

2018 Gas Transmission Northwest Customer Meeting

June 14, 2018





Welcome

Jay Story Account Director, Long Term Marketing



Agenda



- Welcome Jay Story
- Safety Moment
- Organizational Update Jas Bertovic
- TransCanada's Role in North America's Energy Future Jas Bertovic
- Commercial Update Colin Lindley
- Operations Update Paul Oliver
- Regulatory Update John Roscher
- Break
- Marketing & Fundamentals Sean McDonald
- NGTL & Foothills Pipelines Update Candice Engel & Ashley Stowkowy
- Closing and Activity Information Jay Story

Safety Moment – Lawn Equipment Safety



Power Equipment

- Read the manual and warning labels has all kinds of safety related material
- Don't disable or bypass safety devices
- Clear the work area (rocks, wood, toys, etc.)
- Keep bystanders away especially children
- Always stop machine when adjusting and do not leave unattended

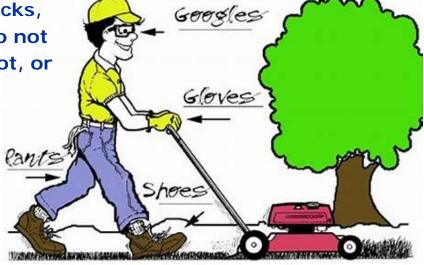
Clothing

 Wear close-fitting clothes, long pants or slacks, and closed-toe shoes with traction soles. Do not operate any power equipment while barefoot, or sandals.

 Be careful of items that can snag; jewelry, scarves, untucked shirts

Wear eye and ear protection

DO NOT Learn by accident!





Organizational Update

Jas Bertovic Vice President, U.S. Commercial Marketing



Disclaimer: 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, the future growth of our core businesses.

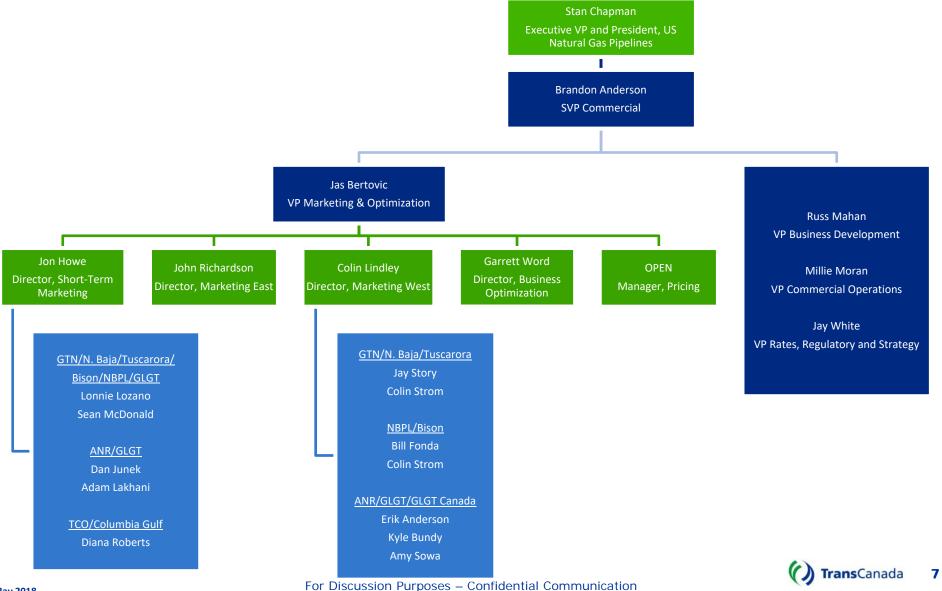
Our forward looking information is based on certain key assumptions and is subject to risks and uncertainties, including but not limited to: our ability to successfully implement our strategic initiatives and whether they will yield the expected benefits, the operating performance of our pipeline and energy assets, economic and competitive conditions in North America and globally, the availability, demand for and price of energy commodities and changes in market commodity prices, the amount of capacity sold and rates achieved in our pipeline businesses, the amount of capacity payments and revenues we receive from our energy business, regulatory decisions and outcomes, outcomes of legal proceedings, including arbitration and insurance claims, performance and credit risk of our counterparties, changes in the political environment, changes in environmental and other laws and regulations, construction and completion of capital projects, labour, equipment and material costs, access to capital markets, interest, inflation, tax and foreign exchange rates, including the impact of U.S. tax reform legislation, weather, cyber security, technological developments and economic conditions in North America as well as globally. You can read more about these risks and others in our Fourth Quarter 2017 Financial Highlights release 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 Share, Comparable Earnings Before Interest, Taxes, Depreciation and Amortization (Comparable EBITDA), Funds Generated from Operations, Comparable Distributable Cash Flow (DCF) and Comparable DCF per share. Reconciliations to the most closely related GAAP measures are included in this presentation and in our Fourth Quarter 2017 Financial Highlights release filed with Canadian securities regulators and the SEC and available at www.transcanada.com.

TransCanada U.S. Commercial **Marketing & Optimization**





Commercial West Export Market Contacts



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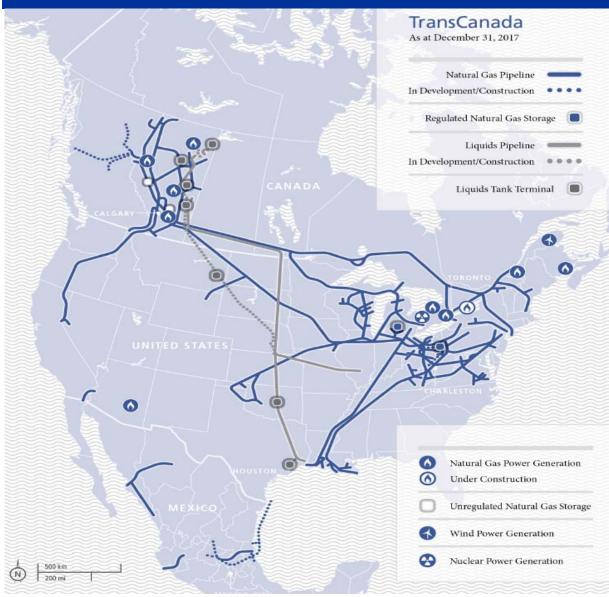


TransCanada's Role in North America's Energy Future



TransCanada Today





One of North America's Largest Natural Gas Pipeline Networks

- ~57,100 miles of pipeline
- ~653 Bcf of storage capacity
- ~23 Bcf/d or 25% of continental demand

Premier Liquids Pipeline System

- 3,000 miles of pipeline
- 555,000 b/d or 20% of Western Canadian exports

Large Private Sector Power Generator

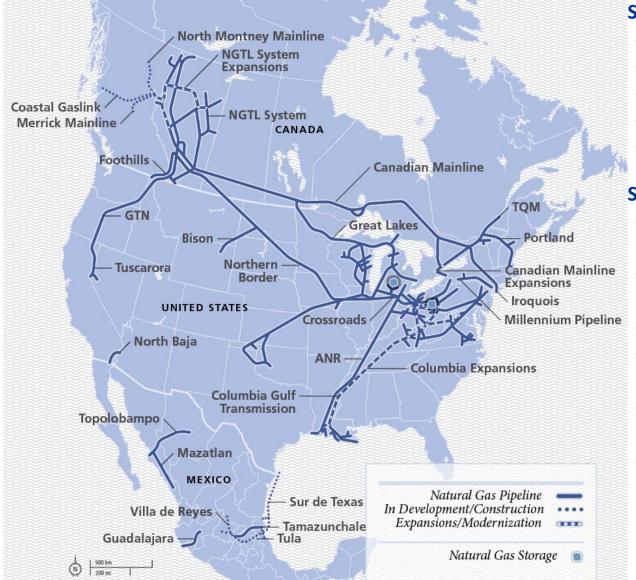
- 11 power plants, 6,100 MW
- Primarily long-term contracted assets

Enterprise Value ~\$100 billion*

*\$CAD (2018)

TransCanada's U.S. Pipeline Assets





Size and Scale

- ~31,000 miles of pipeline
- ~548 Bcf of storage capacity
- ~20% of all U.S. deliveries
- ~2,800 employees
- Assets across 37 states

Strategic Position

- Pre-eminent position in lowest cost supply basins
- Multiple access points to key trading and storage hubs in the Midwest
- Traditional LDC markets across U.S.
- LNG, power generation, and key interconnects
- Iroquois & PNGTS provide strategic connectivity in northeast
- ~40% of TransCanada EBITA from U.S.
 Gas by 2019

Global Demand needs for all energy sources will increase through 2040! Nuclear Renewables Coal Oil Gas **Bio Energy** Hydro **North America** 2040 Rest of the World 2746 Mtoe **North America** 2040 2015 14659 Mtoe 2694 Mtoe Rest of the World 2015 10513 Mtoe Mtoe* Million tonnes of oil equivalent 300 180 15 2800 Bcf/d Mtce* MMB/d **GW** Source: IEA - World Energy Outlook 2017, New Policies Scenario

North America

self sufficient and capable of being a global gas player



4 Bcf/d of Canadian LNG exports

2040

U.S. / Canada

Supply: 150 Bcf/d

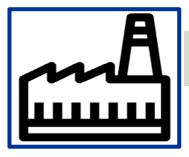
Demand: 120 Bcf/d*

Exports: 30Bcf/d

North America - Natural Gas Demand
Drivers to 2040



8% increase in petrochemical demand



60% increase in gas demand for power



Source: IHS Markit – Global Planning Scenarios, 2017

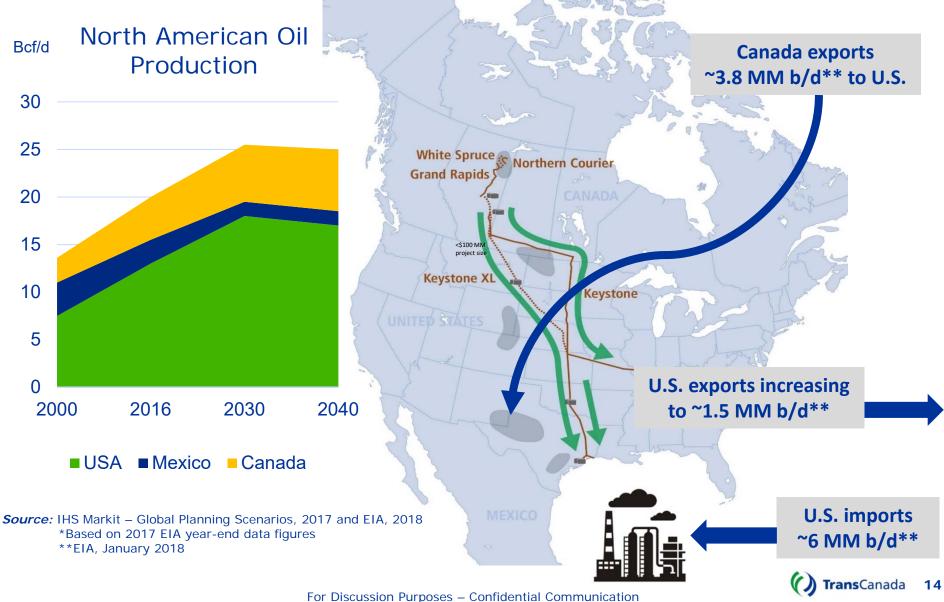
*Does not include exports to Mexico and LNG export demand



20 Bcf/d of U.S. LNG exports

North American Oil Supply we have the oil supply to be self sufficient





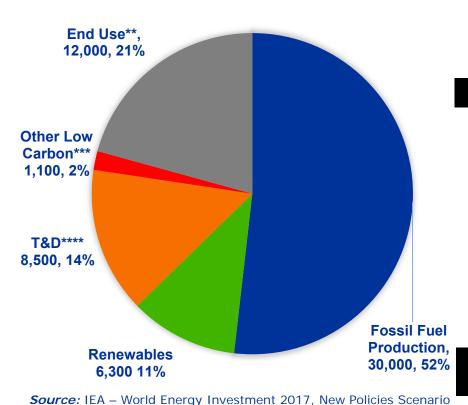
Global Energy Infrastructure

investment is growing...reaching ~\$60 Trillion by 2040*



2016 North American Investment

Cumulative Global Investment \$US Billion to 2040



Production

\$120B



Renewable Generation

\$60B



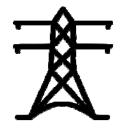
Processing & Pipeline Infrastructure

\$40B



Fossil Fuel Generation

\$12B



Transmission & Distribution





Energy Efficiency





*\$USD 2016 (Real)

**End use includes energy consumed directly by users

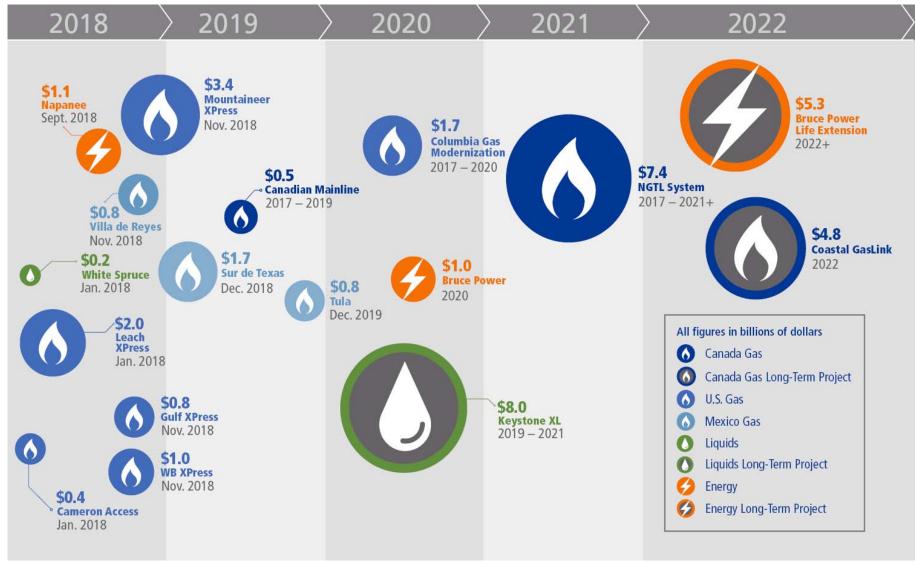
***Low carbon includes geothermal, hydro, and tidal

****Transmission and Distribution

TransCanada

investment in indispensable infrastructure





Industry & Societal Trends





Rapid Technological Change

- Shifting market dynamics and consumer preferences
- May displace existing technology and upend markets
- Impacts long-term investment decisions



Opposition

- Rising concerns about safety and environmental impacts are adding time, uncertainty and cost to project development
- Implies the need to strive for zero incidents



Regulatory Change

- Lengthening approval timelines and changing regulatory expectations
- Jurisdictional disputes and litigation
- Canada and U.S. bifurcation

Conclusions and Questions





Global demand for energy and all fuels will increase!

Policy, innovation, opposition and access to capital will determine if we can win.



Investment in energy infrastructure will grow...



North America has the opportunity to be the global supplier of energy!





Commercial Update

Colin Lindley Director, Long Term Marketing West



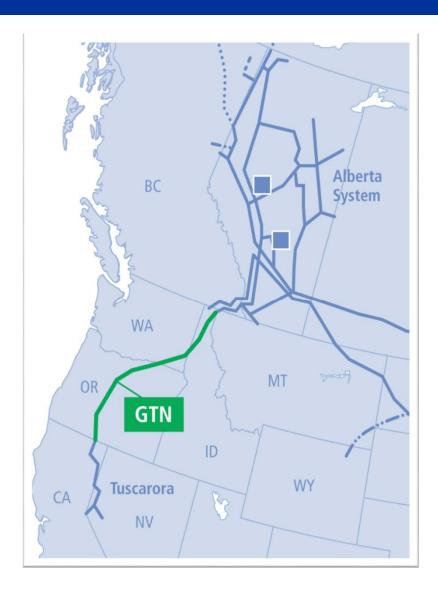
Commercial Update



- North American Supply & Demand
- Forecasted Supply & Southern Demand
- Potential Market Demand
- AECO Dispatch

GTN Overview





- Positioned to serve markets throughout California, Nevada, and the **Pacific Northwest**
- Consists of 1,350 miles of pipeline
- Long-term contracts extending out as far as 2039
- Volume throughput continues to be strong and should continue to grow
- NGTL continues to address the export capability at ABC to bring capacities into alignment

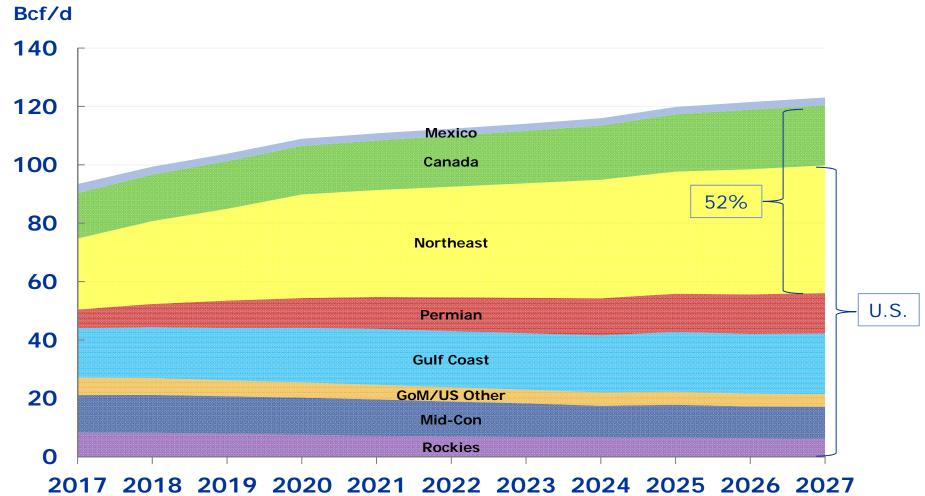


North American Supply and Demand Outlook



North American Supply





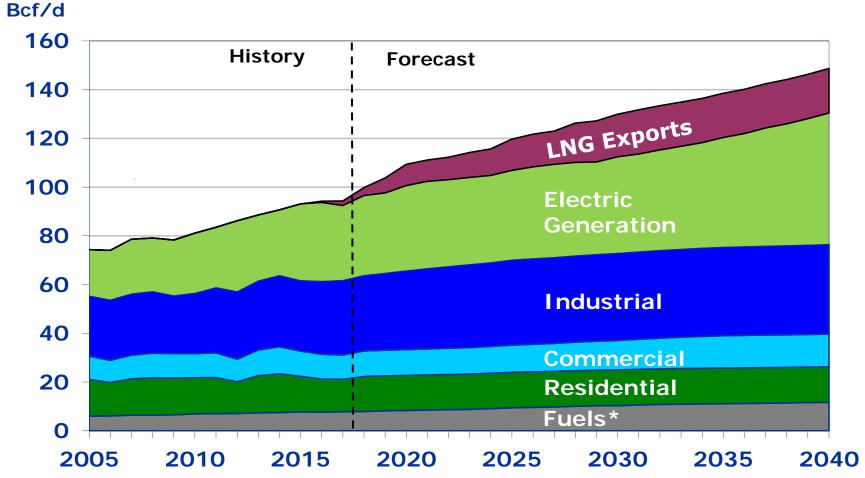
Appalachia and Canada will account for 52% of production by 2027

North American Natural Demand









Source: TransCanada

29 Bcf/d of Demand Growth Over the Next Decade Driven by LNG Exports, Gas-fired Power Generation and Industrial Demand



^{*} Includes Lease, Plant, Pipeline & LNG Facility Fuels

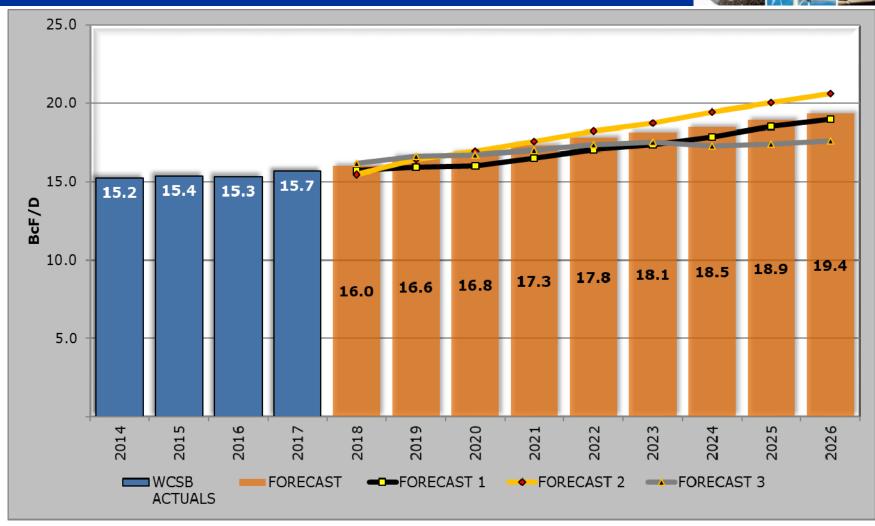


Forecasted Supply and Southern Demand



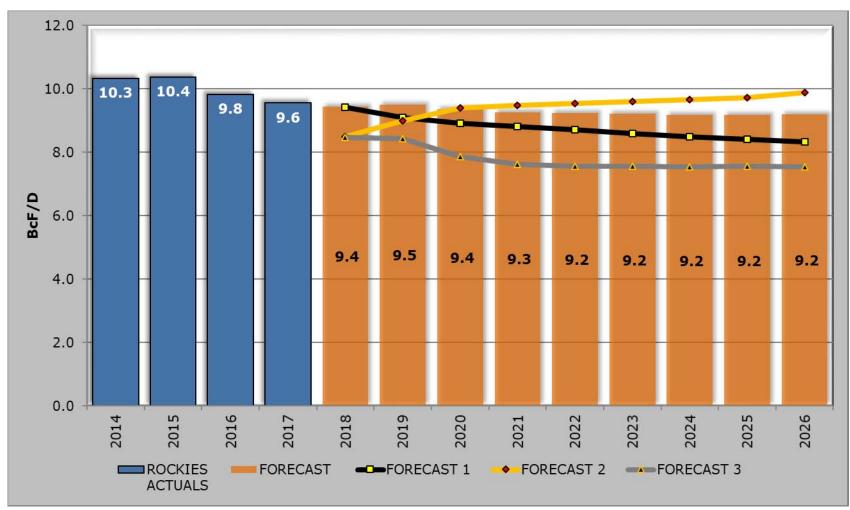
Western Canadian Production (Bcf/d)





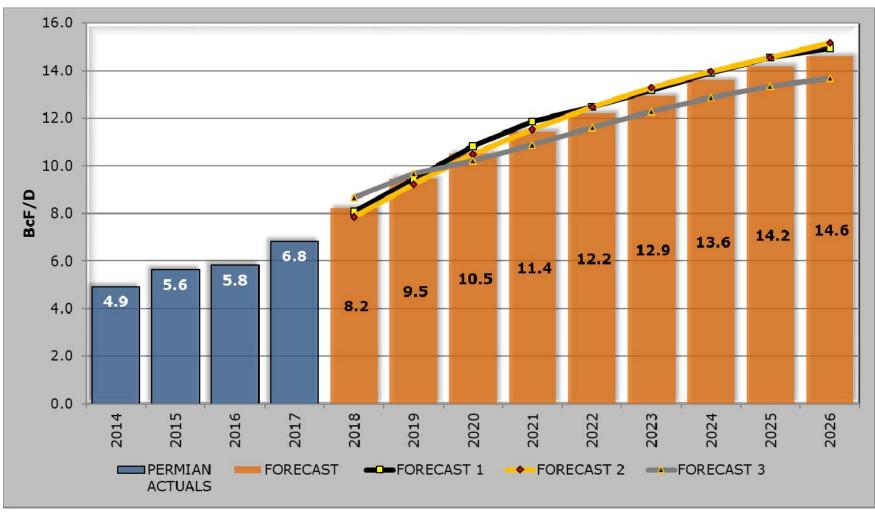
Rockies Production (Bcf/d)





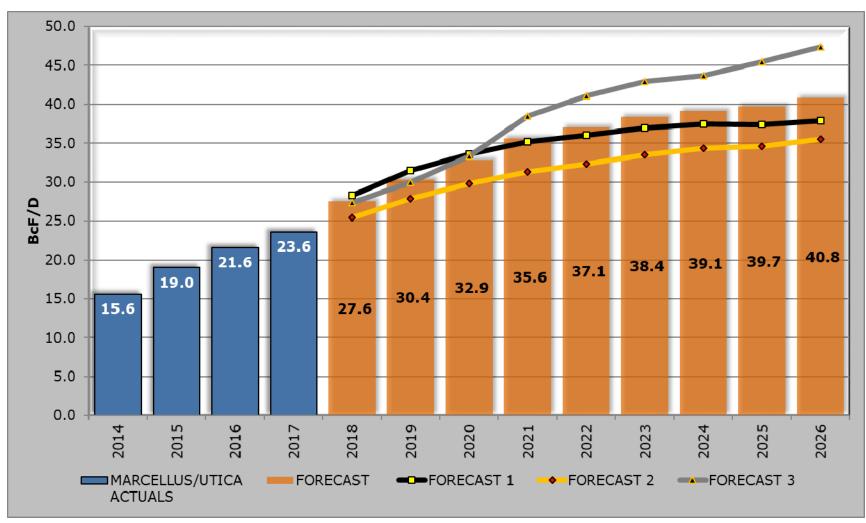
Permian Production (Bcf/d)





Marcellus & Utica Production (Bcf/d)

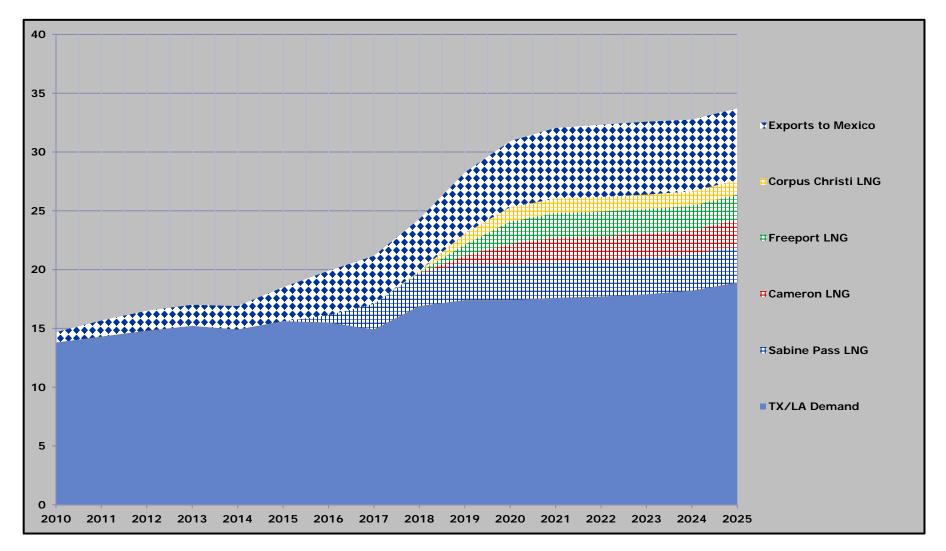




Southern Demand Pull (Bcf/d)







Source: Wood Mackenzie



Potential Demand Projections



GTN

Potential Demand Projections



Northwest Innovation Works (NWIW)

- Developing a 10,000 metric tonne per day methanol plant in Kalama, WA
- Other Pacific Northwest sites identified and under control of NWIW
- In final phase of permitting at Kalama site
 - All state permits in hand, but pending Supplemental Environmental Impact Statement
 - · Primarily focused on a life cycle analysis of greenhouse gas impacts
 - Expected completion of Supplemental EIS is September 2018
 - FID expected first half of 2019
 - COD mid to late 2022

Jordan Cove & Pacific Connector

- Developer has commercial agreements with Jera Co. Inc. (1.5+ mtpa) and Itochu Corp. (1.5 mtpa)
- Submitted FERC 7c application September 21, 2017
- 1 Bcf/d facility with final investment decision in the first half of 2019
- Target in-service date is late 2022 for the pipeline and the end of 2023 for the LNG terminal

Trail West Pipeline

- Cross Cascades link to serve growing power/industrial demand along the I-5 corridor
- Expansion up to approximately 750,000 Dth/d
- Expected in service date of 2023

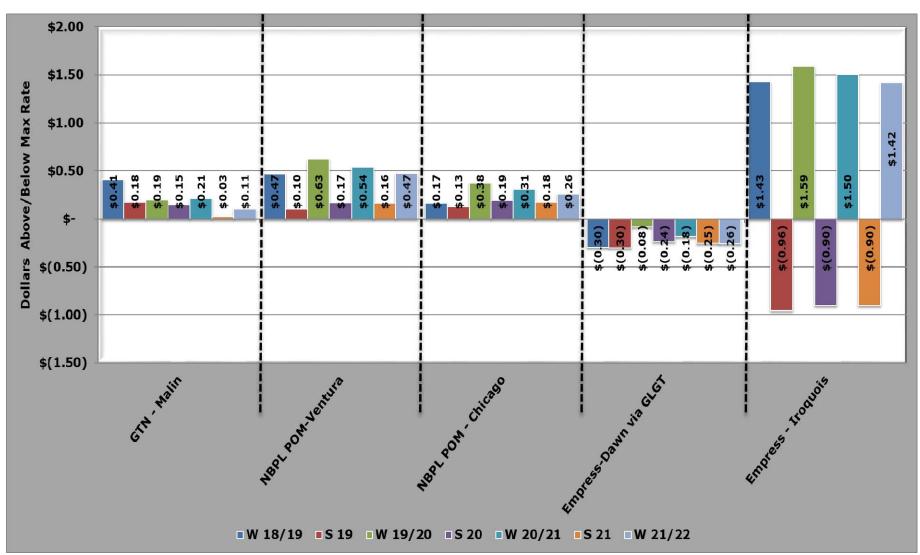


Alberta Export Outlook – 3 Year Dispatch



Full Cost AECO Dispatch







Operations & Maintenance Update

Paul Oliver Manager, West Gas Control



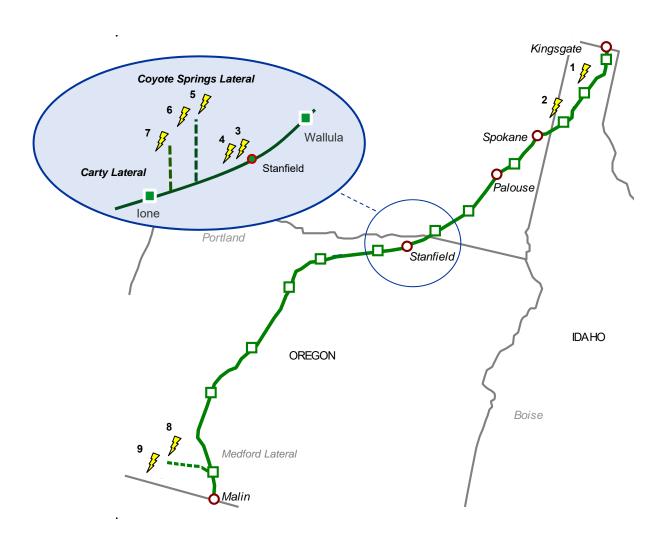
Operational Notes - 2017



- GTN experienced its Peak Day on December 20th, 2017 with physical deliveries totaling 2.54 MMDth.
- Tuscarora experienced its Peak Day on March 2nd, 2018 with physical deliveries totaling 211 MDth.
- North Baja experienced its Peak Day on November 10th, 2017 with physical deliveries totaling 526 MDth.

Gas Transmission Northwest





Power Plants

- 1. Lancaster LLC
- 2. Rathdrum CT
- 3. Hermiston Power
- Hermiston Generating
- 5. Coyote Springs I
- 6. Coyote Springs II
- 7. Carty Generating
- 8. Klamath Cogen
- Klamath
- 9. Expansion

Legend



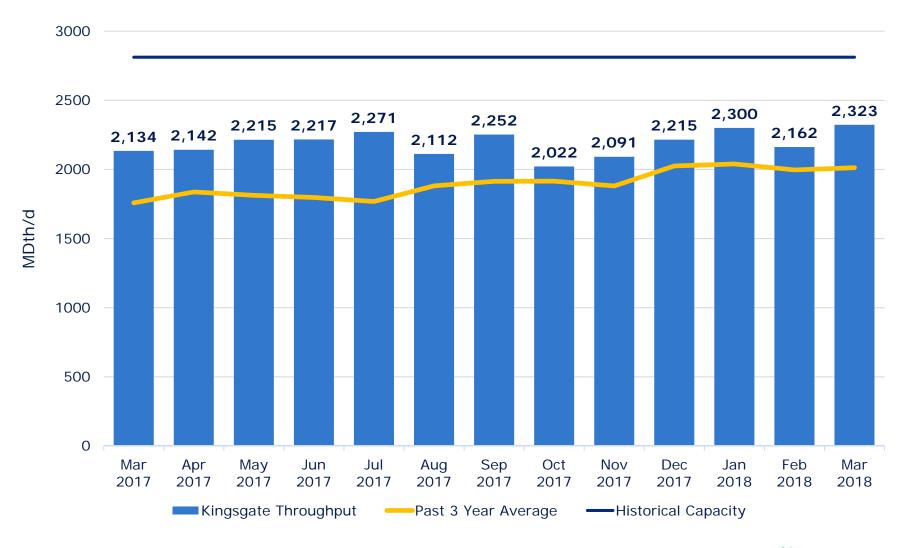
Power Plant

Compressor Station

Major R/D Point

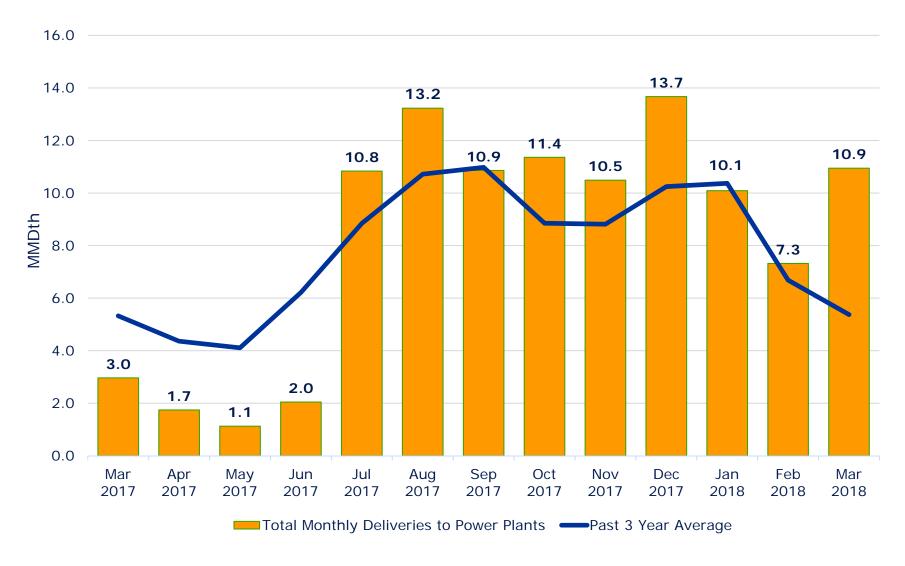
GTN System Throughput





GTN Monthly Power Loads

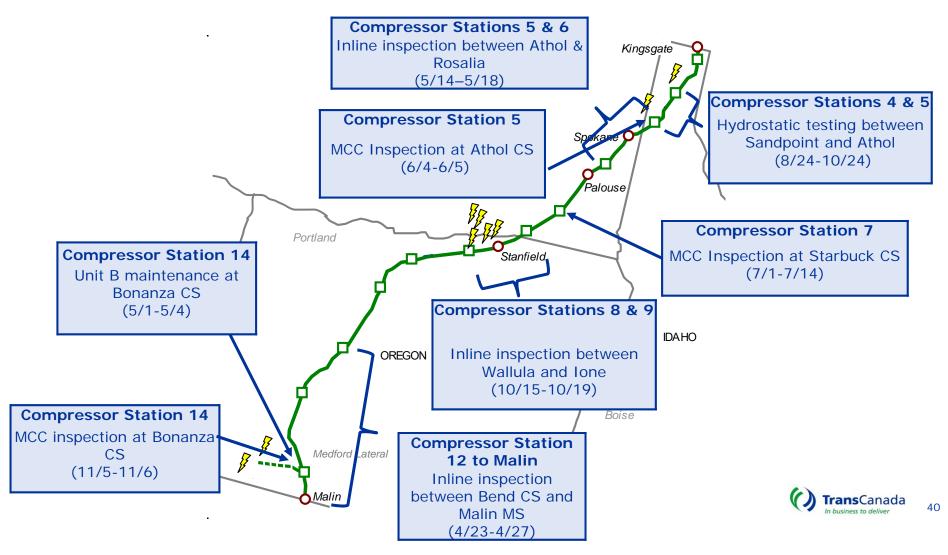




2018 Maintenance Schedule



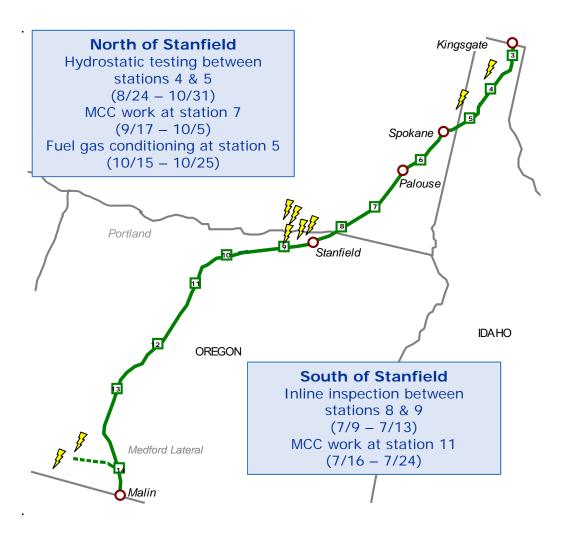




2018 - Remaining Maintenance

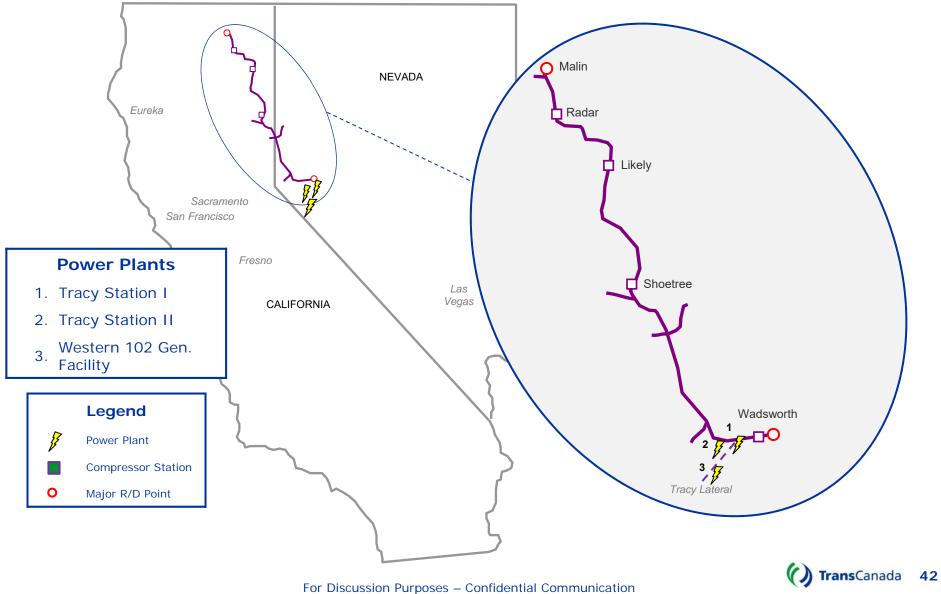
Gas Transmission Northwest





Tuscarora Transmission System

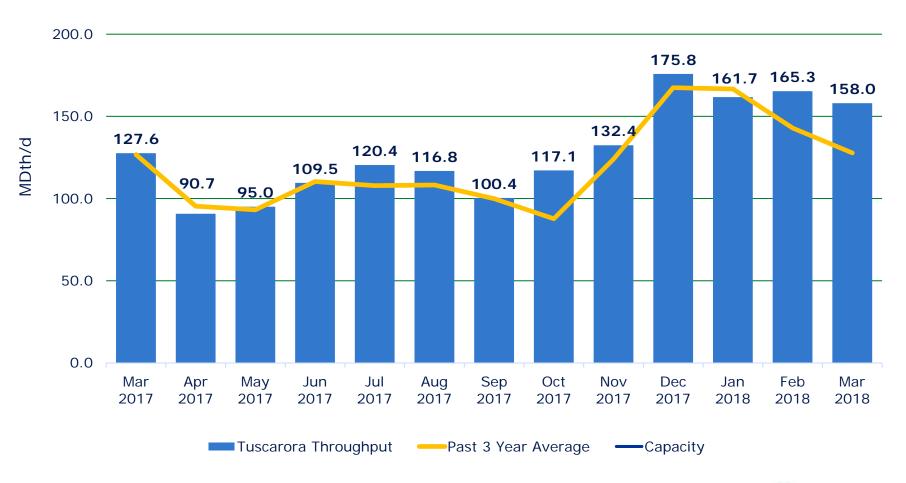




Tuscarora System Throughput

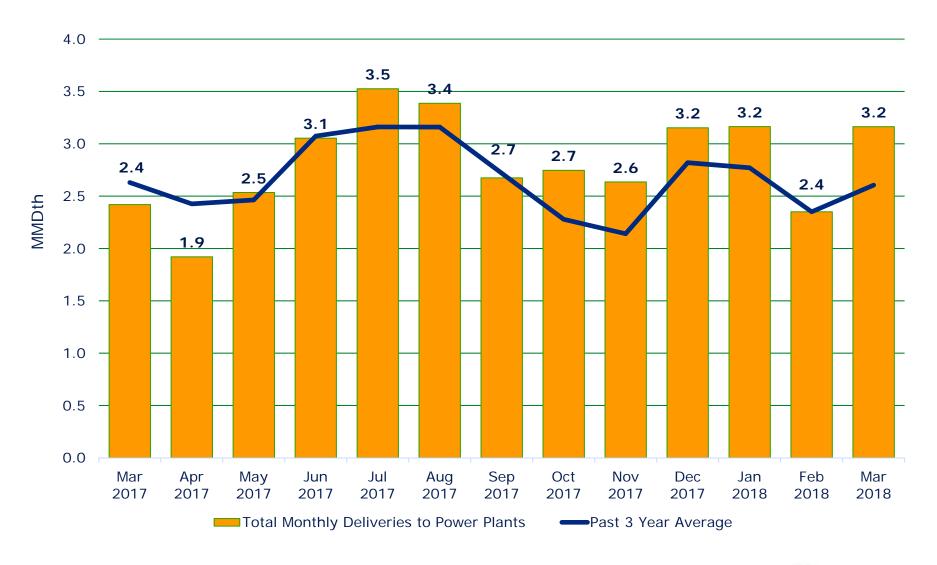


250.0



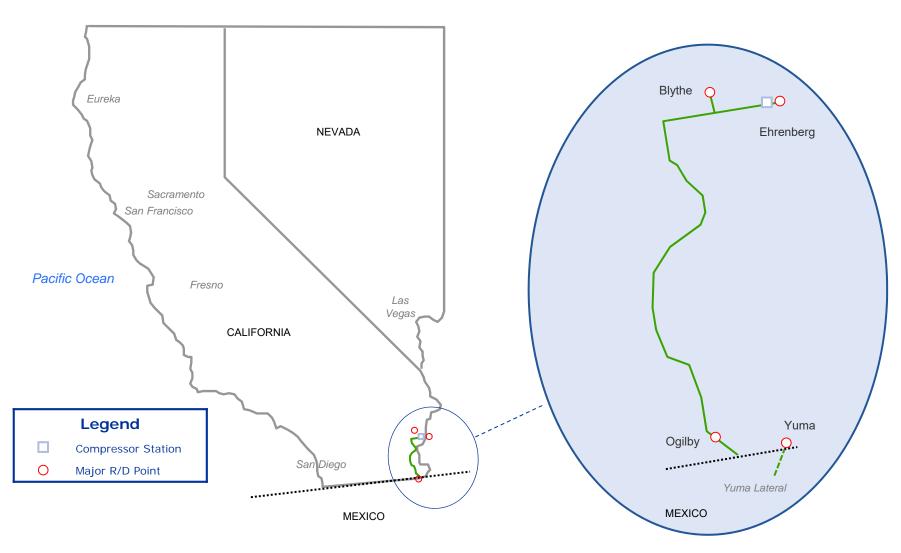
Tuscarora Monthly Power Loads





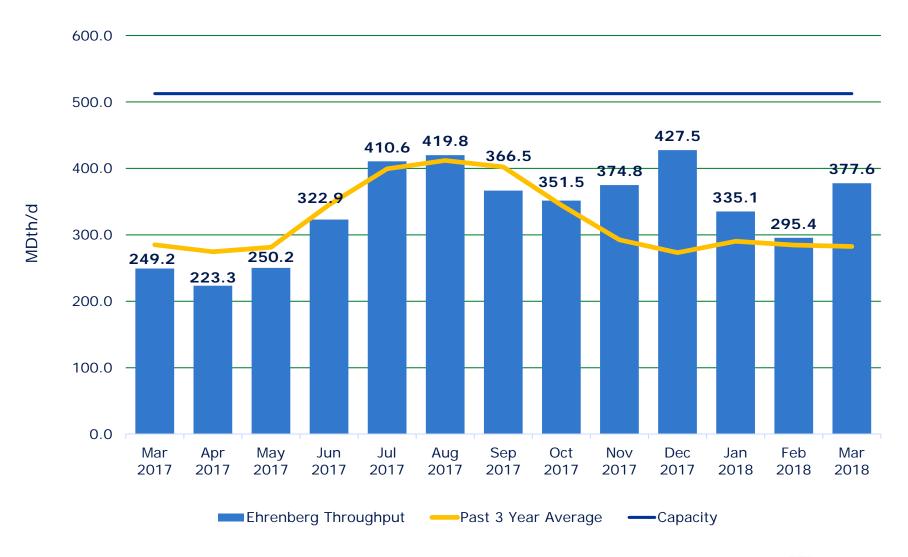
North Baja Pipeline System





North Baja System Throughput





2018 – Remaining Maintenance Tuscarora & North Baja



• There is no maintenance scheduled that will impact capacity in 2018.



Regulatory Update – Tax Reform and Pipeline Response

John Roscher Director, U.S. Rates & Tariffs



Current State of Affairs



- Uncontested settlement filed with FERC in April 2015
- Current rate = 12.4% reduction from pre-settlement rates through December 2019
- Further 8.1% rate reduction at Jan 1, 2020
- Post-Settlement Developments
 - Upstream debottlenecking has improved contracting on system
 - Necessitates modernization of system review of scope underway
 - Federal tax rate change and related FERC issuances
- New filed rates to be effective no later than Jan 1, 2022

March 15, 2018 FERC Orders



- Docket No. PL17-1, Revised Policy Statement on Treatment of Income Taxes: FERC states that it will no longer permit an MLP to recover an income tax allowance in its cost-of-service
- 2. Docket No. RM18-11, Rate Changes Relating to Federal Income Tax Rate [Notice of Proposed Rulemaking (NOPR)]: Proposed process to allow FERC to evaluate pipeline rates in light of recent reduction in corporate income tax rate and changes to FERC's income tax allowance for MLPs
- 3. Docket No. RM18-12, Notice of Inquiry (NOI) Regarding the Effect of the Tax Cuts and Jobs Act on Commission-Jurisdictional Rates: FERC seeking comment on how it should address changes relating to accumulated deferred income taxes and bonus depreciation

Challenges Presented by Relevant FERC Proceedings



- Policy Statement ignores corporate ownership of MLP units (Lakehead Policy) and does not address tax allowances for non-MLP pass-through entities. Rehearing requests filed.
- NOPR and NOI Interrelated Issues
 - Intent of NOPR and related Form 501-G to address impact of tax rate change in terms of tax allowance in rate design
 - NOI seeks input on impact on and treatment of related ADIT, which will impact rate design
 - A number of industry stakeholders have filed comments with FERC asking that FERC consider these interrelated issues concurrently rather than piecemeal

GTN & FERC Process



- March 15 Tax related FERC orders
 - April 16 MLP Tax Policy Statement comment/rehearing date
 - April 25 Tax Change NOPR comment date
 - May 21 Deferred Tax NOI comment date
- Regarding the MLP Policy Statement TC Pipelines, LP is considering a number of options which may impact how its pipes are structured
- Tax Change NOPR
 - GTN included in Group I
 - Proposal establishes 501-G filing date 28 days from the effective date of a final rule
 - If NOPR stays on separate track, final rule may be out by end of July

GTN Considerations



- Recognized the need to adjust rates to reflect the lower federal income tax rate
- GTN currently working through the analysis, but recognizes challenges resulting from current lack of clarity from FERC
- TC Pipelines, LP evaluating corporate structure
- GTN appreciates the relationship it has with its shipper community and prides itself on striving to reach settled outcomes with customers
- GTN proposes engaging with shippers to address adjustments to current settlement rates following FERC action on its March 15 orders



Marketing & Fundamentals

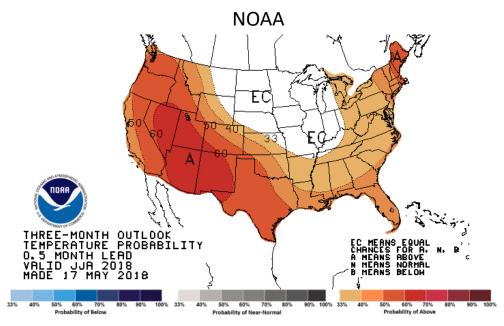
Sean McDonald Account Director, U.S. Short Term Marketing & Optimization



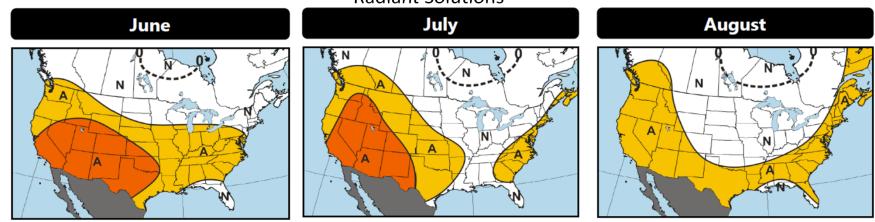
Peak Summer Weather Forecasts

June to August



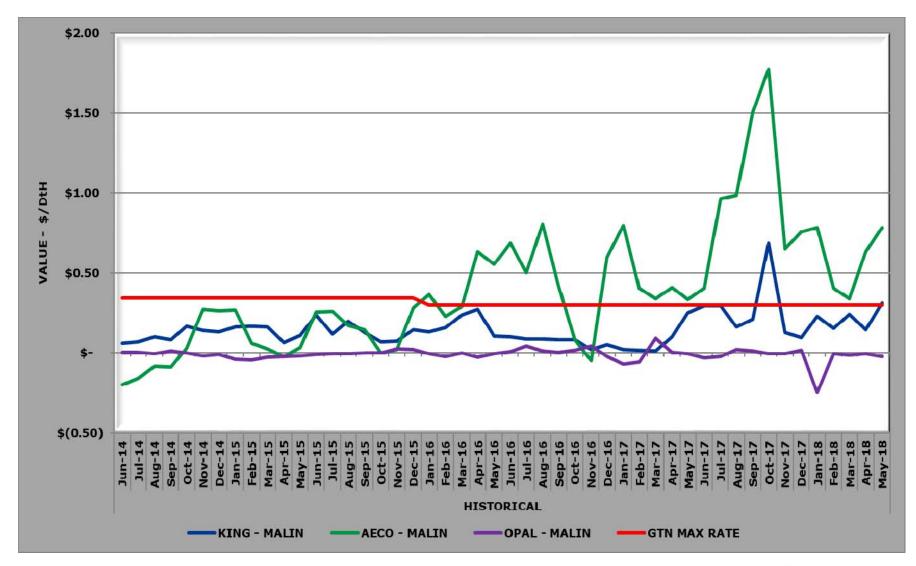


Radiant Solutions



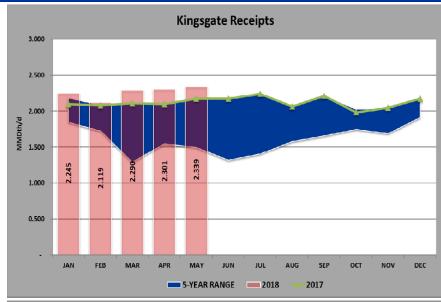
Monthly Average Daily Values to Malin

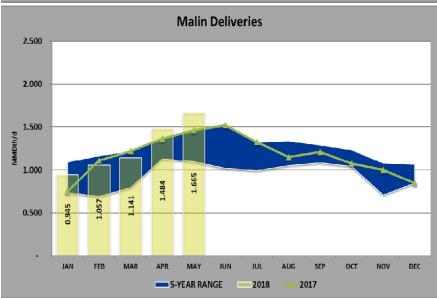


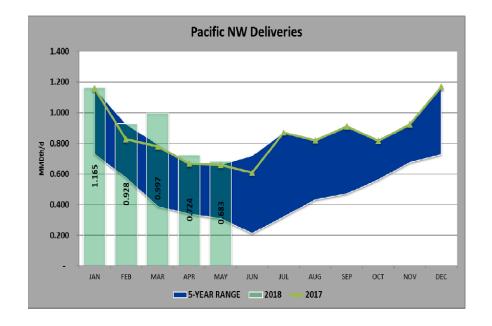


Current Volumetric Flow



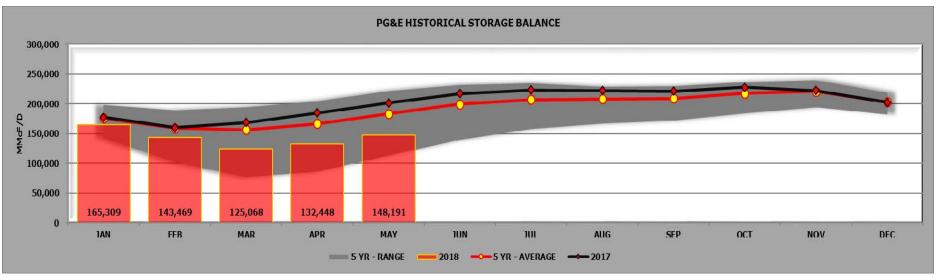


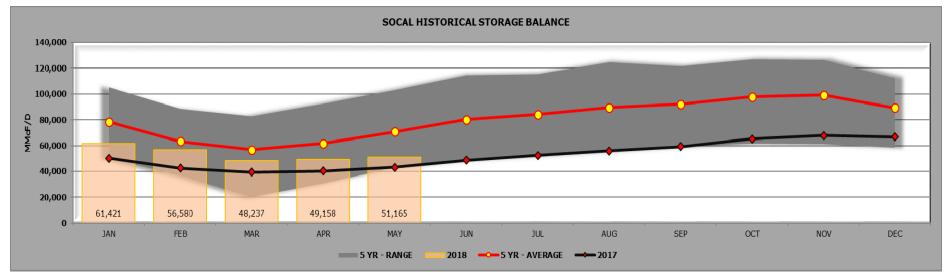




California Storage





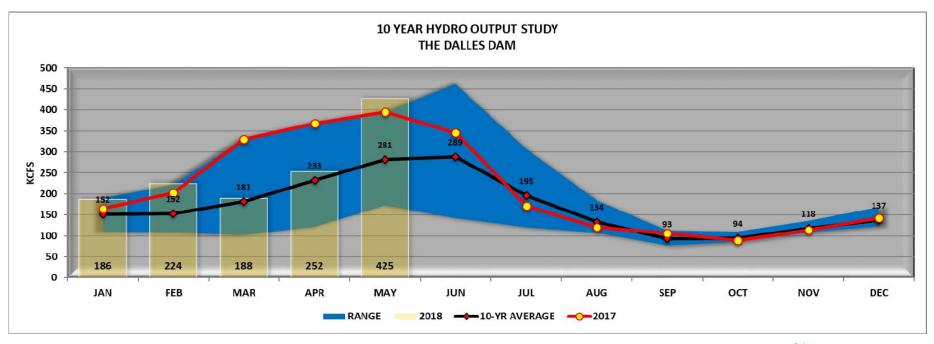


Hydro Outlook

Pacific Northwest & California



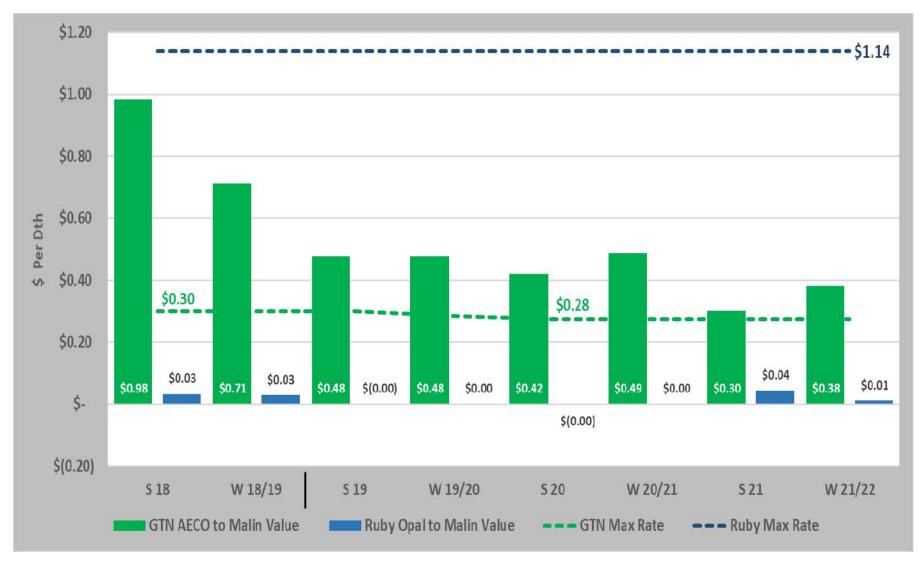
- Lower year over year hydroelectric generation will support higher power sector gas demand in 2018
- Mid April snowpack levels were 56% below the long term median in California
- For the Pacific Northwest, far northern and western areas have near to above average snowpack while the southern portions of region are well below average snowpack



Forward Pricing to Malin

AECO vs Rockies Values

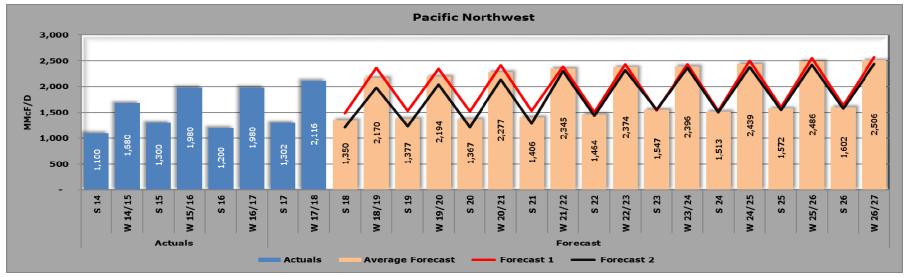


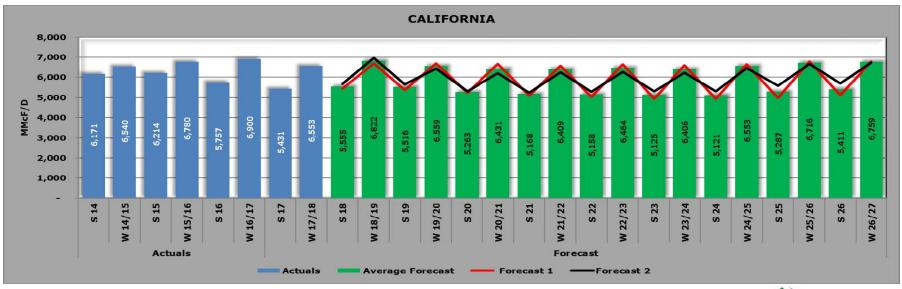


Demand Projections

Pacific Northwest & California







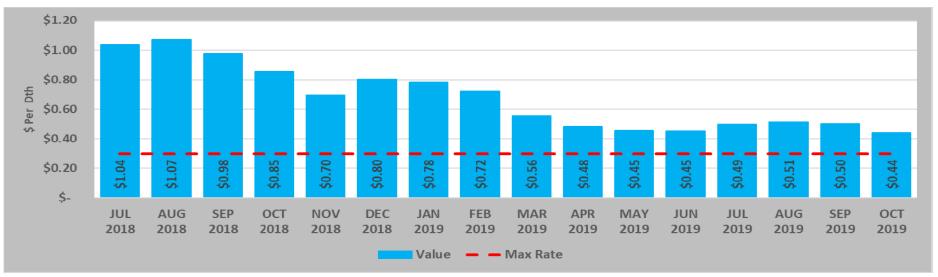
Forward Pricing AECO to Malin Value

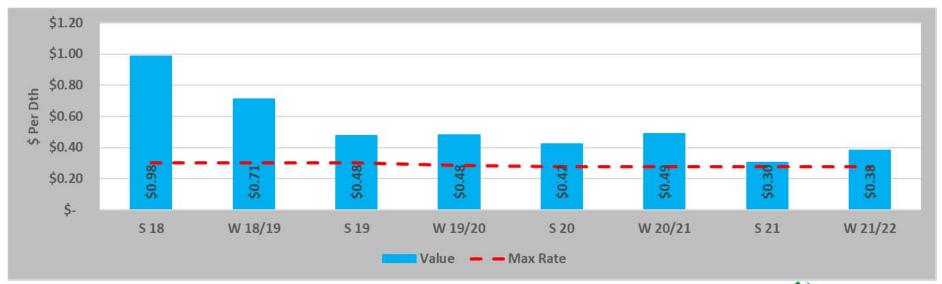






Values as of 06/05/2018







Opportunities & Impacts to Pipeline Values



Opportunities & Impacts to Pipeline Values



- Supply fundamentals
- NGTL performance at ABC and the eastern gate
- NGTL export enhancements to ABC for 2018 and beyond
- Northwest loads, including hydro impact
- California storage levels
- Marcellus/Utica flow direction
- Competition for supplies in the south
- TransCanada Mainline contracting
- Park & Loan services



NGTL & Foothills Pipelines Update

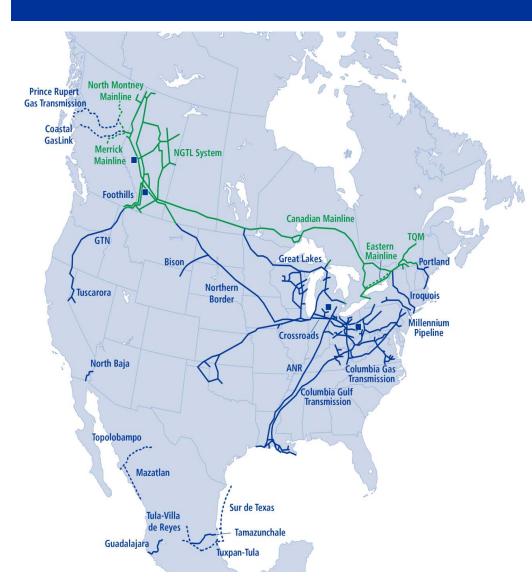
Candice Engel Manager, Commercial West Markets

Ashley Stowkowy Account Manager, Commercial West Exports



Canadian Natural Gas Pipelines





CANADIAN PIPELINE SYSTEMS

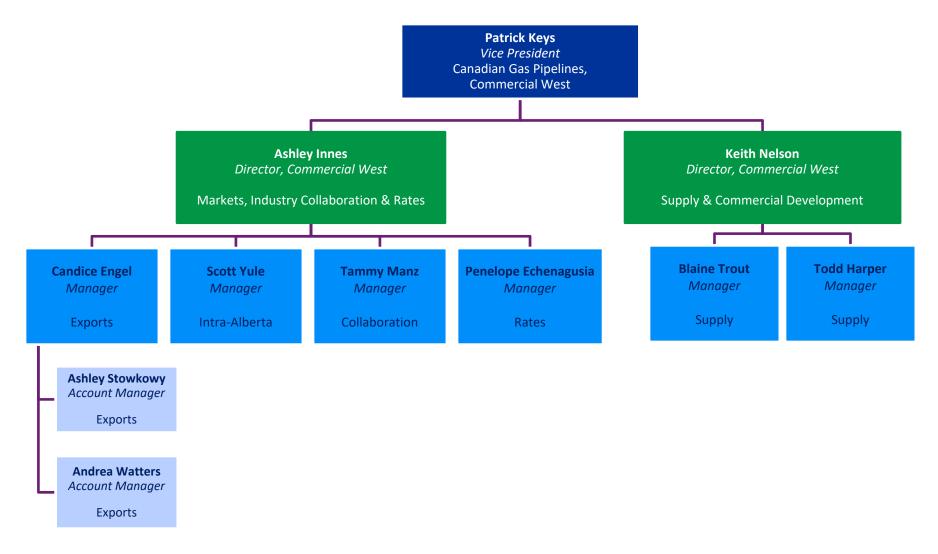
- NGTL System
- Canadian Mainline
- Foothills Pipeline
- Trans-Quebec and Maritimes Pipeline

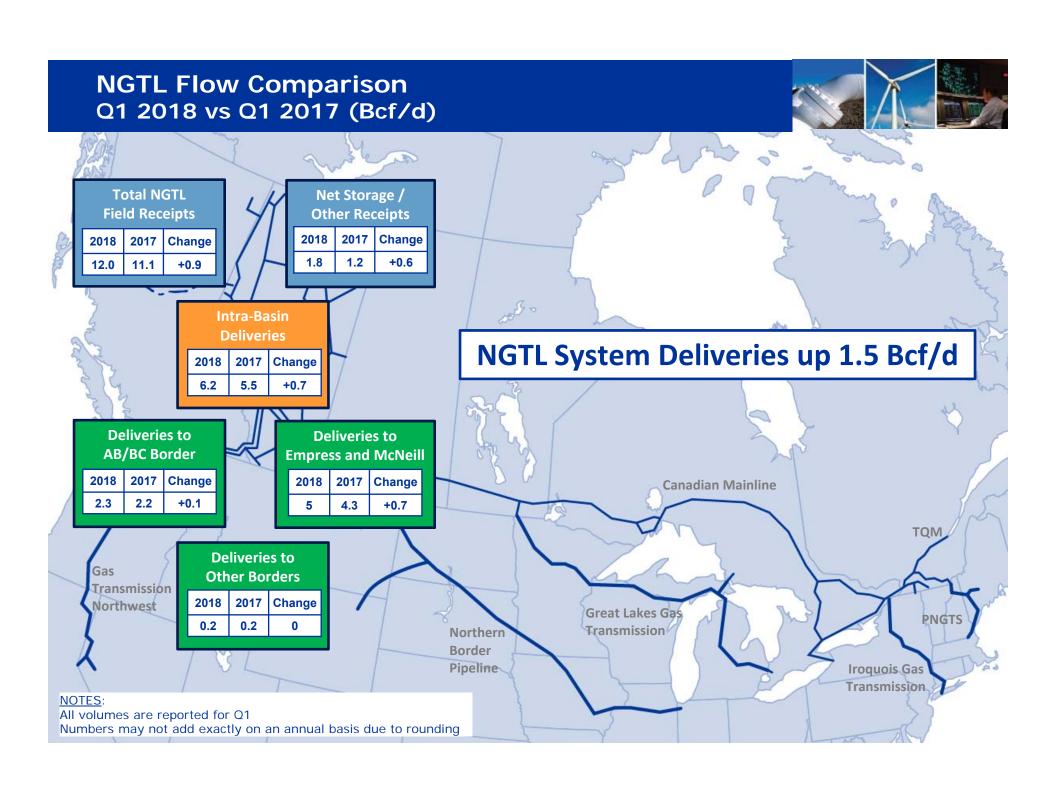
LEADERSHIP

- Tracy Robinson, Senior VP Canadian Gas
- Patrick Keys, VP Commercial West
 - NGTL System
 - · Foothills Pipelines
- Stephanie Wilson, VP Commercial East
 - Canadian Mainline
 - Trans-Quebec and Maritimes Pipeline
- Jawad Masud, VP Commercial Services and Optimization and Design

Commercial West - Organizational Chart

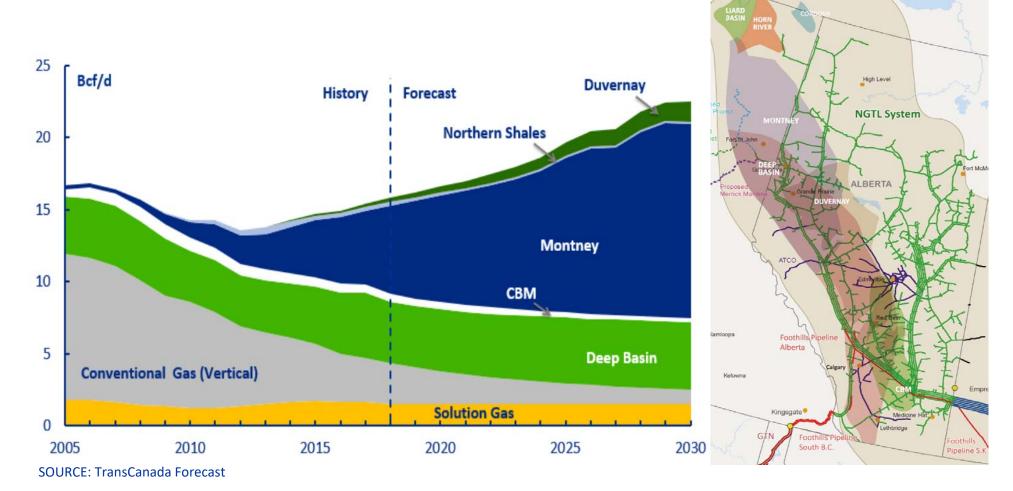




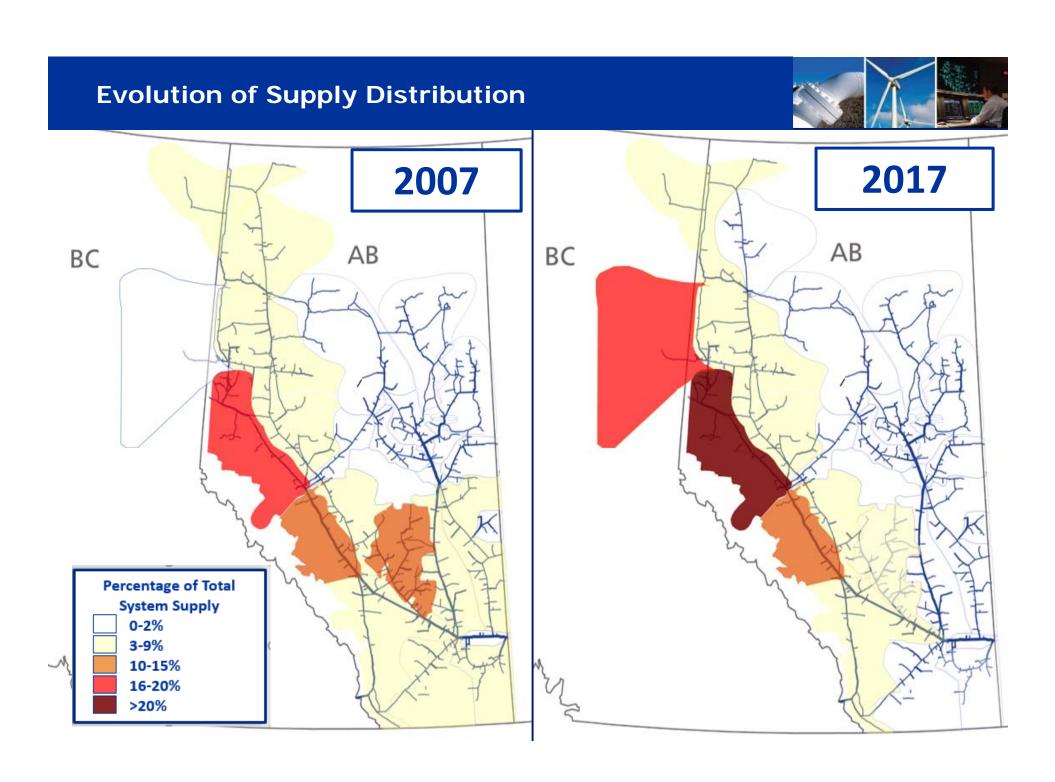


WCSB Supply - 2018 Forecast



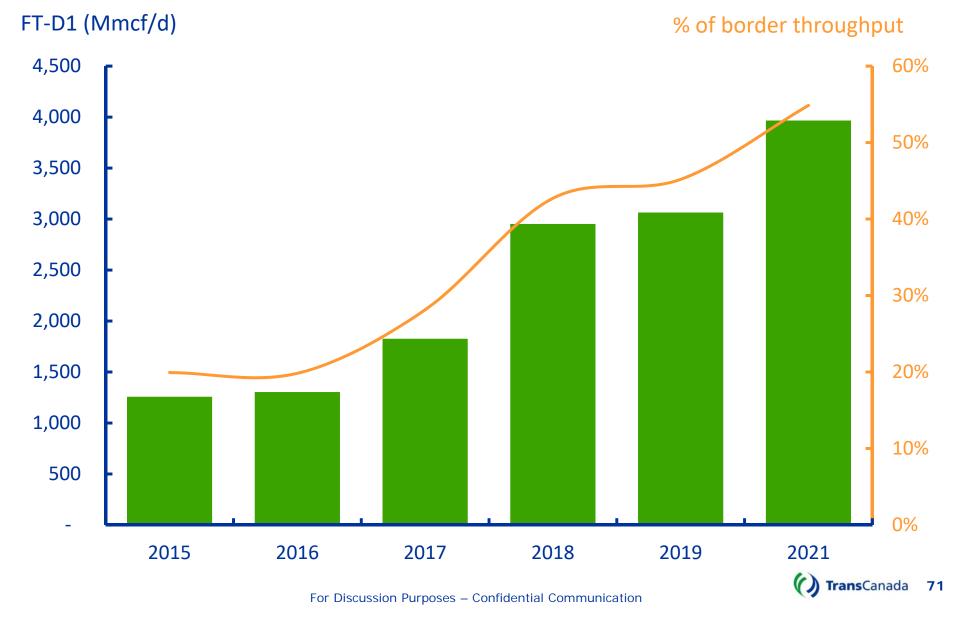


Dry Conventional Gas on Decline Liquids-Rich Montney is Key Supply Driver



FT-D1 Contracts Held by FT-R Shippers

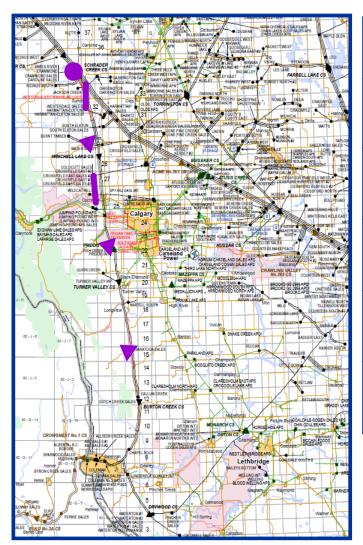




Significantly Expanding Market Connectivity 2018-2021 2.5 Bcf/d of Delivery Expansions by 2021 **NGTL Intra Basin** 550 MMcf/d **East Gate** 1.3 Bcf/d **Gas Transmission** Northwest Canadian Mainline Northern **TQM West Gate** Border Pipeline 650 Mmcf/d **Great Lakes Gas** Iroquois Gas **PNGTS** Transmission Transmission 72

NGTL West Path Expansions 2016-2020



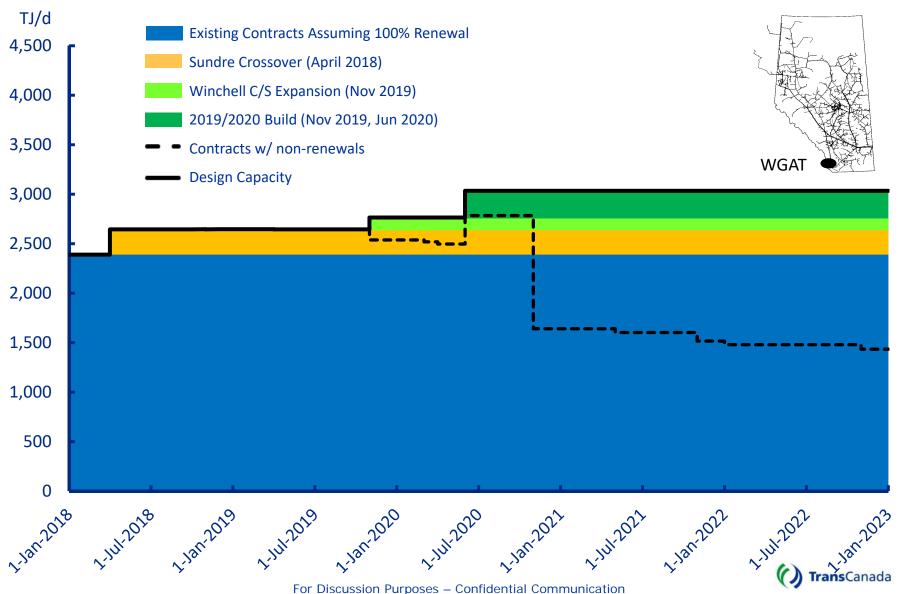


	James River	Sundre	Winchell	West Path Expansion	
	Bypass	Crossover	Compressor Unit Addition		
In-Service Date	June 2016	April 2018	<i>Targeted</i> Nov. 2019	<i>Targeted</i> June 2020	
Project Scope	Minor Modification	20km Pipe Loop	One Compressor Unit Addition	2 Compressors & 22km Pipe Loop	
Incremental Contracts	150 TJ/d	245 TJ/d	120 TJ/d	288 TJ/d	
Project Costs	\$5.6M	\$99M	\$99M	\$409M	
NGTL Design Capacity (at time of ISD)	2,390 TJ/d	2,645 TJ/d	2,765 TJ/d	3,053 TJ/d	

NGTL West Path is fully contracted

Alberta and B.C. Border Capacity and Contract Profile





NGTL Revised 2018 Interim Rates and Foothills Rates







NGTL System and Foothills B.C. - Transport Rate Sheet

Revised Interim 2018 Rates (effective May 1, 2018)

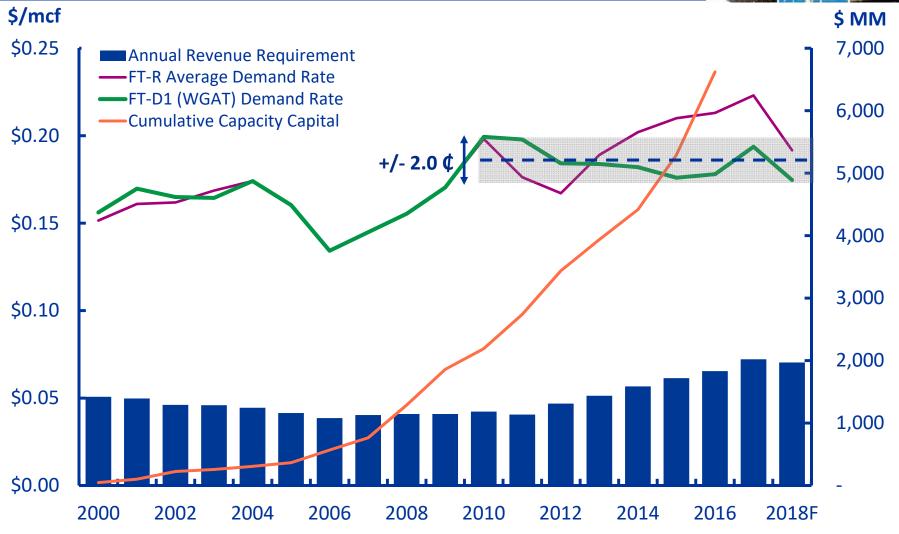
Delivery Service	Revised Interim 2018 Rates (May 1, 2018)		Interim 2018 Rates - <i>Previous</i> (January 1, 2018)	
	\$/GJ/mo	∉/GJ/d	\$/GJ/mo	∉/GJ/d
NGTL FT-D Group 1 Demand Rate (1 year term):				
Alberta-B.C. Border	4.99	16.4	4.89	16.1
Empress/McNeill Borders	5.38	17.7	5.27	17.3
NGTL IT-D Group 1 Interruptible Rate:				
Alberta-B.C. Border	-	18.05	-	17.70
Empress/McNeill Borders	-	19.45	-	19.07
NGTL FT-D Abandonment Surcharge:	No Revision	No Revision	0.28	0.0091
Foothills B.C. Firm Service Rate:	No Revision	No Revision	2.22	7.3
Foothills B.C. Interruptible Service Rate:	No Revision	No Revision	-	8.0
Foothills B.C. Abandonment Surcharge:	No Revision	No Revision	0.0942	0.0031

NGTL Price Points

1-2 year term: 100% (Price Point Z) 3-4 year term: 95% (Price Point Y) 5+ year term: 90% (Price Point X)

No Price Points on Foothills B.C.

NGTL Revenue Requirement and Annualized System Tolls



Stable and moderately declining FT-D1 WGAT toll with substantial capital additions



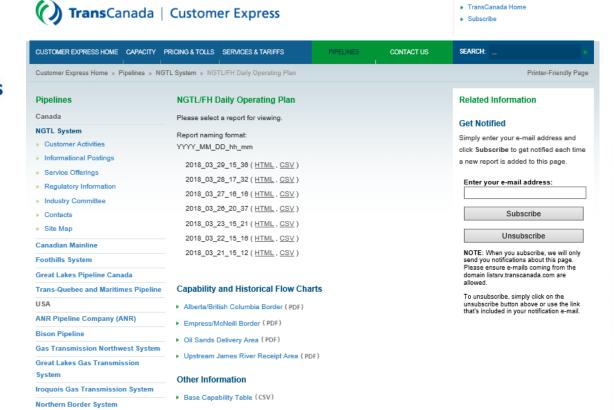
Customer Communication – Pipeline Operations







- Daily Operating Plan
- NRG bulletins
- Customer Account Managers
- Customer Ops Meetings
- Call Centre



Continually working to improve timeliness, quality, and content



Foothills BC Summer 2018 Maintenance



Outage Scope:

NPS 36 Foothills BC Mainline Pipeline Integrity Maintenance

- Integrity digs: Jul 4 Aug 30, 2018 Outage Capability = 69 106m3/d
- Integrity repairs: Jul 30 Aug 12, 2018 Outage Capability = 59 106m3/d

ABC Border Base Capability:

 $Jul - Aug 2018 = 73 \ 10^6 \text{m}^3/\text{d}$; Sep 2018 = 75 $10^6 \text{m}^3/\text{d}$

Bundled maintenance:

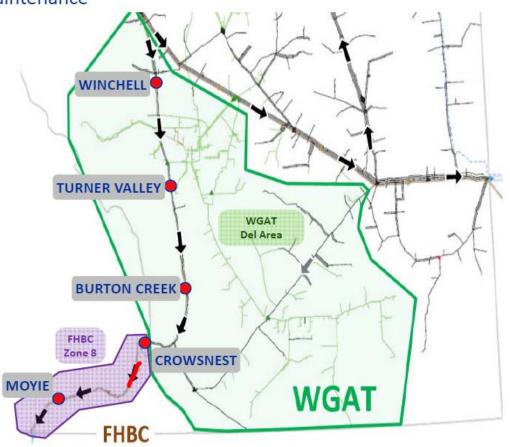
Burton Creek #1, Burton Creek CS

Winchell Lake CS

Turner Valley #1, Turner Valley CS

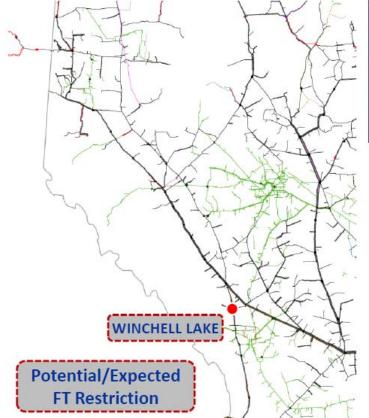
Crowsnest A

Moyie CS



2019 Capital Expansion – Outage Review





Expected Timing, Area of Impact and Service Allowable:

Expansion Facility Description	Outage Requirement	Outage Timing	Estimated Impact TJs/d	Service Allowable Location/Area
Winchall Lako	Winchell Lake CS	Jul 8-21, 2019	300 - 400	WGAT
Winchell Lake, new unit				Partial Firm Service

Outages will be added to DOP when hydraulic analysis and/or bundling activities are complete.

Strongly Engaged on the Collaborative Front



TTFP Chair:

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The Tolls, Tariff, Facilities and Procedures (TTFP) is an active, collaborative forum

- 45 formal shipper meetings in 2017
- Policy and Operational Communication
- Customer Operation Meetings

Numerous Task Force topics to date in 2018, including:

- Rate Design & Services Review
- Revenue Requirement
- Delivery Service Transfer Attributes
- Access to Storage Task Force
- Operational Storage Task Force
- Intra-Basin New Service for Electricity Market Task Force
- System Reliability (Supply)

Industry collaboration
is critical,
NGTL remains
committed to engaging
with shippers

NGTL and Foothills Contacts - Export Markets



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