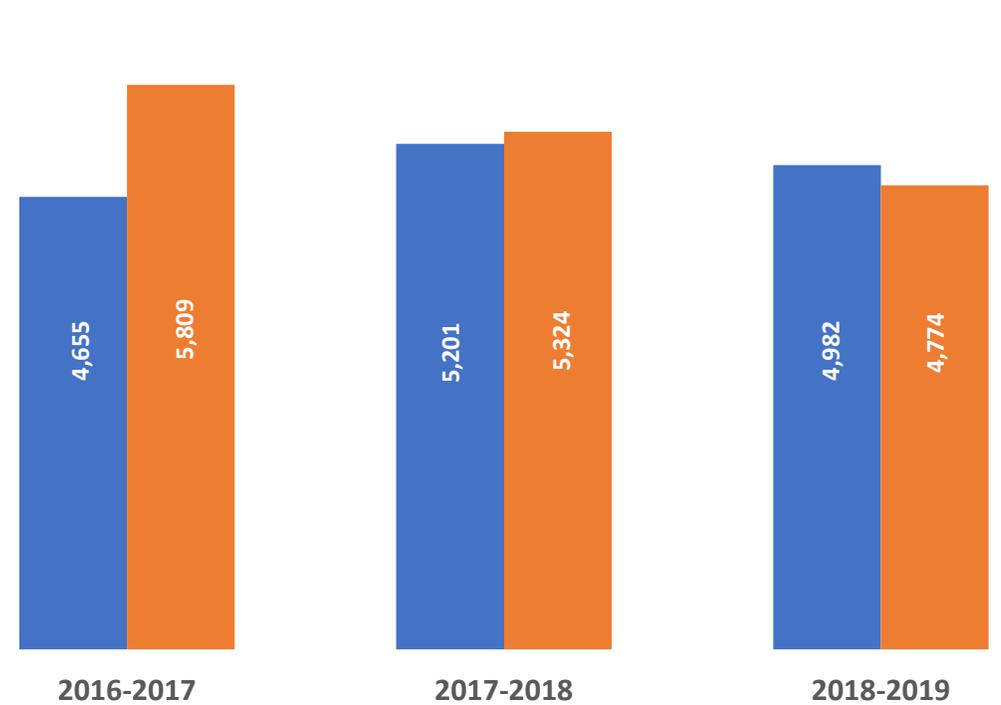


Season-to-Date Heating Degree Day Comparison

Minneapolis/St. Paul



Chicago



STD Actual HDD

30 Year Normal

Winter	2017-18	2018-19
Minneapolis	2% CTN	7% WTN
Chicago	2% WTN	4% CTN

Summer 2019 Maintenance Schedule

- As in the past, April and May are reserved for major planned outages and capacity impacting events.
- All compressor stations will take a required, annual maintenance outage during April and May. One station will be taken offline at a time in order to minimize capacity impacts.
- 2 compressor stations are scheduled for station controls upgrade.
- 1 compressor station is scheduled for a compressor repair.
- Continued SCADA and communication systems upgrade to help maintain pipeline reliability.

Spring 2019 Maintenance Schedule

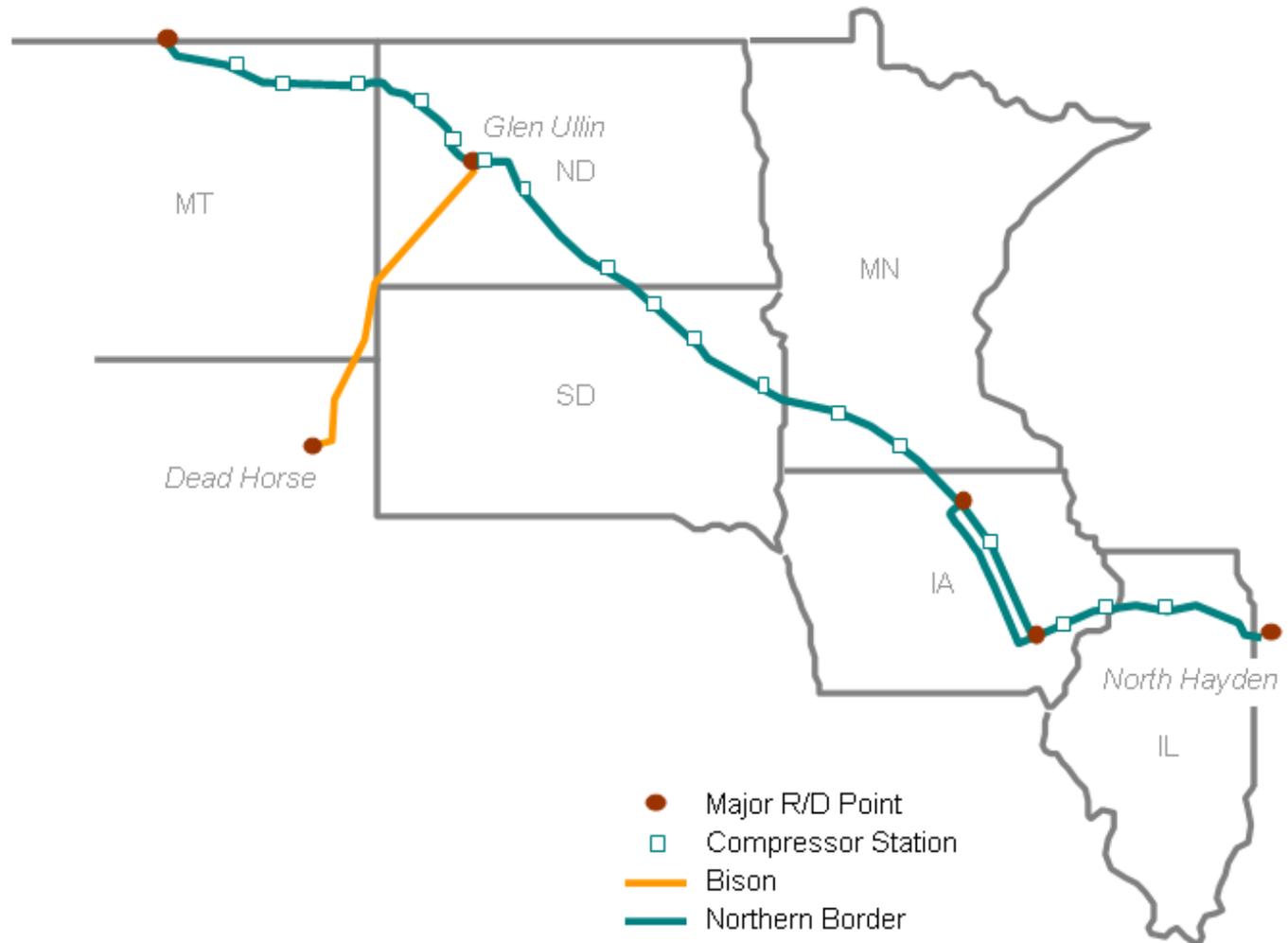
2019 Scheduled Spring Outages

April

Compressor Station 06	Panel Upgrade	4/1 – 4/16
Compressor Station 18	Spring Maint.	4/3 – 4/4
Compressor Station 16	Spring Maint.	4/9 – 4/10
Compressor Station 01	Jet Install	4/9 – 4/11
Compressor Station 19	NetFlex Install	4/9 – 4/11
Compressor Station 03	Spring Maint.	4/16 – 4/17
Compressor Station 13	Spring Maint.	4/17 – 4/18
Compressor Station 17	Spring Maint.	4/17 – 4/18
Des Plaines	Spring Maint.	4/23 – 4/24
Compressor Station 09	Compressor O-ring	4/23 – 4/25
Compressor Station 12	Spring Maint.	4/29 – 4/30

May

Compressor Station 09	Spring Maint.	5/1 – 5/2
Compressor Station 14	Spring Maint.	5/1 – 5/2
Compressor Station 07	Panel Upgrade	5/6 – 5/21
Compressor Station 01	Spring Maint.	5/7 – 5/8
Compressor Station 02	Spring Maint.	5/14 – 5/15
Compressor Station 10	Spring Maint.	5/21 – 5/22
Compressor Station 11	Spring Maint.	5/23 – 5/24
Compressor Station 08	Spring Maint.	5/29 – 5/30





Regulatory Review

John Roscher

2017 Settlement Summary

Across-the-board reservation rate decrease (from pre-settlement rates) over 3 periods:

- January 1, 2018 to March 31, 2018: 5% Reduction
- April 1, 2018 to December 31, 2019: 10.5% Reduction
- January 1, 2020 onward: 12.5% reduction

Total T-1 Rates			
Path	Period I	Period II	Period III
POM – Ventura	\$0.2268	\$0.2136	\$0.2087
Ventura - N Hayden	\$0.1267	\$0.1194	\$0.1168

6-year bilateral moratorium on five-year extension tariff language

6-year comeback requiring filing by January 1, 2024

501-G/Limited Section 4 Filing

Northern Border filed as part of Group III on December 6, 2018

Selected non income taxpaying pass-through entity

- Per Order No. 849, eliminated the income tax allowance in rates and associated legacy ADIT balance

501-G indicated a 3.6% rate *increase*

- Filed a “limited section 4” rate filing with a management adjustment reflecting a 2% rate decrease
- Noted commitment to 2% reduction as additional reduction to January 1, 2020 rates via settlement

2017 Settlement Rates (T-1)		
Path	Period II	Period III
POM - Ventura	\$0.2136	\$0.2087
Ventura - N Hayden	\$0.1194	\$0.1168

501-G / Settlement Rates (T-1)		
Path	Period II 501-G	Period III Settlement
POM - Ventura	\$0.2095	\$0.2046
Ventura - N Hayden	\$0.1173	\$0.1143

501-G/Limited Section 4 Outcome

- Commission approved limited section 4 filing on January 31, 2019
- 2% rate reduction went into effect February 1, 2019
- The Commission required Northern Border to submit an informational filing on the status of the settlement amendment within 60 days of the issuance of the order



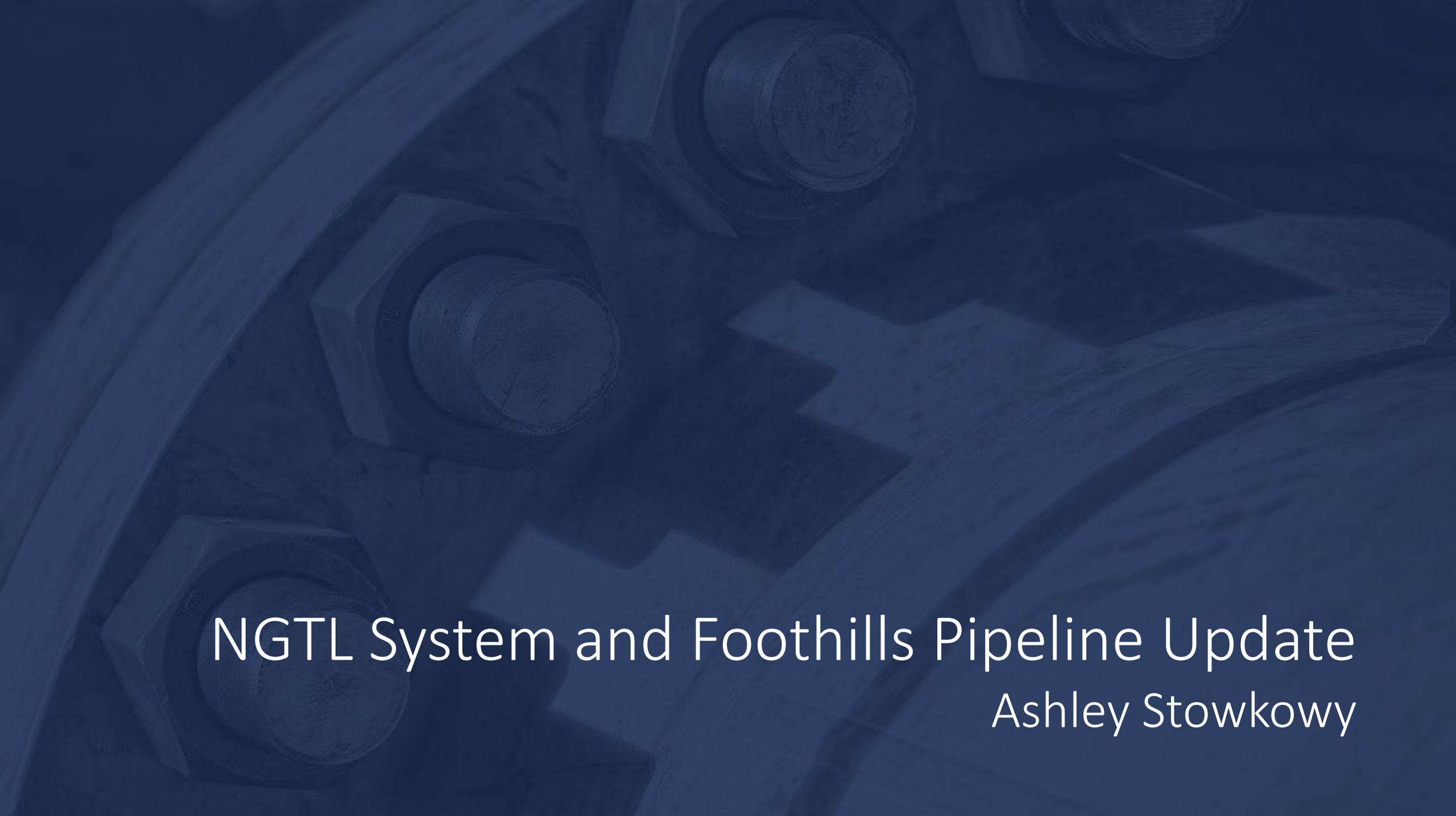
Settlement Amendment

Initial draft settlement circulated on February 15, 2019

Adjusts the January 1, 2020 (Phase III) rates to include the 2% 501-G rate reduction

Filed update with status of settlement on April 1

Settlement filed with FERC on April 4, 2019



NGTL System and Foothills Pipeline Update

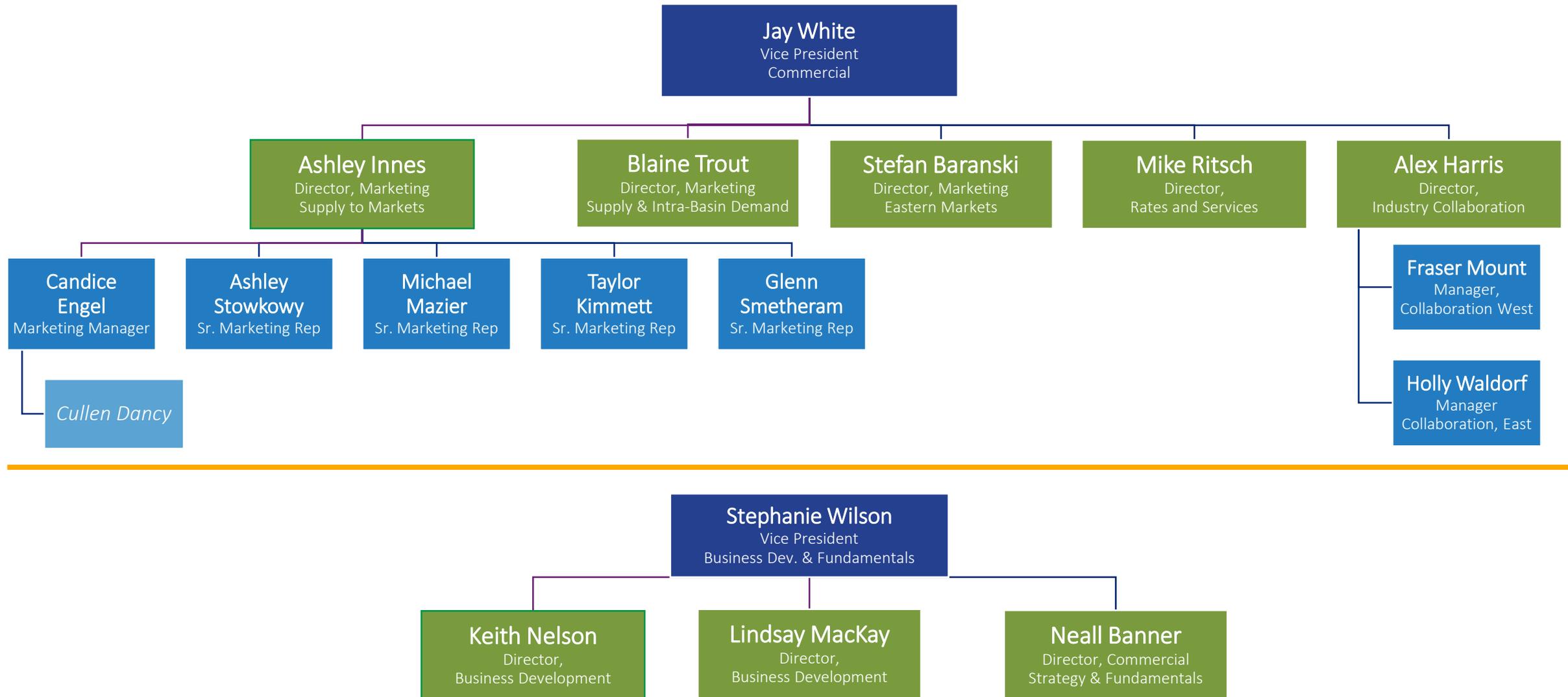
Ashley Stowkowy

Canadian Natural Gas Pipelines

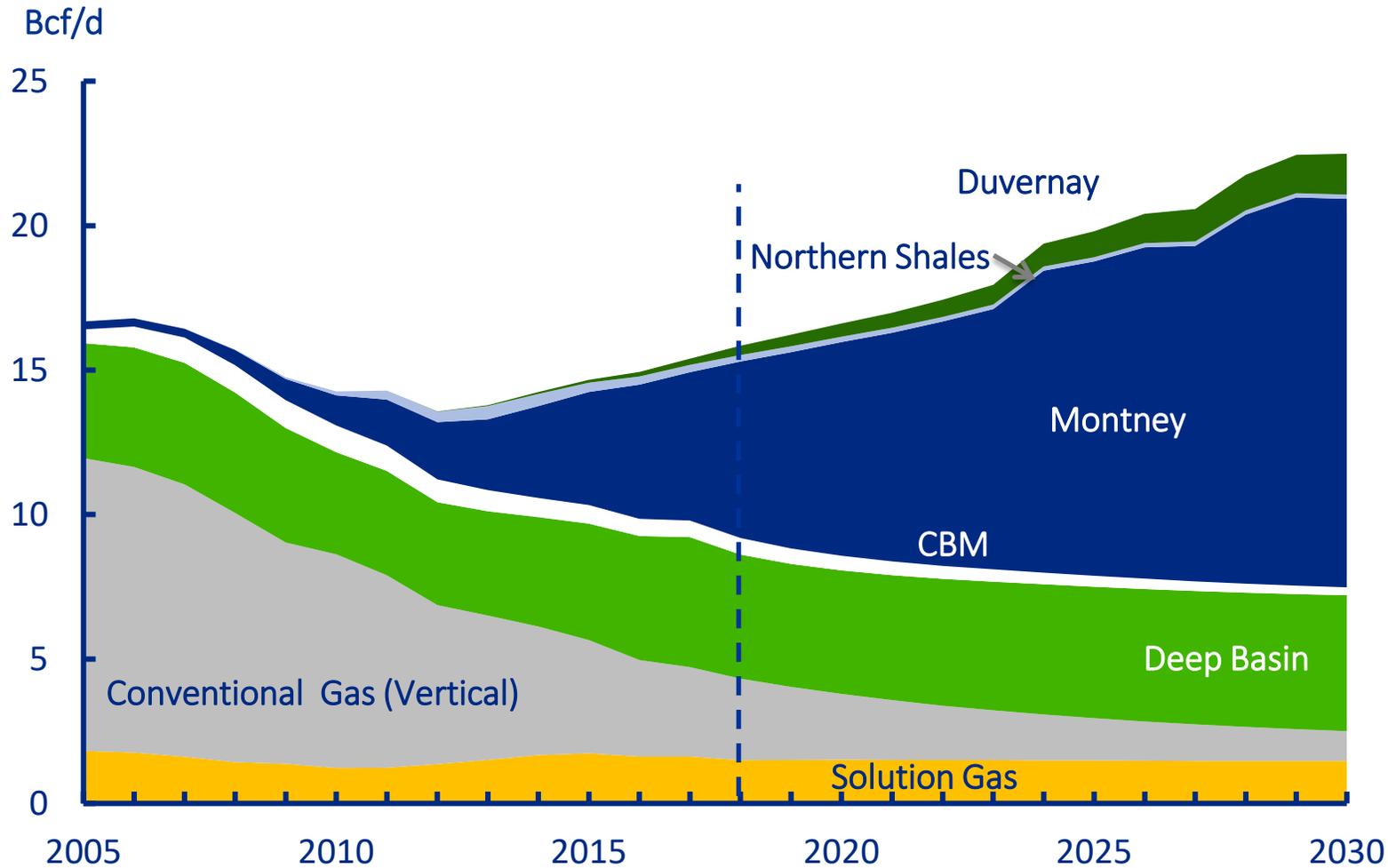


- NGTL System
 - **15,300** mi of pipeline
 - Connected to over **1,000 Tcf** of WCSB resource
 - Transports 75% of WCSB production, over **12 Bcf/d**
 - Connected to key North America markets
 - 2019 Rate Base: **\$9.9B**
 - 2019/2020 Revenue Requirement: **\$2.3B**
- Canadian Mainline
 - **8,800** mi of pipeline
 - **7.1 Bcf/d** of long-haul and short-haul contracts
 - Connects WCSB to eastern markets
- Coastal GasLink
 - **420 mi** pipeline from northeast B.C. to LNG Canada facility on the west coast
 - Phase 1 capacity of **2.1 Bcf/d**
 - Construction in progress

New Canada Gas Organization Structure

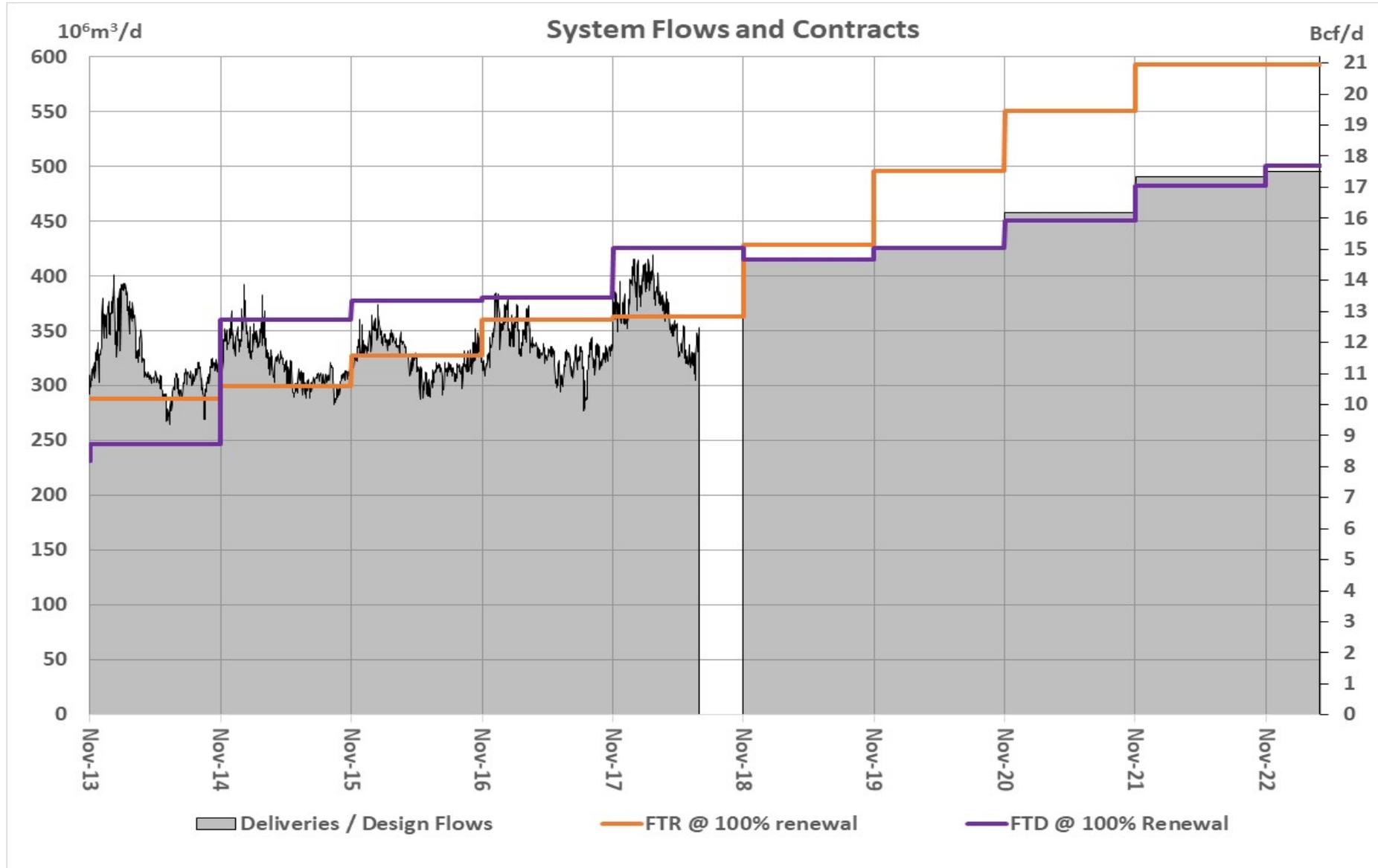


WCSB Supply Forecast

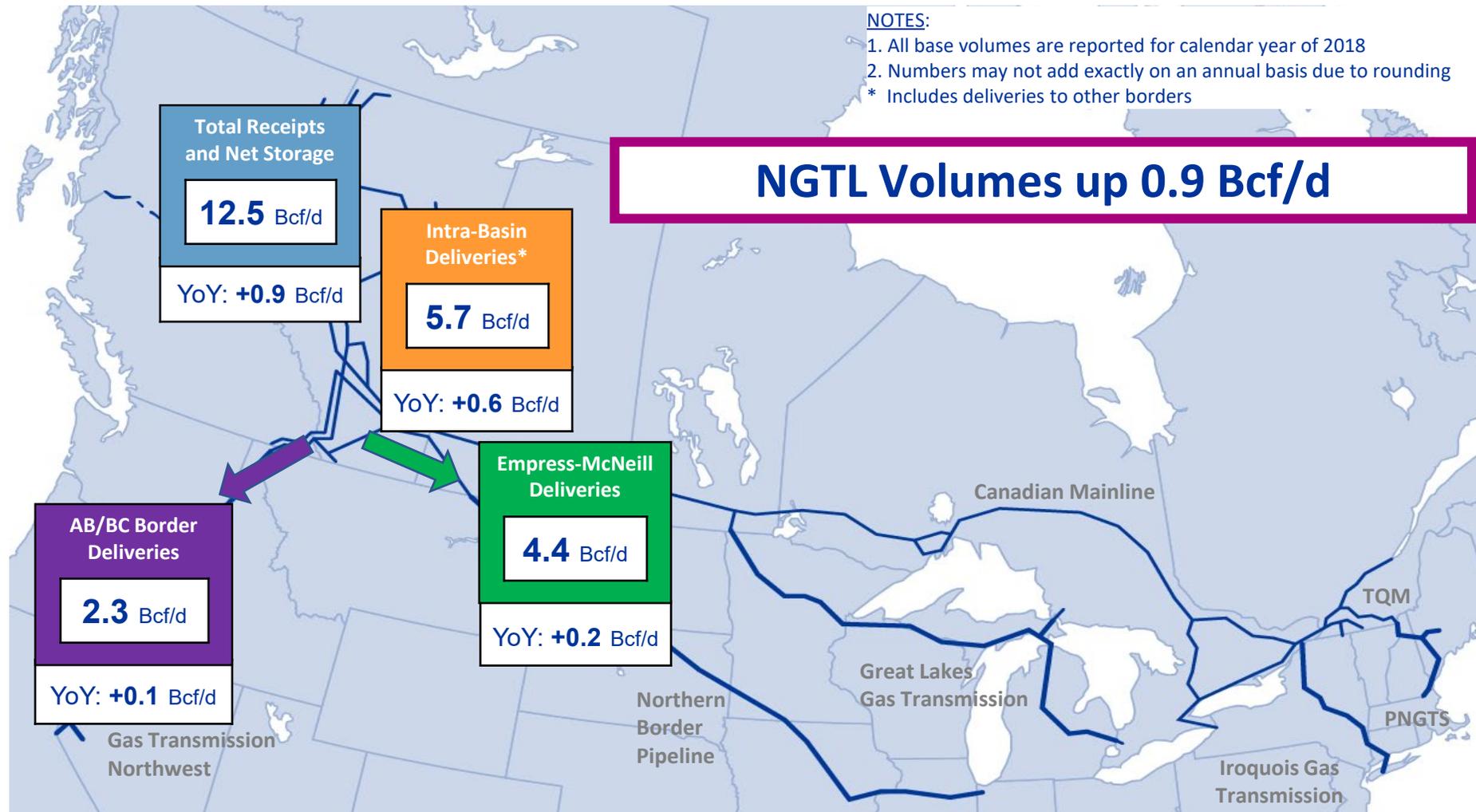


WCSB Supply seeking incremental markets

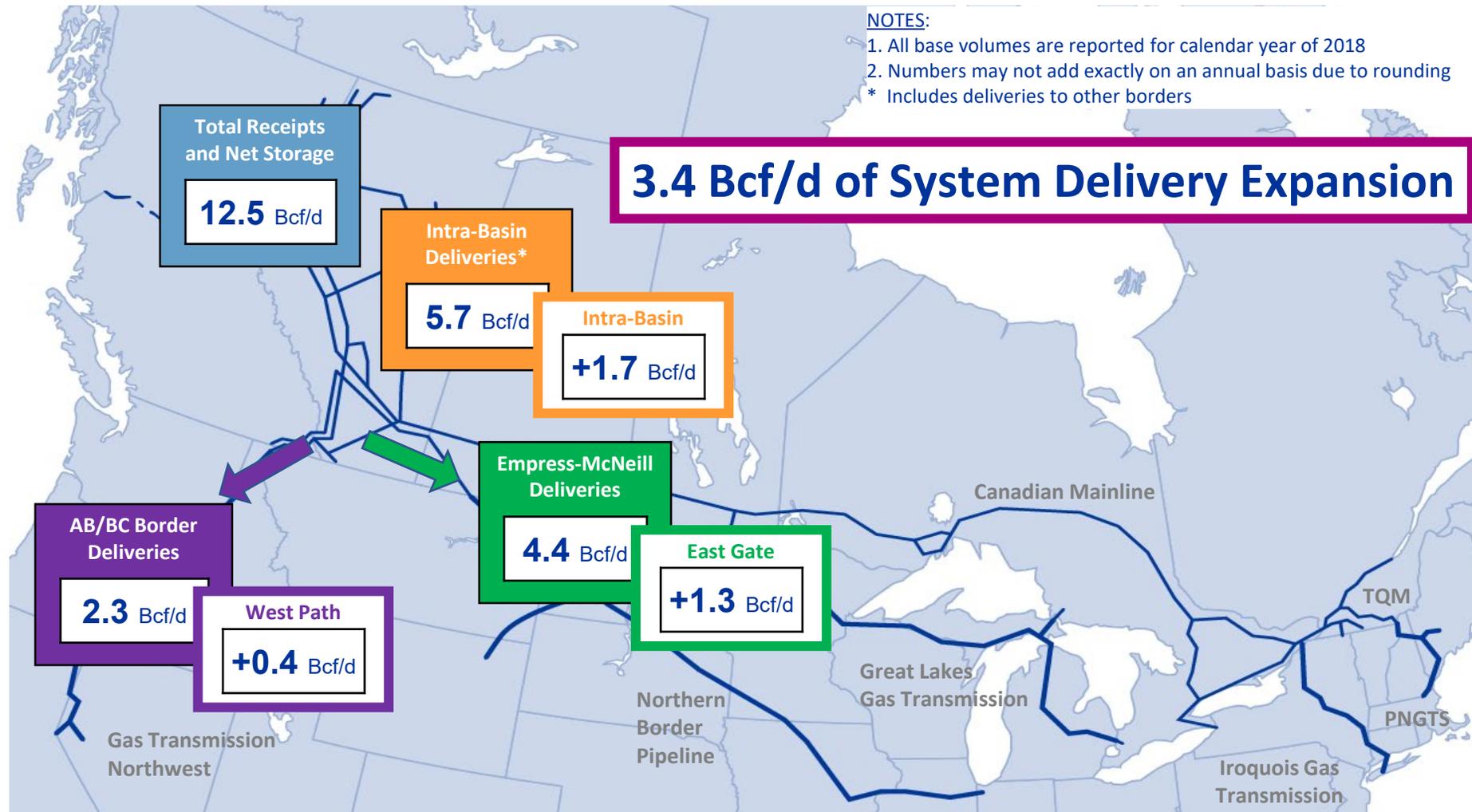
NGTL System Throughput Outlook Illustration



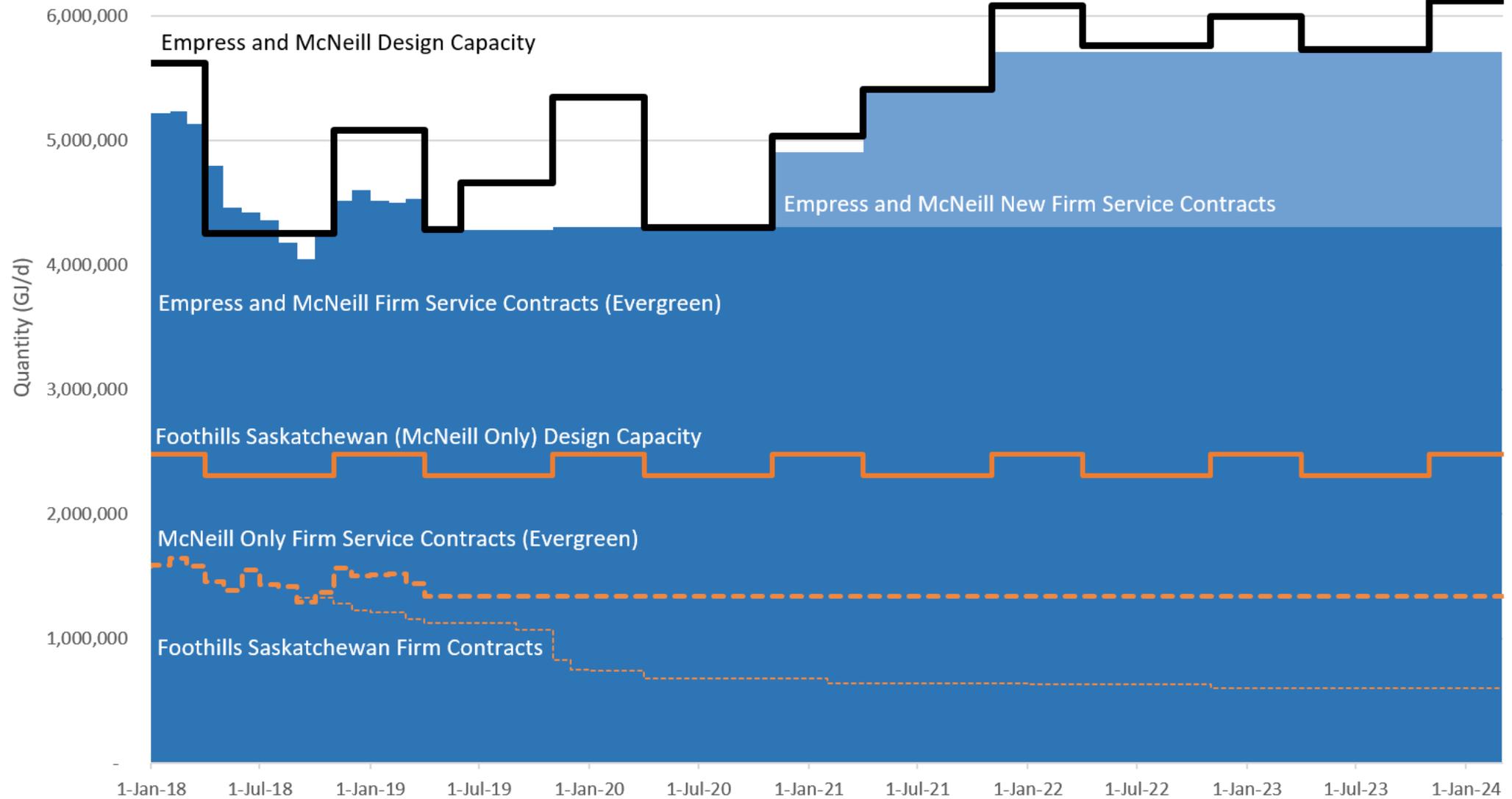
System Average Flow Increase from 2017 to 2018



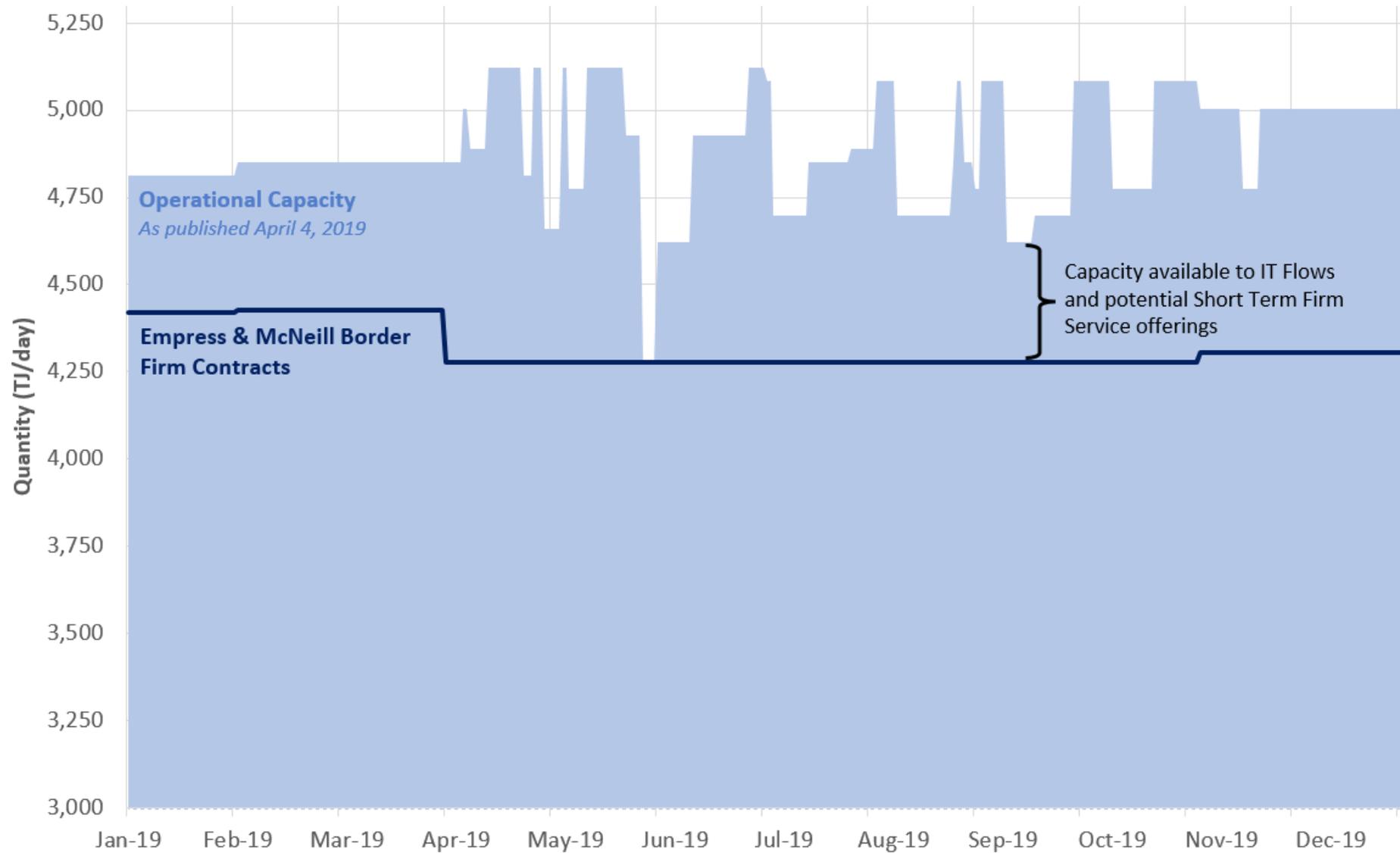
Significantly Expanding Market Connectivity 2019-22



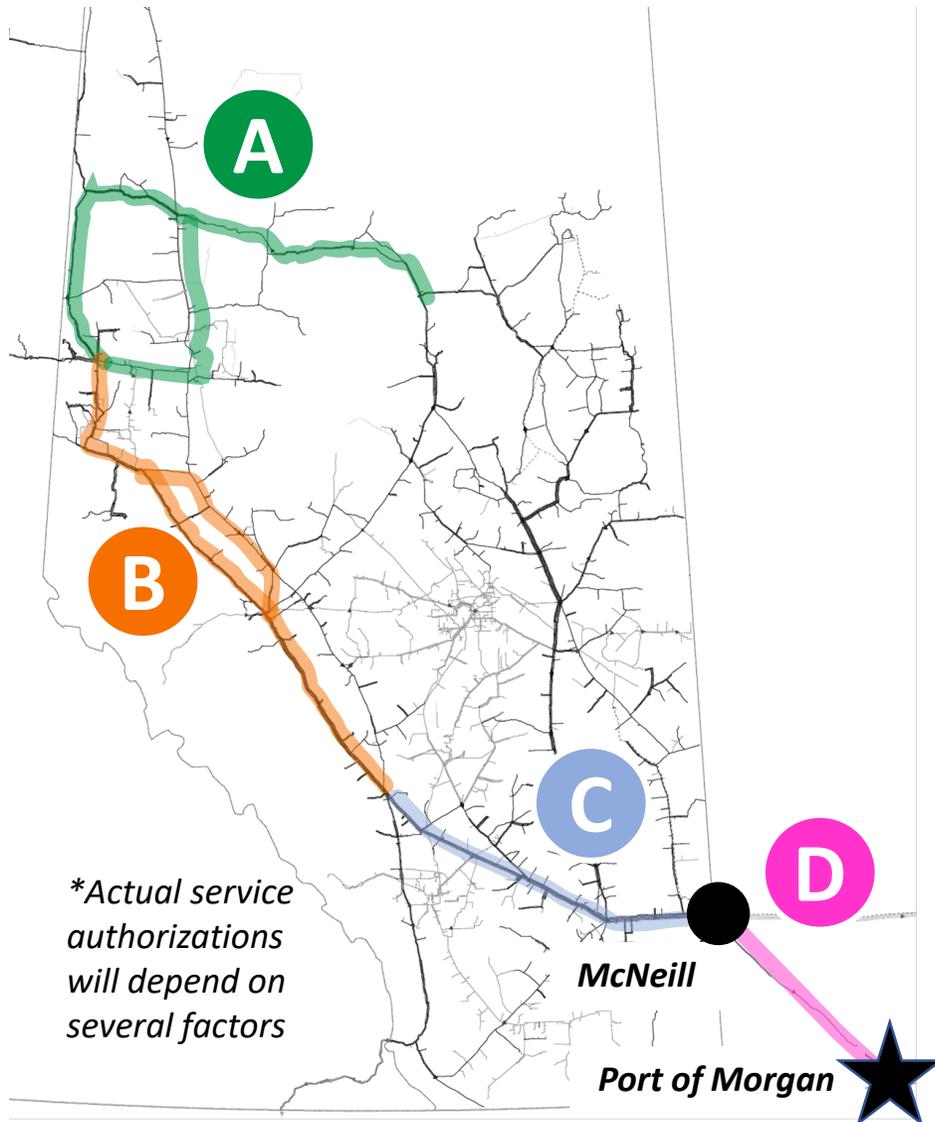
NGTL Eastern Export Design Capacity



NGTL Eastern Export Short Term Outlook



NGTL and Foothills Flow Path Relationships



Potential for reduced service availability:

- A** Upstream FT and/or downstream (incl. McNeill) IT Services
- B** Upstream FT or downstream (incl. McNeill) IT Services
- C** Downstream (incl. McNeill) Services only
- D** Foothills SK Services only

Outage Communication:

- DOP: Daily Operating Plan
- NrG Highway Notice

2019 Empress-McNeill Border Operational Highlights

Facility Outage	Planned Outage Timing	Service Allowable				Flow Path
		USJR	Emp-McN Borders	Eastern Gate Delivery Apr 2019 CDQ: 4,278 TJ/d		
				Summer Base Capacity: 132-133 10 ³ m ³ /d	10 ³ m ³ /d	
Alces River B3 <i>Compressor Station Maintenance</i>	Apr 29 – May 1, 2019	Potential impact to FT-R	No impact to FT-D anticipated	117,000	4,505	A
Schrader Creek East #3 <i>Compressor Station Maintenance</i>	Apr 29 to May 3, 2019	Potential impact to FT-R	No impact to FT-D anticipated	121,000	4,659	B
Jenner <i>Compressor Station Maintenance</i>	May 6 – 10, 2019	<i>Not Listed</i>	No impact to FT-D anticipated	124,000	4,774	C
NPS 36 Eastern AB System Loop #2 & Hussar A C/S Maintenance	May 27 – 30, 2019	<i>Not Listed</i>	No impact to FT-D anticipated	111,000	4,278	C
NPS 30 Grande Prairie Mainline Loop <i>Pipeline Maintenance</i>	Jul 3 – 12, 2019	Potential impact to FT-R	No impact to FT-D anticipated	122,000	4,674	B
Meikle River D5 <i>Compressor Station Modifications</i>	Aug 7 – 22, 2019	Potential impact to FT-R	No impact to FT-D anticipated	122,000	4,674	A
Alces River C/S, NPS 30/42 Paul Lake, Flat Lake Loop 3 & 4 Maintenance	Sep 7 – 14, 2019	Potential impact to FT-R	No impact to FT-D anticipated	120,000	4,597	A
Berland River <i>Compressor Station Maintenance</i>	Sep 16 – 25, 2019	Potential impact to FT-R	No impact to FT-D anticipated	122,000	4,674	B

Outage date, duration, and impact may be subject to change. Compiled as of April 1, 2019.

This listing is not inclusive of all maintenance activity. For a complete list please refer to DOP for all planned outages with potential service impact.

News and Noteworthy

- Daily Transfer of Firm Service between Empress and McNeill Borders
 - Aligns with NBPL Daily Ambient Service Offering
 - Provides flexibility to NGTL shippers to optimize their transport
 - Further enhanced by allowing service assigned to a third party to transact on these daily transfers
- NGTL Rate Design Filed with National Energy Board
 - Modification to supply-to-market pathing in distance of haul calculations
 - Beneficial for McNeill export shippers
 - Potential for Full Path (Receipt to Delivery) toll reduction
 - Anticipate approval as early as Q1 2020
- NGTL Final Rates Filed – Effective May 1, 2019
 - McNeill (FT-D1) Rate reduced from 19.7¢ to 19.0¢
 - Foothills S.K. Rate remains at 14.5¢
 - Average Receipt (FT-R) Rate reduced from 20.2¢ to 19.6¢



Thank You!

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Break



Guest Speaker
Dennis Gartman



Closing and Adjourn

Bill Fonda



Thank You

