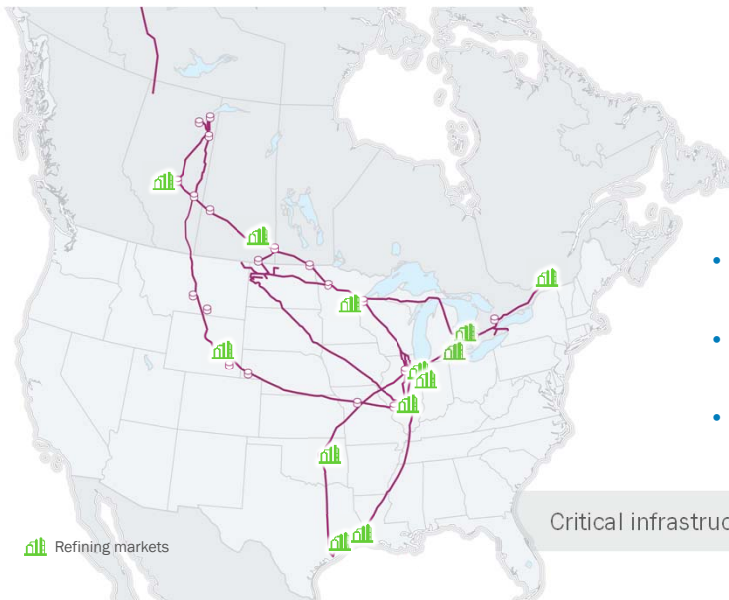


Liquids Pipelines

Guy Jarvis
President & EVP, Liquids Pipelines



Excellent Foundation for Continued Growth



Transports
~2/3rds
of Canadian
crude exports

Transports
~25%
of all crude oil
produced in
N. America

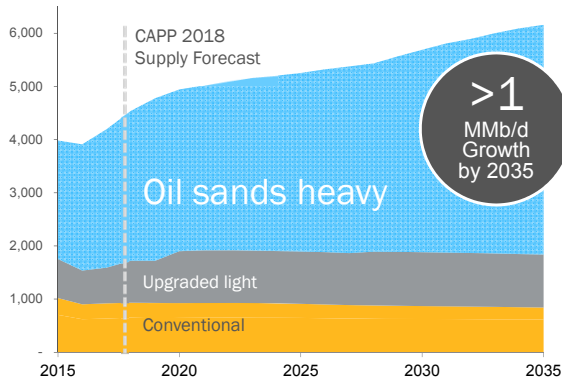
- Connected to 9 MMbpd of downstream refining capacity
- Well positioned to expand USGC export infrastructure
- Oil sands pipelines provide ~2MMb/d of capacity into Alberta Hubs

Critical infrastructure in the North American crude oil market

WCSB Fundamentals



WCSB Oil Supply (kbpd)



Producers Focusing on Cost Efficiency and Technology

"We will use technology that could reduce GHG emissions intensity and water use by ~25%."



"the new face of oil sands... lower GHG emissions... on par with the average refined barrel in N. America."



"We achieved record low operating costs in the oil sands, down 10% over our previous record .."



"With investment in technology... there is a pathway to reducing our GHG emissions intensity... to levels that are below the average oil produced globally."



Supply is expected to grow sustainably with deployment of new technology that lowers costs and emissions

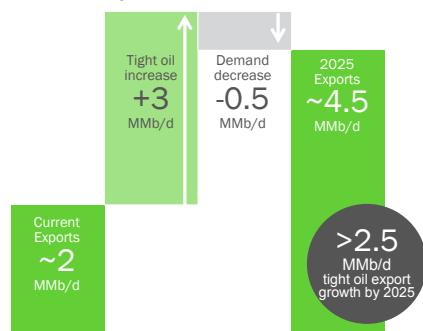
Source: CAPP 2018

3

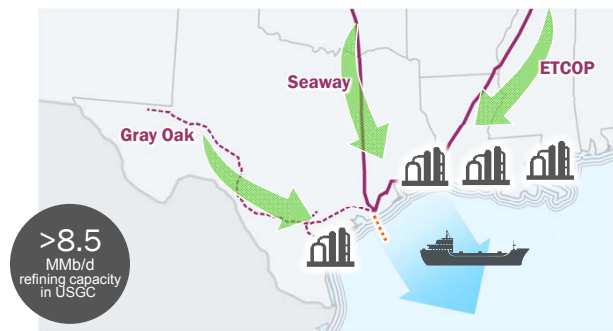
North American Crude Export Fundamentals



U.S. Export Growth (MMb/d)



USGC is the Refining/Export Epicenter



Tight oil growth drives USGC exports higher & USGC demand for Canadian heavy grows

Sources: EIA, IEA

4

Liquids Pipeline - Strategic Priorities

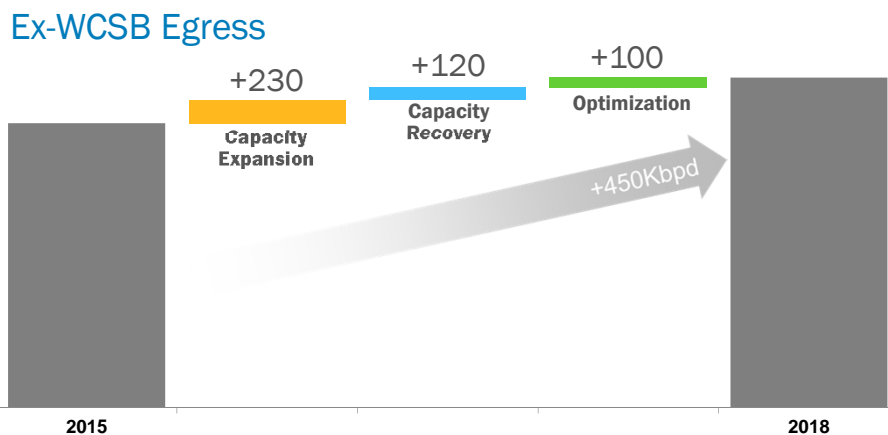


Optimize the Base Business	Execute Secured Projects	Grow the Business
<ul style="list-style-type: none"> Execute Mainline system optimizations <ul style="list-style-type: none"> 2019 optimizations 2020+ solutions Finalize post-CTS Mainline tolling framework 	<ul style="list-style-type: none"> Place Line 3 replacement into service 2H 2019 Place Southern Access Expansion into service 2H 2019 Place Gray Oak into service 2H 2019 	<ul style="list-style-type: none"> Continued Mainline optimization Expand the Market Access pipelines Secure USGC export opportunity Leverage asset portfolio to expand regional systems

Immediate focus on Mainline system optimization with a longer view towards export development

5

Increasing Mainline Throughput



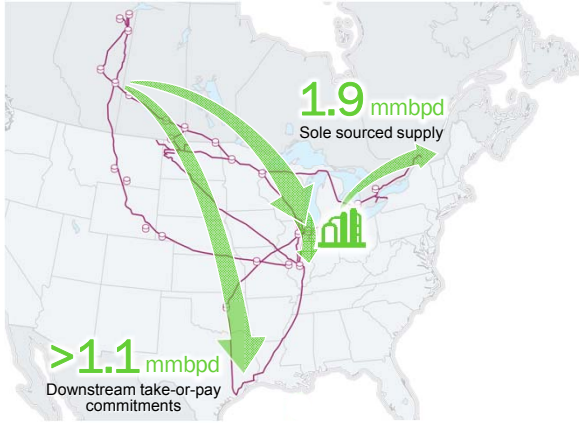
Proven track record of success with Mainline capacity optimization efforts

6

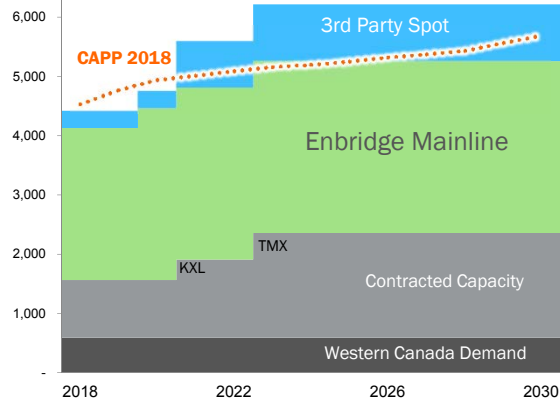
Mainline Positioning & Competitiveness



Strong Demand from Premium Markets



WCSB Capacity Dispatch (kbpd)



Mainline is highly competitive, offering premium value and access to multiple refining markets

7

Mainline Tolling Approach - Aligning with Customers



Shippers Interests

Enbridge Interests

Priority Access to Mainline capacity	✓	Level playing field with other contracted pipelines
Long-term toll certainty & predictability	✓	Long-term revenue certainty
Align Mainline and downstream market access capacity	✓	Full utilization of Market Access pipelines
Market Optionality	✓	Leverages competitive advantage
Mainline optimization/Market Access expansion	✓	Revenue certainty to underpin Mainline and Market Extensions

Next Mainline tolling agreement must meet evolving shipper needs

8

Mainline Tolling Approach - Overview of offering



Key Features of Offering

- Priority Access for contracted volume
- Contract term up to 20 years
- Contracts tailored to shipper type
- Toll discounts for high volume shippers
- Spot capacity reserve – 10%

Next steps

- Finalize commercial framework
- Submit regulatory applications
- Effective mid-2021

Strong shipper interest in obtaining clear path to markets

9

Additional Mainline Optimizations 2019



Bakken Pipeline (BPEP) Delivery Reduction

- Reduce deliveries into Cromer to increase available capacity for WCSB egress (Q3)

Line 3 Replacement – Canada

- Begin line-fill and terminal injections in Canada ahead of downstream work completion to reduce Alberta inventory (Q3)

System Delivery Optimization

- Develop solutions to fill available downstream capacity created by deliveries into Regina (TBD)



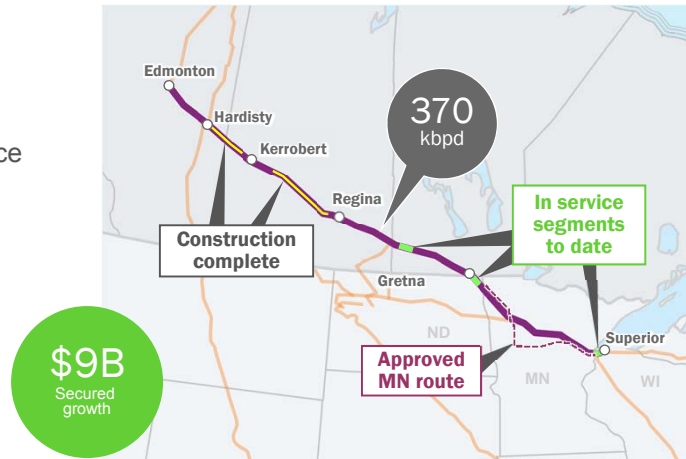
50 -100kbpd of immediate optimization to provide incremental WCSB egress

10

Line 3 Replacement



- Canadian construction program well underway – over 80% of pipeline laid
 - Expected completion – July 1, 2019
- Wisconsin segment complete and in-service
- Regulatory and permitting activities progressing well in Minnesota
 - PUC approval and written orders in place
 - Permitting process ongoing
 - Tribal Cultural Survey – complete
 - Army Corp/BIA requirements on track
- Continue to target 2H19 ISD



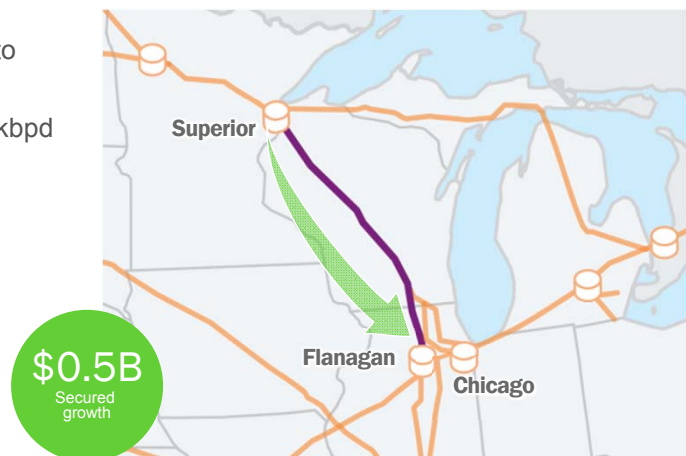
Execution progressing well; continue to target full in-service for the second half of 2019

11

Southern Access Expansion



- Line 3 Replacement increases capacity into Superior by 370kbpd
- Southern Access will be expanded by 300kbpd to 1.2MMbpd
- Project is fully permitted and execution is already well progressed
- 2H 2019 ISD



Effectively balances and optimizes the Enbridge mainline post Line 3 Replacement

12

Mainline Optimizations 2020



Bakken Pipeline (BPEP) Idle

- Idle pipeline to free up the remaining capacity for WCSB egress

System Optimization

- Crude slates/DRA

Line 4 Restoration

- Terminal and scheduling optimization to restore Line 4 to its nameplate capacity



200 kbps of optimization potential in 2020 to provide incremental WCSB throughput

13

Mainline System – Potential Growth

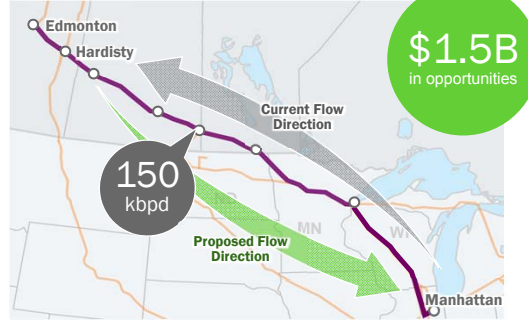


Further Mainline Optimizations



- System optimization and enhancements
- +100kbpd of incremental throughput
- Targeted ISD – 2022

Southern Lights Reversal



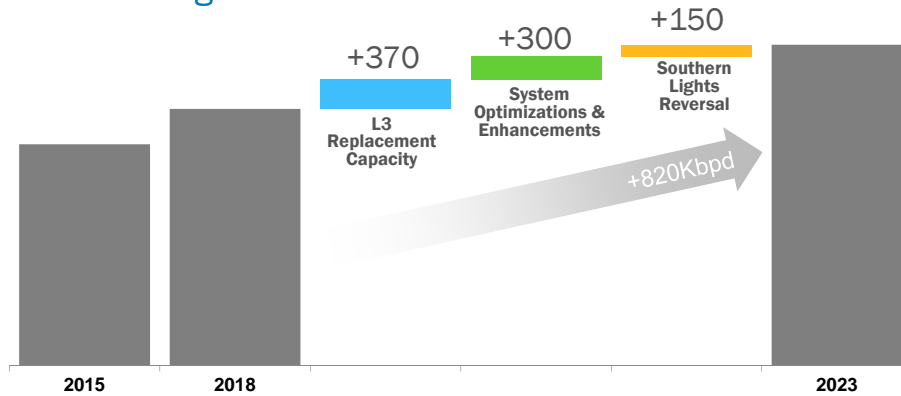
- Condensate supply /demand fundamentals in WCSB expected to reduce requirement for imported supply
- Developing commercial proposal to reverse the line and place into light crude service
- Limited, manageable regulatory permitting
- Targeted ISD – 2023

14

Additional Throughput Planned & Achievable



Ex-WCSB Egress



Assets allow for incremental throughput to be brought on line for an industry solution

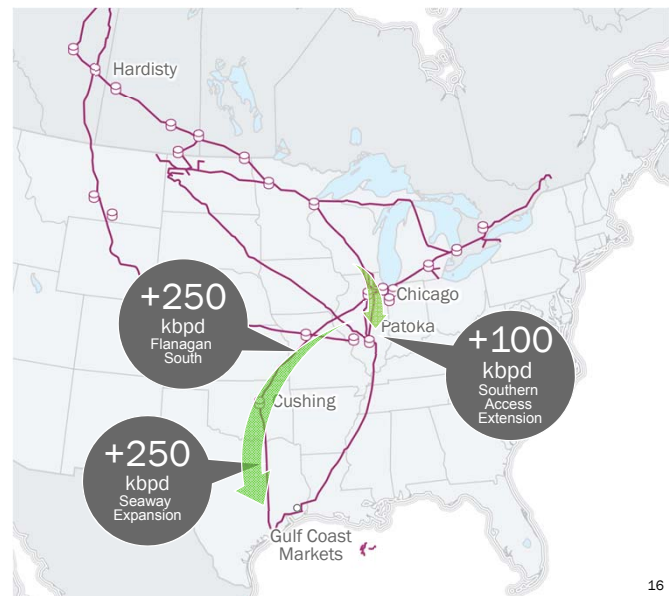
15

Market Access - Potential Growth



- Mainline optimizations provide an opportunity to increase market access pipelines by 350kbpd
 - Flanagan South expansion of 250kbpd along with corresponding Seaway expansion
 - Southern Access Extension expansion of 100kbpd to Patoka region
- ISD tied to Mainline optimizations

\$1-2B
in opportunities



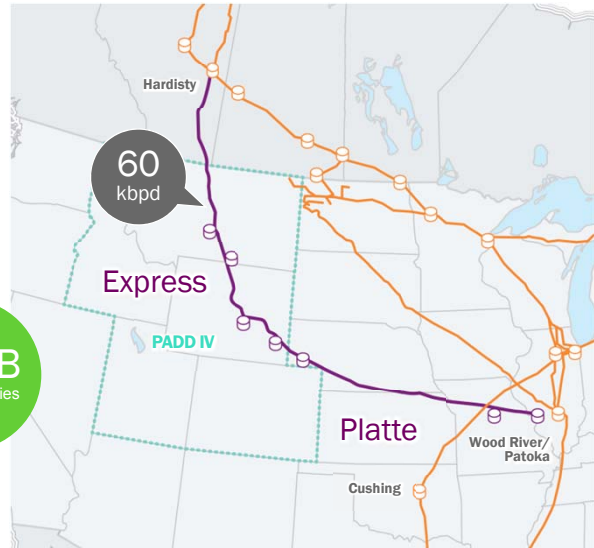
16

Express Pipeline – Potential Growth



- DRA/Pump station program expected to increase capacity up to 60kbpd
- Potential ISD – Late 2019
- Range of market access options
 - Increased local demand
 - Wood River
 - Cushing
 - Rail markets

\$0.2B
in opportunities



17

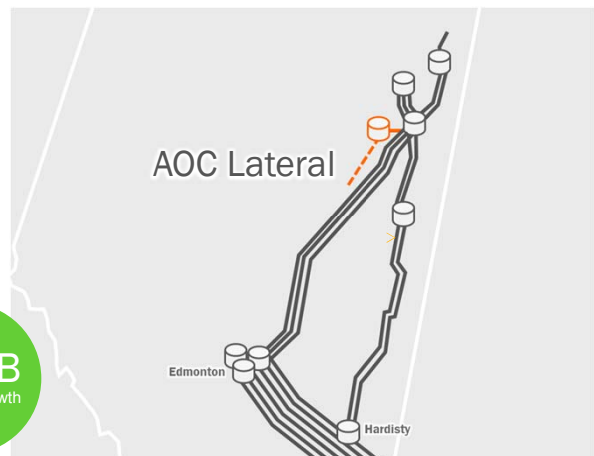
Regional Pipelines - Secured Growth



AOC Lateral Acquisition

- Acquisition of lateral pipelines and tankage supporting AOC's Leismer SAGD oil sands asset
- Long term take-or-pay agreement
 - Current shipper on Enbridge trunkline
 - Aggregate local 3rd party volumes
 - Potential revenue upside with Athabasca/Waupisoo/Norlite Pipelines

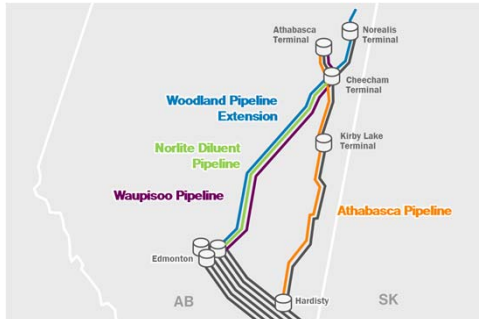
\$0.3B
Secured growth



Further solidifies our Cheecham area competitive position

18

Regional Pipelines – Potential Growth



\$1.0B
in opportunities



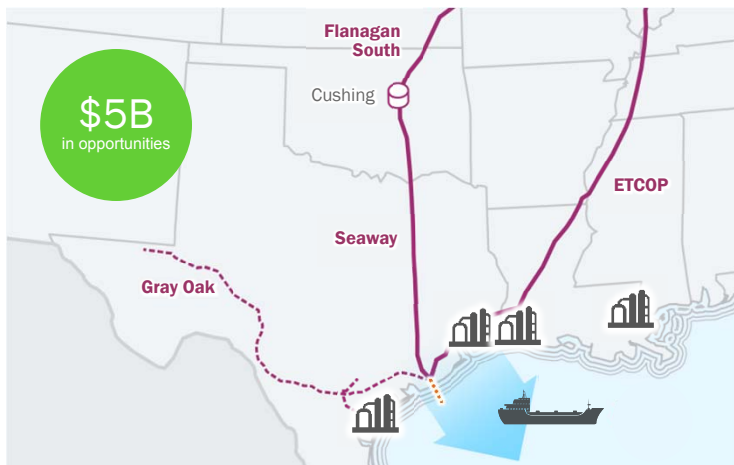
- Oil sands development will continue to drive need for regional infrastructure to support growth
- Trunkline expansion potential – Athabasca, Woodland, Wood Buffalo
- Norlite diluent pipeline expansion potential
- Lateral connections

- Growing Bakken production will drive the need for additional pipeline solutions
- DAPL open season underway

Extremely well positioned to serve growing regional production

19

USGC – Refinery Access and Export Strategy



\$5B
in opportunities

Portfolio additions provide the foundation for future growth

- Pipeline capacity of 2.3 MMbpd serving the region
- Export capability
 - Seaway Docks
 - VLCC loading opportunity
- Existing/planned connections will solidify/enhance revenue streams

Competitive and strategic collection of assets connecting supply to the USGC and export market

20

USGC - Secured Growth



Gray Oak Pipeline

- 22.8% joint venture interest
- Partners include P66 and Marathon
- Crude oil transportation from the Permian and Eagle Ford basins to destinations in Corpus Christi and Freeport
- Capacity of 900,000 barrels per day with strong customer commitments
- In service by the end of 2019

Strategic Fit

Permian Connection	✓
USGC Exports	✓

\$0.8B
Secured growth



Premier export pipeline from the Permian and Eagle Ford Basins

21

USGC - Potential Growth



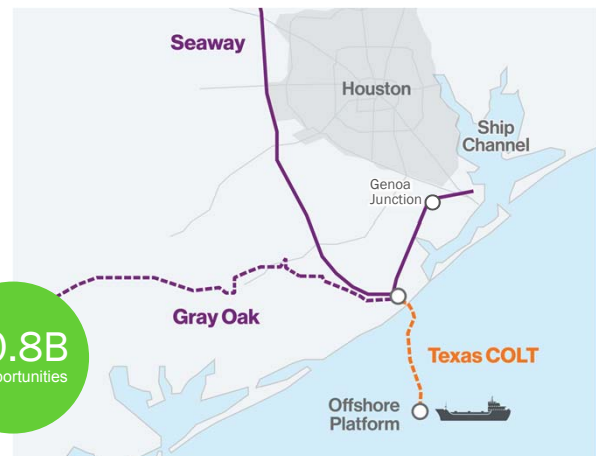
Texas COLT Offshore Loading Terminal

- Partners: Kinder Morgan and Oiltanking
- Direct full loading of VLCCs from Freeport, TX
- Superior connectivity to all key North American supply basins via Enbridge systems and others
- Strong interest from a broad base of potential customers
- In service late 2021/early 2022

Strategic Fit

Permian Connection	✓
USGC Exports	✓

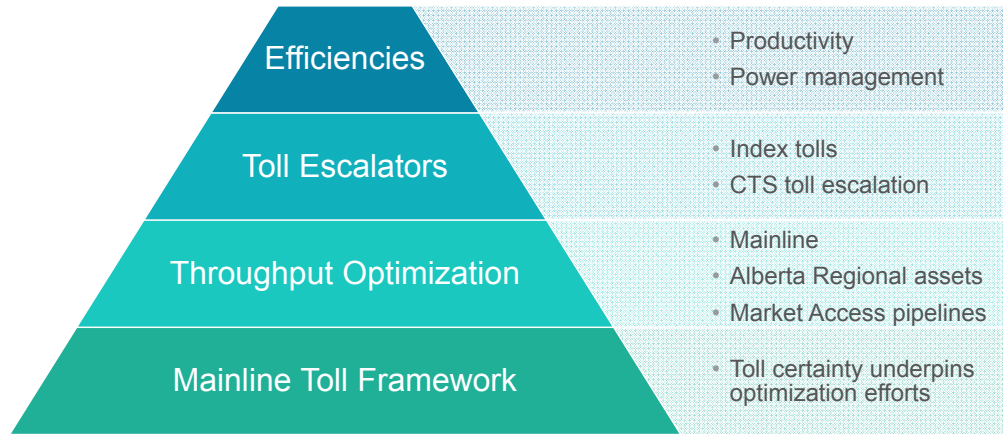
\$0.8B
In opportunities



Superior supply access and low cost export solution with VLCC loading capability

22

Base Business Post-2020 Growth Opportunities

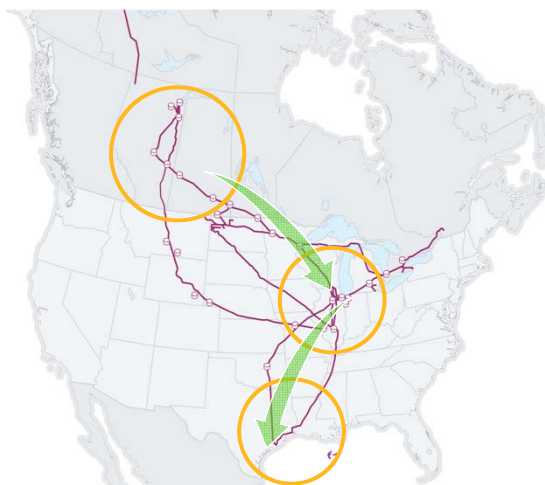


Total annual base business growth of 2 - 3% DCF per year

Liquids Pipelines - Summary



- Critical link from WCSB to premium Midwest and USGC refining markets
- Leverage existing footprint to expand crude export capacity and develop integrated USGC platform



- 2-3%**
 per year base business growth post-2020
 - Mainline toll framework
 - Throughput optimization
 - Toll indexing
 - Efficiency & productivity
- \$11B**
 Secured projects in execution
 - Line 3 replacement
 - Southern Access Expansion
 - AOC lateral (new)
 - Gray Oak pipeline (new)
- ~\$2B**
 per year future development opportunities post-2020
 - System optimizations & enhancements
 - Market extension expansions
 - Regional systems expansions
 - USGC export infrastructure

Q&A

