

Liquids Pipelines

**grow organically.
minimize risk.
streamline.**



Guy Jarvis
EVP & President Liquids Pipelines

North American Liquids Pipelines



Premier market position and growth platform

North American
Liquids Pipelines



U.S. Natural Gas
Pipelines



Natural Gas
Utilities



Canadian Transmission
& Midstream



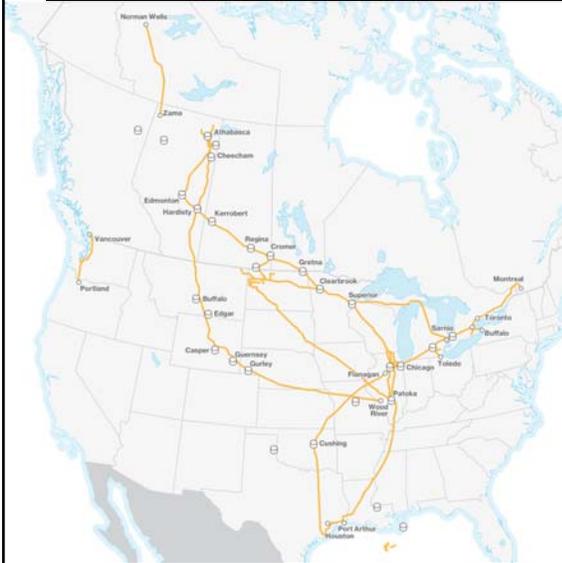
Renewable Power



U.S. Midstream



Liquids Pipelines System



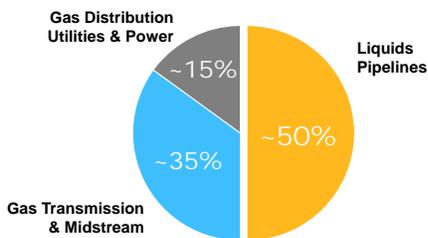
North America's Premier Portfolio

- High quality producing basins
- Access to the best refining markets
- Competitive tolls drive highest producer netbacks
- Stable, low risk commercial underpinnings
- Strong, creditworthy customers
- Unique service offerings & flexibility

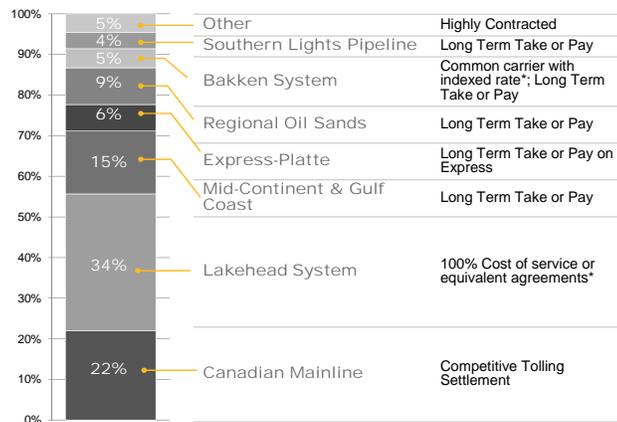
Liquids Pipelines EBIT Contribution



2016 Pro Forma ENB EBIT by Segment



2016 Pro Forma LP EBIT by Business



*Contract terms for our Lakehead system expansion projects mitigate volume risk for all expansions subsequent to Alberta Clipper. In the event volumes were to decline significantly the pipeline could potentially file cost of service rates. Similarly, the Bakken Classic system can also file cost of service rates if there is a substantial divergence between costs and revenues on the pipeline.

The Mainline System

Unparalleled strategic footprint



- Comprised of Canadian Mainline and Lakehead System in the U.S.
 - Largest, longest and most complex petroleum pipeline system in the world
- Combined annual operating capacity of ~2.85 MMbpd
 - January 2017 record deliveries of 2.645 MMbpd ex-Gretna
- Expansive terminal presence provides operational flexibility
- Access to ~3.5 MMbpd of connected refineries and downstream pipelines
 - Primary supply source for premium Midwest market
 - Directly connects to Enbridge's downstream market access pipelines

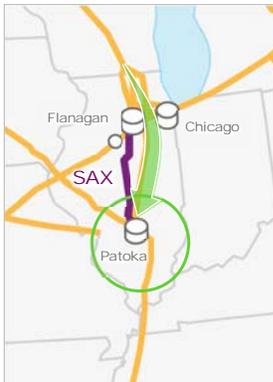


Market Access Pipelines



>1 MMbpd of long term take or pay contracts pull volume through the Mainline

Southern Access Extension



Line 9



Flanagan South/Seaway



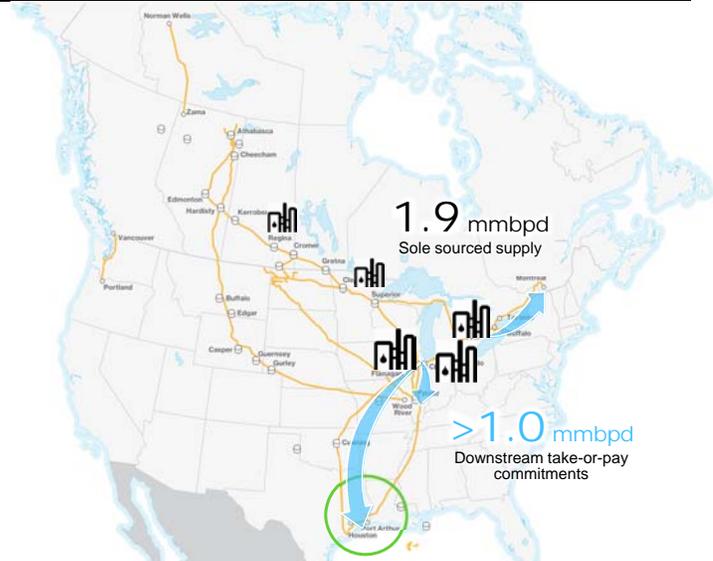
- Long term Take-or-Pay agreements in place for >1 MMbpd
- Commercial structures provide cash flow certainty to Enbridge over the term of the contracts
- International Joint Tariffs provide incentivized long-haul service from the Enbridge Mainline to downstream markets
- Light and heavy crude service to refineries in Eastern Canada, US Midwest, US Midcontinent and US Gulf Coast
 - Tidewater access through Seaway docks

Mainline Competitive Positioning



Mainline utilization driven by connected refineries and downstream pipelines

- ① Mainline system is sole source of supply for ~1.9 mmbpd refinery demand
- ② >1 mmbpd of downstream pipeline take or pay commitments support Mainline system throughput certainty
- ③ Lowest tolls to the Midwest (PADD II) and USGC



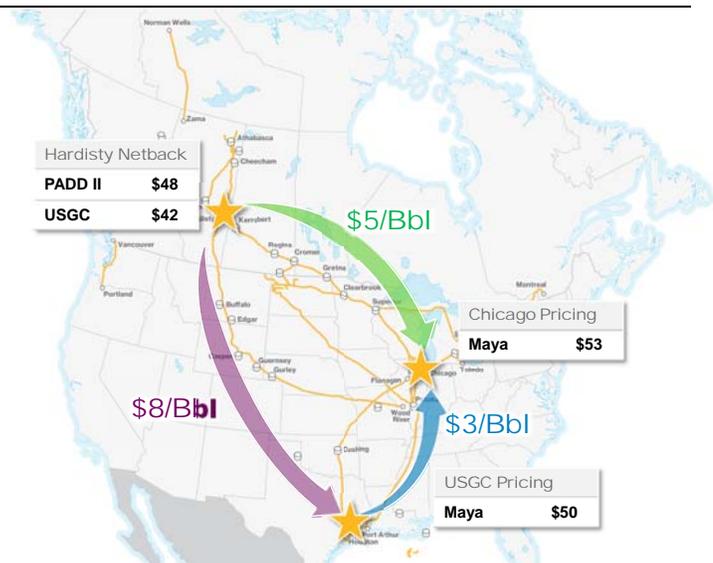
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Mainline Netback Analysis



Heavy crude – Indicative tolls

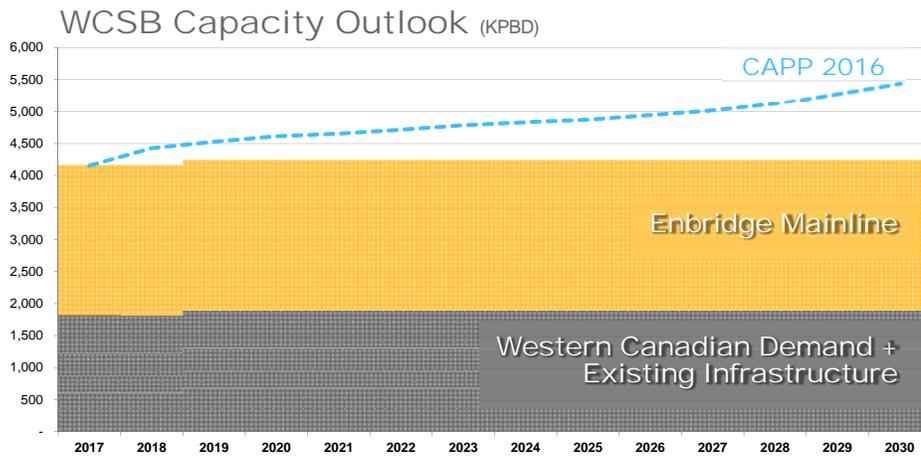
- Midwest markets provide premium netback to WCSB producers
- USGC market access ensures that Canadian heavy is at pipeline toll parity to Maya



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Mainline – WCSB Capacity Requirements

Supply forecast supports incremental pipeline capacity growth to match demand



Source: CAPP 2016 Forecast, Enbridge Estimates

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Mainline – Secured Growth

Improved reliability and capacity expansion



- Line 3 Replacement
 - Restores line capacity to 760 kbpd (+375 kbpd)
 - Expected In-Service: 2019
 - Capital: \$7.5B (\$4.9B CAD, \$2.6B USD)
 - 15 year toll surcharge on every mainline barrel
 - Low teens return on significant incremental investment
 - Toll mechanism offers volume downside protection
- Southern Access Expansion
 - Expands line capacity to 1,200 kbpd
 - Expected In-Service: 2019
 - Capital: \$0.4B USD
 - Connects restored Line 3 volumes to Market Access pipelines
 - Cost of Service Toll for Lakehead System
 - Toll Surcharge on IJT



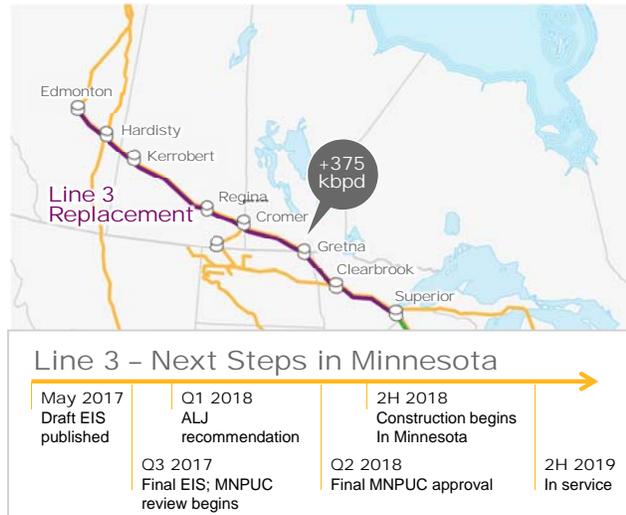
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Mainline – Potential Future Expansions

Low cost, highly executable, staged expansions to match supply

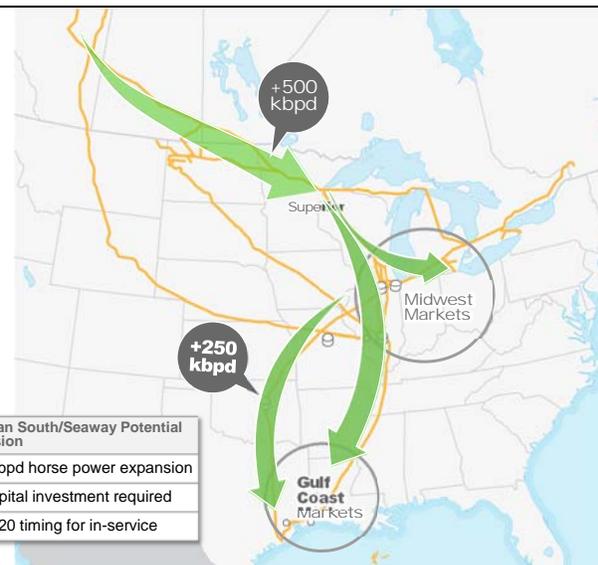


Incremental Capacity 2019	Capacity (KBPD)
System DRA Optimization	+75
BEP Idle*	+100
Incremental Capacity 2019+	
System Station Upgrades	+100
Line 4 Capacity Restoration	+75
Line 13 Reversal	+150
Total Unsecured Incremental Capacity	+500

Market Access pipelines provide downstream solutions for incremental Mainline volume

- Optionality for Mainline barrels to flow into Midwest and USGC markets

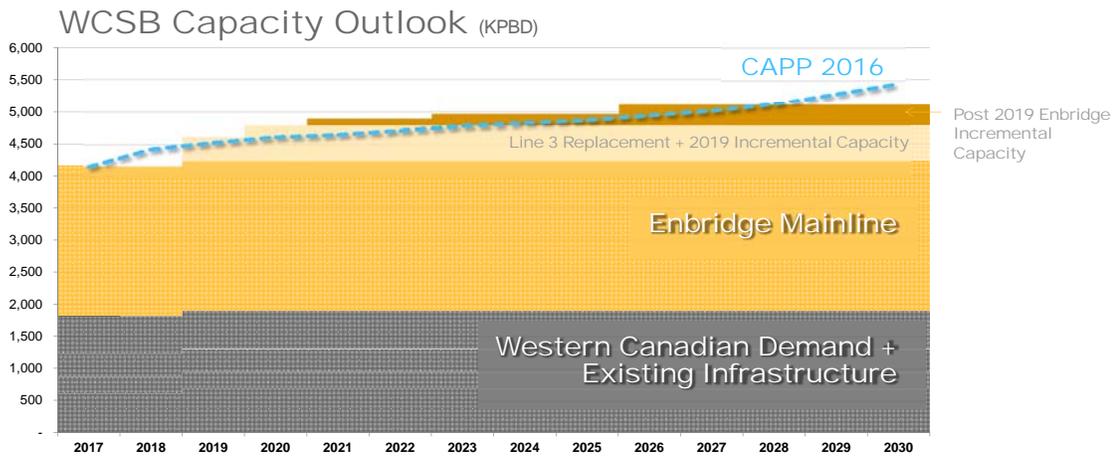
Flanagan South/Seaway Potential Expansion
 +250 kbpd horse power expansion
 \$1B capital investment required
 Mid-2020 timing for in-service



*Incremental capacity refers to long-haul volumes

Mainline – WCSB Capacity Requirements

Mainline expansions are best positioned to meet industry capacity needs

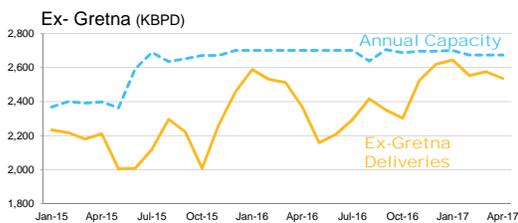


Source: CAPP 2016 Forecast, Enbridge Estimates

Mainline Commercial Plan



1 Maximize current Mainline Throughput



2 Complete Mainline Secured Growth Projects



3 Advance Mainline Expansion Options

Incremental Capacity Post Line 3 Replacement	Capacity (KBPd)
System DRA Optimization	+75
BEP Idle	+100
System Station Upgrades	+100
Line 4 Capacity Restoration	+75
Line 13 Reversal	+150
Total	+500

4 Initiate Post-CTS Tolling Discussions

The Window of Opportunity



Express & Platte Pipelines

Significant PADD IV presence with potential commercial synergies

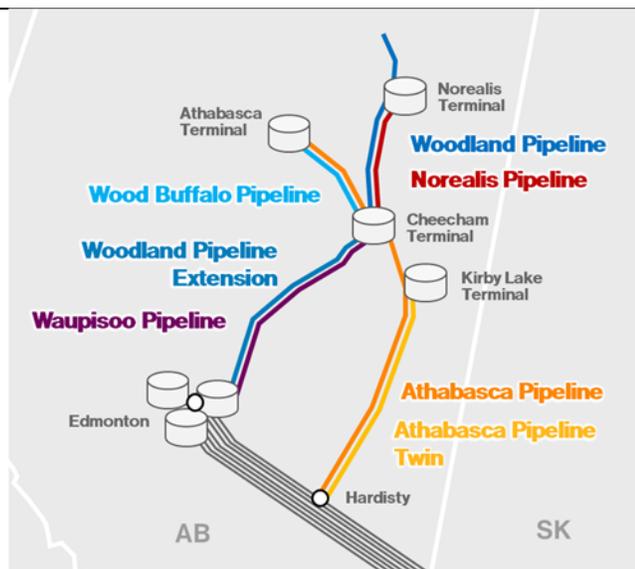
- Express Pipeline – 280 kbpd
 - Hardisty to Casper
 - Uniquely situated pipeline for import of growing Canadian crude supply
 - Stable, secure fee-for-service revenue
- Platte Pipeline – 170 kbpd
 - Casper to Wood River
 - Enhanced connectivity to provide increased utilization
 - Brings diverse crude supply to the Midwest
 - Mix of producers, refiners, marketers
- Potential Commercial Synergies
 - Express Pipeline expansion
 - Enhancing connections to markets via other Enbridge assets



Oil Sands

Stable and secure, embedded growth

- Unparalleled gathering system that connects WCSB crude oil with transportation access to valuable markets
- Current throughput capacity into Edmonton & Hardisty hubs ~2MMbpd
 - 9 connected Oil Sands projects, 11 by year end
 - Average contract length of 25 years



Oil Sands

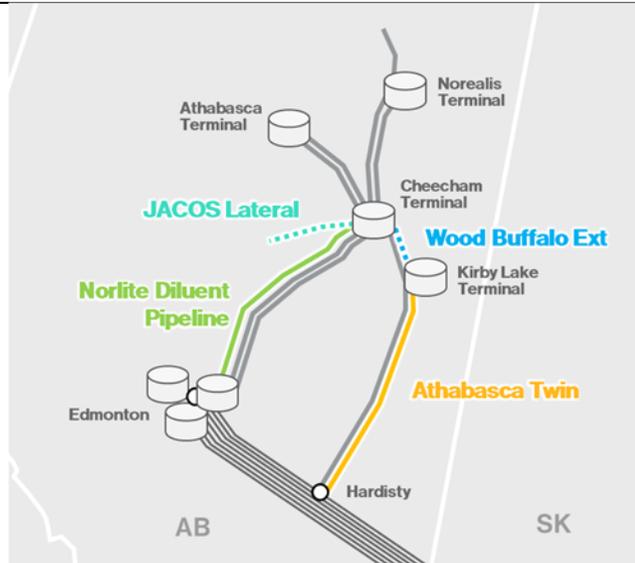
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\$3.7B of projects in service in 2017

Project	ISD	\$C B
Athabasca Pipeline Twin	in service	\$1.3
Wood Buffalo Extension	end of 2017	\$1.3
Norlite Diluent Pipeline	commercially in service	*\$0.9
JACOS Lateral	Sept 2017	\$0.2



* Enbridge share of total capital cost. Total project cost is expected to be \$1.3B with Keyera funding 30% of the project

Oil Sands

Stable and secure, embedded growth



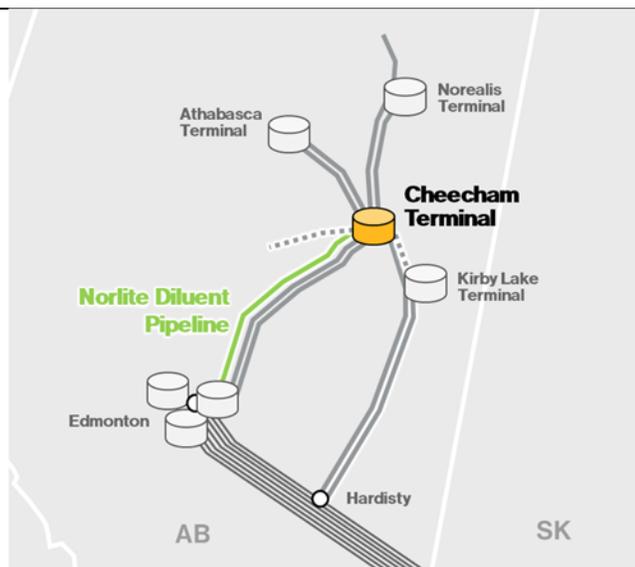
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Potential for future growth

- Third party volumes on Norlite
- Cheecham Terminal enhancement



* Enbridge share of total capital cost. Total project cost is expected to be \$1.3B with Keyera funding 30% of the project

Bakken Region



Enhanced market access for light crude supply

- North Dakota System – 210 kbpd
 - Highly competitive toll to high value markets drives strong utilization
 - Western system upgrades could provide improved market access and optimize line capacity
- Bakken Pipeline System
 - Enbridge’s effective interest is 27.6% (US\$1.6B)
 - Participation further enhances Enbridge Network
- **Dakota Access Pipeline – 520 kbpd**
 - Highly competitive tolls; Contracted with take or pay agreements
 - Expandable to 570 kbpd
- **Energy Transfer Crude Oil Pipeline – 360 kbpd**
 - Joint tariff service via DAPL into E-USGC market
 - Highly competitive tolls; Contracted with take or pay agreements
 - Opportunity to draw volume from upstream Enbridge pipelines

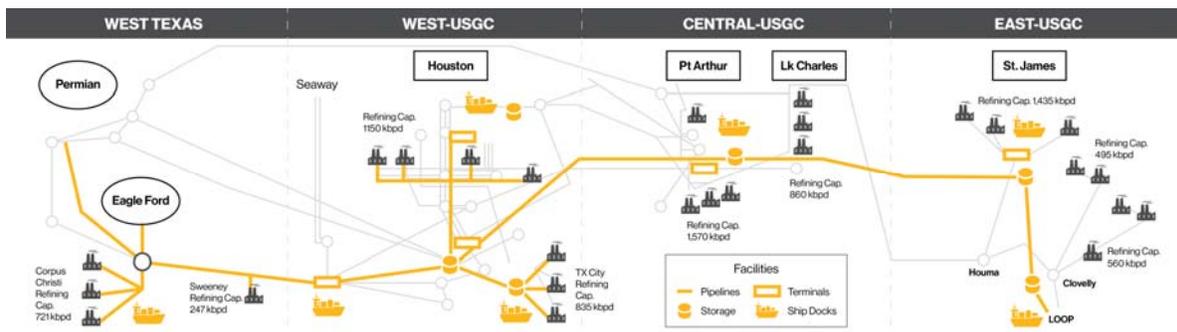


USGC – The Opportunity



Strong regional fundamentals

Fundamentals illustrate growing crude oil export need



Leverage expertise in fee-for-service, independent terminal & pipeline operation

Platform for future growth across multiple commodities and modes of transport

Liquids Pipelines

Key priorities summary



grow organically.

- Execute on \$14B of secured projects from 2017-2019
- Grow our business through low cost capacity expansions and incentive tolling

minimize risk.

- Operate safely and reliably
- Maximize current mainline throughput
- Initiate post-CTS tolling discussions

streamline.

- Leverage Express/Platte within Enbridge portfolio
- Identify additional synergy opportunities

Q&A

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